The pastoral fantasy on the silver screen: The influence of film on American cultural memory of the agrarian landscape

Research Paper

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Abstract

Entertainment media are a powerful source of cultural influence. Films are especially adept at capturing and preserving for posterity the attitudes, actions, and landscapes of historical events and eras, making them part of cultural memory—society's shared recollection of past events as depicted in cultural artifacts. Nowhere is this ability better demonstrated than in cinematic portrayals of American agrarian life. In 2001, the Kellogg Institute found that Americans recall agricultural landscapes as a sort of pastoral fantasy of rolling green hills, forests, and pristine fields crisscrossed by dirt roads. These images, which constitute Americans' shared cultural memory of agrarian existence, may have been influenced by film portrayals of agriculture. For this study, nine films that met criteria for inclusion of agricultural imagery, cultural significance, and release at least ten years prior to the Kellogg study were content-analyzed for their visual and thematic adherence to the pastoral fantasy described by Kellogg respondents. Of those films, only two presented agrarian imagery that did not conform to the pastoral fantasy, including depictions of a West Texas cattle ranch at the height of summer and a Midwestern farm muddied by fall harvest. The remaining films contained imagery strongly associated with the pastoral fantasy, indicating that they may serve as vehicles for traditional agricultural themes.

Keywords: Agriculture, cultural memory, film, visual imagery

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Introduction

Entertainment is embedded in humanity's understanding of culture. Per Stromberg (2011), "entertainment is by now so thoroughly woven into the fabric of our existence [that]…the culture of entertainment is arguably the most influential ideological system on the planet" (p. 3). History is constantly being recreated and repackaged for successive generations in film and television dramas, comedies, and documentaries (Eley, 2001; Steveker, 2009). Film provides a means of historical recollection, contextualization, and even rehabilitation: As movies capture the oeuvre of a particular era, they also preserve for successive generations the attitudes, actions, and landscapes of bygone days as framed by screenwriters, directors, and producers (Caldwell, 2008). The real power of entertainment media, therefore, lies in their ability to alter and naturalize specific interpretations of sociocultural phenomena (Chadwick, 2002).

Agricultural production in the United States is limited to a fraction of the nation's population, though the food and fiber industry once reigned as the primary occupation of the majority of Americans (Conkin, 2008; Hurt, 2002; Kolodny, 1975). As the nation has moved away from its agricultural foundations, a sort of mythology of the agrarian U.S. has emerged, hearkening back to—and even yearning for—the bucolic imagery of pre-industrial rural America. Marx (1964) notes that this fantastic portrayal has pervaded American culture for centuries, culminating in cultural symbols replete with images of "a fresh green landscape…a virgin continent!" (p. 3).

This "agrarian myth" (Appleby, 1982) has been in part shaped by entertainment media; to understand society's cultural construction of U.S. agriculture, we must first understand the apparatuses through which Americans glean their knowledge about the food and fiber industry.

To date, little research has been done to describe and catalog entertainment media portrayals of food and fiber production and their influences on public perception (Holt & Cartmell, 2013; Ruth, Lundy, & Park, 2005). As part of a larger endeavor to aggregate and analyze media texts that describe, discuss, or portray American agriculture, this study was undertaken to explicate how films have created and reified the pastoral ideal of rural American life in fulfillment of National Research Agenda Priority 1: Public and Policy Maker Understanding of Agriculture and Natural Resources (Doerfert, 2011).

Review of Literature

Cultural Memory

The mechanization through which visual and narrative discourses are crystallized and preserved in the collective mind—how they come to constitute social reality—is cultural memory. Since its inception, the term has been used to describe a wide array of phenomena "ranging from individual acts of remembering in a social context to group memory…to national memory with its 'invented traditions,' and finally to the host of transnational *lieux de mémoire* such as the Holocaust and 9/11" (Erll, 2008a, p. 2). "Cultural memory," therefore, is a broad conceptual framework that transcends traditional scholarly boundaries of social, material, and mental aspects of human life.

Interest in cultural memory grew in the late 1980s and early 1990s as traditional memory scholars found themselves increasingly studying questions of identity, the politicization of imagery, and the ability of narrative to shape historical thought (Sturken, 2008). Cultural memory conceptually redefines memories as "narratives, as fluid and mediated cultural and personal traces of the past" (Sturken, 2008, p. 74) rather than semi-permanent historical artifacts.

In short, cultural memory may be defined as “the store of background knowledge that one calls upon when interpreting the everyday commonsense world” (Wekesa, 2012, p. 235; Werner, 2003)—a store dependent upon the individual’s experiences, knowledge, beliefs, and values.

Film and television tend to present an idealized and sentimentalized version of a culture’s history to their audiences:

> Fictional media…are characterized by their power to shape the collective imagination of the past in a way that is truly fascinating for the literary scholar (and somewhat alarming for the historian)…[possessing] the potential to generate and mold images of the past which will be retained by whole generations. (Erll, 2008b, p. 389)

These media mainstream cultural memory toward sociocultural norms and allow audiences to “discover a past that makes the present more tolerable” (Anderson, 2001, p. 23).

In 1915, President Woodrow Wilson declared filmmaking to be “writing history in lightning” (Hansen, 2001, p. 128) after viewing *Birth of a Nation*. The film, which depicted an antebellum Southern society in which the Ku Klux Klan protected innocent white women and children from the threat of freed Blacks, set the stage for continued mythmaking on the silver screen. Hansen (2001) compared *Birth* to Steven Spielberg’s 1993 Holocaust opus *Schindler’s List*, stating that both films “managed to catalyze contesting points of view but…they make visible the contestation among various and unequal discursive arenas in their effort to lay claim to what and how a nation remembers” (p. 127).

In her analysis of *Schindler’s List*, Hansen (2001) described the film as a “Hollywood product” (p. 131). Spielberg’s work, Hansen argued, suffers from a Barthesian “reality effect,” in which the film not only subsumes the tropes, themes, and images of previous Holocaust movies but also “uses them to assert its own truth claims for history” (2001, p. 132). *Schindler’s List*, Hansen contended, also perpetuates anti-Semitic stereotypes—“money-grubbing Jews, Jew-as-eternal-victim”—while decrying the inhuman treatment of those same characters (2001, p. 132). In this way, the film attempts to present an idealized picture of an appalling event while at the same time failing to refute the negative characterization of the victims themselves.

Cultural memory provides a flexible, innovative framework for the study of entertainment media portrayals of sociocultural issues, events, and epochs. This study focuses on a particular industry integral to culture, economy, and history of the United States: agriculture.

Method

Film has long been studied as an important cultural artifact; this study treats feature films as texts for a semiotic, or visual sign-based, content analysis. Content analysis is defined by Krippendorff (2004) as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 18). The term “context” deserves special attention: As McKee (2001) notes, “There is no way that we can attempt to understand how a text might be interpreted without first asking, Interpreted by whom, and in what context?” (p. 138). Content analysis cannot prove or disprove whether or not a text reflects reality; the purpose of content analysis is to interpret texts as artifacts of particular sociocultural contexts (Crawford, 1988).

Text Selection

For inclusion in this study, texts met three criteria: They incorporated post-industrial agriculture as a plot device and/or setting; fulfilled the requirements to be considered “culturally significant,” operationally defined by the researcher as receiving recognition for excellence and/or wide viewership; and were produced and distributed between 1950—the dawn of modern agriculture—and 1990. The National Film Preservation Board (NFPB) states that films cannot be considered "culturally significant" until ten years after their release; 1990 marks approximately ten years prior to the collection of data that ground the semiotic framework of this study.

Texts were identified as agriculture-related using keyword searches on the Internet Movie Database (IMDB), an online resource that compiles development, distribution, box office, and thematic information related to films, television programs, performers, production personnel, and fictional characters ("IMDB Database Statistics," 2012). To develop a substantive sample for analysis, a variety of keywords were used, including "farm," "farmer," "agriculture," and "rural," with snowball sampling effected using the "Find Similar Titles" command.

Coding

Social semiotic codes classify and frame relationships among meanings, their realizations, and their contexts (Thibault, 1991; Bernstein, 1981). The selected texts were coded into a typology based on the W. K. Kellogg Foundation's study of perceptions of American rural life. The Kellogg study, conducted in late 2001, reported the results of more than 200 telephone interviews with rural, suburban, and urban Americans. The Kellogg study unearthed three primary themes related to perceptions of the rural United States that are directly connected to the nation's food and fiber system: *the pastoral rural landscape*, *the traditional family farm*, and *the decline of the agrarian tradition*. This paper focuses on the first of these: the pastoral fantasy as described by Kellogg study respondents.

The pastoral fantasy. Based on the results of the Kellogg study, the most common perceptions of rural America are tied to the bucolic landscape. A majority of respondents described rural America as a farm-filled pastoral dream world:

Respondents' notions of rural America are dominated by images of the family

> farm, crops and pastures…Family members toiling over a small farm stand at the center of the painting, but in the background are broad brushstrokes of rolling hills, open space, abundant trees, ditch banks and dirt roads. Taken together, this landscape comprises what many respondents refer to as "the country." (Kellogg, 2002, p. 4)

Findings

Nine texts met the criteria for selection in the study, beginning with 1955's *Oklahoma!* and culminating with 1989's *Field of Dreams*. These films represent a wide variety of production varieties and commodities, ranging from small livestock farms to massive produce operations.

Rodgers and Hammerstein's *Oklahoma!* (1955)

Oklahoma! (Hornblow, Jr., & Zinneman, 1955) is considered a classic film of the movie-musical genre. The film, adapted from the Rodgers and Hammerstein stage production of the same name, was directed by Fred Zinneman. The stage play and film provide a slice-of-life homage to a tightknit agricultural community in Oklahoma Territory circa 1906. The plot details the turbulent romance between cowboy Curly McClain (Gordon MacRae) and his headstrong amour, Laurey Williams (Shirley Jones), which is complicated by the presence of Jud Fry, the lecherous hired hand who runs Laurey's small farm. Underscoring the romantic foibles of the community's young people is a current of tension between the footloose cowboys and the farmers who have more recently settled the territory.

The film serves as a loving homage to the traditional pastoral fantasy: *Oklahoma!* is rife with imagery related to the agrarian ideal. The film's opening credits fade in over a still shot of a traditional farm scene: a red barn surrounded by white fence, haystacks dotting the landscape, and a tidy yellow farmhouse (*Figure 1*). Following the credits, the camera pans to Curly, greeting the day on horseback to the tune of "Oh, What a Beautiful Mornin'." A long tracking shot follows Curly as he rides past a field of waving green corn silhouetted against a brilliant blue sky and a pasture full of well-fed, bald-faced cattle. (Such tracking shots are especially effective thanks to the film's screen ratio: *Oklahoma!* was shot simultaneously in Cinemascope and Todd-AO, two widescreen formats that allowed the filmmakers to take advantage of the natural scenery in wide shots and to compensate for the movement of the actors during dance sequences and large musical numbers.) Curley's destination is the home of Laurey and her Aunt Eller, the picturesque homestead from the opening credits.

Figure 1. Laurey and Aunt Eller's homestead from the film *Oklahoma!*

Elia Kazan's *East of Eden* (1955)

In 1955, Warner Brothers and famed director Elia Kazan released *East of Eden* (Kazan, 1955), an adaptation of John Steinbeck's Pulitzer Prize-winning novel of the same name. *East of Eden*, Steinbeck's variation of the Biblical tale of Cain and Abel, is set in 1917 in Salinas, California, and tells the story of prosperous farmer Adam Trask (Raymond Massey) and his twin sons, Cal (James Dean) and Aron (Richard Davalos). Adam, who longs to be a man of "great ideas," attempts to create a refrigerated train car to carry his produce to New York City; when the project fails, he loses his investment. Seeking his father's approval, Cal invests in bean production, believing that the incipient war with Germany will raise the market value of his crop.

The gamble pays off, and Cal gives the profits to his father as a birthday gift. Adam rejects Cal's money, being morally opposed to war profiteering; in retaliation, Cal shares an upsetting family secret with Aron, who decides to join the army. Adam is felled by a stroke, and Cal remains behind care for his father.

In his review of *East of Eden*, *New York Times* film critic Bosley Crowther remarked upon director Elia Kazan's virtuosic filmmaking:

> The use that Mr. Kazan has made of CinemaScope and color in capturing expanse and mood in his California settings is almost beyond compare. His views of verdant farmlands in the famous Salinas "salad bowl," sharply focused to the horizon in the sunshine, are fairly fragrant with atmosphere. (Crowther, 1955, para. 5)

Like Steinbeck's novel, the film allegorically transforms the California countryside into Eden itself: a rich paradise of green fields where mankind may flourish. As Crowther noted in 1955, Kazan's palette is deeply saturated, the colors lush, the expanses wide thanks in large part to the contemporary film technologies of Technicolor and Cinemascope (*Figure 2*).

Figure 2. Adam Trask oversees harvest in the lush fields in the Salinas Valley.

George Stevens' *Giant* (1956)

In 1956, American audiences were introduced to *Giant* (Ginsburg & Stevens, 1956), a sweeping, oversized ode to the state of Texas based on the novel of the same name by Edna Ferber. Helmed by George Stevens, *Giant* was filmed on location in Marfa, Texas. *Giant* follows the Benedict family of Reata from the days of scion Bick (Rock Hudson) and his East-Coast-bred wife Leslie's (Elizabeth Taylor) marriage in the early 1920s to the oil boom of the 1940s and '50s. While wildcatter ranch hand Jett Rink builds an oil empire, Bick and Leslie raise three children and face the turbulent sociocultural changes of life in 20th Century Texas.

The "pastoral fantasy" is traditionally associated with rolling green hills and copious trees: imagery that is somewhat at odds with *Giant*'s more desolate West Texas setting. However, the film does pay homage to popular perceptions of rural America. The opening scenes, filmed in rural Virginia, are a kaleidoscope of verdant hues, the hills lined with white fence and dotted with farmhouses and wooden barns (*Figure 3*). The agrarian gentility of the "Maryland" countryside is a stark contrast to later scenes set at Reata (*Figure 4*).

Figure 3. Leslie and her father take in the scenery of their Maryland horse farm.

Figure 4. Reata's ranch house looms above its desolate West Texas setting.

Charles Nichols and Iwao Takamoto's *Charlotte's Web* (1973)

Produced by Hanna-Barbera and directed by Charles Nichols and Iwao Takamoto, *Charlotte's Web* (Barbera, Hanna, Nichols, & Takamoto, 1973) reached theaters more than 20 years after the publication of its eponymous novel. Though not a box-office hit when it debuted in theaters in March 1973, *Charlotte's Web* became a family classic upon its release on VHS in the early 1990s. Set on a New England farm in the 1980s, *Charlotte's Web* follows the titular spider and her porcine companion Wilbur from Wilbur's arrival from the Arable farm—where he has been spoiled by Fern, farmer John Arable's preteen daughter—and subsequent discovery of his inevitable fate at the hands of new owner Homer Zuckerman, to the county fair, where Wilbur is honored for his exceptional qualities, thanks in large part to Charlotte's ingenious campaign on his behalf.

Charlotte's Web represents an amalgam of elements inherent to the pastoral fantasy. So powerful is the film's adherence to the conventional portrayal of American agrarian life that the narrator describes the rural landscape's flush of beauty in the springtime: **"**But to me, there's no place more wonderful than a farm in springtime, when the sun is just lifting on the skyline…Buds swell into blossoms. Eggs hatch. Young are born. Everything's off to a fresh start, and everything is good and busy and brand new." Befitting a children's film, the animation's color palette is rich and vibrant, taking full advantage of the bucolic landscape and agrarian subject matter. The film's visual background is a patchwork of fields—a reflection, perhaps, of heroine Fern Arable's surname—peppered with farm buildings, green forests, and winding dirt roads (*Figure 5*).

Figure 5. Homer Zuckerman drives through the scenic New England countryside.

Robert Benton's *Places in the Heart* (1984)

Set in rural Texas during the Great Depression and filmed on location in Waxahachie, *Places in the Heart* (Donovan & Benton, 1984) was written and directed by Robert Benton, who received an Oscar nomination for his work. The film revolves around the struggles faced by widow Edna Spalding (Sally Field) as she fights foreclosure on the family farm. When a drifter named Moze (Danny Glover) offers his expertise in cotton production, Edna jumps at the chance to turn the farm into a profitable business and keep the local bankers at bay. She also takes in a blind boarder (John Malkovich), who, though he wants nothing more than to be left alone when he arrives, quickly adapts to life on the farm with Edna, her two children, and Moze.

Places in the Heart was based on writer-director Robert Benton's own experiences growing up in Waxahachie, Texas, in the 1930s. *New York Times* film critic Vincent Canby (1984) wrote of the cinematography: "They have given the film the idealized look of the work by some of the better, now-anonymous painters who, supported by Federal subsidies during the Depression, traveled around the country covering the walls of public buildings, in small towns and large" (para. 7). As the film progresses, the beauty of East Texan agriculture comes even closer to the forefront. The day of Moze's arrival dawns beautifully: a bright sunrise over the horizon complemented by a rural score of chirping birds and lowing cattle. As the Spaldings' cotton fields bloom with snow-white bolls, the camera pulls away from a close-up of Edna, Moze, and the children feverishly picking (*Figure 6*) to reveal the remaining acreage left to tend. The moment is clearly intended to emphasize the Sisyphean task ahead of the group, but the shot also depicts the rugged splendor of the harvest.

Figure 6. Edna and her family struggle to pick cotton in the blazing Texas heat.

William Witliff's *Country* (1984)

Distributed by Touchstone Pictures, *Country* (Lange, Witliff, & Pearce, 1984) was written by William D. Witliff and filmed primarily in rural Readlyn, Iowa. Witliff co-produced the movie with Jessica Lange, who stars as Jewell Ivy, an Iowa farm wife whose husband Gil (Sam Shepard) runs her family's sheep farm with the help of her aging father Otis (Wilford Brimley). After a tornado destroys part of their corn crop, the Ivy family faces the default of their Farmers Home Administration (FMHA) loans and the loss of the farm, which has been in Jewell's family for generations. The struggle for the land tears at the family, leading Jewell to separate from her husband. However, the suicide of a local farmer harassed by FMHA officials eventually inspires the community to turn against the government administrators, and the Ivy family reunites to fight for their property.

Country is one of the few agriculture-themed films that does not cater to fantastical depictions of farm life in rural America. The cinematography is spare, as Ebert (1984b) notes: The filmmakers seemingly tried to "avoid pulling back into 'Big Country' cliché shots" (para. 1). The landscapes are not green and sumptuous; spring and summer have long past by the Ivy farm. Instead of the blazing sun and heat of a summer setting, the audience is treated to an Iowa harvest and, later, a bleak Midwestern winter. The film opens with Jewell Ivy taking lunch to her husband, son, and father as they toil in the cornfields of their farm: The men are busy unloading seed corn from a rusting combine into an aging truck (*Figure 7*). The land is fecund but not lush, the cornstalks bowing to the elements rather than reaching for the sky—a visual motif later employed by 1989's *Field of Dreams*. When winter arrives, the snowfall does not cover the grime of production but highlights the messiness of farm life as it sinks into tire ruts and puddles.

Figure 7. Gil and Carlisle Ivy bring in the harvest on a chilly Midwestern fall day.

Mark Rydell’s *The River* (1984)

The River (Cortes, Lewis, & Rydell, 1984), written by Robert Dillon and Julian Barry and directed by Mark Rydell, completes the trio of agriculture-themed films released in 1984. *New York Times* writer Esther B. Fein (1984) wrote of the three films: “All three movies contain elements of a family's devotion to their farm, a devastating force of nature, an unsympathetic bureaucracy and a strong-willed woman who binds her family during adversity” (para. 4). In *The River*, that strong-willed woman is Mae Garvey (Sissy Spacek). After losing a spring corn planting to devastating flooding, the Mae and her husband Tom (Mel Gibson) seek help from the local bank, where they discover they are at risk of foreclosure. Tom travels south to work as a scab in a steel mill to avoid selling the farm to local entrepreneur Joe Wade; when he returns for the fall harvest, floods once again threaten the Garveys’ livelihood.

The River shares with *Country* a number of thematic and even narrative elements, but the differences in their cinematography are glaring. Unlike the stark, realist representation of Midwestern agriculture depicted in *Country*, *The River* turns the Tennessee Valley into a picture postcard of rural beauty. Sunrises and sunsets caress the ramshackle but picturesque Garvey farm with golden light (*Figure 8*); Tennessee hills blaze with fall color as harvest approaches; tall green stalks of corn wave in the summer breeze; even the oft-terrifying river occasionally deigns to trickle peacefully through the landscape.

Figure 8. Despite recent flood damage, the Garvey farm at sunrise is a beautiful sight.

Perhaps most interesting element of the film's visual magnificence is its creation. The beauty of the Tennessee wilderness is Nature's own, but the filmmakers fashioned the Garvey farm themselves: "The land was turned into the Garvey farm. Workers combined old, worn wood with artificially-aged lumber to build the farmhouse, barn and various chicken coops, corrals and pigsties on the property, so that they would blend in with the century-old homesteads in the valley" (Fein, 1984, para. 14). The farm had to be fabricated to fulfill both the film's narrative and the director's dramatic vision for the work. The finished product seems incomplete, however, especially compared to the authenticity of *Country*'s set decoration. The barn, though antiqued, feels too orderly, the old harnesses and tools hung just so, the cattle residing in individual stalls, the goats roaming the property freely.

Peter Weir's *Witness* (1985)

In 1985, director Peter Weir introduced American film audiences to the Amish, a conservative sect of German Anabaptists, in his film *Witness* (Feldman & Weir, 1985). The movie tells the fish-out-of-water tale of John Book (Harrison Ford), a Philadelphia police detective who travels to rural Pennsylvania to protect Samuel Lapp (Lukas Haas), the young Amish witness to a gruesome homicide, and his mother, Rachel (Kelly McGillis). As Book adjusts to "plain" life among the Amish community, the trio eludes two crooked police officers until a dramatic gunfight at the Lapp farm spells the denouement of the case and Book's budding relationship with Rachel.

Critics considered the film's cinematography a highlight, emphasizing as it did the pristine farmland, dirt roads, and undulating landscape of eastern Pennsylvania. So beautiful were these depictions of idyllic Amish country that Pauline Kael, the renowned reviewer for the *New Yorker*, wrote of the film's depiction of rural life: "'Witness' seems to take its view of the Amish from a quaint dreamland, a Brigadoon of tall golden wheat and shiny-clean faces" (Kael, 1985, para. 1). Wide shots depict green fields drenched in sunlight surrounding whitewashed farm buildings in the distance—buildings fashioned by the film crew to recreate an Amish homestead (*Figure 9*). This imagery is repeated in the film as Book and the Lapp family travel to a neighboring farm for a barn raising, an Amish celebration of community and hard work.

Figure 9. The Lapp farm represents the quintessential agrarian locale.

Phil Alden Robinson's *Field of Dreams* (1989)

In 1989, the "mortgage melodrama" genre added another film to its ranks: *Field of Dreams* (Gordon, Gordon, & Robinson, 1989). The movie was filmed largely in farming towns Dubuque and Dyersville, Iowa; the titular field became a major tourist attraction after the film was released. Ray Kinsella (Kevin Costner), a Berkeley graduate and lifelong baseball fanatic, hears a voice whisper from his Iowa cornfield: "If you build it, he will come." One of cinema's most famous lines sets off a series of events: Ray plows under several acres of valuable cropland and builds a baseball diamond; travels to Boston in search of a reclusive novelist named Terence Mann (James Earl Jones), who inspired Ray as a college student; and road-trips with Terence to a small town in Minnesota in search of a former ball player named Moonlight Graham. Back at home, Ray's wife Annie (Amy Madigan) deals with her brother, a businessman who wants to buy the farm before Ray's schemes push the property into foreclosure.

As a narrative work, *Field of Dreams* is a literal pastoral fantasy, combining imagery associated with agriculture with fantastical themes: ghosts, precognition, and time travel. In her review of the film, *New York Times* critic Caryn James (1989) wrote: “Kevin Costner, as an Iowa farmer named Ray Kinsella, looks across his cornfield and sees a vision that glimmers like a desert mirage” (para. 1). The farm itself fulfills the pastoral fantasy of most filmmakers: In the midst of the fertile fields, the Kinsellas’ white farmhouse and neatly painted barns and outbuildings stand as monuments to the small-farm idyll memorialized for decades (*Figure 10*). To punctuate the film’s finale, Robinson affords Shoeless Joe Jackson (Ray Liotta) and Ray the film’s second-most famous piece of dialogue, a telling metaphor for the grandeur of agrarian life:

Joe: Hey, is this heaven?

Ray: No, it’s Iowa.

Figure 10. Working in his fields at twilight, Ray Kinsella envisions the field he will build. This mirage contributes to the fantastical nature of the film.

Discussion

Between 1950 and 1980, portrayals of agriculture tended to idealize food and fiber production and the people involved in the process. Films such as *Oklahoma!*, *Giant*, and *East of Eden* took advantage of new cinema technologies and formats to increase the visual scale of agriculture-centered texts to epic proportions. By the early 1980s, contentious agriculture policies, coupled with the gradual decline of farm numbers, brought the problems facing agriculturalists to the forefront, resulting in the spate of foreclosure-centered agricultural melodramas that endeavored—some more successfully than others—to more realistically depict the struggles of the American farmer.

Of the nine texts examined, only two—*Giant* and *Country*—subvert the idyllic representation of the pastoral wonderland described in the Kellogg report (Kellogg Foundation, 2002) and instead show rural, agrarian America in less-than-stellar form. *Giant*, filmed on location in West Texas, truthfully illustrates the bleached-out prairies of Reata in high summer, a stark contrast to the more idealized agrarian landscapes shown early in the film. *Country*, on the other hand, provides the audience a realistic, almost documentary depiction of the Midwest in fall and winter. The land is bare from harvest, the skies gray and overcast, and the muddy disorder that follows a snowfall is presented without embellishment or apology.

Despite some attempts at realism, most of the films produced in this time span aspire to present agricultural life according to the principles of the pastoral fantasy as described by the Kellogg Foundation researchers: small, storybook family farms replete with crop fields and pastures; rolling hills dotted with acres of forest and crisscrossed by dirt roads. The symbolism of rural America constitutes a typology of visual language related to traditional values. The aforementioned rolling hills and pastures represent the viability and fertility of agrarian land; the verdant shades associated with those landscapes also connote the economic prosperity associated with such fruitful country. The dirt roads, favored by a majority of cinematographers, seem to signify the rugged individualism of the traditional family farmer, set apart both geographically and dispositionally from conventional society.

The continuous and consistent repetition of these visual tropes has, over time, cemented them in American cultural memory. Though it cannot be conclusively stated that film representations of this rural archetype are solely responsible for the propagation of the pastoral fantasy, the abundance of such imagery in the films studied and their parallels to the findings of the Kellogg researchers suggest that media texts have played a key role in the cultural acceptance of this paradigm.

Entertainment media remain an understudied entity within agricultural communications scholarship: To date, only Ruth, Lundy, and Park's (2005) analysis of reality program *The Simple Life* and Holt and Cartmell's (2013) study of the documentary *Food, Inc.* populate the canon of entertainment-media research. This study, therefore, represents a preliminary attempt to delineate the sociocultural influence of entertainment media portrayals of food and fiber production across time. Based on the responses of Kellogg study participants, the agrarian mythos retains a powerful sway on society's perceptions of rural America, and further research is needed to better understand the channels through which idealized depictions are disseminated, the immediate impacts of exposure to these representations, and how agricultural communicators and other industry professionals can counteract those potential audience effects.

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Mass media coverage of food safety incidents after the cow that stole Christmas: A literature review

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Abstract

In the past decades, news stories highlighting problems related to food safety have increased due to well-publicized food-related crises such as *E. coli* in spinach and beef, *salmonella* in peanut butter. Because consumers obtain science information, specifically information related to food safety and foodborne illness from mass media news sources, it is important to provide a benchmark to identify research that has been done in this area and identify any gaps in knowledge to provide a basis for the study of digital and social media use to disseminate news related to food safety and foodborne illness. This review of literature published detailing mass media coverage of food safety incidents between 2003 and 2013 illustrates that despite studies being published in a variety of journals, most studies employ similar theoretical frameworks, methods, and units of analysis. Primary methodologies included framing analyses and surveys, while researchers most commonly employed framing and media dependency theories.

Key words: literature review, food safety incidents, news media coverage, framing theory, media dependency theory

Mass media coverage of food safety incidents after the cow that stole Christmas: A literature review

Introduction

Communicating about agricultural issues is a diverse and complex field with responsibility for developing and disseminating news and marketing information related to food, agricultural, and environmental systems (Tucker, Whaley & Cano, 2003). Food safety is one of the most important issues today among consumers and one readily identified with production practices (Cannon, 2011). Food and sustenance are foundational to our lives; they appear at the bottom of Abraham Maslow's hierarchy of needs and are required for our continued existence (Maslow, 1943). Because of this, safe food is inherently important to human life. Indeed, it may be disturbing to many that the food responsible for sustaining life may be contaminated with harmful bacteria that can cause illness and even death.

In the past decades, news stories highlighting food safety problems have increased due to well-publicized crises such as *E. coli* in spinach and beef, *Salmonella* in peanut butter, and bovine spongiform encephalopathy (BSE, or mad cow) in beef (Cannon, 2011). Tucker, Whaley and Sharp (2006) noted that attention to food safety issues is increasing globally, and Shaw (2004) commented that well-publicized food safety incidents have been a contributing factor.

Particularly high on the list of foodborne illness and safety concerns is the bacterium *E. coli*, which emerged on the national stage in 1993. In the Pacific Northwest, fast food restaurant Jack-in-the-Box was discovered to be the source of hamburgers containing strains of *E. coli,* causing an outbreak that resulted in more than 400 reported illnesses and the death of several children in Washington, Idaho and Nevada (Adelson, 1993). Authorities quickly classified the incident as a foodborne illness outbreak, which "became the focus of Congressional debates on regulatory reform, tragic tales from bereaved parents, and the subject of investigative journalism" (Powell, 2000, p. 1). Powell (2000) noted that food safety has become an increasingly prominent topic in American media.

Frequent mentions of the ever-increasing distance between consumers and first hand knowledge of how food is produced are peppered throughout the literature in the agricultural communications discipline (Doerfert, 2003; Hurt, 2002; Ten Eyck, 2000; Tucker, Whaley & Cano, 2003) and in science communication literature (Powell and Leiss, 2004; Verbeke, 2005). Researchers have noted that members of the public obtain information about science and agricultural topics from mass media sources (Einsiedel & Thorne, 1999) and that the most likely sources of information about food safety for consumers are mass media (Sitton, 2000; Terry, Dunsford, & Lacewell, 1996). These sources and the manner in which information is presented in them heavily impact people's perceptions about these and related issues (Ruth, Eubanks, & Telg, 2005). Schafer (2010) stated, "science coverage in the mass media was and still remains the major channel that bridges the gap between science and the general public." (p. 651). This growing attention to food safety issues on the part of media outlets underlies the importance of studying the relationship among these events, how they are portrayed by media, and how consumers perceive messages regarding these topics.

While the gap between producers and consumers has widened in the past few decades, a fundamental shift in the way people consume information has also occurred. The advent of the 24/7 news and information cycle, combined with the power of the Internet has yielded audiences with a wide selection of news sources beyond traditional print and broadcast media outlets. The Pew Research Center noted in its 2013 State of the Media report that despite increasing ownership and use of digital and mobile devices, a majority of people still obtain news through traditional 'word of mouth' or interpersonal communication with friends and family (Pew Research Center's Project for Excellence in Journalism, 2013). However, respondents also reported obtaining news from family and friends via social media sites, while 39% of respondents obtained news from an online source or mobile device, a 5% increase from 2010 (Brenner & Smith, 2013).

Because consumers obtain science information, specifically information related to food safety and foodborne illness from mass media news sources, it is important to provide a benchmark to identify research published in this area and identify gaps in knowledge to provide a basis for the study of digital and social media use to disseminate news related to food safety and foodborne illness.

Purpose and Objectives

The purpose of this review of literature is to describe and explain current knowledge found in published research examining mass media and news coverage of food safety issues between 2003 and 2013. The researchers identified this ten-year period as significant due to the considerable media attention paid to the discovery of bovine spongiform encephalopathy (mad cow disease) in North America in 2003. In May of that year, a cow with BSE was discovered in Canada, and in December 2003 the "cow that stole Christmas" was found at a packing plant in Washington state (Ashlock, Cartmell, & Keleman, 2006). Since 2003, a number of additional food safety related incidents have garnered significant media attention. Together, these discoveries, and the subsequent conversation about food safety in news media, created a natural period from which to gather data for this review.

Methods

According to Fink (2010), literature reviews are a “method of collecting information to answer research questions or find out what is known about a particular topic” (p. 162). Such reviews also allow researchers to describe and explain existing knowledge about the topic in an effort to guide future practice or research. Fink (2010) outlines seven steps to performing literature reviews: (a) select research questions to guide the review, (b) choose databases and sources from which to gather information, (c) select appropriate search terms, (d) apply practical screening criteria to select relevant articles for inclusion in the review, (e) apply a methodological screen to evaluate quality of the research, (f) perform the review, and (g) synthesize the results from the literature.

In order to review published works during the identified period, the researchers used two databases, Academic Search Premier and Google Scholar, to find studies related to food safety issues and mass media. Literature related to news coverage of food safety incidents spans numerous disciplines including agricultural communications, food science, risk communication and analysis, as well as health communication and the public understanding of science, necessitating a broad search strategy to retrieve relevant publications. Search terms used to locate articles for inclusion in this review were “food safety,” “food safety risks,” “mass media communication,” and “media coverage.”

Findings

The procedures detailed above yielded 15 articles for analysis. These published studies employed a variety of methods and theoretical perspectives, and included research focusing on consumer’s perceptions of food risks, consumer confidence in media coverage of food safety issues, and how consumers process food safety information from the media. Table 1 provides an overview of the literature, location published or presented, year, and research methods employed to analyze data.

Table 1.

Articles Included in Analysis

Year	Author	Publication	Method
2004	Whaley & Tucker	*Journal of Applied Communications*	Survey (mail)
2005	Ruth, Eubanks, & Telg	*Journal of Applied Communications*	Framing analysis
2006	Ashlock, Cartmell, & Keleman	*Journal of Applied Communications*	Framing analysis
2006	Fleming, Thorson, & Zhang	*Journal of Health Communication*	Survey (phone)
2009	Nucci, Cuite, & Hallman	*Science Communication*	Content analysis
2009	Irlbeck & Akers	*American Association for Agricultural Education Research Conference*	Framing analysis
2009	Driedger, Jardine, Boyd, & Mistry	*Health, Risk & Society*	Framing analysis
2011	Irlbeck, Akers, & Palmer	*Journal of Applied Communications*	Framing analysis
2012	Haigh	*Newspaper Research Journal*	Framing analysis
2012	deJong, Van Trijp, Renes, & Frewer	*Risk Analysis*	Content analysis
2012	Charanza & Naile	*Journal of Applied Communications*	Survey (online)
2013	De Vocht, Cauberghe, Sas, & Uyttendaele	*Journal of Food Protection*	Survey (online)

Content, Framing, Semiotic Analysis and Experimental Studies

A total of nine studies employed techniques using content analysis, framing analysis, semiotic analysis and experimental methods. These studies appeared in five different academic journals between 2005 and 2012, and one was a research paper presented at a national conference in 2009.

Two of the retrieved studies, one by Ruth, Eubanks, and Telg (2005) and another by Ashlock, Cartmell, and Kelemen (2006), focused on analysis of news frames surrounding coverage of bovine spongiform encephalopathy (BSE, or mad cow disease) in print newspapers. Ruth, Eubanks, and Telg (2005) evaluated frames in news coverage of the outbreak of BSE in Canada in May 2003 in newspapers from both Canada and the United States. The researchers determined that media coverage of the outbreak was overall negative in tone, and stories appeared more frequently in Canadian publications than in those in the U.S. Four major frames emerged from this analysis: industry crisis, economic calamity, blame/responsibility, and health risk. Analysis of the media coverage found a dominant crisis frame in Canadian coverage, whereas a health risk frame was dominant in the U.S. coverage.

However, the researchers noted the health risks reported in the media greatly outweighed the actual risk to human health. Canadian coverage focused on the effects that BSE had on the beef industry, commonly using ranchers and farmers affected by the disease as sources in stories. Health risk and industry crisis frames in the Canadian and United States print media framed the 2003 BSE outbreak as having devastating implications for the North American cattle industry and for individuals who consume beef.

Ashlock, Cartmell, and Kelemen's (2006) study investigated frames employed by elite print media outlets during news coverage of the December 2003 BSE incident in Washington state. Using frames identified by Ruth, Eubanks, and Telg (2005), the researchers determined the industry crisis frame dominated in the coverage and the overall tone of articles was negative, specifically when referencing the U.S. beef industry. Results from this study found the industry crisis frame to be more prominent than was presented by Ruth, Eubanks, and Telg (2005), where researchers found the health risk frame to be dominant in U.S. coverage of the Canadian outbreak. The researchers noted this discrepancy may be due to the fact the mad cow disease was present in the United States, rather than being from imported contaminated beef.

In a shift from the application of framing analysis to print media material, two studies by Irlbeck and colleagues investigated frames employed in television news broadcasts of major networks during two food safety incidents involving salmonella: an outbreak in tomatoes and Jalapenos in the summer of 2008 (Irlbeck & Akers, 2009), and an outbreak in peanut products during 2011 (Irlbeck, Akers, & Palmer, 2011).

Irlbeck and Akers (2009) noted the value of framing analysis: “By understanding how the media frame an agricultural issue, agricultural communicators can more effectively communicate and promote messages to the mainstream media.” (p. 63). In this study, ABC News, CBS News, CNN, and NBC News broadcast transcripts from May through October of 2008 were analyzed. While several frames emerged in the analysis, the most commonly employed frame was criticism of the U.S. government’s handling of the incident. The researchers indicated that at least one network focused on the potential source of contamination arising from Mexico, and that country of origin information may have made consumers safer from the outbreak. Also present were frames that expressed support of the plight of farmers during the crisis period and featured tomato growers in a positive light.

As a second objective of their study, the researchers explored sources used in stories, as

Gans (1979) indicated sources can be elements or components of frames employed by journalists. Irlbeck and Akers (2009) noted "finding sources that provide information in a manner that is easy for reporters and the viewers to understand can be difficult. Sometimes the sources the media uses may present the information well, but the information might not be scientifically accurate" (p.72). The researchers determined that sources from the FDA were the most frequently used, followed by the food safety director of the Center of Science in the Public Interest (an advocacy group). Overall, a majority of the news coverage was based on the facts available at the time, despite some of the networks having provided personal opinions and including speculative statements in their stories.

In a study using similar methods, Irlbeck, Akers and Palmer (2011) examined broadcast news coverage of the 2009 outbreak of *Salmonella* in peanut butter in the southern U.S., and employed framing analysis to analyze transcripts of broadcasts on ABC, CBS, CNN and NBC between December 1, 2008 and April 1, 2009. Results indicated that stories generally employed informational frames including elements of warning to consumers, but with an overall neutral tone. Where negative tones appeared, they were generally focused on the company determined to be at fault for the outbreak, the Peanut Corporation of America, and the Food and Drug Administration, which was criticized for inadequate response and wasting money during the subsequent investigation. Reporting was primarily determined to be "responsible and accurate…[and] the story was generally reported either with an informational, anti-PCA, or anti-FDA frame" (p. 56).

As in Irlbeck, et al. (2009), a second objective was included in Irlbeck et al. (2011) to analyze sources employed by journalists and determine how those choices impacted media framing of the incident. The researchers noted that in all of the transcripts analyzed, a single food scientist was interviewed as a source, while a victim's family member, determined later to be speaking on behalf of an advocacy group, was interviewed more than half a dozen times throughout the broadcasts.

Similar to Ruth, Eubanks, and Telg (2005), Driedger, Jardine, Boyd, and Mistry (2009) used the 2003 discovery of a BSE-positive cow in Canada for analysis. However, Driedger and colleagues conducted their study on the premise that frames employed during the first 10 days of media coverage of an incident set the stage for subsequent media coverage over time. Focusing on two separate risk events—an incident of *E. coli* contamination of water in Ontario, Canada, in 2000, and the discovery of a BSE-positive cow in Alberta, Canada, in 2003—Driedger et al. examined print media coverage and analyzed frames employed by journalists. Common frames were found in coverage of both events including blame, description and control actions, health, government responses to the event, and general trust. The implications of the study supported the researchers' hypothesis and they subsequently argue that a 10-day analysis of media coverage can be sufficient to understanding media presentation of a risk situation. The researchers contended, "While this does not guarantee that news media will take up the interpretation and definitional frames of risk communicators, it could play a role in shaping how the dominant frames constructed by journalists are developed in that initial period and/or how dominant that messaging remains over the period of coverage" (p. 51).

Nucci, Cuite, and Hallman (2006) took a different approach to exploring media coverage of a food safety related incident and explored the use of information subsidies during the 2006 *E. coli* outbreak in spinach in California. The researchers analyzed television news coverage (from ABC, CBS, and NBC) and searched for direct use of information from press releases (information subsidies) distributed by the U.S. Food and Drug Administration. Results of the search indicated that a majority of stories aired within the first week after the FDA announcement of the outbreak and provided information critical for public health. A total of 72% of stories included information about the mortality rate as a result of the contaminated spinach, supporting the researchers' notion that journalists framed the stories for readership rather than focusing on information in the FDA press releases. "It is clear that the television broadcast coverage of this food contamination crisis was not focused primarily on the information in the FDA press releases" (p. 256). Overall implications of the study illustrate that the FDA was successful in informing the public about the recall; however, they also showed that the flow of information from the FDA to the public was not direct, but rather was mediated by news outlets.

The research studies reviewed to this point in this paper have focused on news coverage of food safety in textual media, rather than analyzing images. Tolbert and Rutherford's (2009) qualitative semiotic analysis deviated from this practice and examined images accompanying stories related to biotechnology and food safety issues in two year's worth of *Time*, *Newsweek* and *U.S. News & World Report* publications. Researchers coded images as positive, negative, or neutral and then sorted them into categories based on the images' main subject – food, animals, scientists/research, producers/food handlers, and images based in foreign countries. Results indicated that among the three publications images were fairly balanced in terms of tone, and similar types of photographs were used to illustrate both types of stories. Tolbert and Rutherford noted relatively few image categories emerged from the data and that, because of the time period used in the analysis (2000 and 2001), "an abundance of images were extracted from stories about mad cow disease. These images included burning beef carcasses [and] a headless cow being moved by a pallet jack" (p. 18). They concluded that the lack of diversity of images in the stories supported previous Potter's (2001) assertion that impressions created through images can reinforce stereotypes about agriculture, specifically biotechnology and food safety issues.

In a return to the popular framing analysis approach, Haigh (2012) examined frames employed during media coverage of the 2006 outbreak of *E. coli* in spinach and the 2009 outbreak of *Salmonella* in peanut products by examining newspapers stories for tone of coverage, types of frames employed, and source credibility. A total of 370 newspapers articles were analyzed and found to include frames such as scientific background, U.S. economy, business ethics, political strategies, and the most common theme, health. Haigh concluded "this indicates journalists package their stories with information focusing on the number of people who are ill and the symptoms of food borne illness" (p.71). The overall tone of coverage was determined to be slightly negative and the sources quoted were deemed credible. This study therefore supports the notion that newspapers did not focus exclusively on the treatment or cause of a food recall; the majority of stories are framed to focus on heath impacts, impacts on the economy and how the FDA should improve food safety in the future.

De Jonge, Trijp, Renes, and Frewer (2010) explored the concept of informational belief formation in a study examining the effects of newspaper coverage of food safety issues on consumer confidence. The researchers conducted two studies: the first to develop and validate a measure of consumer confidence in food safety, the second to determine how newspaper coverage of food safety issues affected consumer confidence in food safety. De Jonge and colleagues concluded that many consumers recall food safety incidents; however, that recall is subject to change over time. "The association between newspaper coverage and subjective consumer recall of food safety incidents depends on the recency of newspaper coverage considered…The correlation between newspaper coverage and recall tends to be stronger for issues published in the newspaper more recently" (p. 135). The study supports the implication that retention of information decreases and effects of newspaper coverage on recall decays over time.

Mail, Phone and Online Survey Studies

Six remaining studies employed survey methodology using mailed, phone and online questionnaires to gather data. These studies appeared in four journals between 2004 and 2013, and one was presented at a regional conference in 2009.

Whaley and Tucker (2004) examined subjects' dependency on media systems and assessed the role of trust and perceived risk influencing their dependency. In order to gauge perceptions of food safety risks, the study measured subjects' perceived risk of seven separate issues: bacterial contamination, drinking water contamination, genetically modified foods, mad cow disease, pesticide residues in food, growth hormones in meat or milk, and bio-terrorist attacks on the food supply. Perceived trust in information was measured by individuals' trust in commonly cited sources to provide reliable information about food safety and environmental issues. Overall, consumers' perceived trust in information sources was higher with experts such as physicians and scientists, while newspapers and television news were perceived by subjects to be the most helpful media format. "Trust in sources was the best predictor of media system dependency." (p. 23). Implications for this study support individuals' media preferences are influenced by perceptions of scientists and other sources.

Similarly, Tucker, Whaley, and Sharp (2006) examined consumer perceptions of food safety risks and identified factors that influence those perceptions. The authors applied risk-analysis and media dependency theories as the framework for understanding risk perceptions, which emphasized the role of mass media in influencing consumer risk judgments. Risk analysis theory acknowledges consumers differ from experts in the manner in which they make judgments. As in Whaley and Tucker (2004), media dependency theory was employed in this study, and the researchers explained, “in the case of food safety issues, it is important to note that media coverage often focuses primarily on possible problems with the food supply as well as controversies related to human health or nutrition” (Tucker, Whaley, & Sharp, 2006, p. 137).

Results of the study indicated consumer concerns over food safety, often driven by media coverage of specific issues, were elevated for certain issues. While subjects expressed moderate levels of perceived risk overall for the food safety issues presented by the researchers, pesticide residues in food and contamination of drinking water were perceived as having the highest levels of risk. Interestingly, mad cow disease and genetically modified organisms received considerably lower ratings. The researchers noted, “the apparent lack of discrimination among respondents for very different food risk situations suggests some possible implications for professional communicators and food safety specialists. Among these is the possibility that respondents are not aware of the level of control they can exercise to reduce certain food safety risks” (Tucker, Whaley, & Sharp, 2006, p. 143). Conclusions drawn by the researchers supported the idea that food safety specialists have a responsibility to help make communication more understandable and relevant to both media and consumers.

Fleming, Thorson, and Zhang (2006) used a different approach to understanding the role of mass media in individuals’ cognitive processing of food safety information. Rather than looking at consumer perceptions, the authors investigated how availability of information and cognitive ability to process information influences public concerns about food safety. In a phone survey with 524 respondents, 68% recalled food safety issues they heard about in the past, and among those individuals, 78% learned of food safety issues from news media sources. The results of the study supported the relationship between local news media and public concerns about food safety are mediated by information processing strategies. “Although information availability is important for formation of risk perceptions at the individual level, it is the ways people choose to process media information that make the learning from the news media salient” (p. 803). Contrary to previous studies, the authors noted the impact of local news media on public concerns about food safety may not be as direct as previously thought, but they more attention and research should focus on how consumers process information.

Rimal, Onyango, Miljkovic, and Hallman (2009) examined the role of consumers’ risk perceptions, use of media, and socio-demographic factors in shaping their food related behavior, using the 2006 outbreak of *E. coli* O157:H7 in spinach for context. The researchers asked respondents to indicate their level of perceived food risk as related to the fresh spinach recall, and responses were sorted into four categories: “the accountable (low risk perception, low risk aversion), “the concerned” (high risk perception, low risk aversion), “the conservatives” (low risk perception, high risk aversion, and “the alarmists (high risk perception and high risk aversion). A majority of respondents, 65%, reported being concerned about *E. coli* bacteria, but the percentage of respondents categorized as alarmist were most likely to search for and obtain news from the Internet, whereas the conservatives typically read the newspaper or watched television for news. Overall, the findings reported risk profiles of households were shaped by media usage. Specifically, those who searched the Internet had a higher general level of concern.

Charanza and Naile (2012) used media dependency theory to explore media use among members of a large university alumni organization during “normal” times when a food safety incident was not occurring, versus during a hypothetical beef-related food safety incident. The researchers learned that during these normal periods subjects most often used the Internet, television, and movies to obtain information. During periods of food safety incidents, subjects reported more use of television news than other categories – Internet, radio, and print. Charanza and Naile concluded that subjects did not have strong differences in media dependency tendencies when comparing the two periods, but that results of the study may have differed if it had been conducted during an actual food safety incident. The researchers recommended that the study be repeated during such a time to provide results during an actual rather than a hypothetical food safety incident for comparison.

De Vocht, Cauberghe, Sas, and Uyttendaele (2013) examined Flemish consumers' reactions to news coverage related to an outbreak of *E.coli* in fresh produce in Germany during June 2011. The researchers applied the Extended Parallel Processing Model (EPPM) as a theoretical framework to analyze consumer perception of risk induced by the outbreak to measure subjects' perceived severity, perceived susceptibility, perceived efficacy, and negative affect, as well as trust in the government regarding food safety issues. "The EPPM states that risk messages need to contain a threat appeal (consisting of the perceived severity and the perceived susceptibility of the risk) to elicit a perceived threat and a reassuring appeal to elicit the perceived self and response efficacy to obtain message acceptance, which leads to behavioral intentions" (p. 474).

The researchers inserted a survey below a news story appearing in two online Flemish newspapers asking subjects to report their emotions regarding the outbreak, their level of trust in the government, and items related to the EPPM and behavioral intentions. Results indicated subjects perceived a threat after reading the articles but felt they were able to prevent their own exposure to the risk. A main effect of trust on behavioral intention to eat less produce was found. The researchers noted subjects tended to "go into 'danger control' instead of 'fear control' which leads to fewer negative feelings and higher behavioral intentions" (p. 477). Overall, the findings supported perceived severity and perceived susceptibility of the risk of fresh produce was relatively high.

Discussion and Conclusions

The last decade of research about food safety issues and mass media communication has been devoted to evaluating the effects of media coverage of food safety issues, consumer perceptions of risk, and interest in and use of information resources, and the role of trust and credibility of information sources.

This literature review explored 15 published studies related to mass media coverage of food safety outbreaks, organized by method, to provide an overview of the diversity in the literature. A majority of articles focused on consumer risk perceptions, seemingly supporting the notion that consumer perceptions of risk tend to increase with media coverage. More than half of the studies identified in this review employed framing and content analysis methods in their explorations of mass media coverage of food safety incidents. The remaining studies employed experimental designs and quantitative survey methods (including mailed, phone, and online questionnaire instruments) to gather data.

Studies analyzed in this review primarily evaluated print media sources, though television broadcast transcripts were employed by three groups of authors and provided insights not gleaned from studies focusing solely on print news coverage of food safety incidents. A total of seven studies employed framing as a theoretical basis, while three others utilized media dependency theory. One study employed semiotic analysis and theory, while another used information subsidy theory, and yet another employed the Extended Parallel Processing Model for theoretical grounding. The two remaining studies did not identify a theoretical premise.

Articles in this review were published in eight different journals, and two were presented at prominent disciplinary research conferences. The most popular outlet for research combining the disciplines of mass media coverage and food safety incidents is the Journal of Applied Communications, the premiere journal for the agricultural communications discipline. While this illustrates a dedication to the study of food safety messaging in mass media coverage of researchers in agricultural communications, it is clear that interest in this topic is not limited to a single discipline. Articles included in this review also appeared in journals focused on risk communication and analysis, health communication, general science communication, newspaper research, and food protection.

From the literature analyzed here, it is possible to conclude that the majority of published research over the past decade has focused on prominent cases of food risk events and outbreaks, possibly due the fact the media does not often report about food safety issues unless there is an outbreak or food risk to report to the public. This in turn, leads to media coverage on food safety to generally be presented in a negative tone with themes centered around health, economy, and trust in the government.

This research has provided a foundation for academics in agriculture and communication fields to better understand food safety issues and mass media communication, however there is still a need for continued research. Indeed there is evidence to support the call for future research to extend this body of literature. Verbeke (2005) noted, “There may be a need for the food risk communication discipline to develop its own school of thought” (p. 833).

A suggestion for future research in this area is to employ different methodologies for exploring food safety and mass media communication. Through this review of literature from the past ten years it is clear that researchers have employed similar research methods and units of analysis; mixed method approaches may provide new understanding and perspectives of this area of study. As the reporting of food risks continues to become more prevalent in media and as digital media use increases, an increasing number of individuals in diverse disciplines will likely conduct research in this area. This diversity should be viewed as a positive step forward in terms of gaining understanding about how news media cover issues related to food safety.

With this benchmark review of existing literature, future research paths can be planned to fill the gaps in knowledge and move into research which specifically incorporate digital and social media news dissemination, how those outlets treat similar topics (if at all) and how consumers and users of digital news sites process information.

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Going into labor: A content analysis of the

Florida Department of Agriculture marketing videos

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Abstract

The Florida Department of Agriculture and Consumer Services has implemented several different marketing techniques to reach consumers. One of these techniques is to use Public Service Announcement (PSA) videos. Individuals' perceptions on a topic are influenced by the information they are presented; in turn, these perceptions can determine their attitudes toward an issue. The content of the PSAs is thus highly influential, because it not only may leave viewers with an inaccurate or accurate impression of reality, but may also affect their opinion about Florida agriculture.

To document the way the Florida Department Agriculture and Consumer Services portray Florida agricultural labor, a content analysis of the 40 television PSAs was conducted and compared to the United States Department of Agriculture (USDA) official labor statistics, as well as to estimates of non-documented migrant labor in the state of Florida. The results of this inter-reality comparison show three different characteristics of the PSA videos: a slight underrepresentation of female laborers; an accurate representation of non-white laborers when compared to USDA data; and a focus on final products rather than labor. As a result, the PSAs are providing consumers with a fairly accurate portrayal of Florida agriculture regarding the demographics of agriculture workers in Florida; however, little focus is given to the production process of agriculture.

Keywords: agriculture labor; content analysis; video PSA; agriculture PSA; video PSA; video content analysis; roles in agriculture

Introduction

The Florida Department of Agriculture and Consumer Services has implemented several different marketing techniques to reach consumers, encouraging them to buy local foods with the tagline “Fresh from Florida” (Department of Florida Agriculture and Consumer Services, 2013). One of the techniques to reach Florida consumers was to use Public Service Announcement videos. The goals of the PSAs were “to promote Florida agricultural products and expand markets for Florida producers. The division also produces public service announcements that provide information about Florida programs and regulatory responsibilities” (Department of Florida Agriculture and Consumer Services, 2013, para. 1). The of act of marketing products due to the demands of the economic market place can be traced back to the beginning of the century (Sheth & Parvatiyar, 1995); however using videos in conjunction with social media sharing has been a relevantly new concept (Rhoades & Ellis, 2010).

When attempting to inform individuals/consumers about a topic or issue, the information presented will be used by the individuals to form perceptions about the issue; and in turn, these perceptions will determine how the individuals view the topic (Adoni & Mane, 1984). People use a variety of different forms of media to help form perceptions and attitudes about the agricultural industry (Telg & Irani, 2012). Also, visual information and images portrayed to the public should be congruent with the mission and values of the organization so that consumers are appropriately informed both textually and visually about the organization (Edgar & Rutherford, 2012). Therefore, when the Florida Department of Agriculture and Consumer Services used PSA videos to inform consumers about buying Florida-grown agriculture products, they provided consumers with information that may be potentially used by individuals to form their perceived reality of the Florida agricultural industry. Thus, it is critically important that a government source of information provide consumers with accurate information in which to form their perceptions about the agricultural industry. This information should include an accurate portrayal of the labor force involved in the agricultural industry so that consumers are accurately informed about how the food and fiber products of Fresh from Florida were produced. This accuracy will help to create an informed Florida consumer.

Florida is ranked as one of the top three states for immigrant workers to earn wages as laborers in the agricultural industry (Passel, 2005). Therefore, the PSA videos used to market Florida agriculture should accurately portray the labor force of the state's agricultural industry, including the migrant worker population that contributes to the industry, if the videos are to be informational about the Florida agricultural industry. Providing consumers with an accurate portrayal of the industry is one way of creating an informed citizenry.

The purpose of this research was to determine if the Florida PSA agriculture videos were accurate in the portrayal of the agriculture workforce, as compared to the documented U.S. Department of Agriculture statistics. This research aligns with the second priority on the National Research Agenda for the American Association for Agricultural Education (Doerfert, 2011). The second priority is focused on technology adoption and its impact on consumers. The priority area also addresses the need for research related to technology to be focused on understanding the use of technology in the formation of consumer perceptions (Doerfert, 2011).

Therefore, the following research questions were used to guide this research:

RQ_1: How is labor in Florida's agricultural industry portrayed in videos produced by the state, aimed at marketing Florida agriculture?

RQ_2: How does the labor portrayed in the marketing videos, produced by the state of Florida, compare to the labor statistics from the U.S. Department of Agriculture?

Literature Review

PSAs are a form of advertisement that can evoke emotional responses through the use of persuasive presentation of information (Dillard & Peck, 2000). Public Service Announcements can also be referred to as Public Service Advisements, based on the funding to produce the media (Lynn, Wyatt, Gaines, Pearce, & Vanden Bergh, 1978; Murray, Stam, & Lastovicka, 1996). “Public service advertising (PSA) is used to increase awareness of and to stimulate action on social problems” (Lynn et al., 1978, p. 716). PSAs, in general, have been used to bring public awareness to issues within society (Lynn et al., 1978; Murray et al., 1996). With a distinct change in how the public connect and share information, so has the way in which communication specialists must develop marketing campaigns, including PSAs, to reach technology-adapting consumers (Abroms & Lefebvre, 2009). As the availability and scope of technology has increased, an individual’s connection to a constant stream of information, via the Internet and mobile devices, has created a society of people submerged in constant information (Tonsor & Wolf, 2011). This information can come in a variety of forms and can even serve as a form of entertainment (Rhoades & Ellis, 2010; Ruth, Lundy, & Park, 2005; Tonsor & Wolf, 2011). Using videos as a means of conveying information to the public, in the form of entertainment, has been becoming increasingly popular, especially in the agriculture sector (Rhoades & Ellis, 2010; Tonsor & Wolf, 2011). This medium of information dissemination about the agricultural industry can be a detriment to the field if the video does not portray agriculture in an accurate manner (Tonsor & Wolf, 2011). In a study conducted to determine consumers’ perceptions of the dairy industry, researchers showed various videos of the dairy processes and procedures for collecting milk. One of the videos was developed by a dairy organization and one by an organization opposed to the dairy organization’s production standards (Tonsor & Wolf, 2011). The researchers found that when presented with conflicting views of the dairy industry consumers' perceptions of the dairy industry became more "sensitive" (Tonsor & Wolf, p. 507, 2011). This change in consumer perception sensitivity was attributed to the increasing awareness and knowledge-seeking behavior consumers are actively participating in to educate themselves about where and how they receive their food (Tonsor & Wolf, 2011). The research also further solidifies that the use of video about the agriculture industry does have the power to shape consumer perceptions about the reality of how their food is produced (Tonsor & Wolf, 2011).

Another study used an episode from the reality television show "The Simple Life," featuring the television stars working on a farm, to determine viewers' perceptions on the true nature of the television series' portrayal of farm life (Ruth et al., 2005). The study found that those participants who had experience working on a farm did not view the television series as more than entertainment; while those participants without first-hand experience of working on a farm perceived the show as a more accurate portrayal of farm life. "Viewers lacking in agriculture backgrounds demonstrated little understanding of the information and intellectual ability necessary to operate a modern farm. This lack of knowledge, however, did not affect their enjoyment of the show" (Ruth et al., 2005, p. 33).

Similarly, another study found that when viewing videos on social media sites (such as YouTube) viewers were not as concerned about whether or not the purpose of the video was designed purely for entertainment or intended to be used as an educational piece of material when using the video to form perceptions, specifically about the agricultural industry (Rhoades & Ellis, 2010). Studies such as these illustrate the need for accurate information, especially in the form of entertainment, about the agricultural industry as a whole to be produced and circulated to the general public to ensure individuals are using credible information to form perceptions, and not over-dramatized material (Ruth et al., 2005). Similarly, it has been shown that consumers are skeptical of advertisement or commercial type messages (Goodwin, Chiarelli, & Irani, 2011). Goodwin et al. (2011) recommended for messages related to the agricultural industry to be personal rather business driven. “In addition, to decrease the occurrence of unfavorable messages, it is recommended that agricultural communicators avoid messages that cause failure, distrust, skepticism, and inaccuracy in the eyes of the consumer” (Goodwin et al., 2011, p. 30-31). With that in mind, understanding the dynamics of the labor force responsible for providing the food and agricultural products is as important as knowing how the food was grown (Martin & Calvin, 2010).

Farmer Workers in the U.S.

A study, conducted by the USDA, found that the number of hired farmworkers is estimated to exceed 1 million (Kandel, 2008). This means that hired farmworkers account for over one-third of the 3 million individuals employed in the U.S. agricultural industry (see Figure 1) (Kandel, 2008). The study also found that Florida is one of the six states that employ over half of all Hispanic hired farmworkers. The other states include California, Texas, Washington, and North Carolina (Kandel, 2008). The study also recognized that “half of all hired crop farmworkers lack legal authorization to work in the U.S.” (Kandel, 2008, p. iii). Also of interest, agricultural work was found to be one of the most hazardous types of work conducted in the U.S., since laborers are exposed to pesticides, inclement weather, and often work without healthcare (Kandel, 2008). The USDA’s 2008 report profiling the U.S. farmworker described the laborers as younger in age, with little to no education, and lacking authorization to work in the U.S. due to citizenship status (Kandel, 2008). Female farmworkers are far less prevalent than male farmworkers, with one in every five hired farmworkers being female (Kandel, 2008). Over

40 percent of hired farmworkers are Hispanic, and all of those workers who are not citizens of the U.S. and are hired farmworkers are Hispanic (see Figure 1 and Table 1) (Kandel, 2008).

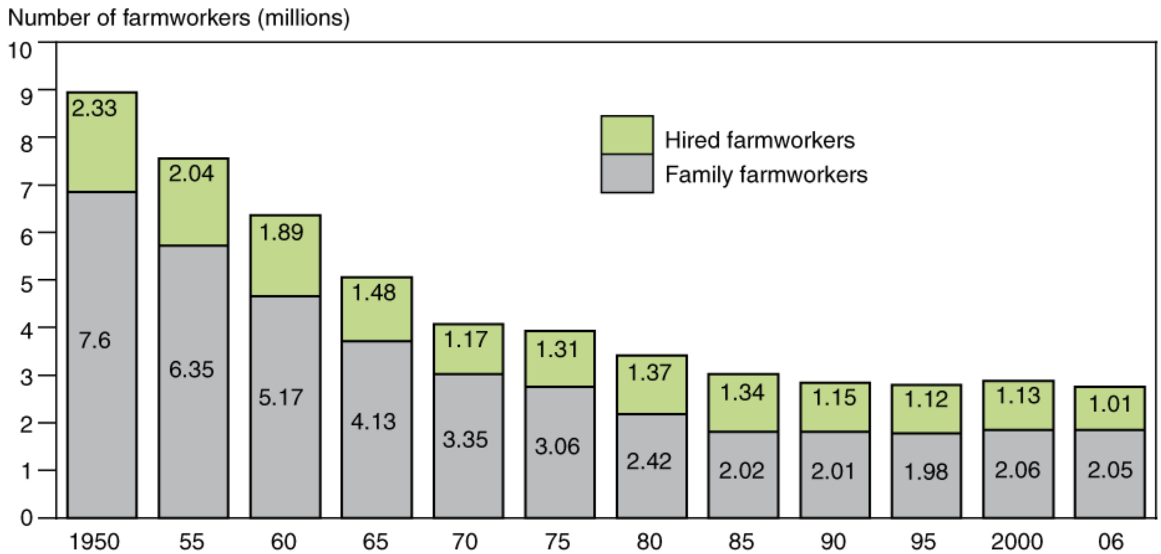

Figure 1. Number of farm workers in U.S. (Kandel, 2008).
Notes: Family farmworkers include self-employed farmers and unpaid family members. Hired farmworkers include direct hires and agricultural service workers who are often hired through labor contractors.

In 2004, almost 14 million people within migrant families lived in the U.S. (Passel, 2005). Of those 14 million people, 56 percent of the adults were men, 44 percent of the adults were women, and 14 percent of all the unauthorized individuals were children (Passel, 2005). The Pew Research Center found that over 3 million of the children belonging to unauthorized, migrant families were U.S. born, and therefore, citizens of the U.S. (Passel, 2005). This study also found that with this population of migrant workers, farming was the most predominant occupation, followed by cleaning and construction (Passel, 2005). It was also found that the flow of immigrants into the U.S. has remained steady over the years, with an increase in unauthorized immigrants (Passel, 2005).

Social Construction of Reality Theory

The theoretical framework supporting this research is social construction of reality. This theory lends itself well to this study because previous literature connects the concept of media and its ability to shape individuals' perceptions of reality (Adoni & Mane, 1984; Dispensa & Brulle, 2003; Siu, 2009).

Table 1

2006 Demographic characteristics of hired farmworkers (Kandel, 2008)

	Hired Farmworkers			Wage & Salary Workers		
	Noncitizen	Citizen	Total	Noncitizen	Citizen	Total
Citizenship Status	37.6	62.4	100.00	9.2	90.8	100.0
Sex						
Male	82.7	79.9	80.9	63.6	50.7	52.1
Female	17.3	20.1	19.1	36.4	49.3	47.9
Median Age	34	34	34	34	40	40
Hispanic ethnicity	94.6	12.0	43.0	61.8	9.1	13.7
Race						
White	94.3	90.2	91.7	73.4	82.4	81.6
Black	0.6	6.0	4.0	8.3	12.4	11.9
Native American	2.1	1.0	1.4	0.9	0.7	0.7
Asian	3.0	2.9	2.9	17.5	4.6	5.7
Country of Birth						
Mexico	90.3	5.3	37.3	41.2	1.2	5.1
All other countries	9.7	2.0	4.9	58.8	6.6	11.3
U.S.	0.0	92.6	57.8	0.0	92.2	83.6
Spanish only Household	64.0	4.1	26.7	30.7	1.3	4.0

Social construction of reality, related to the media, inherently combines individuals as well as the society in which those individuals live and the culture that surrounds them into a single, comprehensive cycle for forming perceptions about issues relevant to them and their lives (Adoni & Mane, 1984). Within this cycle, individuals play equal roles in creating the reality in which they live, and in turn the world those connected to them, through a variety of means (Adoni & Mane, 1984).

Media play an integral role in providing information to individuals about issues within society (Siu, 2009). How those within the field of media and communication determine what information to disseminate to society can be influential in how people think or view an issue (Entman, 1989). "One crucial component of civil society is the formation of a free and independent media. A democratic and open society is premised on the free flow of information among citizenry" (Dispensa & Brulle, 2003, p. 77). This open communication and exchange of ideas allows individuals to shape their own opinions and beliefs about a topic or issue (Dispensa & Brulle, 2003). However, a study examining the effects of framing of tobacco use by newspapers, found that the media can differ in how information is presented to consumers, and the presentation and prevalence will impact individuals' and society's view of the issue (Sui, 2009).

Results from another content analysis found that newspapers were more likely to repress the severity of the issue of global warming, potentially due to fear of repercussions from big corporations, who are large contributors to both global warming and the media industry (Dispensa & Brulle, 2003). This study also surmised that the media is impeding the dissemination of information and knowledge individuals need about global warming to make informed decisions about the ways in which they live their lives and interact with the world around them (Dispensa & Brulle, 2003). The findings from this study show the implications if individuals are not given enough information to form opinions about an issue and how this impacts their life; and in turn, the individual's reality may be skewed due to lack of information (Adoni & Mane, 1984; Dispensa & Brulle, 2003).

METHODS

To document the way Department of Florida Agriculture and Consumer Services market Florida agriculture through the "Fresh from Florida," the researchers analyzed the 40 television PSAs available at the department's website (http://www.Florida-agriculture.com/video.htm).

The data collection protocol focused on the demographic characteristics of laborers and consumers. To address the gap between the portrayal of laborers/consumers and reality, the interreality comparison measures were used (Dixon & Linz, 2000). According to Dixon and Linz (2000) "Interrole and intergroup comparisons allow us to measure the television environment and image effects in viewers' cognitive representations of the social world after exposure to television (p.135)." These comparisons, while insightful, do not address the accuracy of the scenes as portrayed by the form of media; therefore, it is unknown if the perceptions viewers form from the television are accurate, or based off of sterotypes (Dixon & Linz, 2000).

To proceed with the interreality comparison, the researchers utilized the data from the USDA Economic Research Service (2013), USDA National Agricultural Statistics Service (2008), and the report by Kandel (2008).

Coder Training and reliability

Coder training took place over two days and each session lasted approximately one hour. During these sessions, coders identified problems with the codebook and defined guidelines for coding using 24 randomly selected PSAs. After discussions, the researchers decided to remove two videos from the sample, since they did not relate specifically to Florida agriculture or agricultural products. They were PSA about horses and termite protection in Florida. Video number 1 and 2 were identical and coded only once.

To code the PSAs, the coders analyzed each of the videos in 6-second segments. The videos were around 20 – 45 seconds in length; totaling three to six coded sections for each PSA.

For the reliability tests, each coder received nine randomly selected identical videos, totaling 54 segments (24.3% of the total sample). Krippendorff's alpha was used to assess reliability. The researchers eliminated one variable that did not attain desired reliability. Each coefficient is reported in the following sections (see Table 2).

The first component identified was if the video segment portrayed laborers. Laborers were defined as people working in un-harvested, raw, or products in production; including crop work, cattle ranching, fruit and vegetable gathering, selecting and packing. Each segment could portray either on individual laborer (α =0.87) or a group of laborers (α =0.94). Laborers were defined as a "group" when they appeared in groups of more than three individuals in the same scene. Race, gender, and activity for each laborer that appeared on the segment were coded. Coders reached perfect agreement on race and gender for laborers in videos 2, 4, and 5. The alphas from race and gender of laborers in videos 1 and 3 ranged from 0.85 to 0.90. The alphas for activity portrayed ranged from 0.85 to 1.00 (see Table 2). Here, it is important to note that the researchers recognize a difference between race and ethnicity (Rodriguez, 2000); however, given the context of the video PSAs, there was no way to determine ethnicity. Ethnicity refers to a way of life for individuals, involving internal and external factors (Rodriguez, 2000), which were not determinable in this analysis.

For the group of laborers, coders reached perfect agreement on the dominant gender, race, and activity among the group (α =1.00).

Consumers were identified as people buying, preparing, or consuming the final agriculture product. For example, fruits at the grocery store or vegetables at the consumer's

Consumers were identified as people buying, preparing, or consuming the final agriculture product. For example, fruits at the grocery store or vegetables at the consumer's table.

Table 2
Inter-coder reliability results

Laborer variables	Krippendorff's Alpha	**Consumer variables**	Krippendorff's Alpha
Does the segment portray an individual laborer?	0.87	Does the segment portray an individual consumer?	0.96
What was the gender of laborer #1?	0.90	What was the gender of consumer #1?	0.84
What was the race of laborer #1?	0.90	What was the race of consumer #1?	0.80
What activity is laborer #1 engaged in?	0.95	What activity is consumer #1 engaged in?	0.88
What was the gender of laborer #2?	1.00	What was the gender of consumer #2?	0.73
What was the race of laborer #2?	1.00	What was the race of consumer #2?	0.73
What activity is laborer #2 engaged in?	1.00	What activity is consumer #2 engaged in?	0.74
What was the gender of laborer #3?	0.85	What was the gender of consumer #3?	1.00
What was the race of laborer #3?	0.85	What was the race of consumer #3?	1.00
What activity is laborer #3 engaged in?	0.85	What activity is consumer #3 engaged in?	1.00
What was the gender of laborer #4?	1.00	What was the gender of consumer #4?	1.00
What was the race of laborer #4?	1.00	What was the race of consumer #4?	1.00
What activity is laborer #4 engaged in?	1.00	What activity is consumer #4 engaged in?	1.00
What was the gender of laborer #5?	1.00	Was there a group of consumers portrayed in the segment?	1.00
What was the race of laborer #5?	1.00	Was there a dominant gender among the group?	1.00
What activity is laborer #5 engaged in?	1.00	If yes, what was the dominant gender of the group?	1.00*
Was there a group of laborers portrayed in the segment?	0.94	Was there a dominant gender race among the group?	1.00
Was there a dominant gender among the group?	1.00	If yes, what was the dominant race of the group?	1.00
If yes, what was the dominant gender of the group?	1.00	What activity was the group engaged in?	1.00
Was there a dominant gender race among the group?	1.00		
If yes, what was the dominant race of the group?	1.00		
What activity was the group engaged in?	1.00		
* Invariant values			

Consumers could also be coded individually (α=0.96) or in groups of consumers (α=1.00). The reliability for gender (α=0.73), race (α=0.73), and activity (α=0.74) of consumer

2 were the lowest of all variables. The alphas for gender, race and activity of consumer 1 – first one that appeared on the video – ranged from 0.80 to 0.88. The coders reached perfect agreement (α=1.00) on all other variables.

Results

To determine how the labor of Florida's agricultural industry was portrayed in the PSA videos produced by the Florida Department of Agriculture and Consumer Services, aimed at marketing Florida agriculture (RQ_1), the race and gender of each laborer and consumer portrayed in the videos and the activity they were engaged in (laborers or consumers) were analyzed using cross tabulations.

A significant difference was found when the race of the laborers and consumers in the PSA videos was compared to the activity they were engaged in (χ^2 (1, N=177) = 11.97, $p < .001$). Also, a significant difference was found when the gender of the laborers and consumers, and the activity they were engaged, in was analyzed (χ^2 (1, N=179) = 17.59, $p < .001$) (see Table 3). These findings were obtained to answer $RQ_{1.}$

In regards to race, 87% (n = 67) of the laborers portrayed were white. Non-whites represented 12.89% (n = 10) of the laborers in the video. Although research questions did not address the characteristics of the consumers portrayed, one important finding was that females (52.57%, n = 51) are more likely to be portrayed as consumers than males (47.42%, n = 46), and the difference between white and non-white consumers was smaller than white and non-white laborers (see Table 3). Overall, whites and males were more likely to be portrayed as laborers in Florida's PSA videos.

To answer the second research question, "How does the labor portrayed in the marketing videos, produced by the state of Florida, compare to the labor statistics from the U.S. Department of Agriculture?” the results from the cross tabulation were compared to those results from the U.S. Department of Agriculture.

Table 3
*Characteristics of Laborers and Consumers - Florida Agriculture PSA**

	Laborers		*Consumers*		*Total*	
*Gender***	n	%	n	%	N	%
Male	64	78.04	46	47.42	110	61.45
Female	18	21.95	51	52.57	69	38.54
Total	82	100	97	100	179	100
*Race****	n	%	n	%	N	%
White	67	87.01	64	64	131	74.01
Non-white	10	12.98	36	36	46	25.98
Total	77	100	100	100	177	100

**Excluding segments that portrayed no laborers/consumers*
Excluding laborers and consumers where race/gender could not be defined
***Note χ^2 (1, N=179) = 17.59, p <.001*
****Note χ^2 (1, N=177) = 11.97, p <.001*

It is important to note that the full data set used by the USDA for the following findings was unavailable to the researchers of this study. However, since the statistics used for comparison were obtained from the USDA (USDA National Agricultural Statistics Service, 2008), a credible and reviewed source, the statistical comparison is relevant (see Table 4).

The PSA videos from the Florida Department of Agriculture portrayed 87.01% of the laborers as white (n = 67) and 12.98% as non-white (n = 10). In 2012, the USDA Economic Research Service (2013) found that 81% of farm laborers were white (n = 115,548,930) and 19% were non-white (27,104,070) in the U.S. Also, the USDA Agricultural Statistics Service (2008) reported that 95.06% of the total U.S. workers in Florida were white (n = 67,569) and 4.9% were non-white (n = 3,507) (see Table 4).

Although, not part of the original research questions, the findings related to gender within the PSAs merit discussion. Females were represented as workers in 21.95% (n = 18) of the

Florida videos, whereas they represent 47% (n = 67,046,910) of the agricultural workforce (USDA Economic Research Service, 2013) and 35.73% (n = 25,400) of the agriculture operators in Florida (USDA Agricultural Statistics Service, 2008).

Table 4
Characteristics of Laborers Florida Agriculture PSA compared to USDA statistics

	Florida PSA* Laborers		All U.S. wage and salary workers (USDA) 2012**		Florida Farm workers 2007***	
Gender	n	%	n	%	n	%
Male	64	78.04	75,606,090	53.00	45,676	64.26
Female	18	21.95	67,046,910	47.00	25,400	35.73
Total	82	100.00	142,653,000	100.00	71,076	100
Race	n	%	n	%	n	%
White	67	87.01	115,548,930	81.00	67,569	95.06
Non-white	10	12.98	27,104,070	19	3,507	4.9
Total	77	100.00	142,653,000	100.00	71,076	

**Excluding segments that portrayed no laborers/consumers*
***Source: USDA-ERS analysis of data from U.S. Census Bureau, Current Population Survey.*
**** 2007 USDA Census of Agriculture. Selected Operator Characteristics by Race.*

Finally, to complement the findings about the characteristics of portrayed labor in Florida agricultural videos, frequencies were analyzed on specific types of labor activities portrayed (see Table 5).

Of the video segments, 20.3% (n = 45) portrayed at least one individual laborer, and 1.8% (n = 4) portrayed a group of three or more laborers. Related to consumers in the PSAs, 24.2% (n = 55) of the segments showed an individual consumer, and 3.2% (n = 7) showed a group of consumers. The vast majority of segments did not portray laborers or consumers, focusing on the agricultural product.

When individual laborers were portrayed, whites were more likely to be portrayed in crop work (22.39%, n = 15) or cattle ranching (20.90%, n = 14); and non-whites were more portrayed in gathering (30%, n = 3) or packaging (30%, n = 3). The USDA Agricultural Statistics Service data (2008) (see Table 6) indicated that the white dominance on agricultural labor happens on all levels, laborers and managers.

Female laborers were more likely to be portrayed in gathering (22%, n = 4) and sales (22%, n = 4), although there was a male dominance in all activities (see Table 5). There was no significant difference among the consumers' gender and race, except for recreation: most people engaged in swimming, canoeing, fishing or other recreational activities were white males (see Table 5).

Table 5

Frequencies of activity portrayed by laborers and consumers - Florida Agriculture PSA

Does the segment portray an individual laborer?		n	%
	Yes	45	20.3
	No	177	79.7
Does the segment portray an individual consumer?		**n**	**%**
	Yes	55	24.2
	No	167	75.8
Does the segment portray a group of laborers*?		**n**	**%**
	Yes	4	1.8
	No	218	98.2
Does the segment portray a group of consumers*?		**n**	**%**
	Yes	7	3.2
	No	215	96.8

Race		White		Non-white		Can't define	
Laborers		n	%	n	%	n	%
	Crop Work	15	22.39	0	0.0	0	0.00
	Cattle ranching	14	20.90	0	0.0	0	0.00
	Gathering	3	4.48	3	30.0	0	0.00
	Sorting	0	0.00	1	10.0	0	0.00
	Packaging	3	4.48	3	30.0	0	0.00
	Transportation	8	11.94	2	20.0	0	0.00
	Conservation	5	7.46	0	0.0	0	0.00
	Forestry	4	5.97	0	0.0	0	0.00
	Beekeeping	5	7.46	0	0.0	4	66.67
	Sales	8	11.94	0	0.0	0	0.00
	Other	2	2.99	1	10.0	2	33.33

	Total	67	100.0	10	100.0	6	100.00
Consumers							
	Shopping	20	31.25	7	20.00	0	0
	Cooking	10	15.63	7	20.00	0	0
	Eating	23	35.94	19	54.29	1	50
	Recreation	9	14.06	1	2.86	1	50
	Other	2	3.13	1	2.86	0	0
	Total	64	100.0	35	100.00	2	100
Gender		Male		Female		Can't define	
Laborers		n	%	n	%	n	%
	Crop Work	12	19.35	3	16.67	0	0
	Cattle ranching	14	22.58	0	0.00	0	0
	Gathering	2	3.23	4	22.22	0	0
	Sorting	1	1.61	1	5.56	0	0
	Packaging	4	6.45	2	11.11	0	0
	Transportation	10	16.13	0	0.00	0	0
	Conservation	2	3.23	3	16.67	0	0
	Forestry	4	6.45	0	0.00	0	0
	Beekeeping	5	8.06	0	0.00	4	100
	Sales	4	6.45	4	22.22	0	0
	Other	4	6.45	1	5.56	0	0
	Total	62	100.0	18	100.00	4	100
Consumers							
	Shopping	12	26.67	15	29.41	0	0
	Cooking	7	15.56	9	17.65	0	0
	Eating	17	37.78	23	45.10	1	50
	Recreation	7	15.56	3	5.88	1	50
	Other	2	4.44	1	1.96	0	0
	Total	45	100.0	51	100.00	2	100

Discussion/Conclusions

The results of the inter reality comparison showed three different characteristics of the PSA videos: under-representation of female laborers; accurate representation of non-white laborers when compared to USDA data; and a focused on products over labor.

Females were underrepresented in the videos, as compared to official statistics regarding farm workers (USDA Economic Research Service, 2013). The PSA videos underrepresented female workers mainly because they focus on farm managers, crop supervisors, and cattle ranchers, which are positions primarily dominated by males (see Table 4). According to the official USDA statistics, females already hold lower positions, which are not the emphasis of the PSAs (USDA Economic Research Service, 2013).

In regards to the inter reality comparison for race, it is important to note that only data that accounted for hired farm workers was used. Here, the researchers reinforce the importance of highlighting that about 50% of the labor force in U.S. agriculture is undocumented (Kandel, 2008). In states like Florida, Texas, and California, these numbers are even larger (Kandel, 2008). In this sense, neither media nor official statistics provide an actual depiction of reality. This is a limitation of the study due to the unknown number of undocumented workers. However, according to the available data from the USDA Agricultural Statistics Service (2008) and the Pew Hispanic Center (Passel, 2005), the Florida agriculture marketing PSA videos did depict similar labor, in regards to race, to the public.

Finally, although there was still a focus on final products over labor, the videos showed a tendency to connect agriculture with consumption within the messaging with tag lines like "where it comes from." Unrelated to any of the research questions posed for this study, it was found that the videos focused heavily on connecting the consumer to the laborer/origin of their food and agricultural products (see Table 4). As the literature shows, there is a growing distance between the consumer and the producer of agricultural products (Rhoades & Ellis, 2010; Ruth et al., 2005; Tonsor & Wolf, 2011); therefore, it could be postulated that the Florida Department of Agricultural and Consumer Services marketing was attempting to bridge this divide. This finding also follows with the theory of social construction of reality (Adoni & Mane, 1984; Dispensa & Brulle, 2003 and Siu, 2009), in that Florida through the use of PSA videos constructed an accurate view of laborers' race, but not gender. This is an interesting finding because it highlights one way the state of Florida is attempting to accurately educate the public about Florida agriculture. It is important for consumers to receive accurate information to form educated perceptions about the agricultural industry.

Also, as Goodwin et al. (2011) recommended, the video PSAs show the agricultural industry in a favorable light. Future video PSAs should be cognizant of current trends in agriculture labor to ensure an accurate portrayal of the industry is given to consumers. As Goodwin et al. (2011) noted, consumers frequently rely on past experiences with media and life to form perceptions about the agricultural industry; therefore, "it is suggested that the agricultural industry work toward increasing their presence and the presence of accurate agricultural information in the media" (p. 30). This research showed that the state of Florida is trying to educate the public about the positive nature of Florida agriculture. The accuracy of the information visually portrayed to consumers is important for the formation of their perceptions and thoughts related to FDACS and Florida agriculture as a whole (Edgar & Rutherford, 2012).

As with any research, this research has limitations. The first, and most obvious, problem when using government labor data to study agriculture demographics is the intensive use of seasonal and migrant workers who relocate their place of residence during the course of a growing season. Florida, Texas, and California are the three sending states for migrant workers, who generally return to these after the harvesting season is over. The vast majority of seasonal workers are undocumented immigrants coming from Central America and Mexico (USDA Economic Research Service, 2013).

Although the researchers recognized the impact of undocumented immigrants, ultimately it was decided to combine official labor statistics for inter reality comparison purposes, since reliable data were unavailable for undocumented immigrants. The USDA Agricultural Statistics Service (2008) report, used in Table 4, accounts for demographic characteristics of the Florida farm operators as compared to the U.S. and the Florida PSA videos. In order to minimize these limitations, the researchers included national data on undocumented farm workers (Kandel, 2008) (Table 1). Unfortunately, there were no data that accounted for all Florida farm workers, documented and undocumented.

It is also important to note the difference between race and ethnicity. For the content analysis, the researchers decided to code race as white and non-white, based on evident physical characteristics. Nevertheless, the researchers recognize how this approach can be simplistic. According to Rodriguez (2000), "ethnicity and race, however, have a fluidity and complexity that are not often acknowledged but nonetheless evident" (p. ix). For this research, the researchers did not attempt to code for ethnicity, instead relied upon a binary paradigm of race (white/non-white). This approach seemed to be the best considering both the information about the laborer/consumer portrayed available (images only), and the goal of the research, which focused on perception and representation.

In conclusion, understanding that videos have an impact on how individuals form perceptions about the U.S. agricultural industry, it is imperative that PSAs and other marketing media produced by the industry provide an accurate portrayal of how food and agricultural products are produced. The accurate portrayal of the agricultural industry extends into the labor within the sector itself. Research has shown that Hispanic and migrant workers make up a substantial portion of the laborers used to produce and process agricultural products (Kandel, 2008). As such, the videos produced by the agricultural industry should strive for an accurate representation of laborers in the industry to better educate consumers.

It is recommended that future research should be conducted to determine if PSA videos in other states are portraying the labor sector of the agricultural industry in an accurate manner. Also, national research to examine consumers' perceptions of the labor sector of the agricultural industry would be beneficial for future marketing campaigns to take into account. As agricultural communicators, it is paramount to provide consumers with accurate information about the agricultural industry. Creating accurate videos and PSAs are an integral part of those communication-messaging strategies.

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A Qualitative Assessment of a Large Southern Commodity Board's Youth Outreach Promotional Activities in a 2012 Marketing Campaign

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A Qualitative Assessment of a Large Southern Commodity Board's Youth Outreach Promotional Activities in a 2012 Public Relations Campaign

During the past few decades, agriculture has increased its promotional activities to improve understanding of specific commodities and educate audiences. Research analyzing promotional material is lacking in the agricultural industry. A team of agricultural communications researchers at the University of Arkansas utilized semiotic and content analyses to qualitatively assess the visual and content elements of a commodity group's promotional campaign. The purpose of this study was to analyze and assess the youth outreach portion of a communication campaign developed for a large commodity promotion board in a southern state. Each creative piece's content was systematically analyzed using content code sheets. Visually, content was coded denotatively, then connotatively to identify emergent themes. Textual content was coded for recurrent themes. This study identified emergent themes and determined message accuracy and quality of creative pieces. Findings revealed 24 emergent themes, with 234 theme occurrences, within 11 creative pieces used to target the "youth" audience, a message accuracy of 81.8%, and an overall quality score mean of 2.21 on a 5-point Likert-type scale (1 = poor quality and 5 = excellent quality). The top five themes identified through the content analysis were: how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in the Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). In-depth interviews with key players were used to support the researchers' analysis. Additional content analyses should be completed to determine themes, message accuracy, and quality of promotional materials from agricultural commodity campaigns to determine strengths and weaknesses within the industry.

Keywords and Phrases: Campaign assessment, commodity promotion board, communications, emergent themes and theme occurrences, public relations, semiotic and content analysis of promotional pieces, youth outreach

Introduction

The landscape of modern agriculture is shifting as technology, the environment, and global economy continue to change (Doerfert, 2011). The purpose of the National Research Agenda (NRA) developed by the American Association for Agricultural Education was to identify the priority areas for research that would further the interests of modern agriculture (Doerfert, 2011). These key problem areas were divided into six priorities intended to inspire collaboration and research for the improvement of agriculture for 2011 through 2015. One of the priority areas for research needs identified in the NRA is improve public and policy maker understanding of agriculture and natural resources (Doerfert, 2011). Many commodity organizations have recognized the need for educational outreach and have become industry advocates, investing in campaigns to inform the public (Arkansas Soybean Promotion Board, n.d.; Beef Checkoff, 2013; California Milk Advisory Board, 2013; Cotton Incorporated, 2013).

Communication campaign design should begin with a needs assessment to identify learning opportunities, possible barriers, and potential outcomes (Barnard & Parker, 2012; Rice & Atkin, 2013). Organizations should also identify and target specific segments of a population rather than trying to reach broad audience groups (Guth & Marsh, 2006; Marshall & Johnston, 2010; Rice & Atkin, 2013). Basically, if audiences are specific on certain demographic characteristics, messages designed to meet the needs of those characteristics have increased effectiveness because they were tailored to the intended audience (Rice & Atkin, 2013). “Audience analysis is an ongoing, iterative process that informs you of the best ways to appeal to your audience, develop your influence and, when appropriate, change their behavior as your campaign story moves towards its conclusion” (Barnard & Parker, 2012, p. 77). An additional effect on the target audience is the quality of the influences created through the communications or public relations campaign (Barnard & Parker, 2012). Every element of a creative product communicates with that product's audience, including design (Guth & Marsh, 2006). A high-quality creative product gives off a completely different, and more positive image, than a creative product of low quality (Guth & Marsh, 2006).

In the dynamic model of the public relations process, it is recommended that evaluation occur at each phases (Guth & Marsh, 2006). There are four phases in the model consisting of research, planning, communication, and evaluation. "Evaluation research cannot be an afterthought; practitioners are expected to articulate at the outset of any campaign how success is defined" (p. 208). Evaluation is needed to identify the strengths and weaknesses of communication campaigns (Telg & Irani, 2012). "With practitioners facing greater demands for accountability, every public relations plan must achieve an impact that is measurable" (Guth & Marsh, 2006, p. 208). Evaluation of communication campaigns helps the organization determine if the outcome or program was effective in achieving its goals and its efficiency (Rice & Atkin, 2013).

Theoretical Framework

Semiotics is a content-driven theory that discusses how people assign meanings to visual elements (Lester, 2011). "Recent use of semiotics theory has been noted in the field of mass communication. Semiotics [is used to] decode the meaning of a visual image through examination of signs" (Tolbert, 2009, p. 7). Semiotics, simply put, is the study of signs (Lester, 2011; Manghani, 2013). More specifically, semiotics is a theory of the production and interpretation of meaning based on images (Edgar & Rutherford, 2012). "The 'sign' is the most fundamental unit of mainstream semiology" (Rose, 2012, p. 113). According to semiotic theory, signs can take many different forms including words, images, sounds, gestures, and objects

(Chandler, 2002; Lester, 2011; Manghani, 2013; Rose, 2012). Signs are composed of two parts, signified and signifier (Manghani, 2013; Rose, 2012). The signified is an object or a concept while the signifier is the sound or image that is attached to the signified (Rose, 2012). Fundamentally, the sign is the representation of the signified (Rose, 2012).

Semiotics is a theory that is used to identify how people assign meaning to campaign materials, which is used to evaluate campaigns (Tolbert, 2009). Additional research shows that experiential learning activities are effective in reinforcing learning during youth outreach portions of campaigns. “Learning from experience is one of the most fundamental and natural means of learning available to everyone” (Beard & Wilson, 2006, p. 15). Therefore, interaction between the learner and the environment is a foundation of learning (Beard & Wilson, 2006; Kolb, 1984). Additionally, experiences do not simply go away at the end of a learning event or activity, each experience is reinforced, and perhaps modified, through further experiences that may influence the learner’s attitudes (Dewey, 1938). This forms the basis of the Experiential Learning Theory, which can be further explained as the process by which knowledge is created through experience (Kolb, 1984). One effect that can impact experiential learning either positively or negatively is the participant’s attitudinal position about the event or experience (Beard & Wilson, 2006). Another factor influencing the success of an experiential learning activity or event is if participants perceived the event as being of high quality (Dewey, 1938).

Experiential learning is further supported by and aligned with constructivist theory in that both postulate that an individual’s experiences shape how they interpret meaning (Roberts, 2006). Doolittle and Camp (1999) noted the most important element of constructivism was that learners create their own meaning based on past experiences. Additionally, constructivist theory describes how the development of knowledge is not done passively, but rather actively through an individual's cognition (Doolittle & Camp, 1999). In other words, the learners, in this case, members of the youth audience, are active members in the learning process. With this in mind, it is important for those who develop educational initiatives to research and gain insight into what their audience already knows to achieve a more sophisticated level of understanding (Hess & Trexler, 2011b).

The need for this study was supported by the NRA research priority area focused on public and policy maker understanding of agriculture and natural resources (Doerfert, 2011). Within that priority, the NRA defined a need to increase understanding of the effectiveness of messaging and educational programs within agriculture. As students become further removed from the farm, outlets that provide agricultural knowledge or increase agricultural literacy are imperative (Reidel, Wilson, Flowers, & Moore, 2007). Agricultural literacy can be defined as a person's ability to understand the agricultural industry and its significance economically, socially, and environmentally and be able to communicate those significances with others (Hess & Trexler, 2011a; Reidel et al., 2007; Pense, Beebe, Leising, Wakefield, & Steffen, 2006). The goal of the researchers in this study was to determine the effectiveness and quality of the youth outreach portion in statewide communication campaign about a particular southern commodity. To do this, researchers at the University of Arkansas examined the messaging, target audience reach, effectiveness, and visual elements of the campaign using semiotic theory and content analysis to drive the qualitative assessment.

Purpose and Objectives

The purpose of this study was to analyze and assess the youth outreach portion of a public relations campaign developed for a large commodity promotion board in a southern state. The semiotic analysis of the creative materials within the campaign was necessary to create a precise account of the intended messages portrayed to the targeted youth audience and determine if meanings behind those messages were audience appropriate. The study was guided by the following objectives:

1) Determine the effectiveness of content in the youth outreach portion of a large, southern commodity board's promotional communication campaign.
2) Complete a content analysis of creative pieces targeted at youth and identify any emergent themes.
3) Determine the accuracy of outlined and implied messages for each creative piece.
4) Assess the quality of creative works used in the campaign's youth outreach.
5) Determine the opinions of key players who assisted with event recruitment using in-depth interviews.

Methods and Procedures

A large southern commodity promotion board hired a full-service, local, regional, and national marketing, advertising, and public relations firm to develop a mass media public relations campaign to promote the commodity. Per the agreement reached by the two parties, the firm was tasked to supply the commodity promotion board with the following core campaign deliverables in 2012 to directly meet the needs of the youth (ages 12-18 as outlined by the public relations firm who developed the promotional material) target audience: (a) website, (b) educational video, and (c) a presence at various statewide events with an educational booth and supporting materials. A team of agricultural communications researchers at the University of Arkansas utilized semiotic analysis to qualitatively assess the visual and content elements of the commodity group's campaign. "Qualitative data analysis is primarily an inductive process of organizing data into categories and identifying patterns and relationships among the categories"

(McMillan & Schumacher, 2010, p. 367). The researchers in this study used inductive analysis to synthesize and make meaning from the data in the campaign deliverables by identifying categories and patterns (McMillan & Schumacher, 2010).

All creative pieces produced by the public relations firm in 2012 for the youth target audience were evaluated in a systematic, content driven approach to assess the potential impact on perceptions of individuals (Edgar & Rutherford, 2012). Eleven creative pieces were coded for emergent themes then were evaluated for quality according to accepted professional standards, and, finally, a perceived message for each piece was derived. A database of emergent themes was developed during analysis of the promotional pieces created in the commodity campaign and used to target youth. The implied message was compared with identified message listed by the full-service public relations firm for each creative piece.

The researchers first developed code sheets to guide the coding process. The researchers created print, visual, video, and quality code sheets based on industry standards. The print code sheet was used to analyze the creative materials containing mostly copy (e.g., print advertisements and news releases) and transcriptions of videos that were a part of the campaign. Again, because the process of analyzing content is systematic and replicable (Edgar & Rutherford, 2012) a code sheet was used to guide the process and words were compressed into categories based on the specific coding rules in this technique (Weber, 1990).

There were 24 emergent themes, with 234 theme occurrences, identified in promotional pieces used to target the youth group. Themes were derived from visual and content analysis. Following Lincoln and Guba's (1985) constant comparative method, words and passages were coded in their original context (Creswell, 1998), and key themes emerged that characterized the creative pieces and there corresponding intended messages used to target youth. Throughout the coding process new themes were added as necessary and at the end of the processes themes were compressed where needed. Credibility of the findings was achieved through content code sheets, member checking, and the use of expert interviews of individuals involved with student recruited for commodity-based educational events. Trustworthiness and dependability were established through purposive sampling, the use of thick description, and the use of an audit trail supporting key findings.

Visual coding sheets were used for creative materials that had a visual element. The visual materials were analyzed denotatively: the contents of the images were deconstructed and researchers listed key words based on what they immediately saw when looking at the image. Next, the objects in the photo were analyzed for connotations, and the associative value of the photos was assessed (Edgar & Rutherford, 2012). "For example, an image of a tropical island would have a basic denotative reading of a tropical location, and a possible connotative reading of a vacation or relaxation and slow living" (Rhodes, 2008, p. 36). This approach created a careful and precise account of how the meanings within images from the campaign are perceived (Rose, 2012). Similarly, the video coding sheet guided the researchers through identifying the denotative and connotative values of the visuals used in each video. Video transcriptions were also coded, as mentioned above, to identify emergent themes.

During content analysis, the researchers analyzed text to identify key words in context (Gall, Gall, & Borg, 2006; Weber, 1990). From the key words in context, emergent themes were identified and compressed (Gall et al., 2006). After completing the content analysis, the identified recurring, emergent themes (Gall et al., 2006; Lincoln & Guba, 1985) were used to ascertain the implied message in each piece. Once the implied message was identified, it was compared with the intended message identified by the public relations firm in its original campaign plan. In the comparison, the researchers assessed if the intended message corresponded with the perceived message. If the perceived message and the intended message were cohesive, it was determined that the piece had accurate messaging. If the perceived message and the intended message were not cohesive, it was determined that the piece's messaging was inaccurate. Some creative pieces did not have an identified intended message in the original campaign plan; in that case the message accuracy was inconclusive.

Quality coding sheets were developed and used by the researchers to evaluate the quality of each individual creative piece. Two quality sheets were used. The first sheet had sections for images, design elements, and video techniques. The image section required researchers to identify image composition used. Next, the design elements section required the researcher to identify design composition used in the creative piece being analyzed. Finally, the video portion of the first coding sheet required researchers to identify the types of shots used and take an inventory of the visuals. Overall, the goal of the first coding sheet was to establish a frame of reference for the second quality code sheet. The second quality code sheet was developed as a way for the researchers to assign a numerical rating to the quality of the piece. The copy, images, design, video, and/or audio elements of each piece were ranked on a 5-point Likert-type scale from 1 (poor quality) to 5 (excellent quality). Quality characteristics were determined by accepted professional journalist and print standards. Telg and Irani (2012) noted the Associated Press is the accepted writing style that every journalist and public relations professional should use. Image quality was based on the use of accepted professional photography principles including focus, angles, rule of thirds, lines, and/or depth of field. For design elements, common design principles were used to judging each creative piece including: balance, proportion, order, contrast, similarity, and unity. Finally, video quality was determined by the use of video shot composition, content, video quality (Telg & Irani, 2012). Then, through statistical analysis the researchers determined the mean and standard deviation of the quality ratings for each piece, leading to an overall quality rating for each public relations piece developed to target youth.

Before proceeding with the content evaluation of the campaign, two researchers independently assessed four creative pieces: (a) print ad, (b) logo, (c) press release, and (d) event signage. Then the researchers compared their individual analyses and measured their inter-coder reliability in the form of percent agreement. This process was repeated until the researchers consistently averaged above 70% of interpretations in agreement. A high percentage of agreement (70% or higher) among researchers during data collection proves the reliability of the coding process (McMillan & Schumacher, 2010). Once agreement among the researchers reached an acceptable percentage, each creative piece for the youth audience was coded independently. Again, agreement was assessed. Researchers maintained an average of 87.52% agreement when coding the promotional materials used to target the youth audience group. Agreement was established by evaluating how often two or more researchers agree on what they have analyzed (McMillan & Schumacher, 2010). Usually there is a level of consensus between qualitative researchers, but, often, the way the researchers individually identify themes is different (Armstrong, Gosling, Weinman & Marteau, 1997). The researchers in this study originally identified similar themes in different ways, but after discussion and repeating their analyses, agreement, and like-mindedness was reached. Ultimately, because the researchers found a high level of agreement consistency in evaluation was established (McMillan & Schumacher, 2010). Last, the use of multiple researchers during the data collection and analysis process enhanced the design validity of the study (McMillan & Schumacher, 2010). A panel of faculty advisors consisting of two agricultural communications professors and one agricultural communications instructor oversaw this process as suggested by McMillan and Schumacher (2010) to ensure study validity.

Quality and effectiveness of the campaign's events were assessed by performing a content analysis on teaching and learning materials produced for the commodity board's youth outreach events. Researchers supplemented content evaluation of the youth outreach portion of the campaign with in-depth interviews of key players involved in the implementation of the youth events. In-depth interviews can be defined as a set of questions posed by a trained interviewer to a key audience member to gather information on what the subject knows about a certain topic (Burns & Bush, 2006). Two key players were interviewed to gain insight and feedback into FFA and 4-H member involvement in the 2012 [commodity education event] at the [celebrity endorser's] farm. The interviews were conducted over the phone by the researcher. A questioning guide was developed by the panel of experts and was used for both interviews. Interviews were recorded and transcribed. A thematic analysis was performed on the interview transcripts, using open and axial coding methodology (Lincoln & Guba, 1985; Strauss & Corbin, 1998) in which general themes were identified (open coding) and further refined through deeper examination into more specific themes (axial coding).

The interview data was used to determine key player perceptions of the strengths and weakness of the events used to target youth in the promotional campaign. "The objective is to obtain unrestricted comments or opinions and to ask questions that will help the marketing researcher better understand the various dimensions of these opinions as well as the reasons for them" (Burns & Bush, 2006, p. 221). The researchers used the in-depth interviews to gain necessary, personal feedback about the youth outreach component of the communication campaign. Responses from in-depth interviews can be more revealing than those in a structured survey and, thus, can be an advantage to the overall evaluation of a campaign by providing actual, unrestricted input from a key person (Burns & Bush, 2006).

Findings and Results

Content Analysis of Creative Materials

The top five emergent themes identified through the content analysis were how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in the Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). The remaining emergent themes, with corresponding frequencies, are noted in Table 1.

Table 1

Emergent Themes Identified in the Youth Creative Pieces

Content and Visual Themes	*n*	%
How [commodity] is produced	31	13.25
Benefits to Arkansas economy	24	10.26
[Commodity] is grown in Arkansas	23	9.83
Promotion of [commodity] Board	22	9.40
Human benefits	16	6.84
For use in animal feed products	13	5.56
General benefits to Arkansas	12	5.13
Diversity of [commodity]	11	4.70
Value of educating about [commodity]	9	3.85
[Commodity] contributes to Arkansas agriculture	8	3.42
For use in energy products	8	3.42
[Commodity] is natural	7	2.99
[Commodity] is environmentally sustainable	7	2.99
Research is valuable to production	6	2.56
Partnerships are important	6	2.56
Celebrity endorsements	4	1.71
[Commodity] contributes to animal agriculture	4	1.71
Economic value to consumers	4	1.71
For use in common household products	4	1.71
Promotion/Use of slogan	4	1.71
[Commodity] is healthy	3	1.28
For use in industrial products	3	1.28

Table 1 (continued)

Content and Visual Themes	*n*	%
[Board] values post-secondary education	3	1.28
For use in food products	2	0.85
Total	234	100.00

Message Accuracy of Creative Pieces

Researchers identified a perceived message for each promotional piece developed in the campaign. Those perceived messages were compared to the intended message outlined by the [public relations firm]. Table 2 shows the percent of message accuracy for all creative pieces.

Table 2

*Message Accuracy Based on Outlined Message as Compared to the Intended Message for the Youth Audience (*N*=11)*
(accounted for 9% of total budget allocation for the [commodity] promotional campaign)

	n	%
Accurate	9	81.8
Inconclusive	0	0.00
Inaccurate	2	18.2
Total	11	100

Note. Inconclusive indicates no intended message outlined in the original campaign plan for comparison.

Creative Piece Quality Assessment

Each creative piece was assessed for quality and after averaging the scores for the 11 promotional pieces intended for the youth target audience, the researchers found the overall mean quality score to be 2.21 (*SD* = .61). Table 3 shows means and standard deviations for the five quality areas used to assess the promotional pieces used to target youth.

Table 3

Overall Quality of Creative Pieces for the Youth Audience

Categories of Quality Measures	*M*	*SD*
Copy	2.08	0.69
Images	2.83	0.26
Design	2.05	0.87
Video	1.75	0.5
Audio	2.33	0.88

Note. Likert scale used: 1 = poor, 2 = fair, 3 = average, 4 = very good, and 5 = excellent. Not all quality categories were represented in each creative piece.

In-depth Interviews with Key Players

After the in-depth interviews were recorded and transcribed, the following findings were discovered through a content analysis: (a) Youth were recruited by the key players with assistance from agricultural science teachers and extension agents close in proximately to [celebrity endorser's] farm; (b) Approximately 25 FFA (ages 13-18 years) and 20 4-H members (ages 8-18 years) attended the event. Most attendees were Caucasian with the two African American youth; (c) Youth generally enjoyed attending the 2012 [commodity education event], but were unclear prior to the event that it would be focused on [commodity] and [commodity] promotion in the state. Generally youth were unaware of who [celebrity endorser] was prior to the event; (d) Learning objectives for the event seemed unclear. However, general information about [commodity] use was covered, but instruction to increase youth's awareness about career opportunities available in agriculture was lacking; (e) Youth involvement was not supported financially. FFA, 4-H, and/or parents of youth attending the event covered costs associated with travel and meals.

One key player was interviewed to determine the level of youth involvement in the Arkansas State Fair Ag in Action booth and to identify training used to prepare youth to effectively manage the booth. The following initial findings were discovered: (a) The Arkansas

FFA State Office handled the recruitment and scheduling of youth assisting with the Ag in Action booth; (b) Each day, before the fair opened, youth were asked to volunteer to work the [commodity] booth during that day (2 to 5 students daily staffed the booth); (c) No formal training program was in place to train youth on how to answer questions specific to [commodity] in Arkansas. "[Person's name], from [public relations firm], would train the youth each morning in a 15 to 30 minute overview of the different aspects of what the booth had, where the different information was located to give out, also a little bit about what the [commodity] Board in Arkansas does and provided some information about [commodity] and also how to run the interactive computer game there"; (d) There was little [public relations firm] involvement daily at the Ag in Action booth. "Personnel from [public relations firm] would stop by once or twice per day to check on the booth and take photos"; (e) An iPad was donated by [public relations firm] to be given away to one youth as an incentive for FFA member's participation; (f) Print and promotional materials and an interactive game were available at the Ag in Action booth; and (g) Youth attending the event enjoyed the interactive game most.

Conclusions and Recommendations

Using semiotic theory to guide the coding of each creative piece, the emergent themes and theme occurrences were identified. It is important to consider if the following major themes were the most appropriate for youth and the goals of the campaign: how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). Many of the messages outlined by [public relations firm] focused on promoting awareness of [commodity].

It was difficult to assess the appropriateness of the emergent themes identified in the research because the [commodity] campaign materials did not identify a specific audience segment of Arkansas' youth. As mentioned above, the campaign outlined that youth were between the ages of 12 and 18 would be targeted. However, this was not a specific enough audience segment, because demographic traits of 12 to 18 year olds across Arkansas vary greatly. Therefore, public relation campaigns should utilize messages that are tailored to specific, narrow audience demographic (or other) traits in order to increase effectiveness (Rice & Atkin, 2013). The researchers recommend that groups planning promotional campaigns identify specific audience groups and use a needs assessment to aid in identifying appropriate messaging (Barnard & Parker, 2012; Rice & Atkin, 2013).

As evidenced through this study, 24 emergent themes, with 234 theme occurrences, diluted the message impact from the only 11 creative pieces used to target the diverse youth audience. Evaluation is a critical step, which should be ongoing throughout a communication campaign (Guth & Marsh, 2006). Practitioners should evaluate each creative piece and determine if its messaging is appropriate, concise, and effective (Rice & Atkin, 2013). Additionally, audience analysis should be continued throughout the duration of the campaign to help evaluate the effectiveness of the materials produced (Barnard & Parker, 2012). In the future, the researchers recommend that commodity boards request campaign evaluations throughout the duration of the campaign to maintain accountability, incorporate the involvement of a commodity specialist to ensure accuracy of information, and identify a gatekeeper to approve creative materials developed by an outside communications firm.

It is important to note that some creative pieces were particularly unsuccessful at communicating their intended messages due to a lack of audience engagement. Research shows that interaction between the audience member and their environment is an important aspect of the learning process (Beard & Wilson, 2006; Kolb, 1984). A series of signs and short videos were created for the campaign to promote awareness of [commodity] facts. The signs were used with the promotional booth that was set up at various events to target youth. Their purpose was to direct viewers to the online videos. The linked videos each had less than 15 views at the beginning of this evaluation. This provides evidence of a clear lack of engagement among the target audience. The low-quality experiences with creative materials stay with and, perhaps, reinforce an individual's opinions, especially if further experiences are of similar quality (Dewey, 1938). Similar initiatives, used to target audience segments, should tested by audience members to determine potential interest, engagement, and impact by other members from the audience group.

Findings from this study indicated that there was an 81.8% message accuracy of promotional pieces developed to support the campaign. However, the outlined messages were broad and general. The promotional pieces may have impacted more youth with a targeted, specific message reinforced by experiential learning experiences. Experiential learning activities leave participants with experiences that live through further experiences and continue to influence the attitudes of the participant (Dewey, 1938; Doolittle & Camp, 1999: Kolb, 1984; Roberts, 2006). These activities and messages should be specialized for a specific segment of the target population (Guth & Marsh, 2006; Marshall & Johnston, 2010; Rice & Atkin, 2013). Each member of a target audience has unique experiences that effect how they construct meaning, which further supports the need for segmented audiences with specific traits (Roberts, 2006). So although there were creative pieces used to target youth and experiential learning experiences for youth at [celebrity farm], these items were not used to reinforce and support each other. This should be corrected in the future to increase campaign impact and depth.

As a result of this campaign evaluation, the researchers believe it is important for groups targeting youth to identify precise messages reinforced by experiential learning activities for specific groups of youth that do not have prior agricultural knowledge. These groups should utilize constructivist concepts and perform a needs assessment to gain an understanding of what youth already know about the topic (commodity) they are promoting. Again, because prior experiences shape learning, the active role a participant plays in an experiential learning activity should be included during development. Further research should be completed to determine the effect experiential youth outreach from agricultural companies or commodity boards have on learning and knowledge retention.

The overall quality of all of the pieces that were assessed had a mean of 2.21 (*SD* = 0.61) where each piece was ranked on a 5-point Likert-type scale from 1 (poor quality) to 5 (excellent quality). A mean at this level places the quality of creative pieces in the campaign between fair and average. Because the creative materials were assessed based on industry standard measures for quality, a low score is indicative of low quality. Therefore, the researchers were not satisfied with the quality of the pieces in the campaign being fair to average. "When a document is well designed, readers understand the information more quickly and easily. Readers feel more positive about the topic and more accepting of its message" (Telg & Irani, 2012, p. 99). Efforts should be made to increase the overall quality of creative materials used to target youth in this campaign. Moreover, additional content analysis should be completed to determine the themes, message accuracy, and quality of creative pieces from other agricultural campaigns to determine strengths and weaknesses within the industry.

Content analysis research is supported by the NRA research priority area focused on public and policy maker understanding of agriculture and natural resources (Doerfert, 2011).

Because American citizens are becoming further removed from the farm, promotional communication campaigns are of upmost importance in increasing agricultural literacy (Reidel et al., 2007). The researchers also recommend that other researchers doing campaign evaluation studies include quality measures in the evaluation process. Further research should be conducted to provide general insight on the effect quality has on audience perceptions, especially with commodity groups' audiences. Determining how quality affects an audience will provide more insight and understanding into what makes a successful educational program that informs various publics about agriculture and increase agricultural literacy, thus furthering the mission of the NRA priority area. Also, communication firms working on agricultural-based campaigns must have an agricultural expert on staff. To communicate about agriculture one needs a background and experience in agriculture and communications.

Additionally, the key players that [public relations firm] asked to recruit 4-H and FFA students, mentioned that participants in the education program were not provided a meal and had to make arrangements for the all-day event. The interviewees felt there were more appropriate ways to target youth about commodity promotion. Alternative messages and activities should be updated to better target youth. Only approximately 45 students from a localized area participated in the learning event at [celebrity endorser's] farm. The key players felt the event should have allowed for the participation of more youth. They also thought that there might be another, more cost effective, instructional alternative to educate youth about the Arkansas commodity and careers in agriculture through direct funding to 4-H/FFA to provide instruction for more students. Additionally, creative pieces used to target youth did not include celebrity endorsement information. Therefore, is this really the correct location and celebrity connection for the youth target audience? Also, there may be a better more appropriate method to target youth. Additional efforts should be focused on targeting youth outside the 4-H and FFA programs.

The researchers recommend that other commodity groups targeting youth utilize in-depth interviews with key players. Feedback from those helping with the events gave the researchers an inside look at the campaign they were tasked to evaluate. It would also be beneficial to pre-test and post-test youth participants in the experiential learning events to determine the impact of the curriculum used. Without gathering immediate feedback from students, their knowledge retention, increase of agricultural literacy, and overall impression of the [commodity] after the experiential learning event are unknown. Finally, commodity groups should develop programming that targets the largest possible number of their youth audience members. Targeting a larger number of students would yield higher audience saturation and, therefore, impact. Additionally, specific curriculum should be developed for programs targeting youth.

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Talking through open barn doors: The effect of transparent communication on attitude

Abstract

As consumers have become further disconnected from the agricultural industry, their concerns about agriculture have increased. Effective communication with consumers about agriculture has been identified as a potential solution to minimizing this disconnect. Transparency has been offered as a strategy to increase the effective communication of the industry. Therefore, this study sought to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students. Elaboration Likelihood Model and transparency served as the theoretical framework for this study. To fulfill the purpose of the research, an experimental design was used. The experimental treatments were tested with 688 college students through an online survey format. The result of the study found that both transparent communication and perceived transparency had a significant impact on attitudes. While personal relevance was not found to be significant. Further research examining transparent communication in ELM was recommended. In addition, it was recommended that practitioners implement transparent communication when communicating about the industry with those in the Millennial generation.

Keywords: *Attitude, Transparency, Elaboration Likelihood Model, Experimental Design, Personal Relevance*

Introduction

As the industrialization of agriculture has advanced and consumers have become further removed from the farm, farmers and consumers have become disconnected with each other (Duncan & Broyles, 2006; Zimbelman, Wilson, Bennett, & Curtis, 1995). The agricultural industry has tried to address this disconnect by shifting the communication focus from communicating with those in the industry to those not involved in the industry (Telg & Irani, 2012). However, communicating effectively with the consumer base has proven to be difficult. The limited agricultural experience and knowledge of today's consumer coupled with their concerns regarding industrialized agricultural practices (Weatherell et al., 2003; Zimbelman, et al., 1995) has complicated the conversation between producers and consumers. There continues to be a need to communicate effectively with consumers about agriculture, and specifically livestock production (Graves, 2005). A suggested solution to improving the effectiveness of communication about livestock production is to increase the transparency of the industry (Garner, 2009; Roybal, 2012). However, not everyone within the industry has felt that increased exposure and transparency is a good idea (Potter, 2011).

The news media has discussed agricultural topics, but this coverage has tended to be biased and misinformed (Whitaker & Dyer, 2000; Zimbelman, Wilson, Bennett, & Curtis, 1995). With a large influence on consumer perceptions, the news media have often influenced and created misperceptions and concerns that consumers have about agriculture and livestock production (Meyers & Abrams, 2010). Social media have strengthened the influence of news media and the spread of information. Additionally, transparency has evolved as a byproduct of social media. Social media and digital technology have created a culture where it is virtually impossible to keep information and events secret (Qualman, 2009). A growing consumer group, the Millennial Generation, is known to demand transparency and have become high frequency users of social media (Red McGregor, 2012; Shore, 2011). Facebook receives the most Millennial use, with 93 percent of the generation using Facebook (Shreffler, 2012). Within this generation, college students are particularly known to have unsolidified attitudes (Sears, 1986; Taylor & Ketter, 2010)

Communicating effectively about livestock production is essential to the future of the industry. Current communication practices within the industry have not been proven to inform and resonate with consumers in a manner that provides long-lasting impacts (Goodwin, 2012; Graves, 2005; Zimbelman et al., 1995; Whitaker & Dyer, 2000). Additionally, the effect of transparency within the livestock industry has not been assessed. Further assessment of effective communication methods and transparency in the livestock industry has the potential to impact many. The industry, agricultural communicators, educators, extension agents, consumers, and politicians would find value in this type of assessment because it will ultimately lead to a better understanding of how to create an informed citizenry, ensuring the future sustainability of food and the industry needed to support human life (Doerfert, 2011).

The purpose of this study was to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students, who are an important segment of the Millennial Generation.

Theoretical Framework

Elaboration Likelihood Model

Social psychologists have studied communication messages and the effects messages have had on attitudes and behavior since the discipline began (Allport, 1935; Petty & Cacioppo, 1986; Ross, 1908). Petty and Cacioppo created ELM, a theory of attitude change modeled by cognitive processing and persuasion (McQuail, 2010; Petty & Cacioppo, 1986; Petty & Cacioppo, 1996).

ELM explains the process individuals go through when exposed to persuasive communication, but the model can also be applied to other attitude change contexts not initiated by persuasion (Petty & Cacioppo, 1986). The model explains this process through two cognitive routes, the central and peripheral route. An individual's motivation, ability to process, processing nature, and cognitive structure determine the resulting processing route (Petty, Brinol, & Priester, 2009). The central route includes a detailed thought process and careful consideration of the information presented. The peripheral route does not include careful thought and consideration; rather it includes the attraction to and influence of simple cues (Petty & Cacioppo, 1986).

Motivation and ability both impact if and how an individual will process a message. Additionally, both motivation and ability must be present for elaboration to occur (Petty & Cacioppo, 1996). Motivational factors in ELM guide individual's intentions when presented with a message to process (Petty & Cacioppo, 1986). Several variables, including personal relevance and need for cognition, can influence an individual's motivation to process. An individual's motivation to process will vary for each message they are presented with (Petty & Cacioppo, 1996).

Personal relevance has been described as the most influential motivational factor in determining if an individual will have the motivation to process a message (Petty & Cacioppo, 1986). Personal relevance refers to the importance and meaning a message has to an individual. As personal relevance increases, motivation to process increases. However, high personal relevance can be cofounded with other factors such as prior knowledge, making personal relevance a difficult factor to interpret (Petty & Cacioppo, 1986). Several experimental studies have manipulated personal relevance to test it within ELM (Petty & Cacioppo, 1979; Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo, & Schumann, 1983). In these studies researchers have assigned participants to either high or low personal relevance groups.

Examining studies that have included ELM in an agriculture or natural resources context is important for this research. In 2005, Verbeke conducted a literature review to look at how information about agriculture and food is communicated in the Information Age and the challenges associated with communicating about food. Food was identified as a low-involvement good (Beharrell & Denison, 1995). When discussing the need for information, ELM and the processing of information was also discussed. An examination of previous research found that because of consumer uncertainty regarding food, information and decisions about food have been commonly based on simple cues and processed through the peripheral route (Frewer, Howard, Hedderley, & Shepherd, 1997; Verbeke, 2005).

A study by Gore, Knuth, Scherer, and Curtis (2008) used ELM to test the effectiveness of wildlife education and outreach programs. The researchers used ELM to predict environmentally responsible attitudes. The participants in this study were presented with educational materials about reducing human-black bear conflict, which were pre-sorted into peripheral and central-based categories by the researchers. The results of the study showed that the majority of the participants in this study processed the materials peripherally. The researchers concluded that the peripheral attitudes produced by the educational materials would not provide long-term impact, and thus, would not positively improve behavioral intentions toward wildlife interactions (Gore et al., 2008).

A review of ELM studies conducted in the agriculture or natural resource context has shown that many of these studies found instances of peripheral processing (Frewer et al., 1997; Gore et al., 2000; Veberke, 2005). The prevalence of peripheral processing suggests that individuals may not have the motivation and ability to process information about agriculture and natural resources.

Transparency

The concept of transparency can be traced back to the1890s with the work of Henry Carter Adams, a public finance academic who discussed the role of publicity in the case of corporate abuses (Bigelow, Sharfman, & Wenley, 1922; Stoker & Rawlins, 2004). Despite the discussions of transparency over time, very little academic research has tested the effects of transparency, due to the challenges involved with defining and measuring the construct (Rawlins, 2008b). A review of the literature revealed several qualitative assessments of transparency (Barling, Sharpe, & Lang, 2009; Fairbanks, Plowman, & Rawlins 2007; Jahansoozi, 2006; Meijer, 2009). Two quantitative studies were found that tested the relationship between transparency and trust (Auger, 2011; Rawlins, 2008b).

Rawlins (2008a) offered a comprehensive definition of transparency, which was used for this research.

> Transparency is the deliberate attempt to make available all legally releasable information – whether positive or negative in nature – in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of publics and holding organizations accountable for their actions, policies, and practices (p. 75).

The body of literature surrounding transparency includes focus on communicative transparency and indicates that stakeholders must perceive information to be transparent (Gower, 2006). Communicative transparency includes the variables of substantial information, participation, and accountability (Rawlins, 2008a).

Substantial information has been discussed as the amount and type of information needed by individuals. The relevance, clarity, completeness, accuracy, reliability, timeliness, and comparability of information impact whether or not the information is substantial (Rawlins, 2008b). Without adequate knowledge of the information wanted and needed by the stakeholders, organizations cannot guarantee they are achieving transparency through substantial information (Rawlins, 2008b).

Participation includes the interaction and feedback between organizations and stakeholders (Auger, 2011). This trait of communicative transparency includes involvement, feedback, detailed information, the ease of finding information, and the initiative by the organization to understand and ask for stakeholder opinions (Rawlins, 2008b). Additionally, organizations must invite stakeholders to participate, and organizations must provide responses when stakeholders participate. The participation variable of communicative transparency highlights the "active participation in acquiring, distributing and creating knowledge" (p. 419), a requirement of transparency identified by Cotterrell (1999).

Accountability in communicative transparency includes “information that covers more than one side of controversial issues, might be damaging to the organization, admitting mistakes, and that can be compared to industry standards” (Rawlins, 2008b, p. 431). Additionally, accountability includes an organization being open to criticism and being forthcoming (Rawlins, 2008a). Those organizations that are transparent have been identified as being accountable for their words, actions, and decisions (Rawlins, 2008b).

Several studies of agricultural transparency have addressed transparency through discussion of tracing, tracking, and labeling of food products (Barling et al., 2009; Beulens, Broens, Folstar, & Hofstede 2005; Opara & Mazaud, 2001; van Dorp, 2003; Wognum, Bremmers, Trienekens, van der Vorst, & Bloemhof, 2011). Opara and Mazaud (2001) suggested “consumers and other stakeholders in agroindustry now demand transparency in the way food is grown and handled throughout the supply chain, resulting in the emergence of 'traceability' as an important policy issue in food quality and safety" (p. 239). Barriers to transparency in the agricultural industry have been identified as gaining buy-in from the whole industry and cost (Barling et al., 2009). Additionally, Buelens et al. (2005) identified that organizational and psychological threats could inhibit the implementation of transparency in the agricultural industry. Some of these threats included unauthorized use of information, the cost to implement transparency, and the unknown profit driven benefits (Buelens et al., 2005). In addition to the barriers, there are also benefits to transparency. The information and knowledge that transparency provides individuals offers the benefit of enabling them to increase their reasoning ability and make informed decisions (Fagotto & Graham, 2007; Rawlins, 2008a). Additionally, transparency has been discussed as promoting accountability, commitment, collaboration, and cooperation among organizations (Jahansoozi, 2006). In a study by Hoogland, do Boer, and Boersema (2005), increased transparency encouraged more sustainable food choices.

The review of literature revealed the majority of studies surrounding the topic of agriculture and transparency were conducted in European countries. Additionally, many of the studies approached transparency from a qualitative perspective. Commonly, the researchers in these studies identified the lack of definition and research surrounding transparency. Many of the transparency and agricultural studies discussed transparency as the tracing, tracking, and labeling of food products.

Purpose and Hypotheses

The purpose of this study was to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students. The findings of this research will help guide the future of effective communication within the agricultural industry, ultimately leading to a citizenry informed on agricultural topics and issues (Doerfert, 2011).

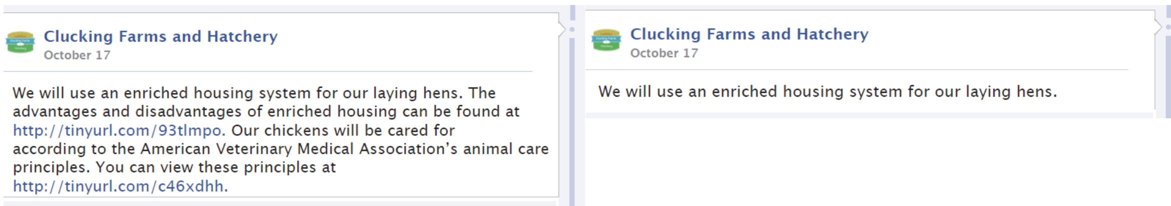
> H1: Subjects exposed to high transparent communication and high personal relevance will have more positive attitudes than those exposed to low transparent communication and low personal relevance.
>
> H2: When controlling for transparent communication and personal relevance, perceived transparency will have a positive effect on attitudes.

Methods

This study included a 2 (personal relevance: high and low) x 2 (transparent communication: high and low) between-subjects factorial experimental design. In a between-subjects design each subject is exposed to only one treatment condition (Keppel & Wickens, 2004). For this study, subjects were randomly assigned to receive both a high or low transparent communication and high or low personal relevance treatment through an online survey.

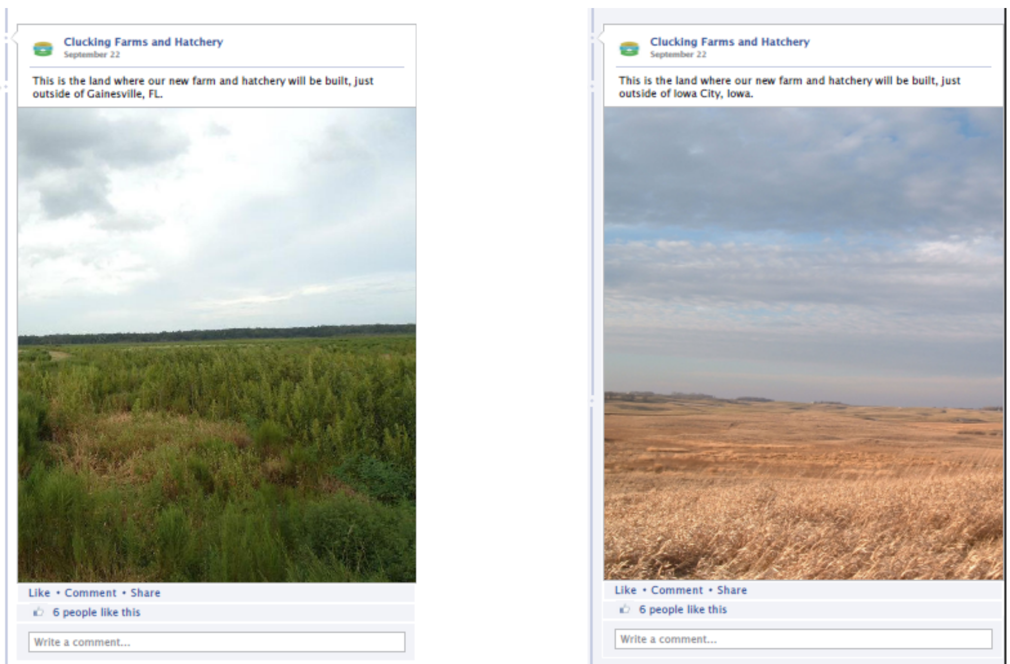
The transparent communication manipulations were presented in a Facebook page for a fictitious poultry farm called Clucking Farms and Hatchery. These manipulations were based on the elements of communicative transparency identified by Rawlins (2008a). An example of the manipulations can be seen in Figure 1. A poultry farm was chosen for the focus of the Facebook page because the transparency debate in the agriculture industry has commonly been focused on animal agriculture segments of the industry. The personal relevance manipulations were presented in a description of the farm and on the farm's Facebook page (Figure 2). Personal relevance was manipulated by changing the location where the farm was going to be built, just outside of [city], [state] versus Iowa City, Iowa. The personal relevance manipulations used in this study were modeled off of personal relevance manipulations used in previous research (Petty & Cacioppo, 1979; Petty et al., 1981; Petty et al., 1983). The treatment manipulations were pre-tested with college students on three occasions. In addition, the manipulations were verified through cognitive interviews with college students. Changes were made to the instrument as a result of the pretest and cognitive interviews.

Figure 1. Transparent communication manilupation example



High transparent communication Low transparent communication

Figure 2. Personal relevance manipulation example



High personal relevance Low personal relevance

Although this research was part of the larger study, two sections of the survey instrument were relevant to these research findings: attitudes toward the communication on the Facebook page and perceived transparency of the communication. To measure attitude an 18-item semantic differential scale was used. The scale was adapted from the bipolar adjectives suggested by Osgood, Suci & Tannenbaum (1978). Additionally, the scale was also adapted from the scales used by Meyers (2008) and Rhoades (2006). The attitude index response items were categorized to the real limits standard of: 1.00 to 2.33

= *Least Favorable*, 2.34 to 3.66 = *Neutral* and 3.67 to 5.00 = *Most Favorable*. The alpha reliability of this attitude measurement was .90. The perceived transparency variable was created from a four-item scale, which had an alpha reliability of .86. These items were based on the overall transparency segment from Rawlins's (2008b) transparency instrument. The responses for perceived transparency scale ranged from 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, to 5 = *Strongly Agree*. The perceived transparency index response items were categorized to the real limits standard of: 1.00 to 1.49 = *Strongly Disagree*, 1.50 to 2.49 = *Disagree*, 2.50 to 3.49 = *Neither agree nor Disagree*, 3.50 to 4.49 = *Agree*, and 4.50 to 5.00 = *Strongly Agree*.

A panel of experts reviewed the instrument for face and content validity. The panel of experts included four professors with specializations in agricultural communication, evaluation, and mass communication as well as an assistant professor specializing in extension education. In addition, the instrument was pilot tested with 31 college students and the alpha reliabilities found in the pilot test were found to be adequate.

A convenience sample was used to sample students from this population. Both qualitative and quantitative researchers commonly use convenience to address practical constraints, efficiency, and accessibility, (McMillan & Schumacher, 2010). Additionally, convenience samples have been commonly used in psychology and consumer research studies with college student subjects (Peterson, 2001). Although data from studies using convenience samples are not generalizable to the larger population, the findings are still useful and can provide valuable insight to better understanding relationships (McMillan & Schumacher, 2010).

The sample included 989 subjects from eight university courses. Administration of the survey followed the procedures for web survey distribution outlined by Dillman, Smyth, and Christian (2009) and the subjects were sent an email with the link to the survey. A total of 793 subjects responded to the survey. However, only 688 of these responses were usable. Responses were removed from the sample because the subjects indicated that they could not see the Facebook page (n = 78), subjects took the survey twice (n = 11), subjects were not part of the millennial generation (n = 10), and subject data was missing for the majority of variables (n = 6). The resulting response rate based on the accessible population was 69.6% (n = 688); However, the overall response rate was 80.2% (n = 793). The response rate was deemed adequate for the experimental design, resulting in no need to control for non-response error (Ary et al., 2006).

SPSS ® 20.0 was used to analyze the data from this study. A factorial analysis of variance was used to analyze hypothesis one. The second hypothesis was analyzed using multiple linear regression. The assumptions of both analyses were checked and no violations were found. The demographic analysis of the subjects can be found in Table 1.

Table 1
Demographics of respondents

Characteristic	*n*	%
Gender		
Female	465	67.6
Male	221	32.1
Self-reported area of residence while growing up		
Subdivision in a town or city	306	44.5
Urban or suburban area outside of city limits	220	32.0
Rural area (not a farm)	100	14.5
Downtown area in a city or town	39	5.7
Farm	22	3.2
Employment in the livestock industry		
No	563	81.8
Yes, in the past	61	8.9
Yes, currently	50	7.3
I or someone in my immediate family plans to in the next 4 years	11	1.6
Class rank		
Junior	263	38.2
Sophomore	163	23.7
Freshman	51	7.4
Graduate student	4	0.6

Results

H1: Subjects exposed to high transparent communication and high personal relevance will have more positive attitudes than those exposed to low transparent communication and low personal relevance.

A two-way between groups analysis of variance was conducted to determine the effect of the different transparent communication and personal relevance treatments on attitude. The independent variables were transparent communication (high, low) and personal relevance (high, low). The dependent variable was attitude toward the message stimuli.

This hypothesis was partially supported. The interaction of personal relevance and transparent communication was not significant, F (1,686) = .001, $p < .980$. However, the two-way between groups analysis of variance did reveal a main effect for transparent communication, F (1,686) = 6.090, $p = .014$ (Table 2). Those receiving high transparent communication had a slightly more favorable attitude (*M* = 3.92, *SD* = .52), than those receiving low transparent communication (*M* = 3.82, *SD* = .53). The means can be found in Table 3. A main effect for personal relevance was not found, *F* (1,686) = .417, *p* = .519.

Table 2
Effect of transparent communication and personal relevance on attitude

Source	*SS*	*df*	*MS*	*F*	*p*
Personal relevance	.116	1	.116	.417	.519
Transparent communication	1.694	1	1.694	6.090	.014
Personal relevance*Transparent communication	.000	1	.000	.001	.980
Error	189.760	682	.278		
Total	3301.003	686			

Table 3
Attitude means by treatment group

	High personal relevance	Low personal relevance	
	M (SD)	*M (SD)*	*Total*
High transparency	3.93 (.52)	3.91 (.53)	3.92 (.52)
Low transparency	3.83 (.55)	3.81 (.51)	3.82 (.53)
Total	3.88 (.54)	3.86 (.52)	

H2: When controlling for transparent communication and personal relevance, perceived transparency will have a positive effect on attitudes.

Multiple linear regression was used to test this hypothesis. Transparent communication, personal relevance, and perceived transparency served as predictors of attitude in this model. The perceived transparency index had a grand mean of 3.80 (*SD* = .68). The model was found to be significant, *F*(3,684) = 99.035, *p* = .000. Additionally, the predictors explained 30.4% of the variance in attitude. Perceived transparency was the only predictor that was significant, *t* = 16.965, *p* = .000. This result indicated that a one point increase in perceived transparency would result in a .426 increase in attitude. The results of this hypothesis can be seen in Table 3.

Table 3

Multiple linear regression analysis for variables predicting attitude

Variable	*B*	*t*	*p*
Constant	2.235	22.965	.000
Transparent communication	.010	.281	.779
Personal relevance	.027	.796	.426
Perceived transparency	.426	16.965	.000
R2	.304		
F	99.035		

Conclusions and Discussion

The first hypothesis, formed based on the theoretical framework of ELM and transparency, predicted that those receiving the high transparent communication and high personal relevance treatment would have a more positive attitude than those who received low transparent and low personal relevance treatments. This hypothesis was partially supported. The interaction of personal relevance and transparent communication was not significant. However, the main effect for transparent communication was significant. This suggested that those who received high transparent communication would have higher mean attitude scores than those who received low transparent communication. Although the main effect of personal relevance was not significant, an inspection of the means table indicated that those who received high personal relevance treatments had slightly more favorable attitudes than those who received low personal relevance treatments.

The second hypothesis predicted that when controlling for transparent communication and personal relevance, perceived transparency would have a positive effect on attitudes. This hypothesis was supported. Perceived transparency was found to be a significant predictor of attitude. This finding indicated that those with a higher perceived transparency score would have a higher attitude score than those with a lower perceived transparency score.

Perceived transparency and manipulated transparent communication were found to have a significant impact on attitude. The relationship between transparency and attitude had not been previously explored. The findings from this study suggest that attitude increases positively for each increase in perceived transparency. In addition, those receiving the high transparent communication manipulation had slightly more favorable attitudes than those who received the low transparent communication manipulations. This finding is important to understand because previous research has shown that attitudes are predictive of behavior (Petty & Cacioppo, 1996; Petty et al., 2009). Thus, the findings suggest that positive influences of transparency on attitude may also result in positive behavioral outcomes.

Using ELM, the design of the research suggested that the manipulation of personal relevance would impact the subject's motivation to process the communication. However, no significant differences were found between those who received high and low personal relevance treatments and personal relevance did not have a significant impact on attitude. Transparent communication may have been more salient than personal relevance to the subjects participating in this study. The lack of significance may be explained by previous identification of low involvement associations with food (or in this case food related information) (Beharrell & Denison, 1995). In addition, this lack of significance may be due to personal relevance cofounding with prior knowledge, a problem observed previously with personal relevance (Petty & Cacioppo, 1986). Since personal relevance was not significant in this study, it cannot be concluded that the subjects had the motivation to process the communication. Thus, it is likely that the attitudes formed were based on the peripheral processing route. In this case, perceived transparency likely served as a peripheral cue that led to further peripheral processing. Previous research has also found a prevalence of peripheral processing in studies of ELM and agriculture (Frewer et al., 1997; Gore et al., 2008; Veberke, 2005).

However, the effects of transparent communication and personal relevance on attitude may have been different if subjects had been exposed to the message stimuli multiple times. In addition, the static nature of the Facebook page may have influenced subjects attitudes differently than if the Facebook page was live and subjects were able to interact with it. The static nature of the Facebook page was necessary to control the message stimuli for all subjects.

A need existed to understand how transparency could impact the livestock industry, in order to bring together those who support (Garner, 2009; Roybal, 2012) transparency in the industry and those who oppose it (Potter, 2011). The results of this study indicate the use of transparent communication, specifically when communicating with those in the Millennial Generation, would be beneficial to the industry. Transparent communication is likely to result in more favorable attitudes among the Millennial Generation. Additionally, the findings suggest that transparent communication in the agricultural industry should go beyond the tracking and tracing (Barling et al., 2009; Beulens et al., 2005; Opara & Mazaud, 2001; van Dorp, 2003; Wognum et al., 2011) of food products and should encompass transparent communication practices throughout the entirety of the production process.

Recommendations

As this study found that transparency has a significant effect on attitude, further research should be done to connect transparency to ELM. It was concluded that the attitudes observed in this study resulted from peripheral processing. However, it cannot be concluded that the same results would be present if central processing were to occur. A follow-up study should be done to determine if central processing of transparent communication would lead to the same effects on attitudes. Additionally, further research examining transparency in ELM should measure elaboration to provide further insight to the processing route, as well as the strength and endurance of the resulting attitudes and trust.

Since personal relevance was not found to be significant, further research should be done to determine if high personal relevance on the topics of food or livestock production can be achieved with the Millennial Generation. Future research should include different methods of operationalizing personal relevance, perhaps through the direct administration of transparent communication. Additionally, future studies should utilize a general population audience to determine if the results found among college students are similar among the general population.

In this study manipulated transparent communication and perceived transparency both had a significant effect on the attitudes of the subjects participating in the study. These results suggest that agricultural practitioners should utilize transparency in their communication practices, especially when communicating with those who are part of the Millennial Generation. Literature indicates that Millennials find confidence in companies that communication transparently (Red McGregor, 2012) and this study suggests that

Millennials will have more favorable attitudes toward those who communicate in a transparent manner.

However, practitioners should be cautioned that communicating in a transparent manner does not ensure improved attitudes. The target audience of the communication must first access and attend to the communication (Fagotto & Graham, 2007) In addition, the target audience must perceive the communication to be transparent (Gower, 2006). In this study, the subjects were incentivized with extra credit to participate in the study and read the message stimuli. Outside the experimental setting, the transparent communication must be presented in a manner that the target audience would attend to. Strategies, such as the use of consumer or audience testimonials, may be affective in attracting a broader target audience to attend the communication. If targeting Millennials, it may be appropriate to use a social media interface such as Facebook because this is a media channel that the Millennial Generation is motivated to use (Shreffler, 2012). Practitioners should assess the needs of their target audience and the media that they commonly use. This assessment will allow practitioners to determine the best channel to communicate through in order to reach their target audience before implementing transparent practices.

Practitioners should plan for the additional challenges associated with the implementation of transparent communication. The literature suggests that the exposure of weaknesses, unauthorized use of information, loss of independence, a proactive management style, and additional costs are all challenges associated with transparency (Barling et al., 2009; Buelens et al., 2005; Rawlins, 2008a; Rawlins, 2008b). Practitioners should be prepared to deal with each of these challenges and address them as they arise.

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Selected Newspaper Coverage of the 2008 California Proposition 2: A Content Analysis

Abstract

A content analysis was used to examine selected newspaper coverage of Proposition 2 in newspapers in the agricultural districts of California. The scope of the study included news articles, columns, editorials, feature stories, and reader-generated responses published between January 1, 2008, and December 31, 2008, regarding Proposition 2 in the largest circulating newspapers available from each agricultural district in California. Coders came to a consensus on 8 frames present throughout the selected newspaper content, including animal welfare, animal rights, endorsements, results, voting guide, economic impact, food safety, and political. Animal welfare was a dominant frame among reader-generated responses, perhaps because of the passionate nature of the topic. The economic impact frame was used noticeably less, although it was the most often used in the news category. The most frequently cited source was a nonprofit organization, and within that category the most often cited source was HSUS, who proposed the legislation. The selected newspapers from the two districts with the most agricultural production were more positive toward agriculture than the other districts. The tone for all selected newspaper content generated by the newspaper, including the news, column, editorial, and feature content types, was mostly neutral. Previous studies found that the vast majority of reporting was accurate and fair, a conclusion echoed in this study. Reader-generated responses were the most negative, showing that the public, or at least those passionate enough to submit their opinions to a newspaper, had negative views of agriculture.

Keywords: animal welfare, proposition 2, California, agenda setting, framing

Selected Newspaper Coverage of the 2008 California Proposition 2: A Content Analysis

Introduction

In 2008, the California Proposition 2 initiative presented the California Prevention of Farm Animal Cruelty Act. This act included the prohibition of confining an animal on a farm in a way that prevents the animal from “(a) lying down, standing up, and fully extending his or her limbs; and (b) turning around freely.” Supporters of Proposition 2 cited that normal housing practices did not supply animals enough freedom for movement (The Humane Society of the United States, n.d.). The opposition argued current housing methods prevented disease in animals and consumers and new laws would harm California’s agriculture industry (What Proposition 2 really means for agriculture, 2008).

Prior animal welfare legislation focused mainly on the pork and veal industries, but Proposition 2 included egg-laying hens (Springsteen, 2009). Egg-laying hens are defined as any domesticated poultry used for egg production (California Prevention of Farm Animal Cruelty Act, 2008). Predictions indicated Proposition 2 could end California’s egg industry, which had a value of $337 million in 2007, by 2015 (Sumner, Rosen-Molina, Matthews, Mench, & Ritcher, 2008).

Opponents of Proposition 2 cited the cost of changing facilities and increased production cost as reasons the law would hurt the egg industry (Lee, 2008). Jorsett (2009) noted $8.9 million was raised to support the “No on Proposition 2” campaign. The Humane Society of the United States (HSUS) introduced the bill and donated $4.1 million of the $10.6 million raised for the “Yes on Proposition 2” campaign (Jorsett, 2009).

The media helps give voters a greater understanding of important issues and candidates (Weaver, 1996, p. 45). Language and media serve as tools to gain consumer support for both agriculturalist and animal rights activists (Croney & Reynnells, 2008). Often, agriculturalists find media coverage of agriculture is negative (Ruth, Telg, Irani, & Locke, 2004). The frames used by reports for agricultural articles need to be researched further (Reisner & Walter, 1994). The way agricultural issues are framed could lead to problems outside of the focus of an article (Ruth, Eubanks, & Telg, 2005).

Review of Literature

Animal welfare and its regulation are complex issues dealing with the public's ethics (Bayvel & Cross, 2010). Laws regulating some form of animal cruelty were enacted in all 50 states by 2009, including laws supported by animal rights organizations and passed through ballot initiatives in Florida, Arizona, and California (Springsteen, 2009). In addition, about 30 states have clauses allowing normal farm practices to occur (Springsteen, 2009). The federal government and 11 states tried but did not succeed at passing laws to amend these exemptions (Springsteen, 2009). Animal rights organizations also attempted to override the exemptions on a state-by-state basis instead of on the national level (McGlone & Salak-Johnson, 2008).

Animal welfare legislation has focused on the pork industry, as six state laws regulate housing for pregnant sows (McGlore & Salak-Johnson, 2008). The Colorado Pork Producers Council voluntarily chose to stop the use of sow gestation crates in 2007 (Kilian, 2008) before Colorado passed a law banning crates in 2008 (Springsteen, 2009). The world's largest pork producer, Smithfield Foods Inc., also chose to phase out gestation crates voluntarily in 2007 (Kilian, 2008).

An industry trend away from gestation crates is evident (McGlone & Salak-Johnson, 2008). McGlone and Salak-Johnson (2008) explained modifications from individual to group housing add costs to production. Other costs include the need for farmworkers to learn new skills associated with animal husbandry in group housing situations (McGlone & Salak-Johnson, 2008). However, until industry standards have adopted group housing, early adopters may benefit from premiums and market access over pork produced using gestation crates (McGlone & Salak-Johnson, 2008).

Despite the focus of other states on pork production practices, California's egg industry faced the greatest effects from Proposition 2, even though the pork and veal industries also were targeted (Proposition 2 – Improving animal welfare?, 2008). Production costs for egg production were projected to increase from 41% to 70% following the passage of Proposition 2 (Sumner, Matthews, Mench, & Rosen-Molina, 2010). Production cost estimates take feed use, lifespan, mortality rates, eggs per hen, hens per facility, and labor costs of new production practices into consideration (Sumner et al., 2010). Sumner et al. (2010) also projected a $300,000 to $1.2 million capital investment per hen house would be needed to accommodate new practices. Market competition also may increase as other states produce less expensive eggs with old production practices (Sumner et al., 2010).

Tonsor and Wolf (2010) noted voters often evaluate animal welfare laws without regard to price or tax implications. Public policy decisions tend to be made by voters in population-dense areas, where knowledge of the economic impact of agriculture in less populated areas is lacking (Kaufman, Israel, & Irani, 2008). This means that messages may need to be focused on agriculture's character, rather than the economic impact of legislation (Kaufman et al., 2008).

A study indicated animal rights activists may have hidden intentions by posting many videos on the Internet depicting the animal welfare debate (Goodwin & Rhoades, 2011). The political movement for animals to be granted the same rights as humans is defined as animal rights (Boyd & Hale, 1989). Boyd and Hale (1989) also define animal welfare as the proper care of animals with consideration of comfort during production. Bayvel and Cross (2010) stated:

> An animal is in a good state of welfare if (as indicated by scientific evidence) it is healthy, comfortable, well nourished, safe, able to express innate behavior, and if it is not suffering from unpleasant states such as pain, fear, and distress. (p. 3)

The past 30 years saw an increase in interest for animal welfare legislation (Bayvel & Cross, 2010). Bayvel and Cross (2010) recommended focusing on a scientific and ethical approach to changing animal husbandry in small steps to include all stakeholders in the change. Getz and Baker (1990) stated stakeholders, ranchers and animal rights activists, hold polarized opinions of animal welfare. American animal rights activists have been generalized as being well-educated and middle-class citizens (Jamison & Lunch 1992). They often have strong opinions and require more than scientific facts to reason with in debates (Jamison & Lunch, 1992). Agricultural communicators also fail to include animal rights activists as part of the agriculture industry despite activists being a key factor in animal welfare legislation (Getz & Baker, 1990).

Frick, Kahler, and Miller (1991) define agricultural literacy as "possessing knowledge of our food and fiber system" (p. 52). Leising, Igo, Heald, Hubert, and Yamamoto (1998) stated agriculture is often defined by food, clothing, and shelter. People tend to lack a more holistic view including the by-products of food and fiber or the economic impact of agriculture (Leising et al., 1998). An understanding of agriculture is needed to make proper decisions impacting the agricultural industry (Holloway, 2004; Raven, 1994).

Agricultural literacy can be improved through participation in the industry (Boogaard, Bock, Oosting, Wiskerke, & Van Der Zijpp, 2010). The study found the most satisfaction with dairy farming practices came from those living in rural areas, with those simply visiting a farm having more satisfaction with such practices than participants who never left an urban area (Boogaard et al., 2010). Frick, Birkenholz, Gardner, and Machtmes (1995) stated urban students had less opportunity to participate in agriculture or associate with farmers. A study concluded rural students have higher agricultural knowledge scores than urban students (Frick et al., 1995). Pense, Beebe, Leising, Wakefield, and Steffen (2006) found similar results after conducting a knowledge assessment about food and fiber systems.

Frick et al. (1995) noted positive perceptions of agriculture in both groups from their study. These findings were also supported by other studies showing the public may not be fully aware of agriculture but does not hold a completely negative view of the industry (Pense et al., 2006; Boogaard et al., 2010). Wagler et al. (2008) stated a positive opinion of agriculture could be constructed by including agriculture in elementary and secondary education. Education focused on children also reaches parents and teachers, as they are associated with the learning process (Holloway, 2004). Professionals need to communicate and educate more on agriculture for increased public understanding of agricultural practices (Wilcock, Pun, Khanona, & Aung, 2004).

Agriculturalist and animal rights activists use language and the media to persuade and inform the public (Croney & Reynnells, 2008). Coverage of agricultural issues by the media is key to the public's opinion of agriculture (Lundy, Ruth, Telg, & Irani, 2006). Research indicates media coverage accurately portrays agriculture (Irlbeck, Akers, & Palmer, 2011), while agricultural scientists feel media coverage of agriculture is often negative (Ruth et al., 2004).

Lundy et al. (2006) explained the public relies on the media, officials, and scientists to communicate agricultural knowledge. Each source has a different vantage point to communicate and add to the knowledge base (Lundy et al., 2006). Gatekeepers, such as editors and reporters, determine how agricultural news and information is disseminated to the public (Cartmell, 2001).

Ruth-McSwain and Telg (2008) noted a lack of open discussion and communication between agricultural communicators and reporters. This may be the cause behind few agricultural stories in the general media (Ruth-McSwain & Telg, 2008). Agricultural communicators were found to exclude animal rights activists and their viewpoints from discussion (Reisner, 1992). References to animal rights activists are often incomplete (Reisner, 1992) or give an irrational and uneducated portrayal of the activists (Weber-Nielsen & Bergfeld, 2003).

Croney (2010) stated animal agriculture is unsure what message to express to the public to ensure a positive, not misleading message. A positive message should give transparency to the animal agriculture industry (Croney, 2010). One study suggests using the stereotypical farming image as a frame for writing stories (Goodwin, Chiarelli, & Irani, 2011). Agriculturalists, especially in animal agriculture, are encouraged to openly discuss animal husbandry practices with the public (Croney & Reynnells, 2008). Weber-Nielsen and Bergfeld (2003) stated a positive message might develop from the open communication agriculturalists build with the public.

Animal agriculture can influence the public most as these individuals are directly involved with the daily lives of animals and have more direct knowledge (Cuomo, 2003). The term "best management practices" (p. 31) gave readers a negative opinion of agriculture due to the association with corporations (Goodwin et al., 2011). The use of farm or local terms and words with meaning are more appropriate and positive (Goodwin et al., 2011). Goodwin and

Rhoades (2011) noted agricultural communicators needed to create more powerful and meaningful messages as emotions are reached by anti-agriculture organizations and campaigns.

Theoretical Framework

Framing is considered to be part of agenda setting and both are often seen together in research (McCombs, Shaw, & Weaver, 1997). Agenda setting theory involves the media agenda and how it relates to audience perceptions (McCombs & Shaw, 1972). McCombs and Shaw (1972) explained agenda setting is about getting the audience to think about something instead of how to make them think. How the media expresses information determines what the public finds to be important (McCombs & Shaw, 1972). Mass media is thought to provide people with information when these people do not have involvement in the topic industry (McCombs & Shaw, 1972).

Public opinion begins to be formed when information is transferred from the mass media to the public (McCombs, 2005). The media affects how the public develops a secondhand reality used to make decisions on how to vote (Weaver, 1996). The public is affected by the positions candidates take when the media communicates about candidates for election (Weaver, 1996). Weaver (1996) noted the media was integral in educating voters on candidates and issues but do not influence opinions or voting behavior.

Framing accounts for how the public understands an issue as a result of how it is presented in the media (Scheufele & Tewksbury, 2007). Framing is a tool to explain complex issues without actively working to deceive the public (Scheufele & Tewksbury, 2007). When framing is used, reporters utilize connections to prior knowledge to promote a certain interpretation of the issue (Entman, 2007). These explanations often involve the media using their own frames, which may be biased, to illustrate a concept (Callaghan & Schnell, 2009).

Cannon and Irani (2011) found fear was used as a frame for media coverage of foot-and-mouth disease in Great Britain. The public views of agriculture could be affected by the framing of bovine spongiform encephalopathy (Ruth et al., 2005). Ruth et al. (2005) further stated the few agricultural issues reported often have a crisis frame and give a negative view of the industry. Meyers and Abrams (2010) conducted a framing analysis of organic food coverage and reported a lack of scientific facts and emphasis on ethics when choosing organic food. The frames used in politics often affect how powerful a political idea appears (Entman, 1997).

Purpose and Objectives

The purpose of this study was to evaluate selected newspapers' coverage of Proposition 2 from January 1, 2008, through December 31, 2008, which included coverage both prior to and following the public vote. The specific objectives of this study were to:

1. Identify frames used in selected newspaper content that contained information about the 2008 California Proposition 2.
2. Identify sources and affiliations represented in the selected newspaper content.
3. Determine whether the tone of the selected newspaper content was positive, negative or neutral toward agriculture.

Methods

The design of the study was a content analysis of selected newspaper content related to the Standards for Confining Farm Animals initiative, California's Proposition 2, in 2008. The descriptive analysis focused on the framing, tone, and sources cited in the articles.

Population and Selection

The population of this study included articles, columns, editorials, feature stories, and reader-generated responses in the largest circulating newspapers in each agricultural district in

California. The National Agricultural Statistics Service indicated the following agricultural districts in California: Southern California, Sierra Nevada, San Joaquin Valley, Sacramento Valley, Central Coast, Northeast Mountain, North Mountain, and North Coast. The use of agricultural regions provided a difference in population sizes, agricultural practices, assumed familiarity with agriculture, and geographical distance.

The San Joaquin Valley district led the state in crop and livestock production (USDA, 2011). The Audit Bureau of Circulations reported the most circulating newspapers and highest circulation numbers in the Southern California district. Large non-arable areas exist in the Northeast Mountain and Sierra Nevada districts (University of California Agricultural Issues Center, 2009).

The circulation numbers varied between the districts due to varied population density. The *Eureka Times-Standard* had the lowest circulation average with 19,118 daily while the *Los Angeles Times* had the highest circulation average with 605,243 daily. The Audit Bureau of Circulations reported no circulating newspapers in the Sierra Nevada or Northeast Mountain districts.

Data Collection and Analysis

Newspaper content was collected for the full calendar year to include content before and after the vote on Proposition 2. Newspaper content was gathered from the Proquest database using “proposition 2”, “prop 2”, or “standards for confining farm animals” as key words. The initial search gathered 134 articles. The *Reading Record-Searchlight* was omitted from the study, as its only article was found irrelevant to the study.

The principle investigator and two additional researchers with backgrounds in agricultural communications and animal science served as the coders. The initial meeting defined the background of Proposition 2 and five newspaper content types. The coders categorized the articles as news articles, feature articles, columns, editorials, or reader-generated responses in the first round of coding. Framing techniques, tone, and newspaper content types were then explained to the coders. It was explained that a positive or negative tone toward agriculture did not represent a positive or negative image of Proposition 2.

The study included 100 articles, each identified by its own number. The initial coding focused on content type, dominant frame, tone, and sources cited. Tone was evaluated on a scale from 1 to 5, with 1 being defined as very negative, 3 as neutral, and 5 as very positive. Sources cited needed to include all information about the source and the quote or attribution.

Prior to the second round of coding, coders agreed on eight frames developed from the initial content review. The second round of coding focused on applying these frames to the articles. The final meeting was to agree on all categories for each article. Articles were allowed to have a secondary frame. The list of frames showed a 56% overlap in the first round, 69% overlap in the second round, and 93% of articles were assigned the same frame in the final round by at least two coders.

Findings

The following newspapers were included in the study: the *Los Angeles Times, Fresno Bee, San Jose Mercury News, Sacramento Bee*, *Redding Record-Searchlight*, and the *Eureka Times-Standard* from the agricultural districts of Southern California, San Joaquin Valley, Central Coast, Sacramento Valley, North Mountain, and North Coast respectively. The only article found for the *Redding Record-Searchlight* was found to be irrelevant to the study and the newspaper was then omitted.

The initial search for content on Proposition 2 resulted in 134 (*N* = 134) articles from the six districts. Articles briefly mentioning Proposition 2 were omitted from the study. Articles were divided into separate responses when multiple reader-generated responses were present in an article. The study analyzed a final set of 100 articles (*n* = 100). The content types of the articles included 50 reader-generated responses, 24 news articles, 17 editorials, 7 feature articles, and 2 columns.

Objective one determined the frames used in the selected articles about the 2008 California Proposition 2. The coders agreed on eight frames for the selected articles. Those frames were animal welfare, animal rights, endorsements, results, voting guide, economic impact, food safety, and politics. The animal welfare frame was assigned to 46 of 100 articles, the most for any frame. Animal rights was framed the least with 2 of 100 articles.

Animal welfare was the frame used for 35 of 50 reader-generated response articles. The news category included 24 articles with 8 framed by economic impact, 5 framed by results, 4 framed by animal welfare, and 4 framed by voting guide. The 17 editorial articles included 8 framed by endorsements.

Objective two identified the sources and affiliations used by the selected newspaper articles. Sources were cited in 22 of the articles with nonprofit sources (*f* = 24) being the most frequent. Other sources included the government (*f* = 13), individuals (*f* = 10), corporate (*f* = 6), and universities (*f* = 5). HSUS was the nonprofit cited in 14 of 24 citations. This was the most frequently cited source. HSUS was cited in 63.64% (*f* = 14) of the 22 articles in the study. Frequently cited sources after HSUS included University of California-Davis, Farm Bureau, and Ryan Armstrong, an egg farmer.

Objective three determined if the tone of the selected newspaper articles was positive, negative, or neutral toward agriculture. Tone was evaluated on a scale of 1 to 5, with 1 being defined as very negative, 3 neutral, and 5 as very positive. The final consensus of tone on all the articles was neutral.

Neutral content with a mode and median of 3 included endorsements, results, voting guide, economic impact, and political frames. Animal rights, animal welfare, and food safety were more negative. Content types grouped as either unbiased content or as opinion content each had medians and modes of 3. Reader-generated responses were more negative with a median and mode of 2.

Conclusions and Recommendations

Bayvel and Cross (2010) noted animal welfare deals with important areas including ethics, science, economics, cultures and politics. This may be why readers are passionate about animal welfare and was the dominant frame in reader-generated responses and opinion pieces. Economic impact was the dominant frame used by opponents of Proposition 2 but had fewer articles than animal welfare. The frame did not seem to connect with readers despite media coverage. This may be a result of voters lacking comprehension of economic impacts from animal welfare legislation (Tonsor & Wolf, 2010). Lundy et al. (2006) stated newspaper reporters, editors, and writers have a responsibility to communicate information from various sources. Newspaper-generated content may have shown a variety of frames other than animal welfare for this reason.

Proposition 2 articles most frequently cited nonprofit organizations as sources, mostly HSUS. A study on food safety news coverage indicated government sources, such as the FDA, were most frequently cited. The difference of subject area between animal welfare and food safety may indicate different sources are used depending on the area of discussion. The variety of sources cited was also limited to a small number. Irlbeck et al. (2011) concluded reporters do not take time to contact more expert sources or are unaware they exist. Agricultural communicators and university agricultural communications services may have provided information never published for readers.

The tone of selected newspaper content was predominantly neutral across most content areas. This conclusion is supported by prior studies, which indicated fair and accurate reporting (Irlbeck et al., 2011). More positive tones were found in articles from districts with more agriculture. Boogaard et al. (2010) suggested positive opinions of agriculture developed from greater familiarity with agricultural practices. Reader-generated responses were mostly framed by animal welfare. The polarized opinions in the animal welfare debate (Getz & Baker, 1990) probably contributed to the negative tone of reader-generated responses. This indicates either the public or those willing to express their opinions have a negative perception of agriculture. Most other frames were found in newspaper-generated content and were neutral in tone. Reporters contributing to newspaper-generated content supplied balanced information to readers. As McCombs and Shaw (1972) defined agenda setting, reporters expressed what readers should think about, not readers should think.

Agricultural communicators should work to inform the public about agricultural issues extending beyond economic impact. Animal welfare can be an emotional issue (Getz & Baker, 1990) and agricultural communicators need to address this. Contact with reporters should be increased to improve the level of agricultural discussion and offer more expert sources. A plan for agricultural communicators to supply scientific and resonating messages to the public should be developed as more animal welfare legislation develops across the country.

Traditional media is not the only means of educating voters (Goodwin & Rhoades, 2011). Studies should begin to focus on online news sources, social media, and television to gather a broader understanding of information provided to voters. An understanding of how animal welfare legislation impacts the public would allow reporters so convey the appropriate information to the public. Further research also should be conducted to learn about articles dispersed through the wire services to multiple newspapers.

This study serves as a basis for understanding how agricultural welfare legislation was framed in the media. While reader-generated responses focused on animal welfare, reporters pushed the economic impact of Proposition 2 on the public. Animal welfare frames also expressed a more negative tone than other frames. Reporters can use the data collected to frame articles to match public focus while adjusting tone to be more neutral. Agricultural communicators and reporters can supply more resonating messages by framing articles to meet the needs of the public. The use of a variety of sources for articles would supply more understanding and neutral tone while benefiting both the agriculture industry and the general public.

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Strategically Marketing to Agricultural Producers in Times of Financial and Legal Distress

Research Paper

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Abstract

The purpose of this study was to identify the needs of agricultural producers in relation to financial and legal matters. The following research questions guided this study: 1) what services, identified by local producers and community members, are needed to assist producers in times of financial and legal distress; 2) what brand attributes would appeal to producers for an organization addressing their financial and legal distress; 3) how can organizations effectively market financial and legal services to producers? A qualitative study design was utilized in order to assess the research questions. Six focus groups were performed in three different geographic locations. Participants were selected using purposive sampling in order to have one group of people familiar with an organization currently helping producers with legal and financial issues and one group of general community members in each location. Grunig's excellence in public relations model served as the conceptual framework for this study. Results of this study concluded that rural communities see a need for service organizations seeking to help producers in times of financial and legal distress. Participants value assistance with family farm transition planning and general financial assistance. Participants saw marketing and promotion of the current services offered just as critical as having the services themselves. Participants felt these services should be marketed through two-way communication channels, such as: social media, having an organizational representative, and through collaboration with extension. Additionally, participants voiced strong opinions about various brand attributes.

Keywords: financial assistance, legal assistance, two-way communication, family farm transition planning, branding, marketing

Introduction/Purpose

Throughout the United States, production agriculturalists face struggles that impede their abilities to continue farming. The struggles today's farmers face include financial distress, legal matters, and transition of the family farm (Rosenblatt, Nevaldine, & Titus, 1978; Walker, Walker, & MacLennan, 1986). Producers may find themselves in a dispute situation that leads to legal hearings (Bailey, 2004), and many of their struggles bring feelings of failure, which is amplified due to the "proud" nature of the farmer (Kuehne, 2012). Issues farm families face range from financial distress to psychological problems (Jurich & Russell, 1987) and stress compounded by the transitioning of the farm (Ballard-Reisch & Weigel, 1991). Financial distress can be brought forth in a variety of ways, such as: the cost associated with land and machinery make it hard for younger generations to become involved in farming indepently (Ballard-Reisch & Weigel, 1991), or when an economic crisis hits and the value of commodities and cattle drop alongside land values, similar to what was seen in the 1980's (Jurich & Russell, 1987). The psychological stress stems from the collection of individual stressers of farm, family, and business (Jurich & Russell, 1987). Moreover, the decision making process of the two-generational farm family can become stressful (Weigel & Weigel, 1990), especially if there is not a clear goal when the older generation begins exiting from the business (Keating and Munro, 1989). Communication becomes an essiential part of addressing financial and legal stress, specifically organizations seeking to address financial and legal issues must improve communicaiton with farmers in order to gain recognition (de Chernatony, 2001; Keller & Lehmann, 2006).

Marketing and Branding

The American Marketing Association Dictionary (2013) defines a brand as "a customer experience represented by a collection of images and ideas." By creating awareness through branding, an organization can create a unique identity (Franzen & Moriarty, 2009). This can be accomplished by implementing branding and marketing strategies (Keller, 2011). One way to create recognition is through brand salience. According to Romaniuk and Sharp (2004), salience is how recognizable the brand is to the consumer. Brand salience can also be considered what is at the "top of mind" (TOM) for the consumer (Romaniuk & Sharp, 2004). By appropriately positioning the brand, an organization can more effectively reach its target group (Franzen & Moriarty, 2009). Simply offering needed services will benefit no one if people are unaware services exist (Miller & Berry, 1998). Abrams, Meyers, Irani, and Baker (2010) studied a service organization that was struggling with recognition. They concluded that by improving communication with those using the service, the brand could experience heightened recognition of what services the organization offered, and improve familiarity with the brand itself. Avenues for achieving recognition include the use of social media channels (Kinsey, 2010; O'Neill, Irani, Zumwalt, & Bechman, 2011), which can provide a sense of connection for consumers (Mazali, 2011); the use of mass communicaiton, such as radio (Verma & Burns, 1995); and local representation (Kotler, 1991). While maintaining an understanding of the connection to the family farm, services such as mediation during the transitioning of the family farm, may be useful (Jurich & Russell, 1987; Weigel & Weigel, 1990). Furthermore, an organization can heighten its ability to serve farmers by spreading awareness of the organization through branding (Franzen & Moriarty, 2009). Miller and Berry (1998) maintain that before an individual becomes interested in a brand, they must be aware it exists.

Two-Way Symmetrical Model

The conceptual framework used to guide this study was the excellence in public relations model developed by James Grunig. This theory has evolved over time to include four models of public relations: press agentry/publicity; public information; two-way asymmetrical; and two-way symmetrical (Grunig & Hunt, 1984). Irani, Ruth, Telg, and Lundy (2006) recommend the two-way symmetrical model when marketing extension services. The two-way symmetrical model focuses on understanding the public rather than persuading the public. Furthermore, the two-way model focuses on research as a solution for how and why the public feels the way they do (Grunig & Hunt, 1984), which was the foundation of this study. This model recommends messages that motivate or persuade people by using prior research to understand and communicate with audiences (Grunig & Grunig, 1992). Organizations are encouraged to provide information to consumers to help them make informed decision (Dervin, 1984), whether the consumer requests the information or not (Hance, Chess, & Sandman, 1988). Service organizations in particular must relate with their consumer population (Vanclay, 2004).

Purpose and Research Questions

The purpose of this study was to identify the needs of agricultural producers in relation to financial and legal matters in order to effectively market an organization providing financial and legal services to producers. An example statewide organization that provides financial and legal services to agricultural producers was used to assess the following questions:

- **RQ1:** What services, identified by local producers and community members, are needed to assist producers in times of financial and legal distress?
- **RQ2:** What brand attributes appeal to producers for an organization addressing their financial and legal distress?
- **RQ3:** How can organizations effectively market financial and legal services to producers?

Methods/Procedures

This was a qualitative study design utilizing focus group methodology. Because the researchers are the instrument in qualitative studies, they are better able to accommodate the discussions driven by focus group participants (Guba & Lincoln, 1989). For the purpose of this study, focus groups were the best avenue to gather in-depth information about a specific population. A series of six focus groups were conducted at three different locations across the state where the example organization serves producers. All focus groups were conducted April 2-4, 2013, in order to avoid threats to validity. At each location, two focus groups were performed. The locations were selected to gain a uniform representation from all farmers across the state. Individuals were asked to participate in the focus groups by someone familiar with the area, generally a local extension agent. At each location, one focus group had knowledge or was familiar with the organization offering financial and legal services to producers, while the other was made up of general community members unfamiliar with the organization. Purposive sampling was used to select individuals and locations, because they have an understanding of the research problem or basis of the study (Creswell, 2007). In this situation, those not having an understanding of the organization being studied were also targeted in order to identify additional needs in the area that were not being met by the existing organization. Focus groups varied in size, from three to eleven. Morgan (1998) suggests six to ten focus group participants. All but one focus group was within this range. One focus group had only three people. “Some people prefer to conduct mini-groups with 3 to 6 people as they believe the smaller number of participants will provide for greater in-depth discussion,” (FAQS about Focus Groups, 2008). In the analysis process, the group with only three participants mirrored the findings of other groups of general community members; as such, the researchers determined it was appropriate to include the smaller group in analysis.

The researchers viewed this study through an ontological and methodological lens. The ontological lens allowed the researchers to view reality through the lens of the participants, as reality is subjective. As such, the researchers used quotes and themes in words voiced by participants (Creswell, 2007). The methodological lens permitted the researchers to approach the research with logic and let the design and context of the study emerge based on experiences in the field (Creswell, 2007). The researchers were external to the organization and not a member of the population, which gave them an unbiased approach to the study.

A protocol was developed using the procedures set forth by Krueger (1998). The protocol was utilized by the same experienced and formally trained moderator to keep focus groups consistent. As a part of the protocol procedure participants were asked questions related to their perceptions of producer needs in their community, brand attributes of a service organization seeking to help farmers in financial and legal distress, and how to appropriately market services for their community.

The focus group sessions were recorded via field notes and audio recorders. Audio recordings were sent to be transcribed by an outside party. Following transcription, transcripts were imported into Weft QDA software to be analyzed. Glaser's (1965) constant comparative method was used during analysis. This method involves identifying which category each incident belongs to, comparing each incident to those prior; identifying similarities between incidents and categorizing them; setting boundaries for the categorizes; and writing theory. Writing theory involves describing how the participants responded using an overarching theme, and then using research objectives to organize themes.

Rigor in qualitative research can be described by credibility, transferability, dependability, and confirmability (Ary, Jacobs, & Sorenson, 2010). To ensure credibility the researchers used verbatim transcrips, allowing for direct quotes to be used to maintain accuracy, maintaining the fullness of information, easing the participants by using ice breaker questions, and allowing the participants to validate one another's statements (Bloor, Frankland, Thomas, & and Robson, 2001; Flick, 2006; Krueger, 1998; LeCompte & Goetz, 1982). The information gathered through this research could be representative of similar populations of agricultural producers in other states. Maintaining transferability was addressed by giving detailed descriptions of the participants' responses (Creswell, 2007). Dependability was accomplished by having one researcher analyze transripts while an alternate researcher, that was present for all focus groups, reviewed the analysis for validity and confirmability. Finally, confirmability occurred through the use of transcripts rather than just field notes. Also, the findings were presented to a small group of people involved with the organization before final analysis (Ary et al., 2010).

Assumptions made during this study were related to focus group participants. Half of the participants were to have no previous knowledge or interaction with the organization, while the other half was to have general knowledge and understanding of the service organization. Another assumption was that all participants were actively engaged in the agricultural industry and/or their communities.

Utilizing focus groups to gather information offers a few limitations. The small number of participants in a focus group in relation to a whole population limits the generalizations that can be made from the study. However, due to the smaller size of a focus group, interactions are often more personable, and therefore allow participants to offer true, detailed perceptions. Additionally, when participating in focus groups, individuals may be influenced by what their peers say (Morgan, 1998), but this may cause a clearer representation of what reality presents.

Results/Findings

RQ1: Services Needed in Local Communities

Family farm transition planning. All six focus groups mentioned the need for family farm transition planning (or estate planning). Four groups brought this need up prior to the moderator asking about it. Although all groups touched on the topic, the groups familiar with the organization offering financial and legal services to producers mentioned this with more confidence. One participant said, “But from my stand point, family transition planning is a big issue because there [ends] up being a lot of animosity and a lot of lost farms because of that.” Participants saw mediation as a valuable part of the family farm transition. One expressed this as, “It’s just you know, family mediation that, you know an outside source that can sit down [with] a family and say, now here is something logical.” Other participants connected family farm transition planning to the average age of the farmer. One participant said,

> Well, there is also the issue of transfer from one generation to the next generation and all the aspects that are involved in terms of farm ownership, farm management. That’s certainly a big issue, I think in our area because our farmers are always getting older. And it’s very, you know, just to look in our township, there are no young farmers.

Marketing and promotion. Another major theme taken from the focus groups was marketing and promotion. All groups mentioned the need to spread the word about what services the organization already provides. This data is being presented under “services needed” because that is when groups conveyed this need. Participants saw the need for marketing and promotion of the existing services as important as the services themselves. Participants felt there was a disconnect between information about the organization and their communities. One participant said,

> How do people know that the mediation services are available, you know I know how they get it from us if we tell them that information that is out in the public I’m sure it lingers getting that information out but for just a far over this, do they know that mediation is even available?

Participants offered suggestions about how to market services when asked what the needs of their communities were. One participant said, “I’m not sure if advertising or getting the word out there will little bit more I don’t know…”

Financial assistance. Focus group participants believed financial assistance was a necessary service in their communities and the organization should continue offering it. Participants valued different aspects of financial assistance, such as assistance filling out financial paperwork, the Farm Analyst Program, and preparing for an economic financial crisis. When asked what participants felt would be a major issue in the future or an on-going issue, a participant stated “Well I can say financial issues.”

Another participant explained the need for help with financial paperwork, “And another thing that I see and I think it would be very beneficial [is] someone to help you to fill out financial paperwork, if for a loan or initially getting things.”

RQ2: Brand attributes

Participants had strong feelings about certain attributes for a brand offering financial and legal assistance for producers. Some participants felt the term “mediation” was negative and meant someone was going to be in trouble. Participants were mixed on brand attributes, but the feelings expressed by participants about specific brand attributes are included to offer insight into producers’ feelings.

Mediation. One participant said the “pride” many farmers experience about their profession correlates with his/her personal negative feelings toward the term mediation. He/she expressed this as

> I think so often, I mean mediation -- the term mediation, it always has, it seems like it has a negative connotation, I guess a negative meaning or so when people bring it up. . . But, I mean, especially you get into the ag community, they are proud people. So they try to work through things on their own as much as they can. Sometimes you can do that, sometimes you can't. . .

Another participant expressed fear of the term “mediation”. The individual said “That mediation thing scared me to death. I thought I was in trouble. . .”

Another participant confirmed this by saying, “I think so often, I mean mediation -- the term mediation, it always has, it seems like it has a negative connotation, I guess a negative meaning. . .”

Assistance. Participants were mixed about the word assistance. Some participants expressed concerns about using the term “assistance”. One participant said, “Really connecting, but instead of assistance and it just happened, when you said that, people were kind of proud, they don’t want to help ask for help.” Another participant stated “. . . But somehow in there, I think we need to have like assistance in there.”

Support. A few groups liked the word “support”. One participant summarized “You know we really like the word support.” Another participant stated “Okay maybe we like the word support.”

Free. Some participants expressed concerns about using or promoting the word “free”. Participants felt that because a service was being offered free of charge, it would lack quality. One participant expressed concerns about the term “free”, saying “. . . And as far as free, sometimes free isn’t as good as if you have to have to pay for something. . .”. Another participant said “I would rather deal with an attorney and pay him a fair fee for doing good work for me.”

RQ3: Marketing Services

Participants were asked about the most appropriate place to market financial and legal services to producers. Focus groups brought up the use of social media marketing, the need for an organizational representative as a face for the community, as well as collaboration with extension. Radio served as a secondary marketing tool being suggested by four out of six focus groups. Furthermore, the groups familiar with the organization suggested collaboration with Farm Service Agency (FSA).

Other marketing opportunities discussed by three of the six focus groups were newspaper advertisements, newsletter/pamphlets/informational handouts, magazine advertisement, website and search engine optimization, and advertisements at local agricultural-based stores, such as cooperatives or feed stores.

Social media marketing. Social media marketing was suggested by five of the six focus groups. Even though some participants were not active users of social media outlets, they thought there was potential to reach a younger generation of users, through Facebook, Twitter, and YouTube. One participant expressed this as:

> Well I think even with the population, the changing population and technology websites and Facebook's pages even are, I mean are going to be huge. I have more producers that send me texts and emails and stuff like that, than I do get phone calls.

Organizational representative. When discussing marketing needs, five of the six focus groups expressed a need for an organizational representative that is active throughout the state. This conclusion was drawn by the researchers through participants' discussion of the need for meetings, conferences, workshops, and trade shows, all which require a representative.

One participant expressed this as:

> . . . I think they need a liaison person that is going to be able to be a spokesperson, somebody who is involved with the ag communication, somebody that can be, you know able to travel around and visit with the different connections that the service provides, as well as brainstorming ideas just like you are doing today to improve the service.

Extension collaboration. In addition to social media marketing and having an organizational representative, five of the six focus groups suggested collaborating with extension.

Radio. Four of the six focus groups mentioned radio as a source of advertising and marketing of the existing organization and the new umbrella organization. Participants felt radio could be an economically feasible option for advertisements by using public service announcements or other options.

Other marketing opportunities. Other marketing opportunities for the organization discussed by three of the six focus groups were newspaper advertisements, newsletter/pamphlets/informational handouts, magazine advertisements, website and search engine optimization, and advertising at local agriculture-based businesses, such as cooperatives or feed stores.

Farm Service Agency collaboration. The three groups familiar with the organization seeking to address financial and legal issues of farmers all expressed the organization should collaborate with the Farm Service Agency (FSA) as a part of the overall marketing strategy.

Discussion/Conclusions

Focus group participants felt assistance with transitioning of the family farm was a necessary service in their communities. Participants recognized the overlap of generations and the stressful impact it can have on families. They understood goals of the farm differed between generations. This is similar to the findings of Keating and Munro (1989), who found often there is no clear goal when older generations begin the exiting phase.

In addition to recognizing differences within the farm and the goals each family has for the farm, participants felt mediation could prove beneficial. They expressed that by having a neutral party to discuss the transition process, future stresses related to differing goals could be reduced.

Participants saw a major need for brand awareness related to an organization seeking to address financial and legal issues. Participants indicated marketing and promotion of the existing services were as important as the services themselves. Participants previously using the organization's services felt the services were quality and useful; however, they felt communities were under-utilizing these services because they were unaware of their existence. While working to promote the brand, creating uniformity among the branding efforts will be important. This will help create brand recognition and salience. This relates to work done by Franzen and Moriarty (2009) who indicate an organization can create a unique identity by developing awareness about the organization through branding efforts. This identity becomes recognizable to the organization and to the public, and creates certainty in knowing the product or service that comes with a brand (de Chernatony, 2001).

Focus group participants believed financial assistance was a necessary service in their communities and the organization should continue offering it. Participants valued different aspects of financial assistance, such as assistance filling out financial paperwork, the Farm Analyst Program, and preparing for an economic financial crisis. Participants in this study felt confusion and frustration associated with understanding financial paperwork. They believed by continuing to offer financial assistance through various programs, the organization could help members of their communities.

Participant discussion unveiled that each consumer can perceive one word in a different manor. For example, one participant may suggest a name containing "assistance"; however, a different participant may say they find the word "assistance" offensive because it implies a person needs help. Gathering information regarding consumer perceptions was beneficial to the organization and allows the organization to convey positive contextual messages to its consumers.

Participants expressed a need for farmers to know where to turn prior to being in financial distress. This indicates participants thought brand salience would be advantageous in knowing if a brand were a good fit prior to using the brand. This aligns with research on brand salience, which shows (Romaniuk & Sharp, 2004) the more salient the brand is, the more recognizable it is in the consumer's mind. This also mirrors the work of Romaniuk and Sharp (2004), who concluded that when a brand is more recognizable, consumers can be certain the brand will be appropriate for a given situation. This is also key to marketing and promotion. Through the creation of a consistent brand that is salient with producers, an organization can effectively reach their consumers before they are in need of financial and legal services.

Necessary marketing tools for an organization addressing legal and financial issues for farmers are: social media, the need for an organizational representative as a face for the community, and collaboration with extension. Radio should be a secondary marketing tool being suggested by four out of six focus groups. Furthermore, focus groups having knowledge of financial and legal services provided in communities support collaboration with Farm Service Agency (FSA).

Organizations may find it particullary beneficial to use social media to reach their consumers on an emotional level. Participants expressed an emotional connection with the organization, which could be aided further by social media. Engaging in social media can provide an sense of connetion (Mazali, 2011), and therefore may create a deeper sense of trust for the consumer. These finding are consistent with work of other researchers. In a study conducted by an online service organization, eXtension, O'Neill et al. (2011) suggest beginning social media use with Facebook, Twitter, and/or YouTube. Additionally, other service organization educators are encouraged to use free social media to increase their outreach (Kinsey, 2010).

Radio may have some value in reaching audiences not using social media channels. Researchers recommend radio as a part of the overall brand strategy when marketing financial and legal services to producers. This is supported by Verma and Burns (1995), who found a need to increase marketing in the areas of mass communication, such as radio, newspaper, and television.

Other secondary marketing opportunities should include marketing opportunities newspapers advertisement, newsletter/pamphlets/informational handouts, magazine advertisement, website and search engine optimization, and advertisements at local agricultural-based stores, such as cooperatives or feed stores.

Recommendations

This research developed recommendations of theoretical, practical, and professional use.

Theoretical. This study supported the two-way symmetrical model of the excellence in public relations theory. Researchers found that in focusing on what the public values, the organization can effecitively reach their customers. By conducting focus groups, researchers were able to gain in-depth information about what services the public values. This study confirms the two-way model with rural agricultural participants. Participants continually expressed their appreciation for being asked to participate and encouraged the organization to continue seeking opportunities for two-way communication. This was seen through participants' request for social media and contact with the organization on a regular basis. The two-way model should be adapted by other organizations seeking to connect with rural audiences.

Practical. The results of this study produced practical implications as they can be applied to other agricultural service organizations seeking to reach rural communities. It is important for organizations to provide a clear image about what the organization is and what services the organization offers. Results support the need for organizations to develop and utilize an overall brand strategy. Community members who were familiar with the organization and general community members both saw value in the services offered by the organization but felt the organization should work to increase brand salience. Similar organizations should consider marketing and promotion strategies that represent a two-way communication model, including: social media, having an organizational representative, and collaboration and advertising with extension. Organizations working with rural communities should seek to address the needs of local communities in their marketing and branding strategies.

Other service organizations providing similar services or reaching a similar population, should understand what the public values. For these focus groups, the participants valued family farm transition planning assistance, as well as legal and financial assistance. The participants felt these were complex topics, and it would be beneficial to work with a neutral party on these topics. Branding and marketing techniques should be utilized to create brand awareness for organizations seeking to help producers during a time of crisis. Without the brand being salient prior to the producer needing help, they will be unsure where to turn for help.

Professional. Recommendations for agricultural communication professionals have also resulted from this study. Industry professionals should consider the fear participants expressed in regards to specific terms. The terms mediation and assistance both had negative connotations. Participants felt the term mediation meant someone was in trouble, while asking for "assistance" would hurt the pride of the farmer. Furthermore, participants were concerned that offering "free" services meant they would not receive quality service. It was mentioned that people would rather pay a fee for quality services than to have a service offered free of charge that was not quality. A word with positive connotations for participants was “support”. Professionals should consider using this term in brand names or in taglines. In summary, agricultural communications professionals should:

- Limit the use of the terms “mediation” and “assistance”
- Use caution when marketing free services
- Use the word support

Recommendation for Future Research

Future research should focus on the specific brand attributes consumers desire and/or are fearful of when targeting services to rural communities. Additionally it would be of interest for future studies to test the social media and in-person marking strategies requested by the participants in these focus groups.

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Talking through open barn doors: The effect of transparent communication on attitude

Abstract

As consumers have become further disconnected from the agricultural industry, their concerns about agriculture have increased. Effective communication with consumers about agriculture has been identified as a potential solution to minimizing this disconnect. Transparency has been offered as a strategy to increase the effective communication of the industry. Therefore, this study sought to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students. Elaboration Likelihood Model and transparency served as the theoretical framework for this study. To fulfill the purpose of the research, an experimental design was used. The experimental treatments were tested with 688 college students through an online survey format. The result of the study found that both transparent communication and perceived transparency had a significant impact on attitudes. While personal relevance was not found to be significant. Further research examining transparent communication in ELM was recommended. In addition, it was recommended that practitioners implement transparent communication when communicating about the industry with those in the Millennial generation.

Keywords: *Attitude, Transparency, Elaboration Likelihood Model, Experimental Design, Personal Relevance*

Introduction

As the industrialization of agriculture has advanced and consumers have become further removed from the farm, farmers and consumers have become disconnected with each other (Duncan & Broyles, 2006; Zimbelman, Wilson, Bennett, & Curtis, 1995). The agricultural industry has tried to address this disconnect by shifting the communication focus from communicating with those in the industry to those not involved in the industry (Telg & Irani, 2012). However, communicating effectively with the consumer base has proven to be difficult. The limited agricultural experience and knowledge of today's consumer coupled with their concerns regarding industrialized agricultural practices (Weatherell et al., 2003; Zimbelman, et al., 1995) has complicated the conversation between producers and consumers. There continues to be a need to communicate effectively with consumers about agriculture, and specifically livestock production (Graves, 2005). A suggested solution to improving the effectiveness of communication about livestock production is to increase the transparency of the industry (Garner, 2009; Roybal, 2012). However, not everyone within the industry has felt that increased exposure and transparency is a good idea (Potter, 2011).

The news media has discussed agricultural topics, but this coverage has tended to be biased and misinformed (Whitaker & Dyer, 2000; Zimbelman, Wilson, Bennett, & Curtis, 1995). With a large influence on consumer perceptions, the news media have often influenced and created misperceptions and concerns that consumers have about agriculture and livestock production (Meyers & Abrams, 2010). Social media have strengthened the influence of news media and the spread of information. Additionally, transparency has evolved as a byproduct of social media. Social media and digital technology have created a culture where it is virtually impossible to keep information and events secret (Qualman, 2009). A growing consumer group, the Millennial Generation, is known to demand transparency and have become high frequency users of social media (Red McGregor, 2012; Shore, 2011). Facebook receives the most Millennial use, with 93 percent of the generation using Facebook (Shreffler, 2012). Within this generation, college students are particularly known to have unsolidified attitudes (Sears, 1986; Taylor & Ketter, 2010)

Communicating effectively about livestock production is essential to the future of the industry. Current communication practices within the industry have not been proven to inform and resonate with consumers in a manner that provides long-lasting impacts (Goodwin, 2012; Graves, 2005; Zimbelman et al., 1995; Whitaker & Dyer, 2000). Additionally, the effect of transparency within the livestock industry has not been assessed. Further assessment of effective communication methods and transparency in the livestock industry has the potential to impact many. The industry, agricultural communicators, educators, extension agents, consumers, and politicians would find value in this type of assessment because it will ultimately lead to a better understanding of how to create an informed citizenry, ensuring the future sustainability of food and the industry needed to support human life (Doerfert, 2011).

The purpose of this study was to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students, who are an important segment of the Millennial Generation.

Theoretical Framework

Elaboration Likelihood Model

Social psychologists have studied communication messages and the effects messages have had on attitudes and behavior since the discipline began (Allport, 1935; Petty & Cacioppo, 1986; Ross, 1908). Petty and Cacioppo created ELM, a theory of attitude change modeled by cognitive processing and persuasion (McQuail, 2010; Petty & Cacioppo, 1986; Petty & Cacioppo, 1996).

ELM explains the process individuals go through when exposed to persuasive communication, but the model can also be applied to other attitude change contexts not initiated by persuasion (Petty & Cacioppo, 1986). The model explains this process through two cognitive routes, the central and peripheral route. An individual's motivation, ability to process, processing nature, and cognitive structure determine the resulting processing route (Petty, Brinol, & Priester, 2009). The central route includes a detailed thought process and careful consideration of the information presented. The peripheral route does not include careful thought and consideration; rather it includes the attraction to and influence of simple cues (Petty & Cacioppo, 1986).

Motivation and ability both impact if and how an individual will process a message. Additionally, both motivation and ability must be present for elaboration to occur (Petty & Cacioppo, 1996). Motivational factors in ELM guide individual's intentions when presented with a message to process (Petty & Cacioppo, 1986). Several variables, including personal relevance and need for cognition, can influence an individual's motivation to process. An individual's motivation to process will vary for each message they are presented with (Petty & Cacioppo, 1996).

Personal relevance has been described as the most influential motivational factor in determining if an individual will have the motivation to process a message (Petty & Cacioppo, 1986). Personal relevance refers to the importance and meaning a message has to an individual. As personal relevance increases, motivation to process increases. However, high personal relevance can be cofounded with other factors such as prior knowledge, making personal relevance a difficult factor to interpret (Petty & Cacioppo, 1986). Several experimental studies have manipulated personal relevance to test it within ELM (Petty & Cacioppo, 1979; Petty, Cacioppo, & Goldman, 1981; Petty, Cacioppo, & Schumann, 1983). In these studies researchers have assigned participants to either high or low personal relevance groups.

Examining studies that have included ELM in an agriculture or natural resources context is important for this research. In 2005, Verbeke conducted a literature review to look at how information about agriculture and food is communicated in the Information Age and the challenges associated with communicating about food. Food was identified as a low-involvement good (Beharrell & Denison, 1995). When discussing the need for information, ELM and the processing of information was also discussed. An examination of previous research found that because of consumer uncertainty regarding food, information and decisions about food have been commonly based on simple cues and processed through the peripheral route (Frewer, Howard, Hedderley, & Shepherd, 1997; Verbeke, 2005).

A study by Gore, Knuth, Scherer, and Curtis (2008) used ELM to test the effectiveness of wildlife education and outreach programs. The researchers used ELM to predict environmentally responsible attitudes. The participants in this study were presented with educational materials about reducing human-black bear conflict, which were pre-sorted into peripheral and central-based categories by the researchers. The results of the study showed that the majority of the participants in this study processed the materials peripherally. The researchers concluded that the peripheral attitudes produced by the educational materials would not provide long-term impact, and thus, would not positively improve behavioral intentions toward wildlife interactions (Gore et al., 2008).

A review of ELM studies conducted in the agriculture or natural resource context has shown that many of these studies found instances of peripheral processing (Frewer et al., 1997; Gore et al., 2000; Veberke, 2005). The prevalence of peripheral processing suggests that individuals may not have the motivation and ability to process information about agriculture and natural resources.

Transparency

The concept of transparency can be traced back to the1890s with the work of Henry Carter Adams, a public finance academic who discussed the role of publicity in the case of corporate abuses (Bigelow, Sharfman, & Wenley, 1922; Stoker & Rawlins, 2004). Despite the discussions of transparency over time, very little academic research has tested the effects of transparency, due to the challenges involved with defining and measuring the construct (Rawlins, 2008b). A review of the literature revealed several qualitative assessments of transparency (Barling, Sharpe, & Lang, 2009; Fairbanks, Plowman, & Rawlins 2007; Jahansoozi, 2006; Meijer, 2009). Two quantitative studies were found that tested the relationship between transparency and trust (Auger, 2011; Rawlins, 2008b).

Rawlins (2008a) offered a comprehensive definition of transparency, which was used for this research.

> Transparency is the deliberate attempt to make available all legally releasable information – whether positive or negative in nature – in a manner that is accurate, timely, balanced, and unequivocal, for the purpose of enhancing the reasoning ability of publics and holding organizations accountable for their actions, policies, and practices (p. 75).

The body of literature surrounding transparency includes focus on communicative transparency and indicates that stakeholders must perceive information to be transparent (Gower, 2006). Communicative transparency includes the variables of substantial information, participation, and accountability (Rawlins, 2008a).

Substantial information has been discussed as the amount and type of information needed by individuals. The relevance, clarity, completeness, accuracy, reliability, timeliness, and comparability of information impact whether or not the information is substantial (Rawlins, 2008b). Without adequate knowledge of the information wanted and needed by the stakeholders, organizations cannot guarantee they are achieving transparency through substantial information (Rawlins, 2008b).

Participation includes the interaction and feedback between organizations and stakeholders (Auger, 2011). This trait of communicative transparency includes involvement, feedback, detailed information, the ease of finding information, and the initiative by the organization to understand and ask for stakeholder opinions (Rawlins, 2008b). Additionally, organizations must invite stakeholders to participate, and organizations must provide responses when stakeholders participate. The participation variable of communicative transparency highlights the "active participation in acquiring, distributing and creating knowledge" (p. 419), a requirement of transparency identified by Cotterrell (1999).

Accountability in communicative transparency includes “information that covers more than one side of controversial issues, might be damaging to the organization, admitting mistakes, and that can be compared to industry standards” (Rawlins, 2008b, p. 431). Additionally, accountability includes an organization being open to criticism and being forthcoming (Rawlins, 2008a). Those organizations that are transparent have been identified as being accountable for their words, actions, and decisions (Rawlins, 2008b).

Several studies of agricultural transparency have addressed transparency through discussion of tracing, tracking, and labeling of food products (Barling et al., 2009; Beulens, Broens, Folstar, & Hofstede 2005; Opara & Mazaud, 2001; van Dorp, 2003; Wognum, Bremmers, Trienekens, van der Vorst, & Bloemhof, 2011). Opara and Mazaud (2001) suggested “consumers and other stakeholders in agroindustry now demand transparency in the way food is grown and handled throughout the supply chain, resulting in the emergence of 'traceability' as an important policy issue in food quality and safety" (p. 239). Barriers to transparency in the agricultural industry have been identified as gaining buy-in from the whole industry and cost (Barling et al., 2009). Additionally, Buelens et al. (2005) identified that organizational and psychological threats could inhibit the implementation of transparency in the agricultural industry. Some of these threats included unauthorized use of information, the cost to implement transparency, and the unknown profit driven benefits (Buelens et al., 2005). In addition to the barriers, there are also benefits to transparency. The information and knowledge that transparency provides individuals offers the benefit of enabling them to increase their reasoning ability and make informed decisions (Fagotto & Graham, 2007; Rawlins, 2008a). Additionally, transparency has been discussed as promoting accountability, commitment, collaboration, and cooperation among organizations (Jahansoozi, 2006). In a study by Hoogland, do Boer, and Boersema (2005), increased transparency encouraged more sustainable food choices.

The review of literature revealed the majority of studies surrounding the topic of agriculture and transparency were conducted in European countries. Additionally, many of the studies approached transparency from a qualitative perspective. Commonly, the researchers in these studies identified the lack of definition and research surrounding transparency. Many of the transparency and agricultural studies discussed transparency as the tracing, tracking, and labeling of food products.

Purpose and Hypotheses

The purpose of this study was to assess the effects of transparent communication and personal relevance, in a livestock production context, on the attitudes of college students. The findings of this research will help guide the future of effective communication within the agricultural industry, ultimately leading to a citizenry informed on agricultural topics and issues (Doerfert, 2011).

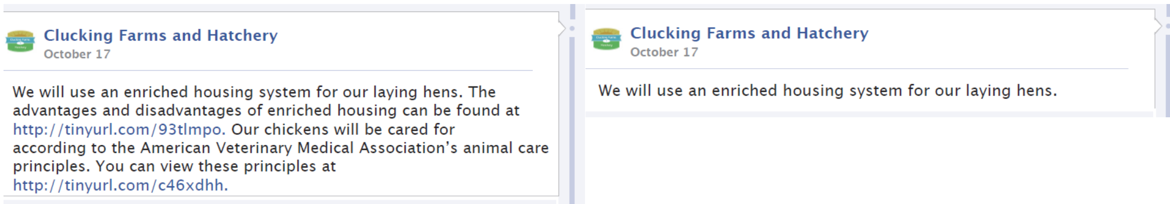
> H1: Subjects exposed to high transparent communication and high personal relevance will have more positive attitudes than those exposed to low transparent communication and low personal relevance.
>
> H2: When controlling for transparent communication and personal relevance, perceived transparency will have a positive effect on attitudes.

Methods

This study included a 2 (personal relevance: high and low) x 2 (transparent communication: high and low) between-subjects factorial experimental design. In a between-subjects design each subject is exposed to only one treatment condition (Keppel & Wickens, 2004). For this study, subjects were randomly assigned to receive both a high or low transparent communication and high or low personal relevance treatment through an online survey.

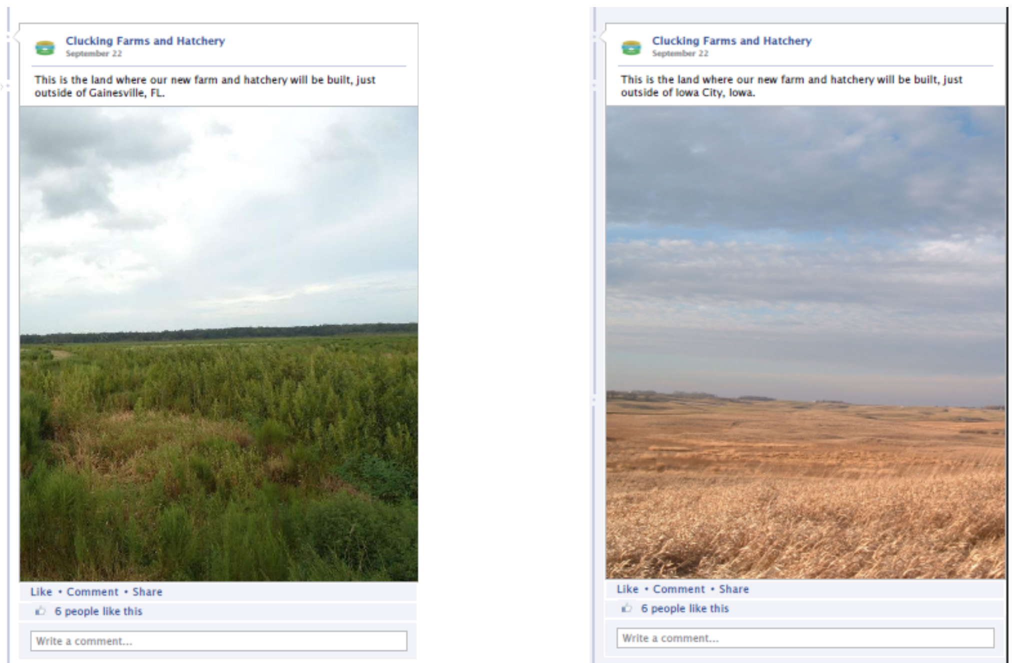
The transparent communication manipulations were presented in a Facebook page for a fictitious poultry farm called Clucking Farms and Hatchery. These manipulations were based on the elements of communicative transparency identified by Rawlins (2008a). An example of the manipulations can be seen in Figure 1. A poultry farm was chosen for the focus of the Facebook page because the transparency debate in the agriculture industry has commonly been focused on animal agriculture segments of the industry. The personal relevance manipulations were presented in a description of the farm and on the farm's Facebook page (Figure 2). Personal relevance was manipulated by changing the location where the farm was going to be built, just outside of [city], [state] versus Iowa City, Iowa. The personal relevance manipulations used in this study were modeled off of personal relevance manipulations used in previous research (Petty & Cacioppo, 1979; Petty et al., 1981; Petty et al., 1983). The treatment manipulations were pre-tested with college students on three occasions. In addition, the manipulations were verified through cognitive interviews with college students. Changes were made to the instrument as a result of the pretest and cognitive interviews.

Figure 1. Transparent communication manilupation example



High transparent communication Low transparent communication

Figure 2. Personal relevance manipulation example



High personal relevance Low personal relevance

Although this research was part of the larger study, two sections of the survey instrument were relevant to these research findings: attitudes toward the communication on the Facebook page and perceived transparency of the communication. To measure attitude an 18-item semantic differential scale was used. The scale was adapted from the bipolar adjectives suggested by Osgood, Suci & Tannenbaum (1978). Additionally, the scale was also adapted from the scales used by Meyers (2008) and Rhoades (2006). The attitude index response items were categorized to the real limits standard of: 1.00 to 2.33

= *Least Favorable*, 2.34 to 3.66 = *Neutral* and 3.67 to 5.00 = *Most Favorable*. The alpha reliability of this attitude measurement was .90. The perceived transparency variable was created from a four-item scale, which had an alpha reliability of .86. These items were based on the overall transparency segment from Rawlins's (2008b) transparency instrument. The responses for perceived transparency scale ranged from 1 = *Strongly Disagree*, 2 = *Disagree*, 3 = *Neither Agree nor Disagree*, 4 = *Agree*, to 5 = *Strongly Agree*. The perceived transparency index response items were categorized to the real limits standard of: 1.00 to 1.49 = *Strongly Disagree*, 1.50 to 2.49 = *Disagree*, 2.50 to 3.49 = *Neither agree nor Disagree*, 3.50 to 4.49 = *Agree*, and 4.50 to 5.00 = *Strongly Agree*.

A panel of experts reviewed the instrument for face and content validity. The panel of experts included four professors with specializations in agricultural communication, evaluation, and mass communication as well as an assistant professor specializing in extension education. In addition, the instrument was pilot tested with 31 college students and the alpha reliabilities found in the pilot test were found to be adequate.

A convenience sample was used to sample students from this population. Both qualitative and quantitative researchers commonly use convenience to address practical constraints, efficiency, and accessibility, (McMillan & Schumacher, 2010). Additionally, convenience samples have been commonly used in psychology and consumer research studies with college student subjects (Peterson, 2001). Although data from studies using convenience samples are not generalizable to the larger population, the findings are still useful and can provide valuable insight to better understanding relationships (McMillan & Schumacher, 2010).

The sample included 989 subjects from eight university courses. Administration of the survey followed the procedures for web survey distribution outlined by Dillman, Smyth, and Christian (2009) and the subjects were sent an email with the link to the survey. A total of 793 subjects responded to the survey. However, only 688 of these responses were usable. Responses were removed from the sample because the subjects indicated that they could not see the Facebook page (n = 78), subjects took the survey twice (n = 11), subjects were not part of the millennial generation (n = 10), and subject data was missing for the majority of variables (n = 6). The resulting response rate based on the accessible population was 69.6% (n = 688); However, the overall response rate was 80.2% (n = 793). The response rate was deemed adequate for the experimental design, resulting in no need to control for non-response error (Ary et al., 2006).

SPSS ® 20.0 was used to analyze the data from this study. A factorial analysis of variance was used to analyze hypothesis one. The second hypothesis was analyzed using multiple linear regression. The assumptions of both analyses were checked and no violations were found. The demographic analysis of the subjects can be found in Table 1.

Table 1
Demographics of respondents

Characteristic	*n*	%
Gender		
Female	465	67.6
Male	221	32.1
Self-reported area of residence while growing up		
Subdivision in a town or city	306	44.5
Urban or suburban area outside of city limits	220	32.0
Rural area (not a farm)	100	14.5
Downtown area in a city or town	39	5.7
Farm	22	3.2
Employment in the livestock industry		
No	563	81.8
Yes, in the past	61	8.9
Yes, currently	50	7.3
I or someone in my immediate family plans to in the next 4 years	11	1.6
Class rank		
Junior	263	38.2
Sophomore	163	23.7
Freshman	51	7.4
Graduate student	4	0.6

Results

H1: Subjects exposed to high transparent communication and high personal relevance will have more positive attitudes than those exposed to low transparent communication and low personal relevance.

A two-way between groups analysis of variance was conducted to determine the effect of the different transparent communication and personal relevance treatments on attitude. The independent variables were transparent communication (high, low) and personal relevance (high, low). The dependent variable was attitude toward the message stimuli.

This hypothesis was partially supported. The interaction of personal relevance and transparent communication was not significant, F (1,686) = .001, p < .980. However, the two-way between groups analysis of variance did reveal a main effect for transparent communication, F (1,686) = 6.090, p = .014 (Table 2). Those receiving high transparent communication had a slightly more favorable attitude ($M = 3.92$, $SD = .52$), than those receiving low transparent communication ($M = 3.82$, $SD = .53$). The means can be found in Table 3. A main effect for personal relevance was not found, $F\ (1,686) = .417$, $p = .519$.

Table 2
Effect of transparent communication and personal relevance on attitude

Source	*SS*	*df*	*MS*	*F*	*p*
Personal relevance	.116	1	.116	.417	.519
Transparent communication	1.694	1	1.694	6.090	.014
Personal relevance*Transparent communication	.000	1	.000	.001	.980
Error	189.760	682	.278		
Total	3301.003	686			

Table 3
Attitude means by treatment group

	High personal relevance *M (SD)*	Low personal relevance *M (SD)*	*Total*
High transparency	3.93 (.52)	3.91 (.53)	3.92 (.52)
Low transparency	3.83 (.55)	3.81 (.51)	3.82 (.53)
Total	3.88 (.54)	3.86 (.52)	

H2: When controlling for transparent communication and personal relevance, perceived transparency will have a positive effect on attitudes.

Multiple linear regression was used to test this hypothesis. Transparent communication, personal relevance, and perceived transparency served as predictors of attitude in this model. The perceived transparency index had a grand mean of 3.80 ($SD = .68$). The model was found to be significant, $F(3,684) = 99.035$, $p = .000$. Additionally, the predictors explained 30.4% of the variance in attitude. Perceived transparency was the only predictor that was significant, $t = 16.965$, $p = .000$. This result indicated that a one point increase in perceived transparency would result in a .426 increase in attitude. The results of this hypothesis can be seen in Table 3.

Table 3

Multiple linear regression analysis for variables predicting attitude

Variable	*B*	*t*	*p*
Constant	2.235	22.965	.000
Transparent communication	.010	.281	.779
Personal relevance	.027	.796	.426
Perceived transparency	.426	16.965	.000
R2	.304		
F	99.035		

Conclusions and Discussion

The first hypothesis, formed based on the theoretical framework of ELM and transparency, predicted that those receiving the high transparent communication and high personal relevance treatment would have a more positive attitude than those who received low transparent and low personal relevance treatments. This hypothesis was partially supported. The interaction of personal relevance and transparent communication was not significant. However, the main effect for transparent communication was significant. This suggested that those who received high transparent communication would have higher mean attitude scores than those who received low transparent communication. Although the main effect of personal relevance was not significant, an inspection of the means table indicated that those who received high personal relevance treatments had slightly more favorable attitudes than those who received low personal relevance treatments.

The second hypothesis predicted that when controlling for transparent communication and personal relevance, perceived transparency would have a positive effect on attitudes. This hypothesis was supported. Perceived transparency was found to be a significant predictor of attitude. This finding indicated that those with a higher perceived transparency score would have a higher attitude score than those with a lower perceived transparency score.

Perceived transparency and manipulated transparent communication were found to have a significant impact on attitude. The relationship between transparency and attitude had not been previously explored. The findings from this study suggest that attitude increases positively for each increase in perceived transparency. In addition, those receiving the high transparent communication manipulation had slightly more favorable attitudes than those who received the low transparent communication manipulations. This finding is important to understand because previous research has shown that attitudes are predictive of behavior (Petty & Cacioppo, 1996; Petty et al., 2009). Thus, the findings suggest that positive influences of transparency on attitude may also result in positive behavioral outcomes.

Using ELM, the design of the research suggested that the manipulation of personal relevance would impact the subject's motivation to process the communication. However, no significant differences were found between those who received high and low personal relevance treatments and personal relevance did not have a significant impact on attitude. Transparent communication may have been more salient than personal relevance to the subjects participating in this study. The lack of significance may be explained by previous identification of low involvement associations with food (or in this case food related information) (Beharrell & Denison, 1995). In addition, this lack of significance may be due to personal relevance cofounding with prior knowledge, a problem observed previously with personal relevance (Petty & Cacioppo, 1986). Since personal relevance was not significant in this study, it cannot be concluded that the subjects had the motivation to process the communication. Thus, it is likely that the attitudes formed were based on the peripheral processing route. In this case, perceived transparency likely served as a peripheral cue that led to further peripheral processing. Previous research has also found a prevalence of peripheral processing in studies of ELM and agriculture (Frewer et al., 1997; Gore et al., 2008; Veberke, 2005).

However, the effects of transparent communication and personal relevance on attitude may have been different if subjects had been exposed to the message stimuli multiple times. In addition, the static nature of the Facebook page may have influenced subjects attitudes differently than if the Facebook page was live and subjects were able to interact with it. The static nature of the Facebook page was necessary to control the message stimuli for all subjects.

A need existed to understand how transparency could impact the livestock industry, in order to bring together those who support (Garner, 2009; Roybal, 2012) transparency in the industry and those who oppose it (Potter, 2011). The results of this study indicate the use of transparent communication, specifically when communicating with those in the Millennial Generation, would be beneficial to the industry. Transparent communication is likely to result in more favorable attitudes among the Millennial Generation. Additionally, the findings suggest that transparent communication in the agricultural industry should go beyond the tracking and tracing (Barling et al., 2009; Beulens et al., 2005; Opara & Mazaud, 2001; van Dorp, 2003; Wognum et al., 2011) of food products and should encompass transparent communication practices throughout the entirety of the production process.

Recommendations

As this study found that transparency has a significant effect on attitude, further research should be done to connect transparency to ELM. It was concluded that the attitudes observed in this study resulted from peripheral processing. However, it cannot be concluded that the same results would be present if central processing were to occur. A follow-up study should be done to determine if central processing of transparent communication would lead to the same effects on attitudes. Additionally, further research examining transparency in ELM should measure elaboration to provide further insight to the processing route, as well as the strength and endurance of the resulting attitudes and trust.

Since personal relevance was not found to be significant, further research should be done to determine if high personal relevance on the topics of food or livestock production can be achieved with the Millennial Generation. Future research should include different methods of operationalizing personal relevance, perhaps through the direct administration of transparent communication. Additionally, future studies should utilize a general population audience to determine if the results found among college students are similar among the general population.

In this study manipulated transparent communication and perceived transparency both had a significant effect on the attitudes of the subjects participating in the study. These results suggest that agricultural practitioners should utilize transparency in their communication practices, especially when communicating with those who are part of the Millennial Generation. Literature indicates that Millennials find confidence in companies that communication transparently (Red McGregor, 2012) and this study suggests that

Millennials will have more favorable attitudes toward those who communicate in a transparent manner.

However, practitioners should be cautioned that communicating in a transparent manner does not ensure improved attitudes. The target audience of the communication must first access and attend to the communication (Fagotto & Graham, 2007) In addition, the target audience must perceive the communication to be transparent (Gower, 2006). In this study, the subjects were incentivized with extra credit to participate in the study and read the message stimuli. Outside the experimental setting, the transparent communication must be presented in a manner that the target audience would attend to. Strategies, such as the use of consumer or audience testimonials, may be affective in attracting a broader target audience to attend the communication. If targeting Millennials, it may be appropriate to use a social media interface such as Facebook because this is a media channel that the Millennial Generation is motivated to use (Shreffler, 2012). Practitioners should assess the needs of their target audience and the media that they commonly use. This assessment will allow practitioners to determine the best channel to communicate through in order to reach their target audience before implementing transparent practices.

Practitioners should plan for the additional challenges associated with the implementation of transparent communication. The literature suggests that the exposure of weaknesses, unauthorized use of information, loss of independence, a proactive management style, and additional costs are all challenges associated with transparency (Barling et al., 2009; Buelens et al., 2005; Rawlins, 2008a; Rawlins, 2008b). Practitioners should be prepared to deal with each of these challenges and address them as they arise.

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Going into labor: A content analysis of the

Florida Department of Agriculture marketing videos

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Abstract

The Florida Department of Agriculture and Consumer Services has implemented several different marketing techniques to reach consumers. One of these techniques is to use Public Service Announcement (PSA) videos. Individuals' perceptions on a topic are influenced by the information they are presented; in turn, these perceptions can determine their attitudes toward an issue. The content of the PSAs is thus highly influential, because it not only may leave viewers with an inaccurate or accurate impression of reality, but may also affect their opinion about Florida agriculture.

To document the way the Florida Department Agriculture and Consumer Services portray Florida agricultural labor, a content analysis of the 40 television PSAs was conducted and compared to the United States Department of Agriculture (USDA) official labor statistics, as well as to estimates of non-documented migrant labor in the state of Florida. The results of this inter-reality comparison show three different characteristics of the PSA videos: a slight underrepresentation of female laborers; an accurate representation of non-white laborers when compared to USDA data; and a focus on final products rather than labor. As a result, the PSAs are providing consumers with a fairly accurate portrayal of Florida agriculture regarding the demographics of agriculture workers in Florida; however, little focus is given to the production process of agriculture.

Keywords: agriculture labor; content analysis; video PSA; agriculture PSA; video PSA; video content analysis; roles in agriculture

Introduction

The Florida Department of Agriculture and Consumer Services has implemented several different marketing techniques to reach consumers, encouraging them to buy local foods with the tagline “Fresh from Florida” (Department of Florida Agriculture and Consumer Services, 2013). One of the techniques to reach Florida consumers was to use Public Service Announcement videos. The goals of the PSAs were “to promote Florida agricultural products and expand markets for Florida producers. The division also produces public service announcements that provide information about Florida programs and regulatory responsibilities” (Department of Florida Agriculture and Consumer Services, 2013, para. 1). The of act of marketing products due to the demands of the economic market place can be traced back to the beginning of the century (Sheth & Parvatiyar, 1995); however using videos in conjunction with social media sharing has been a relevantly new concept (Rhoades & Ellis, 2010).

When attempting to inform individuals/consumers about a topic or issue, the information presented will be used by the individuals to form perceptions about the issue; and in turn, these perceptions will determine how the individuals view the topic (Adoni & Mane, 1984). People use a variety of different forms of media to help form perceptions and attitudes about the agricultural industry (Telg & Irani, 2012). Also, visual information and images portrayed to the public should be congruent with the mission and values of the organization so that consumers are appropriately informed both textually and visually about the organization (Edgar & Rutherford, 2012). Therefore, when the Florida Department of Agriculture and Consumer Services used PSA videos to inform consumers about buying Florida-grown agriculture products, they provided consumers with information that may be potentially used by individuals to form their perceived reality of the Florida agricultural industry. Thus, it is critically important that a government source of information provide consumers with accurate information in which to form their perceptions about the agricultural industry. This information should include an accurate portrayal of the labor force involved in the agricultural industry so that consumers are accurately informed about how the food and fiber products of Fresh from Florida were produced. This accuracy will help to create an informed Florida consumer.

Florida is ranked as one of the top three states for immigrant workers to earn wages as laborers in the agricultural industry (Passel, 2005). Therefore, the PSA videos used to market Florida agriculture should accurately portray the labor force of the state's agricultural industry, including the migrant worker population that contributes to the industry, if the videos are to be informational about the Florida agricultural industry. Providing consumers with an accurate portrayal of the industry is one way of creating an informed citizenry.

The purpose of this research was to determine if the Florida PSA agriculture videos were accurate in the portrayal of the agriculture workforce, as compared to the documented U.S. Department of Agriculture statistics. This research aligns with the second priority on the National Research Agenda for the American Association for Agricultural Education (Doerfert, 2011). The second priority is focused on technology adoption and its impact on consumers. The priority area also addresses the need for research related to technology to be focused on understanding the use of technology in the formation of consumer perceptions (Doerfert, 2011).

Therefore, the following research questions were used to guide this research:

RQ_1: How is labor in Florida's agricultural industry portrayed in videos produced by the state, aimed at marketing Florida agriculture?

RQ_2: How does the labor portrayed in the marketing videos, produced by the state of Florida, compare to the labor statistics from the U.S. Department of Agriculture?

Literature Review

PSAs are a form of advertisement that can evoke emotional responses through the use of persuasive presentation of information (Dillard & Peck, 2000). Public Service Announcements can also be referred to as Public Service Advisements, based on the funding to produce the media (Lynn, Wyatt, Gaines, Pearce, & Vanden Bergh, 1978; Murray, Stam, & Lastovicka, 1996). "Public service advertising (PSA) is used to increase awareness of and to stimulate action on social problems" (Lynn et al., 1978, p. 716). PSAs, in general, have been used to bring public awareness to issues within society (Lynn et al., 1978; Murray et al., 1996). With a distinct change in how the public connect and share information, so has the way in which communication specialists must develop marketing campaigns, including PSAs, to reach technology-adapting consumers (Abroms & Lefebvre, 2009). As the availability and scope of technology has increased, an individual's connection to a constant stream of information, via the Internet and mobile devices, has created a society of people submerged in constant information (Tonsor & Wolf, 2011). This information can come in a variety of forms and can even serve as a form of entertainment (Rhoades & Ellis, 2010; Ruth, Lundy, & Park, 2005; Tonsor & Wolf, 2011). Using videos as a means of conveying information to the public, in the form of entertainment, has been becoming increasingly popular, especially in the agriculture sector (Rhoades & Ellis, 2010; Tonsor & Wolf, 2011). This medium of information dissemination about the agricultural industry can be a detriment to the field if the video does not portray agriculture in an accurate manner (Tonsor & Wolf, 2011). In a study conducted to determine consumers' perceptions of the dairy industry, researchers showed various videos of the dairy processes and procedures for collecting milk. One of the videos was developed by a dairy organization and one by an organization opposed to the dairy organization's production standards (Tonsor & Wolf, 2011). The researchers found that when presented with conflicting views of the dairy industry consumers' perceptions of the dairy industry became more "sensitive" (Tonsor & Wolf, p. 507, 2011). This change in consumer perception sensitivity was attributed to the increasing awareness and knowledge-seeking behavior consumers are actively participating in to educate themselves about where and how they receive their food (Tonsor & Wolf, 2011). The research also further solidifies that the use of video about the agriculture industry does have the power to shape consumer perceptions about the reality of how their food is produced (Tonsor & Wolf, 2011).

Another study used an episode from the reality television show "The Simple Life," featuring the television stars working on a farm, to determine viewers' perceptions on the true nature of the television series' portrayal of farm life (Ruth et al., 2005). The study found that those participants who had experience working on a farm did not view the television series as more than entertainment; while those participants without first-hand experience of working on a farm perceived the show as a more accurate portrayal of farm life. "Viewers lacking in agriculture backgrounds demonstrated little understanding of the information and intellectual ability necessary to operate a modern farm. This lack of knowledge, however, did not affect their enjoyment of the show" (Ruth et al., 2005, p. 33).

Similarly, another study found that when viewing videos on social media sites (such as YouTube) viewers were not as concerned about whether or not the purpose of the video was designed purely for entertainment or intended to be used as an educational piece of material when using the video to form perceptions, specifically about the agricultural industry (Rhoades & Ellis, 2010). Studies such as these illustrate the need for accurate information, especially in the form of entertainment, about the agricultural industry as a whole to be produced and circulated to the general public to ensure individuals are using credible information to form perceptions, and not over-dramatized material (Ruth et al., 2005). Similarly, it has been shown that consumers are skeptical of advertisement or commercial type messages (Goodwin, Chiarelli, & Irani, 2011). Goodwin et al. (2011) recommended for messages related to the agricultural industry to be personal rather business driven. “In addition, to decrease the occurrence of unfavorable messages, it is recommended that agricultural communicators avoid messages that cause failure, distrust, skepticism, and inaccuracy in the eyes of the consumer” (Goodwin et al., 2011, p. 30-31). With that in mind, understanding the dynamics of the labor force responsible for providing the food and agricultural products is as important as knowing how the food was grown (Martin & Calvin, 2010).

Farmer Workers in the U.S.

A study, conducted by the USDA, found that the number of hired farmworkers is estimated to exceed 1 million (Kandel, 2008). This means that hired farmworkers account for over one-third of the 3 million individuals employed in the U.S. agricultural industry (see Figure 1) (Kandel, 2008). The study also found that Florida is one of the six states that employ over half of all Hispanic hired farmworkers. The other states include California, Texas, Washington, and North Carolina (Kandel, 2008). The study also recognized that “half of all hired crop farmworkers lack legal authorization to work in the U.S.” (Kandel, 2008, p. iii). Also of interest, agricultural work was found to be one of the most hazardous types of work conducted in the U.S., since laborers are exposed to pesticides, inclement weather, and often work without healthcare (Kandel, 2008). The USDA’s 2008 report profiling the U.S. farmworker described the laborers as younger in age, with little to no education, and lacking authorization to work in the U.S. due to citizenship status (Kandel, 2008). Female farmworkers are far less prevalent than male farmworkers, with one in every five hired farmworkers being female (Kandel, 2008). Over

40 percent of hired farmworkers are Hispanic, and all of those workers who are not citizens of the U.S. and are hired farmworkers are Hispanic (see Figure 1 and Table 1) (Kandel, 2008).

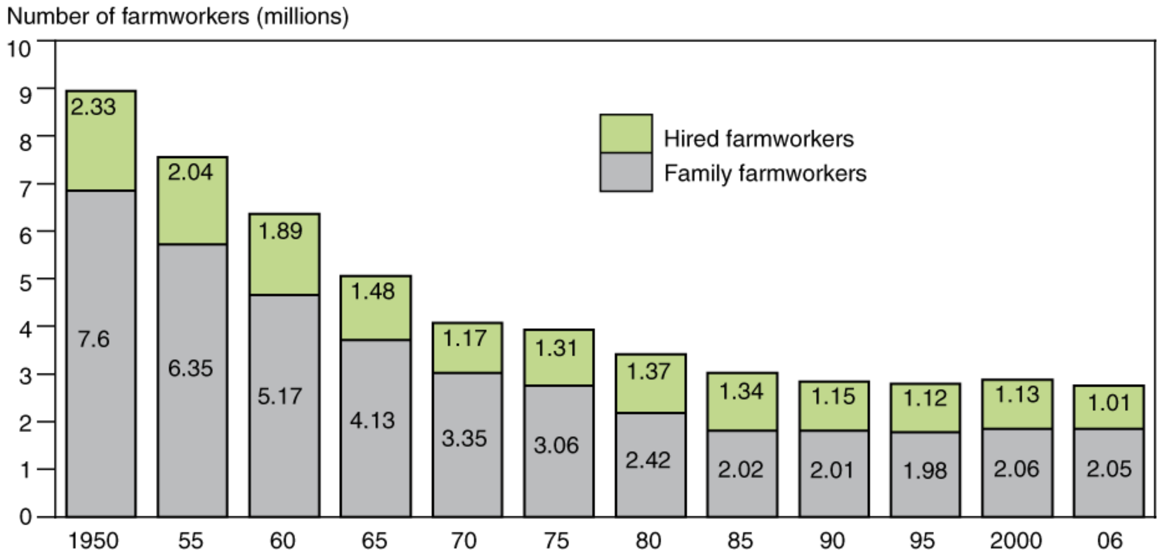

Figure 1. Number of farm workers in U.S. (Kandel, 2008).
Notes: Family farmworkers include self-employed farmers and unpaid family members. Hired farmworkers include direct hires and agricultural service workers who are often hired through labor contractors.

In 2004, almost 14 million people within migrant families lived in the U.S. (Passel, 2005). Of those 14 million people, 56 percent of the adults were men, 44 percent of the adults were women, and 14 percent of all the unauthorized individuals were children (Passel, 2005). The Pew Research Center found that over 3 million of the children belonging to unauthorized, migrant families were U.S. born, and therefore, citizens of the U.S. (Passel, 2005). This study also found that with this population of migrant workers, farming was the most predominant occupation, followed by cleaning and construction (Passel, 2005). It was also found that the flow of immigrants into the U.S. has remained steady over the years, with an increase in unauthorized immigrants (Passel, 2005).

Social Construction of Reality Theory

The theoretical framework supporting this research is social construction of reality. This theory lends itself well to this study because previous literature connects the concept of media and its ability to shape individuals' perceptions of reality (Adoni & Mane, 1984; Dispensa & Brulle, 2003; Siu, 2009).

Table 1
2006 Demographic characteristics of hired farmworkers (Kandel, 2008)

	Hired Farmworkers			Wage & Salary Workers		
	Noncitizen	Citizen	Total	Noncitizen	Citizen	Total
Citizenship Status	37.6	62.4	100.00	9.2	90.8	100.0
Sex						
Male	82.7	79.9	80.9	63.6	50.7	52.1
Female	17.3	20.1	19.1	36.4	49.3	47.9
Median Age	34	34	34	34	40	40
Hispanic ethnicity	94.6	12.0	43.0	61.8	9.1	13.7
Race						
White	94.3	90.2	91.7	73.4	82.4	81.6
Black	0.6	6.0	4.0	8.3	12.4	11.9
Native American	2.1	1.0	1.4	0.9	0.7	0.7
Asian	3.0	2.9	2.9	17.5	4.6	5.7
Country of Birth						
Mexico	90.3	5.3	37.3	41.2	1.2	5.1
All other countries	9.7	2.0	4.9	58.8	6.6	11.3
U.S.	0.0	92.6	57.8	0.0	92.2	83.6
Spanish only Household	64.0	4.1	26.7	30.7	1.3	4.0

Social construction of reality, related to the media, inherently combines individuals as well as the society in which those individuals live and the culture that surrounds them into a single, comprehensive cycle for forming perceptions about issues relevant to them and their lives (Adoni & Mane, 1984). Within this cycle, individuals play equal roles in creating the reality in which they live, and in turn the world those connected to them, through a variety of means (Adoni & Mane, 1984).

Media play an integral role in providing information to individuals about issues within society (Siu, 2009). How those within the field of media and communication determine what information to disseminate to society can be influential in how people think or view an issue (Entman, 1989). "One crucial component of civil society is the formation of a free and independent media. A democratic and open society is premised on the free flow of information among citizenry" (Dispensa & Brulle, 2003, p. 77). This open communication and exchange of ideas allows individuals to shape their own opinions and beliefs about a topic or issue (Dispensa & Brulle, 2003). However, a study examining the effects of framing of tobacco use by newspapers, found that the media can differ in how information is presented to consumers, and the presentation and prevalence will impact individuals' and society's view of the issue (Sui, 2009).

Results from another content analysis found that newspapers were more likely to repress the severity of the issue of global warming, potentially due to fear of repercussions from big corporations, who are large contributors to both global warming and the media industry (Dispensa & Brulle, 2003). This study also surmised that the media is impeding the dissemination of information and knowledge individuals need about global warming to make informed decisions about the ways in which they live their lives and interact with the world around them (Dispensa & Brulle, 2003). The findings from this study show the implications if individuals are not given enough information to form opinions about an issue and how this impacts their life; and in turn, the individual's reality may be skewed due to lack of information (Adoni & Mane, 1984; Dispensa & Brulle, 2003).

METHODS

To document the way Department of Florida Agriculture and Consumer Services market Florida agriculture through the "Fresh from Florida," the researchers analyzed the 40 television PSAs available at the department's website (http://www.Florida-agriculture.com/video.htm).

The data collection protocol focused on the demographic characteristics of laborers and consumers. To address the gap between the portrayal of laborers/consumers and reality, the interreality comparison measures were used (Dixon & Linz, 2000). According to Dixon and Linz (2000) "Interrole and intergroup comparisons allow us to measure the television environment and image effects in viewers' cognitive representations of the social world after exposure to television (p.135)." These comparisons, while insightful, do not address the accuracy of the scenes as portrayed by the form of media; therefore, it is unknown if the perceptions viewers form from the television are accurate, or based off of sterotypes (Dixon & Linz, 2000).

To proceed with the interreality comparison, the researchers utilized the data from the USDA Economic Research Service (2013), USDA National Agricultural Statistics Service (2008), and the report by Kandel (2008).

Coder Training and reliability

Coder training took place over two days and each session lasted approximately one hour. During these sessions, coders identified problems with the codebook and defined guidelines for coding using 24 randomly selected PSAs. After discussions, the researchers decided to remove two videos from the sample, since they did not relate specifically to Florida agriculture or agricultural products. They were PSA about horses and termite protection in Florida. Video number 1 and 2 were identical and coded only once.

To code the PSAs, the coders analyzed each of the videos in 6-second segments. The videos were around 20 – 45 seconds in length; totaling three to six coded sections for each PSA.

For the reliability tests, each coder received nine randomly selected identical videos, totaling 54 segments (24.3% of the total sample). Krippendorff's alpha was used to assess reliability. The researchers eliminated one variable that did not attain desired reliability. Each coefficient is reported in the following sections (see Table 2).

The first component identified was if the video segment portrayed laborers. Laborers were defined as people working in un-harvested, raw, or products in production; including crop work, cattle ranching, fruit and vegetable gathering, selecting and packing. Each segment could portray either on individual laborer (α =0.87) or a group of laborers (α =0.94). Laborers were defined as a "group" when they appeared in groups of more than three individuals in the same scene. Race, gender, and activity for each laborer that appeared on the segment were coded. Coders reached perfect agreement on race and gender for laborers in videos 2, 4, and 5. The alphas from race and gender of laborers in videos 1 and 3 ranged from 0.85 to 0.90. The alphas for activity portrayed ranged from 0.85 to 1.00 (see Table 2). Here, it is important to note that the researchers recognize a difference between race and ethnicity (Rodriguez, 2000); however, given the context of the video PSAs, there was no way to determine ethnicity. Ethnicity refers to a way of life for individuals, involving internal and external factors (Rodriguez, 2000), which were not determinable in this analysis.

For the group of laborers, coders reached perfect agreement on the dominant gender, race, and activity among the group (α =1.00).

Consumers were identified as people buying, preparing, or consuming the final agriculture product. For example, fruits at the grocery store or vegetables at the consumer's

Consumers were identified as people buying, preparing, or consuming the final agriculture product. For example, fruits at the grocery store or vegetables at the consumer's table.

Table 2
Inter-coder reliability results

Laborer variables		**Consumer variables**	
	Krippendorff's Alpha		Krippendorff's Alpha
Does the segment portray an individual laborer?	0.87	Does the segment portray an individual consumer?	0.96
What was the gender of laborer #1?	0.90	What was the gender of consumer #1?	0.84
What was the race of laborer #1?	0.90	What was the race of consumer #1?	0.80
What activity is laborer #1 engaged in?	0.95	What activity is consumer #1 engaged in?	0.88
What was the gender of laborer #2?	1.00	What was the gender of consumer #2?	0.73
What was the race of laborer #2?	1.00	What was the race of consumer #2?	0.73
What activity is laborer #2 engaged in?	1.00	What activity is consumer #2 engaged in?	0.74
What was the gender of laborer #3?	0.85	What was the gender of consumer #3?	1.00
What was the race of laborer #3?	0.85	What was the race of consumer #3?	1.00
What activity is laborer #3 engaged in?	0.85	What activity is consumer #3 engaged in?	1.00
What was the gender of laborer #4?	1.00	What was the gender of consumer #4?	1.00
What was the race of laborer #4?	1.00	What was the race of consumer #4?	1.00
What activity is laborer #4 engaged in?	1.00	What activity is consumer #4 engaged in?	1.00
What was the gender of laborer #5?	1.00	Was there a group of consumers portrayed in the segment?	1.00
What was the race of laborer #5?	1.00	Was there a dominant gender among the group?	1.00
What activity is laborer #5 engaged in?	1.00	If yes, what was the dominant gender of the group?	1.00*
Was there a group of laborers portrayed in the segment?	0.94	Was there a dominant gender race among the group?	1.00
Was there a dominant gender among the group?	1.00	If yes, what was the dominant race of the group?	1.00
If yes, what was the dominant gender of the group?	1.00	What activity was the group engaged in?	1.00
Was there a dominant gender race among the group?	1.00		
If yes, what was the dominant race of the group?	1.00		
What activity was the group engaged in?	1.00		
* Invariant values			

Consumers could also be coded individually (α=0.96) or in groups of consumers (α=1.00). The reliability for gender (α=0.73), race (α=0.73), and activity (α=0.74) of consumer

2 were the lowest of all variables. The alphas for gender, race and activity of consumer 1 – first one that appeared on the video – ranged from 0.80 to 0.88. The coders reached perfect agreement (α=1.00) on all other variables.

Results

To determine how the labor of Florida's agricultural industry was portrayed in the PSA videos produced by the Florida Department of Agriculture and Consumer Services, aimed at marketing Florida agriculture (RQ_1), the race and gender of each laborer and consumer portrayed in the videos and the activity they were engaged in (laborers or consumers) were analyzed using cross tabulations.

A significant difference was found when the race of the laborers and consumers in the PSA videos was compared to the activity they were engaged in (χ^2 (1, N=177) = 11.97, $p < .001$). Also, a significant difference was found when the gender of the laborers and consumers, and the activity they were engaged, in was analyzed (χ^2 (1, N=179) = 17.59, $p < .001$) (see Table 3). These findings were obtained to answer $RQ_{1.}$

In regards to race, 87% (n = 67) of the laborers portrayed were white. Non-whites represented 12.89% (n = 10) of the laborers in the video. Although research questions did not address the characteristics of the consumers portrayed, one important finding was that females (52.57%, n = 51) are more likely to be portrayed as consumers than males (47.42%, n = 46), and the difference between white and non-white consumers was smaller than white and non-white laborers (see Table 3). Overall, whites and males were more likely to be portrayed as laborers in Florida's PSA videos.

To answer the second research question, "How does the labor portrayed in the marketing videos, produced by the state of Florida, compare to the labor statistics from the U.S. Department of Agriculture?” the results from the cross tabulation were compared to those results from the U.S. Department of Agriculture.

Table 3
*Characteristics of Laborers and Consumers - Florida Agriculture PSA**

	Laborers		*Consumers*		*Total*	
*Gender***	n	%	n	%	N	%
Male	64	78.04	46	47.42	110	61.45
Female	18	21.95	51	52.57	69	38.54
Total	82	100	97	100	179	100
*Race****	n	%	n	%	N	%
White	67	87.01	64	64	131	74.01
Non-white	10	12.98	36	36	46	25.98
Total	77	100	100	100	177	100

**Excluding segments that portrayed no laborers/consumers*
Excluding laborers and consumers where race/gender could not be defined
***Note* χ^2 *(1, N=179) = 17.59, p <.001*
****Note* χ^2 *(1, N=177) = 11.97, p <.001*

It is important to note that the full data set used by the USDA for the following findings was unavailable to the researchers of this study. However, since the statistics used for comparison were obtained from the USDA (USDA National Agricultural Statistics Service, 2008), a credible and reviewed source, the statistical comparison is relevant (see Table 4).

The PSA videos from the Florida Department of Agriculture portrayed 87.01% of the laborers as white (n = 67) and 12.98% as non-white (n = 10). In 2012, the USDA Economic Research Service (2013) found that 81% of farm laborers were white (n = 115,548,930) and 19% were non-white (27,104,070) in the U.S. Also, the USDA Agricultural Statistics Service (2008) reported that 95.06% of the total U.S. workers in Florida were white (n = 67,569) and 4.9% were non-white (n = 3,507) (see Table 4).

Although, not part of the original research questions, the findings related to gender within the PSAs merit discussion. Females were represented as workers in 21.95% (n = 18) of the

Florida videos, whereas they represent 47% (n = 67,046,910) of the agricultural workforce (USDA Economic Research Service, 2013) and 35.73% (n = 25,400) of the agriculture operators in Florida (USDA Agricultural Statistics Service, 2008).

Table 4
Characteristics of Laborers Florida Agriculture PSA compared to USDA statistics

	Florida PSA* Laborers		All U.S. wage and salary workers (USDA) 2012**		Florida Farm workers 2007***	
Gender	n	%	n	%	n	%
Male	64	78.04	75,606,090	53.00	45,676	64.26
Female	18	21.95	67,046,910	47.00	25,400	35.73
Total	82	100.00	142,653,000	100.00	71,076	100
Race	n	%	n	%	n	%
White	67	87.01	115,548,930	81.00	67,569	95.06
Non-white	10	12.98	27,104,070	19	3,507	4.9
Total	77	100.00	142,653,000	100.00	71,076	

**Excluding segments that portrayed no laborers/consumers*
***Source: USDA-ERS analysis of data from U.S. Census Bureau, Current Population Survey.*
**** 2007 USDA Census of Agriculture. Selected Operator Characteristics by Race.*

Finally, to complement the findings about the characteristics of portrayed labor in Florida agricultural videos, frequencies were analyzed on specific types of labor activities portrayed (see Table 5).

Of the video segments, 20.3% (n = 45) portrayed at least one individual laborer, and 1.8% (n = 4) portrayed a group of three or more laborers. Related to consumers in the PSAs, 24.2% (n = 55) of the segments showed an individual consumer, and 3.2% (n = 7) showed a group of consumers. The vast majority of segments did not portray laborers or consumers, focusing on the agricultural product.

When individual laborers were portrayed, whites were more likely to be portrayed in crop work (22.39%, n = 15) or cattle ranching (20.90%, n = 14); and non-whites were more portrayed in gathering (30%, n = 3) or packaging (30%, n = 3). The USDA Agricultural Statistics Service data (2008) (see Table 6) indicated that the white dominance on agricultural labor happens on all levels, laborers and managers.

Female laborers were more likely to be portrayed in gathering (22%, n = 4) and sales (22%, n = 4), although there was a male dominance in all activities (see Table 5). There was no significant difference among the consumers' gender and race, except for recreation: most people engaged in swimming, canoeing, fishing or other recreational activities were white males (see Table 5).

Table 5
Frequencies of activity portrayed by laborers and consumers - Florida Agriculture PSA

Does the segment portray an individual laborer?		n	%
	Yes	45	20.3
	No	177	79.7
Does the segment portray an individual consumer?		n	%
	Yes	55	24.2
	No	167	75.8
Does the segment portray a group of laborers*?		n	%
	Yes	4	1.8
	No	218	98.2
Does the segment portray a group of consumers*?		n	%
	Yes	7	3.2
	No	215	96.8

Race		White		Non-white		Can't define	
Laborers		n	%	n	%	n	%
	Crop Work	15	22.39	0	0.0	0	0.00
	Cattle ranching	14	20.90	0	0.0	0	0.00
	Gathering	3	4.48	3	30.0	0	0.00
	Sorting	0	0.00	1	10.0	0	0.00
	Packaging	3	4.48	3	30.0	0	0.00
	Transportation	8	11.94	2	20.0	0	0.00
	Conservation	5	7.46	0	0.0	0	0.00
	Forestry	4	5.97	0	0.0	0	0.00
	Beekeeping	5	7.46	0	0.0	4	66.67
	Sales	8	11.94	0	0.0	0	0.00
	Other	2	2.99	1	10.0	2	33.33

	Total	67	100.0	10	100.0	6	100.00
Consumers							
	Shopping	20	31.25	7	20.00	0	0
	Cooking	10	15.63	7	20.00	0	0
	Eating	23	35.94	19	54.29	1	50
	Recreation	9	14.06	1	2.86	1	50
	Other	2	3.13	1	2.86	0	0
	Total	64	100.0	35	100.00	2	100
Gender		Male		Female		Can't define	
Laborers		n	%	n	%	n	%
	Crop Work	12	19.35	3	16.67	0	0
	Cattle ranching	14	22.58	0	0.00	0	0
	Gathering	2	3.23	4	22.22	0	0
	Sorting	1	1.61	1	5.56	0	0
	Packaging	4	6.45	2	11.11	0	0
	Transportation	10	16.13	0	0.00	0	0
	Conservation	2	3.23	3	16.67	0	0
	Forestry	4	6.45	0	0.00	0	0
	Beekeeping	5	8.06	0	0.00	4	100
	Sales	4	6.45	4	22.22	0	0
	Other	4	6.45	1	5.56	0	0
	Total	62	100.0	18	100.00	4	100
Consumers							
	Shopping	12	26.67	15	29.41	0	0
	Cooking	7	15.56	9	17.65	0	0
	Eating	17	37.78	23	45.10	1	50
	Recreation	7	15.56	3	5.88	1	50
	Other	2	4.44	1	1.96	0	0
	Total	45	100.0	51	100.00	2	100

Discussion/Conclusions

The results of the inter reality comparison showed three different characteristics of the PSA videos: under-representation of female laborers; accurate representation of non-white laborers when compared to USDA data; and a focused on products over labor.

Females were underrepresented in the videos, as compared to official statistics regarding farm workers (USDA Economic Research Service, 2013). The PSA videos underrepresented female workers mainly because they focus on farm managers, crop supervisors, and cattle ranchers, which are positions primarily dominated by males (see Table 4). According to the official USDA statistics, females already hold lower positions, which are not the emphasis of the PSAs (USDA Economic Research Service, 2013).

In regards to the inter reality comparison for race, it is important to note that only data that accounted for hired farm workers was used. Here, the researchers reinforce the importance of highlighting that about 50% of the labor force in U.S. agriculture is undocumented (Kandel, 2008). In states like Florida, Texas, and California, these numbers are even larger (Kandel, 2008). In this sense, neither media nor official statistics provide an actual depiction of reality. This is a limitation of the study due to the unknown number of undocumented workers. However, according to the available data from the USDA Agricultural Statistics Service (2008) and the Pew Hispanic Center (Passel, 2005), the Florida agriculture marketing PSA videos did depict similar labor, in regards to race, to the public.

Finally, although there was still a focus on final products over labor, the videos showed a tendency to connect agriculture with consumption within the messaging with tag lines like "where it comes from." Unrelated to any of the research questions posed for this study, it was found that the videos focused heavily on connecting the consumer to the laborer/origin of their food and agricultural products (see Table 4). As the literature shows, there is a growing distance between the consumer and the producer of agricultural products (Rhoades & Ellis, 2010; Ruth et al., 2005; Tonsor & Wolf, 2011); therefore, it could be postulated that the Florida Department of Agricultural and Consumer Services marketing was attempting to bridge this divide. This finding also follows with the theory of social construction of reality (Adoni & Mane, 1984; Dispensa & Brulle, 2003 and Siu, 2009), in that Florida through the use of PSA videos constructed an accurate view of laborers' race, but not gender. This is an interesting finding because it highlights one way the state of Florida is attempting to accurately educate the public about Florida agriculture. It is important for consumers to receive accurate information to form educated perceptions about the agricultural industry.

Also, as Goodwin et al. (2011) recommended, the video PSAs show the agricultural industry in a favorable light. Future video PSAs should be cognizant of current trends in agriculture labor to ensure an accurate portrayal of the industry is given to consumers. As Goodwin et al. (2011) noted, consumers frequently rely on past experiences with media and life to form perceptions about the agricultural industry; therefore, "it is suggested that the agricultural industry work toward increasing their presence and the presence of accurate agricultural information in the media" (p. 30). This research showed that the state of Florida is trying to educate the public about the positive nature of Florida agriculture. The accuracy of the information visually portrayed to consumers is important for the formation of their perceptions and thoughts related to FDACS and Florida agriculture as a whole (Edgar & Rutherford, 2012).

As with any research, this research has limitations. The first, and most obvious, problem when using government labor data to study agriculture demographics is the intensive use of seasonal and migrant workers who relocate their place of residence during the course of a growing season. Florida, Texas, and California are the three sending states for migrant workers, who generally return to these after the harvesting season is over. The vast majority of seasonal workers are undocumented immigrants coming from Central America and Mexico (USDA Economic Research Service, 2013).

Although the researchers recognized the impact of undocumented immigrants, ultimately it was decided to combine official labor statistics for inter reality comparison purposes, since reliable data were unavailable for undocumented immigrants. The USDA Agricultural Statistics Service (2008) report, used in Table 4, accounts for demographic characteristics of the Florida farm operators as compared to the U.S. and the Florida PSA videos. In order to minimize these limitations, the researchers included national data on undocumented farm workers (Kandel, 2008) (Table 1). Unfortunately, there were no data that accounted for all Florida farm workers, documented and undocumented.

It is also important to note the difference between race and ethnicity. For the content analysis, the researchers decided to code race as white and non-white, based on evident physical characteristics. Nevertheless, the researchers recognize how this approach can be simplistic. According to Rodriguez (2000), “ethnicity and race, however, have a fluidity and complexity that are not often acknowledged but nonetheless evident” (p. ix). For this research, the researchers did not attempt to code for ethnicity, instead relied upon a binary paradigm of race (white/non-white). This approach seemed to be the best considering both the information about the laborer/consumer portrayed available (images only), and the goal of the research, which focused on perception and representation.

In conclusion, understanding that videos have an impact on how individuals form perceptions about the U.S. agricultural industry, it is imperative that PSAs and other marketing media produced by the industry provide an accurate portrayal of how food and agricultural products are produced. The accurate portrayal of the agricultural industry extends into the labor within the sector itself. Research has shown that Hispanic and migrant workers make up a substantial portion of the laborers used to produce and process agricultural products (Kandel, 2008). As such, the videos produced by the agricultural industry should strive for an accurate representation of laborers in the industry to better educate consumers.

It is recommended that future research should be conducted to determine if PSA videos in other states are portraying the labor sector of the agricultural industry in an accurate manner. Also, national research to examine consumers' perceptions of the labor sector of the agricultural industry would be beneficial for future marketing campaigns to take into account. As agricultural communicators, it is paramount to provide consumers with accurate information about the agricultural industry. Creating accurate videos and PSAs are an integral part of those communication-messaging strategies.

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The pastoral fantasy on the silver screen: The influence of film on American cultural memory of the agrarian landscape

Research Paper

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Abstract

Entertainment media are a powerful source of cultural influence. Films are especially adept at capturing and preserving for posterity the attitudes, actions, and landscapes of historical events and eras, making them part of cultural memory—society's shared recollection of past events as depicted in cultural artifacts. Nowhere is this ability better demonstrated than in cinematic portrayals of American agrarian life. In 2001, the Kellogg Institute found that Americans recall agricultural landscapes as a sort of pastoral fantasy of rolling green hills, forests, and pristine fields crisscrossed by dirt roads. These images, which constitute Americans' shared cultural memory of agrarian existence, may have been influenced by film portrayals of agriculture. For this study, nine films that met criteria for inclusion of agricultural imagery, cultural significance, and release at least ten years prior to the Kellogg study were content-analyzed for their visual and thematic adherence to the pastoral fantasy described by Kellogg respondents. Of those films, only two presented agrarian imagery that did not conform to the pastoral fantasy, including depictions of a West Texas cattle ranch at the height of summer and a Midwestern farm muddied by fall harvest. The remaining films contained imagery strongly associated with the pastoral fantasy, indicating that they may serve as vehicles for traditional agricultural themes.

Keywords: Agriculture, cultural memory, film, visual imagery

The pastoral fantasy on the silver screen: The influence of film on American cultural memory of the agrarian landscape

Introduction

Entertainment is embedded in humanity's understanding of culture. Per Stromberg (2011), "entertainment is by now so thoroughly woven into the fabric of our existence [that]…the culture of entertainment is arguably the most influential ideological system on the planet" (p. 3). History is constantly being recreated and repackaged for successive generations in film and television dramas, comedies, and documentaries (Eley, 2001; Steveker, 2009). Film provides a means of historical recollection, contextualization, and even rehabilitation: As movies capture the oeuvre of a particular era, they also preserve for successive generations the attitudes, actions, and landscapes of bygone days as framed by screenwriters, directors, and producers (Caldwell, 2008). The real power of entertainment media, therefore, lies in their ability to alter and naturalize specific interpretations of sociocultural phenomena (Chadwick, 2002).

Agricultural production in the United States is limited to a fraction of the nation's population, though the food and fiber industry once reigned as the primary occupation of the majority of Americans (Conkin, 2008; Hurt, 2002; Kolodny, 1975). As the nation has moved away from its agricultural foundations, a sort of mythology of the agrarian U.S. has emerged, hearkening back to—and even yearning for—the bucolic imagery of pre-industrial rural America. Marx (1964) notes that this fantastic portrayal has pervaded American culture for centuries, culminating in cultural symbols replete with images of "a fresh green landscape…a virgin continent!" (p. 3).

This "agrarian myth" (Appleby, 1982) has been in part shaped by entertainment media; to understand society's cultural construction of U.S. agriculture, we must first understand the apparatuses through which Americans glean their knowledge about the food and fiber industry.

To date, little research has been done to describe and catalog entertainment media portrayals of food and fiber production and their influences on public perception (Holt & Cartmell, 2013; Ruth, Lundy, & Park, 2005). As part of a larger endeavor to aggregate and analyze media texts that describe, discuss, or portray American agriculture, this study was undertaken to explicate how films have created and reified the pastoral ideal of rural American life in fulfillment of National Research Agenda Priority 1: Public and Policy Maker Understanding of Agriculture and Natural Resources (Doerfert, 2011).

Review of Literature

Cultural Memory

The mechanization through which visual and narrative discourses are crystallized and preserved in the collective mind—how they come to constitute social reality—is cultural memory. Since its inception, the term has been used to describe a wide array of phenomena "ranging from individual acts of remembering in a social context to group memory…to national memory with its 'invented traditions,' and finally to the host of transnational *lieux de mémoire* such as the Holocaust and 9/11" (Erll, 2008a, p. 2). "Cultural memory," therefore, is a broad conceptual framework that transcends traditional scholarly boundaries of social, material, and mental aspects of human life.

Interest in cultural memory grew in the late 1980s and early 1990s as traditional memory scholars found themselves increasingly studying questions of identity, the politicization of imagery, and the ability of narrative to shape historical thought (Sturken, 2008). Cultural memory conceptually redefines memories as "narratives, as fluid and mediated cultural and personal traces of the past" (Sturken, 2008, p. 74) rather than semi-permanent historical artifacts.

In short, cultural memory may be defined as “the store of background knowledge that one calls upon when interpreting the everyday commonsense world” (Wekesa, 2012, p. 235; Werner, 2003)—a store dependent upon the individual’s experiences, knowledge, beliefs, and values.

Film and television tend to present an idealized and sentimentalized version of a culture’s history to their audiences:

> Fictional media…are characterized by their power to shape the collective imagination of the past in a way that is truly fascinating for the literary scholar (and somewhat alarming for the historian)…[possessing] the potential to generate and mold images of the past which will be retained by whole generations. (Erll, 2008b, p. 389)

These media mainstream cultural memory toward sociocultural norms and allow audiences to “discover a past that makes the present more tolerable” (Anderson, 2001, p. 23).

In 1915, President Woodrow Wilson declared filmmaking to be “writing history in lightning” (Hansen, 2001, p. 128) after viewing *Birth of a Nation*. The film, which depicted an antebellum Southern society in which the Ku Klux Klan protected innocent white women and children from the threat of freed Blacks, set the stage for continued mythmaking on the silver screen. Hansen (2001) compared *Birth* to Steven Spielberg’s 1993 Holocaust opus *Schindler’s List*, stating that both films “managed to catalyze contesting points of view but…they make visible the contestation among various and unequal discursive arenas in their effort to lay claim to what and how a nation remembers” (p. 127).

In her analysis of *Schindler’s List*, Hansen (2001) described the film as a “Hollywood product” (p. 131). Spielberg’s work, Hansen argued, suffers from a Barthesian “reality effect,” in which the film not only subsumes the tropes, themes, and images of previous Holocaust movies but also “uses them to assert its own truth claims for history” (2001, p. 132). *Schindler’s List*, Hansen contended, also perpetuates anti-Semitic stereotypes—“money-grubbing Jews, Jew-as-eternal-victim”—while decrying the inhuman treatment of those same characters (2001, p. 132). In this way, the film attempts to present an idealized picture of an appalling event while at the same time failing to refute the negative characterization of the victims themselves.

Cultural memory provides a flexible, innovative framework for the study of entertainment media portrayals of sociocultural issues, events, and epochs. This study focuses on a particular industry integral to culture, economy, and history of the United States: agriculture.

Method

Film has long been studied as an important cultural artifact; this study treats feature films as texts for a semiotic, or visual sign-based, content analysis. Content analysis is defined by Krippendorff (2004) as “a research technique for making replicable and valid inferences from texts (or other meaningful matter) to the contexts of their use” (p. 18). The term “context” deserves special attention: As McKee (2001) notes, “There is no way that we can attempt to understand how a text might be interpreted without first asking, Interpreted by whom, and in what context?” (p. 138). Content analysis cannot prove or disprove whether or not a text reflects reality; the purpose of content analysis is to interpret texts as artifacts of particular sociocultural contexts (Crawford, 1988).

Text Selection

For inclusion in this study, texts met three criteria: They incorporated post-industrial agriculture as a plot device and/or setting; fulfilled the requirements to be considered “culturally significant,” operationally defined by the researcher as receiving recognition for excellence and/or wide viewership; and were produced and distributed between 1950—the dawn of modern agriculture—and 1990. The National Film Preservation Board (NFPB) states that films cannot be considered "culturally significant" until ten years after their release; 1990 marks approximately ten years prior to the collection of data that ground the semiotic framework of this study.

Texts were identified as agriculture-related using keyword searches on the Internet Movie Database (IMDB), an online resource that compiles development, distribution, box office, and thematic information related to films, television programs, performers, production personnel, and fictional characters ("IMDB Database Statistics," 2012). To develop a substantive sample for analysis, a variety of keywords were used, including "farm," "farmer," "agriculture," and "rural," with snowball sampling effected using the "Find Similar Titles" command.

Coding

Social semiotic codes classify and frame relationships among meanings, their realizations, and their contexts (Thibault, 1991; Bernstein, 1981). The selected texts were coded into a typology based on the W. K. Kellogg Foundation's study of perceptions of American rural life. The Kellogg study, conducted in late 2001, reported the results of more than 200 telephone interviews with rural, suburban, and urban Americans. The Kellogg study unearthed three primary themes related to perceptions of the rural United States that are directly connected to the nation's food and fiber system: *the pastoral rural landscape*, *the traditional family farm*, and *the decline of the agrarian tradition*. This paper focuses on the first of these: the pastoral fantasy as described by Kellogg study respondents.

The pastoral fantasy. Based on the results of the Kellogg study, the most common perceptions of rural America are tied to the bucolic landscape. A majority of respondents described rural America as a farm-filled pastoral dream world:

Respondents' notions of rural America are dominated by images of the family farm, crops and pastures…Family members toiling over a small farm stand at the center of the painting, but in the background are broad brushstrokes of rolling hills, open space, abundant trees, ditch banks and dirt roads. Taken together, this landscape comprises what many respondents refer to as "the country." (Kellogg, 2002, p. 4)

Findings

Nine texts met the criteria for selection in the study, beginning with 1955's *Oklahoma!* and culminating with 1989's *Field of Dreams*. These films represent a wide variety of production varieties and commodities, ranging from small livestock farms to massive produce operations.

Rodgers and Hammerstein's *Oklahoma!* (1955)

Oklahoma! (Hornblow, Jr., & Zinneman, 1955) is considered a classic film of the movie-musical genre. The film, adapted from the Rodgers and Hammerstein stage production of the same name, was directed by Fred Zinneman. The stage play and film provide a slice-of-life homage to a tightknit agricultural community in Oklahoma Territory circa 1906. The plot details the turbulent romance between cowboy Curly McClain (Gordon MacRae) and his headstrong amour, Laurey Williams (Shirley Jones), which is complicated by the presence of Jud Fry, the lecherous hired hand who runs Laurey's small farm. Underscoring the romantic foibles of the community's young people is a current of tension between the footloose cowboys and the farmers who have more recently settled the territory.

The film serves as a loving homage to the traditional pastoral fantasy: *Oklahoma!* is rife with imagery related to the agrarian ideal. The film's opening credits fade in over a still shot of a traditional farm scene: a red barn surrounded by white fence, haystacks dotting the landscape, and a tidy yellow farmhouse (*Figure 1*). Following the credits, the camera pans to Curly, greeting the day on horseback to the tune of "Oh, What a Beautiful Mornin'." A long tracking shot follows Curly as he rides past a field of waving green corn silhouetted against a brilliant blue sky and a pasture full of well-fed, bald-faced cattle. (Such tracking shots are especially effective thanks to the film's screen ratio: *Oklahoma!* was shot simultaneously in Cinemascope and Todd-AO, two widescreen formats that allowed the filmmakers to take advantage of the natural scenery in wide shots and to compensate for the movement of the actors during dance sequences and large musical numbers.) Curley's destination is the home of Laurey and her Aunt Eller, the picturesque homestead from the opening credits.

Figure 1. Laurey and Aunt Eller's homestead from the film *Oklahoma!*

Elia Kazan's *East of Eden* (1955)

In 1955, Warner Brothers and famed director Elia Kazan released *East of Eden* (Kazan, 1955), an adaptation of John Steinbeck's Pulitzer Prize-winning novel of the same name. *East of Eden*, Steinbeck's variation of the Biblical tale of Cain and Abel, is set in 1917 in Salinas, California, and tells the story of prosperous farmer Adam Trask (Raymond Massey) and his twin sons, Cal (James Dean) and Aron (Richard Davalos). Adam, who longs to be a man of "great ideas," attempts to create a refrigerated train car to carry his produce to New York City; when the project fails, he loses his investment. Seeking his father's approval, Cal invests in bean production, believing that the incipient war with Germany will raise the market value of his crop.

The gamble pays off, and Cal gives the profits to his father as a birthday gift. Adam rejects Cal's money, being morally opposed to war profiteering; in retaliation, Cal shares an upsetting family secret with Aron, who decides to join the army. Adam is felled by a stroke, and Cal remains behind care for his father.

In his review of *East of Eden*, *New York Times* film critic Bosley Crowther remarked upon director Elia Kazan's virtuosic filmmaking:

> The use that Mr. Kazan has made of CinemaScope and color in capturing expanse and mood in his California settings is almost beyond compare. His views of verdant farmlands in the famous Salinas "salad bowl," sharply focused to the horizon in the sunshine, are fairly fragrant with atmosphere. (Crowther, 1955, para. 5)

Like Steinbeck's novel, the film allegorically transforms the California countryside into Eden itself: a rich paradise of green fields where mankind may flourish. As Crowther noted in 1955, Kazan's palette is deeply saturated, the colors lush, the expanses wide thanks in large part to the contemporary film technologies of Technicolor and Cinemascope (*Figure 2*).

Figure 2. Adam Trask oversees harvest in the lush fields in the Salinas Valley.

George Stevens' *Giant* (1956)

In 1956, American audiences were introduced to *Giant* (Ginsburg & Stevens, 1956), a sweeping, oversized ode to the state of Texas based on the novel of the same name by Edna Ferber. Helmed by George Stevens, *Giant* was filmed on location in Marfa, Texas. *Giant* follows the Benedict family of Reata from the days of scion Bick (Rock Hudson) and his East-Coast-bred wife Leslie's (Elizabeth Taylor) marriage in the early 1920s to the oil boom of the 1940s and '50s. While wildcatter ranch hand Jett Rink builds an oil empire, Bick and Leslie raise three children and face the turbulent sociocultural changes of life in 20th Century Texas.

The "pastoral fantasy" is traditionally associated with rolling green hills and copious trees: imagery that is somewhat at odds with *Giant*'s more desolate West Texas setting. However, the film does pay homage to popular perceptions of rural America. The opening scenes, filmed in rural Virginia, are a kaleidoscope of verdant hues, the hills lined with white fence and dotted with farmhouses and wooden barns (*Figure 3*). The agrarian gentility of the "Maryland" countryside is a stark contrast to later scenes set at Reata (*Figure 4*).

Figure 3. Leslie and her father take in the scenery of their Maryland horse farm.

Figure 4. Reata's ranch house looms above its desolate West Texas setting.

Charles Nichols and Iwao Takamoto's *Charlotte's Web* (1973)

Produced by Hanna-Barbera and directed by Charles Nichols and Iwao Takamoto, *Charlotte's Web* (Barbera, Hanna, Nichols, & Takamoto, 1973) reached theaters more than 20 years after the publication of its eponymous novel. Though not a box-office hit when it debuted in theaters in March 1973, *Charlotte's Web* became a family classic upon its release on VHS in the early 1990s. Set on a New England farm in the 1980s, *Charlotte's Web* follows the titular spider and her porcine companion Wilbur from Wilbur's arrival from the Arable farm—where he has been spoiled by Fern, farmer John Arable's preteen daughter—and subsequent discovery of his inevitable fate at the hands of new owner Homer Zuckerman, to the county fair, where Wilbur is honored for his exceptional qualities, thanks in large part to Charlotte's ingenious campaign on his behalf.

Charlotte's Web represents an amalgam of elements inherent to the pastoral fantasy. So powerful is the film's adherence to the conventional portrayal of American agrarian life that the narrator describes the rural landscape's flush of beauty in the springtime: **"**But to me, there's no place more wonderful than a farm in springtime, when the sun is just lifting on the skyline…Buds swell into blossoms. Eggs hatch. Young are born. Everything's off to a fresh start, and everything is good and busy and brand new." Befitting a children's film, the animation's color palette is rich and vibrant, taking full advantage of the bucolic landscape and agrarian subject matter. The film's visual background is a patchwork of fields—a reflection, perhaps, of heroine Fern Arable's surname—peppered with farm buildings, green forests, and winding dirt roads (*Figure 5*).

Figure 5. Homer Zuckerman drives through the scenic New England countryside.

Robert Benton's *Places in the Heart* (1984)

Set in rural Texas during the Great Depression and filmed on location in Waxahachie, *Places in the Heart* (Donovan & Benton, 1984) was written and directed by Robert Benton, who received an Oscar nomination for his work. The film revolves around the struggles faced by widow Edna Spalding (Sally Field) as she fights foreclosure on the family farm. When a drifter named Moze (Danny Glover) offers his expertise in cotton production, Edna jumps at the chance to turn the farm into a profitable business and keep the local bankers at bay. She also takes in a blind boarder (John Malkovich), who, though he wants nothing more than to be left alone when he arrives, quickly adapts to life on the farm with Edna, her two children, and Moze.

Places in the Heart was based on writer-director Robert Benton's own experiences growing up in Waxahachie, Texas, in the 1930s. *New York Times* film critic Vincent Canby (1984) wrote of the cinematography: "They have given the film the idealized look of the work by some of the better, now-anonymous painters who, supported by Federal subsidies during the Depression, traveled around the country covering the walls of public buildings, in small towns and large" (para. 7). As the film progresses, the beauty of East Texan agriculture comes even closer to the forefront. The day of Moze's arrival dawns beautifully: a bright sunrise over the horizon complemented by a rural score of chirping birds and lowing cattle. As the Spaldings' cotton fields bloom with snow-white bolls, the camera pulls away from a close-up of Edna, Moze, and the children feverishly picking (*Figure 6*) to reveal the remaining acreage left to tend. The moment is clearly intended to emphasize the Sisyphean task ahead of the group, but the shot also depicts the rugged splendor of the harvest.

Figure 6. Edna and her family struggle to pick cotton in the blazing Texas heat.

William Witliff's *Country* (1984)

Distributed by Touchstone Pictures, *Country* (Lange, Witliff, & Pearce, 1984) was written by William D. Witliff and filmed primarily in rural Readlyn, Iowa. Witliff co-produced the movie with Jessica Lange, who stars as Jewell Ivy, an Iowa farm wife whose husband Gil (Sam Shepard) runs her family's sheep farm with the help of her aging father Otis (Wilford Brimley). After a tornado destroys part of their corn crop, the Ivy family faces the default of their Farmers Home Administration (FMHA) loans and the loss of the farm, which has been in Jewell's family for generations. The struggle for the land tears at the family, leading Jewell to separate from her husband. However, the suicide of a local farmer harassed by FMHA officials eventually inspires the community to turn against the government administrators, and the Ivy family reunites to fight for their property.

Country is one of the few agriculture-themed films that does not cater to fantastical depictions of farm life in rural America. The cinematography is spare, as Ebert (1984b) notes: The filmmakers seemingly tried to "avoid pulling back into 'Big Country' cliché shots" (para. 1). The landscapes are not green and sumptuous; spring and summer have long past by the Ivy farm. Instead of the blazing sun and heat of a summer setting, the audience is treated to an Iowa harvest and, later, a bleak Midwestern winter. The film opens with Jewell Ivy taking lunch to her husband, son, and father as they toil in the cornfields of their farm: The men are busy unloading seed corn from a rusting combine into an aging truck (*Figure 7*). The land is fecund but not lush, the cornstalks bowing to the elements rather than reaching for the sky—a visual motif later employed by 1989's *Field of Dreams*. When winter arrives, the snowfall does not cover the grime of production but highlights the messiness of farm life as it sinks into tire ruts and puddles.


Figure 7. Gil and Carlisle Ivy bring in the harvest on a chilly Midwestern fall day.

Mark Rydell's *The River* (1984)

The River (Cortes, Lewis, & Rydell, 1984), written by Robert Dillon and Julian Barry and directed by Mark Rydell, completes the trio of agriculture-themed films released in 1984. *New York Times* writer Esther B. Fein (1984) wrote of the three films: “All three movies contain elements of a family's devotion to their farm, a devastating force of nature, an unsympathetic bureaucracy and a strong-willed woman who binds her family during adversity” (para. 4). In *The River*, that strong-willed woman is Mae Garvey (Sissy Spacek). After losing a spring corn planting to devastating flooding, the Mae and her husband Tom (Mel Gibson) seek help from the local bank, where they discover they are at risk of foreclosure. Tom travels south to work as a scab in a steel mill to avoid selling the farm to local entrepreneur Joe Wade; when he returns for the fall harvest, floods once again threaten the Garveys' livelihood.

The River shares with *Country* a number of thematic and even narrative elements, but the differences in their cinematography are glaring. Unlike the stark, realist representation of Midwestern agriculture depicted in *Country*, *The River* turns the Tennessee Valley into a picture postcard of rural beauty. Sunrises and sunsets caress the ramshackle but picturesque Garvey farm with golden light (*Figure 8*); Tennessee hills blaze with fall color as harvest approaches; tall green stalks of corn wave in the summer breeze; even the oft-terrifying river occasionally deigns to trickle peacefully through the landscape.

Figure 8. Despite recent flood damage, the Garvey farm at sunrise is a beautiful sight.

Perhaps most interesting element of the film's visual magnificence is its creation. The beauty of the Tennessee wilderness is Nature's own, but the filmmakers fashioned the Garvey farm themselves: "The land was turned into the Garvey farm. Workers combined old, worn wood with artificially-aged lumber to build the farmhouse, barn and various chicken coops, corrals and pigsties on the property, so that they would blend in with the century-old homesteads in the valley" (Fein, 1984, para. 14). The farm had to be fabricated to fulfill both the film's narrative and the director's dramatic vision for the work. The finished product seems incomplete, however, especially compared to the authenticity of *Country*'s set decoration. The barn, though antiqued, feels too orderly, the old harnesses and tools hung just so, the cattle residing in individual stalls, the goats roaming the property freely.

Peter Weir's *Witness* (1985)

In 1985, director Peter Weir introduced American film audiences to the Amish, a conservative sect of German Anabaptists, in his film *Witness* (Feldman & Weir, 1985). The movie tells the fish-out-of-water tale of John Book (Harrison Ford), a Philadelphia police detective who travels to rural Pennsylvania to protect Samuel Lapp (Lukas Haas), the young Amish witness to a gruesome homicide, and his mother, Rachel (Kelly McGillis). As Book adjusts to "plain" life among the Amish community, the trio eludes two crooked police officers until a dramatic gunfight at the Lapp farm spells the denouement of the case and Book's budding relationship with Rachel.

Critics considered the film's cinematography a highlight, emphasizing as it did the pristine farmland, dirt roads, and undulating landscape of eastern Pennsylvania. So beautiful were these depictions of idyllic Amish country that Pauline Kael, the renowned reviewer for the *New Yorker*, wrote of the film's depiction of rural life: "'Witness' seems to take its view of the Amish from a quaint dreamland, a Brigadoon of tall golden wheat and shiny-clean faces" (Kael, 1985, para. 1). Wide shots depict green fields drenched in sunlight surrounding whitewashed farm buildings in the distance—buildings fashioned by the film crew to recreate an Amish homestead (*Figure 9*). This imagery is repeated in the film as Book and the Lapp family travel to a neighboring farm for a barn raising, an Amish celebration of community and hard work.

Figure 9. The Lapp farm represents the quintessential agrarian locale.

Phil Alden Robinson's *Field of Dreams* (1989)

In 1989, the "mortgage melodrama" genre added another film to its ranks: *Field of Dreams* (Gordon, Gordon, & Robinson, 1989). The movie was filmed largely in farming towns Dubuque and Dyersville, Iowa; the titular field became a major tourist attraction after the film was released. Ray Kinsella (Kevin Costner), a Berkeley graduate and lifelong baseball fanatic, hears a voice whisper from his Iowa cornfield: "If you build it, he will come." One of cinema's most famous lines sets off a series of events: Ray plows under several acres of valuable cropland and builds a baseball diamond; travels to Boston in search of a reclusive novelist named Terence Mann (James Earl Jones), who inspired Ray as a college student; and road-trips with Terence to a small town in Minnesota in search of a former ball player named Moonlight Graham. Back at home, Ray's wife Annie (Amy Madigan) deals with her brother, a businessman who wants to buy the farm before Ray's schemes push the property into foreclosure.

As a narrative work, *Field of Dreams* is a literal pastoral fantasy, combining imagery associated with agriculture with fantastical themes: ghosts, precognition, and time travel. In her review of the film, *New York Times* critic Caryn James (1989) wrote: “Kevin Costner, as an Iowa farmer named Ray Kinsella, looks across his cornfield and sees a vision that glimmers like a desert mirage” (para. 1). The farm itself fulfills the pastoral fantasy of most filmmakers: In the midst of the fertile fields, the Kinsellas’ white farmhouse and neatly painted barns and outbuildings stand as monuments to the small-farm idyll memorialized for decades (*Figure 10*). To punctuate the film’s finale, Robinson affords Shoeless Joe Jackson (Ray Liotta) and Ray the film’s second-most famous piece of dialogue, a telling metaphor for the grandeur of agrarian life:

Joe: Hey, is this heaven?

Ray: No, it’s Iowa.

Figure 10. Working in his fields at twilight, Ray Kinsella envisions the field he will build. This mirage contributes to the fantastical nature of the film.

Discussion

Between 1950 and 1980, portrayals of agriculture tended to idealize food and fiber production and the people involved in the process. Films such as *Oklahoma!*, *Giant*, and *East of Eden* took advantage of new cinema technologies and formats to increase the visual scale of agriculture-centered texts to epic proportions. By the early 1980s, contentious agriculture policies, coupled with the gradual decline of farm numbers, brought the problems facing agriculturalists to the forefront, resulting in the spate of foreclosure-centered agricultural melodramas that endeavored—some more successfully than others—to more realistically depict the struggles of the American farmer.

Of the nine texts examined, only two—*Giant* and *Country*—subvert the idyllic representation of the pastoral wonderland described in the Kellogg report (Kellogg Foundation, 2002) and instead show rural, agrarian America in less-than-stellar form. *Giant*, filmed on location in West Texas, truthfully illustrates the bleached-out prairies of Reata in high summer, a stark contrast to the more idealized agrarian landscapes shown early in the film. *Country*, on the other hand, provides the audience a realistic, almost documentary depiction of the Midwest in fall and winter. The land is bare from harvest, the skies gray and overcast, and the muddy disorder that follows a snowfall is presented without embellishment or apology.

Despite some attempts at realism, most of the films produced in this time span aspire to present agricultural life according to the principles of the pastoral fantasy as described by the Kellogg Foundation researchers: small, storybook family farms replete with crop fields and pastures; rolling hills dotted with acres of forest and crisscrossed by dirt roads. The symbolism of rural America constitutes a typology of visual language related to traditional values. The aforementioned rolling hills and pastures represent the viability and fertility of agrarian land; the verdant shades associated with those landscapes also connote the economic prosperity associated with such fruitful country. The dirt roads, favored by a majority of cinematographers, seem to signify the rugged individualism of the traditional family farmer, set apart both geographically and dispositionally from conventional society.

The continuous and consistent repetition of these visual tropes has, over time, cemented them in American cultural memory. Though it cannot be conclusively stated that film representations of this rural archetype are solely responsible for the propagation of the pastoral fantasy, the abundance of such imagery in the films studied and their parallels to the findings of the Kellogg researchers suggest that media texts have played a key role in the cultural acceptance of this paradigm.

Entertainment media remain an understudied entity within agricultural communications scholarship: To date, only Ruth, Lundy, and Park's (2005) analysis of reality program *The Simple Life* and Holt and Cartmell's (2013) study of the documentary *Food, Inc.* populate the canon of entertainment-media research. This study, therefore, represents a preliminary attempt to delineate the sociocultural influence of entertainment media portrayals of food and fiber production across time. Based on the responses of Kellogg study participants, the agrarian mythos retains a powerful sway on society's perceptions of rural America, and further research is needed to better understand the channels through which idealized depictions are disseminated, the immediate impacts of exposure to these representations, and how agricultural communicators and other industry professionals can counteract those potential audience effects.

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Strategically Marketing to Agricultural Producers in Times of Financial and Legal Distress

Research Paper

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Abstract

The purpose of this study was to identify the needs of agricultural producers in relation to financial and legal matters. The following research questions guided this study: 1) what services, identified by local producers and community members, are needed to assist producers in times of financial and legal distress; 2) what brand attributes would appeal to producers for an organization addressing their financial and legal distress; 3) how can organizations effectively market financial and legal services to producers? A qualitative study design was utilized in order to assess the research questions. Six focus groups were performed in three different geographic locations. Participants were selected using purposive sampling in order to have one group of people familiar with an organization currently helping producers with legal and financial issues and one group of general community members in each location. Grunig's excellence in public relations model served as the conceptual framework for this study. Results of this study concluded that rural communities see a need for service organizations seeking to help producers in times of financial and legal distress. Participants value assistance with family farm transition planning and general financial assistance. Participants saw marketing and promotion of the current services offered just as critical as having the services themselves. Participants felt these services should be marketed through two-way communication channels, such as: social media, having an organizational representative, and through collaboration with extension. Additionally, participants voiced strong opinions about various brand attributes.

Keywords: financial assistance, legal assistance, two-way communication, family farm transition planning, branding, marketing

Introduction/Purpose

Throughout the United States, production agriculturalists face struggles that impede their abilities to continue farming. The struggles today's farmers face include financial distress, legal matters, and transition of the family farm (Rosenblatt, Nevaldine, & Titus, 1978; Walker, Walker, & MacLennan, 1986). Producers may find themselves in a dispute situation that leads to legal hearings (Bailey, 2004), and many of their struggles bring feelings of failure, which is amplified due to the "proud" nature of the farmer (Kuehne, 2012). Issues farm families face range from financial distress to psychological problems (Jurich & Russell, 1987) and stress compounded by the transitioning of the farm (Ballard-Reisch & Weigel, 1991). Financial distress can be brought forth in a variety of ways, such as: the cost associated with land and machinery make it hard for younger generations to become involved in farming indepently (Ballard-Reisch & Weigel, 1991), or when an economic crisis hits and the value of commodities and cattle drop alongside land values, similar to what was seen in the 1980's (Jurich & Russell, 1987). The psychological stress stems from the collection of individual stressers of farm, family, and business (Jurich & Russell, 1987). Moreover, the decision making process of the two-generational farm family can become stressful (Weigel & Weigel, 1990), especially if there is not a clear goal when the older generation begins exiting from the business (Keating and Munro, 1989). Communication becomes an essiential part of addressing financial and legal stress, specifically organizations seeking to address financial and legal issues must improve communicaiton with farmers in order to gain recognition (de Chernatony, 2001; Keller & Lehmann, 2006).

Marketing and Branding

The American Marketing Association Dictionary (2013) defines a brand as "a customer experience represented by a collection of images and ideas." By creating awareness through branding, an organization can create a unique identity (Franzen & Moriarty, 2009). This can be accomplished by implementing branding and marketing strategies (Keller, 2011). One way to create recognition is through brand salience. According to Romaniuk and Sharp (2004), salience is how recognizable the brand is to the consumer. Brand salience can also be considered what is at the "top of mind" (TOM) for the consumer (Romaniuk & Sharp, 2004). By appropriately positioning the brand, an organization can more effectively reach its target group (Franzen & Moriarty, 2009). Simply offering needed services will benefit no one if people are unaware services exist (Miller & Berry, 1998). Abrams, Meyers, Irani, and Baker (2010) studied a service organization that was struggling with recognition. They concluded that by improving communication with those using the service, the brand could experience heightened recognition of what services the organization offered, and improve familiarity with the brand itself. Avenues for achieving recognition include the use of social media channels (Kinsey, 2010; O'Neill, Irani, Zumwalt, & Bechman, 2011), which can provide a sense of connection for consumers (Mazali, 2011); the use of mass communicaiton, such as radio (Verma & Burns, 1995); and local representation (Kotler, 1991). While maintaining an understanding of the connection to the family farm, services such as mediation during the transitioning of the family farm, may be useful (Jurich & Russell, 1987; Weigel & Weigel, 1990). Furthermore, an organization can heighten its ability to serve farmers by spreading awareness of the organization through branding (Franzen & Moriarty, 2009). Miller and Berry (1998) maintain that before an individual becomes interested in a brand, they must be aware it exists.

Two-Way Symmetrical Model

The conceptual framework used to guide this study was the excellence in public relations model developed by James Grunig. This theory has evolved over time to include four models of public relations: press agentry/publicity; public information; two-way asymmetrical; and two-way symmetrical (Grunig & Hunt, 1984). Irani, Ruth, Telg, and Lundy (2006) recommend the two-way symmetrical model when marketing extension services. The two-way symmetrical model focuses on understanding the public rather than persuading the public. Furthermore, the two-way model focuses on research as a solution for how and why the public feels the way they do (Grunig & Hunt, 1984), which was the foundation of this study. This model recommends messages that motivate or persuade people by using prior research to understand and communicate with audiences (Grunig & Grunig, 1992). Organizations are encouraged to provide information to consumers to help them make informed decision (Dervin, 1984), whether the consumer requests the information or not (Hance, Chess, & Sandman, 1988). Service organizations in particular must relate with their consumer population (Vanclay, 2004).

Purpose and Research Questions

The purpose of this study was to identify the needs of agricultural producers in relation to financial and legal matters in order to effectively market an organization providing financial and legal services to producers. An example statewide organization that provides financial and legal services to agricultural producers was used to assess the following questions:

- **RQ1:** What services, identified by local producers and community members, are needed to assist producers in times of financial and legal distress?
- **RQ2:** What brand attributes appeal to producers for an organization addressing their financial and legal distress?
- **RQ3:** How can organizations effectively market financial and legal services to producers?

Methods/Procedures

This was a qualitative study design utilizing focus group methodology. Because the researchers are the instrument in qualitative studies, they are better able to accommodate the discussions driven by focus group participants (Guba & Lincoln, 1989). For the purpose of this study, focus groups were the best avenue to gather in-depth information about a specific population. A series of six focus groups were conducted at three different locations across the state where the example organization serves producers. All focus groups were conducted April 2-4, 2013, in order to avoid threats to validity. At each location, two focus groups were performed. The locations were selected to gain a uniform representation from all farmers across the state. Individuals were asked to participate in the focus groups by someone familiar with the area, generally a local extension agent. At each location, one focus group had knowledge or was familiar with the organization offering financial and legal services to producers, while the other was made up of general community members unfamiliar with the organization. Purposive sampling was used to select individuals and locations, because they have an understanding of the research problem or basis of the study (Creswell, 2007). In this situation, those not having an understanding of the organization being studied were also targeted in order to identify additional needs in the area that were not being met by the existing organization. Focus groups varied in size, from three to eleven. Morgan (1998) suggests six to ten focus group participants. All but one focus group was within this range. One focus group had only three people. “Some people prefer to conduct mini-groups with 3 to 6 people as they believe the smaller number of participants will provide for greater in-depth discussion,” (FAQS about Focus Groups, 2008). In the analysis process, the group with only three participants mirrored the findings of other groups of general community members; as such, the researchers determined it was appropriate to include the smaller group in analysis.

The researchers viewed this study through an ontological and methodological lens. The ontological lens allowed the researchers to view reality through the lens of the participants, as reality is subjective. As such, the researchers used quotes and themes in words voiced by participants (Creswell, 2007). The methodological lens permitted the researchers to approach the research with logic and let the design and context of the study emerge based on experiences in the field (Creswell, 2007). The researchers were external to the organization and not a member of the population, which gave them an unbiased approach to the study.

A protocol was developed using the procedures set forth by Krueger (1998). The protocol was utilized by the same experienced and formally trained moderator to keep focus groups consistent. As a part of the protocol procedure participants were asked questions related to their perceptions of producer needs in their community, brand attributes of a service organization seeking to help farmers in financial and legal distress, and how to appropriately market services for their community.

The focus group sessions were recorded via field notes and audio recorders. Audio recordings were sent to be transcribed by an outside party. Following transcription, transcripts were imported into Weft QDA software to be analyzed. Glaser's (1965) constant comparative method was used during analysis. This method involves identifying which category each incident belongs to, comparing each incident to those prior; identifying similarities between incidents and categorizing them; setting boundaries for the categorizes; and writing theory. Writing theory involves describing how the participants responded using an overarching theme, and then using research objectives to organize themes.

Rigor in qualitative research can be described by credibility, transferability, dependability, and confirmability (Ary, Jacobs, & Sorenson, 2010). To ensure credibility the researchers used verbatim transcrips, allowing for direct quotes to be used to maintain accuracy, maintaining the fullness of information, easing the participants by using ice breaker questions, and allowing the participants to validate one another's statements (Bloor, Frankland, Thomas, & and Robson, 2001; Flick, 2006; Krueger, 1998; LeCompte & Goetz, 1982). The information gathered through this research could be representative of similar populations of agricultural producers in other states. Maintaining transferability was addressed by giving detailed descriptions of the participants' responses (Creswell, 2007). Dependability was accomplished by having one researcher analyze transripts while an alternate researcher, that was present for all focus groups, reviewed the analysis for validity and confirmability. Finally, confirmability occurred through the use of transcripts rather than just field notes. Also, the findings were presented to a small group of people involved with the organization before final analysis (Ary et al., 2010).

Assumptions made during this study were related to focus group participants. Half of the participants were to have no previous knowledge or interaction with the organization, while the other half was to have general knowledge and understanding of the service organization. Another assumption was that all participants were actively engaged in the agricultural industry and/or their communities.

Utilizing focus groups to gather information offers a few limitations. The small number of participants in a focus group in relation to a whole population limits the generalizations that can be made from the study. However, due to the smaller size of a focus group, interactions are often more personable, and therefore allow participants to offer true, detailed perceptions. Additionally, when participating in focus groups, individuals may be influenced by what their peers say (Morgan, 1998), but this may cause a clearer representation of what reality presents.

Results/Findings

RQ1: Services Needed in Local Communities

Family farm transition planning. All six focus groups mentioned the need for family farm transition planning (or estate planning). Four groups brought this need up prior to the moderator asking about it. Although all groups touched on the topic, the groups familiar with the organization offering financial and legal services to producers mentioned this with more confidence. One participant said, “But from my stand point, family transition planning is a big issue because there [ends] up being a lot of animosity and a lot of lost farms because of that.” Participants saw mediation as a valuable part of the family farm transition. One expressed this as, “It’s just you know, family mediation that, you know an outside source that can sit down [with] a family and say, now here is something logical.” Other participants connected family farm transition planning to the average age of the farmer. One participant said,

> Well, there is also the issue of transfer from one generation to the next generation and all the aspects that are involved in terms of farm ownership, farm management. That’s certainly a big issue, I think in our area because our farmers are always getting older. And it’s very, you know, just to look in our township, there are no young farmers.

Marketing and promotion. Another major theme taken from the focus groups was marketing and promotion. All groups mentioned the need to spread the word about what services the organization already provides. This data is being presented under “services needed” because that is when groups conveyed this need. Participants saw the need for marketing and promotion of the existing services as important as the services themselves. Participants felt there was a disconnect between information about the organization and their communities. One participant said,

> How do people know that the mediation services are available, you know I know how they get it from us if we tell them that information that is out in the public I’m sure it lingers getting that information out but for just a far over this, do they know that mediation is even available?

Participants offered suggestions about how to market services when asked what the needs of their communities were. One participant said, “I’m not sure if advertising or getting the word out there will little bit more I don’t know…”

Financial assistance. Focus group participants believed financial assistance was a necessary service in their communities and the organization should continue offering it. Participants valued different aspects of financial assistance, such as assistance filling out financial paperwork, the Farm Analyst Program, and preparing for an economic financial crisis. When asked what participants felt would be a major issue in the future or an on-going issue, a participant stated “Well I can say financial issues.”

Another participant explained the need for help with financial paperwork, “And another thing that I see and I think it would be very beneficial [is] someone to help you to fill out financial paperwork, if for a loan or initially getting things.”

RQ2: Brand attributes

Participants had strong feelings about certain attributes for a brand offering financial and legal assistance for producers. Some participants felt the term “mediation” was negative and meant someone was going to be in trouble. Participants were mixed on brand attributes, but the feelings expressed by participants about specific brand attributes are included to offer insight into producers’ feelings.

Mediation. One participant said the “pride” many farmers experience about their profession correlates with his/her personal negative feelings toward the term mediation. He/she expressed this as

> I think so often, I mean mediation -- the term mediation, it always has, it seems like it has a negative connotation, I guess a negative meaning or so when people bring it up. . . But, I mean, especially you get into the ag community, they are proud people. So they try to work through things on their own as much as they can. Sometimes you can do that, sometimes you can't. . .

Another participant expressed fear of the term “mediation”. The individual said “That mediation thing scared me to death. I thought I was in trouble. . .”

Another participant confirmed this by saying, “I think so often, I mean mediation -- the term mediation, it always has, it seems like it has a negative connotation, I guess a negative meaning. . .”

Assistance. Participants were mixed about the word assistance. Some participants expressed concerns about using the term “assistance”. One participant said, “Really connecting, but instead of assistance and it just happened, when you said that, people were kind of proud, they don’t want to help ask for help.” Another participant stated “. . . But somehow in there, I think we need to have like assistance in there.”

Support. A few groups liked the word “support”. One participant summarized “You know we really like the word support.” Another participant stated “Okay maybe we like the word support.”

Free. Some participants expressed concerns about using or promoting the word “free”. Participants felt that because a service was being offered free of charge, it would lack quality. One participant expressed concerns about the term “free”, saying “. . . And as far as free, sometimes free isn’t as good as if you have to have to pay for something. . .”. Another participant said “I would rather deal with an attorney and pay him a fair fee for doing good work for me.”

RQ3: Marketing Services

Participants were asked about the most appropriate place to market financial and legal services to producers. Focus groups brought up the use of social media marketing, the need for an organizational representative as a face for the community, as well as collaboration with extension. Radio served as a secondary marketing tool being suggested by four out of six focus groups. Furthermore, the groups familiar with the organization suggested collaboration with Farm Service Agency (FSA).

Other marketing opportunities discussed by three of the six focus groups were newspaper advertisements, newsletter/pamphlets/informational handouts, magazine advertisement, website and search engine optimization, and advertisements at local agricultural-based stores, such as cooperatives or feed stores.

Social media marketing. Social media marketing was suggested by five of the six focus groups. Even though some participants were not active users of social media outlets, they thought there was potential to reach a younger generation of users, through Facebook, Twitter, and YouTube. One participant expressed this as:

> Well I think even with the population, the changing population and technology websites and Facebook's pages even are, I mean are going to be huge. I have more producers that send me texts and emails and stuff like that, than I do get phone calls.

Organizational representative. When discussing marketing needs, five of the six focus groups expressed a need for an organizational representative that is active throughout the state. This conclusion was drawn by the researchers through participants' discussion of the need for meetings, conferences, workshops, and trade shows, all which require a representative.

One participant expressed this as:

> . . . I think they need a liaison person that is going to be able to be a spokesperson, somebody who is involved with the ag communication, somebody that can be, you know able to travel around and visit with the different connections that the service provides, as well as brainstorming ideas just like you are doing today to improve the service.

Extension collaboration. In addition to social media marketing and having an organizational representative, five of the six focus groups suggested collaborating with extension.

Radio. Four of the six focus groups mentioned radio as a source of advertising and marketing of the existing organization and the new umbrella organization. Participants felt radio could be an economically feasible option for advertisements by using public service announcements or other options.

Other marketing opportunities. Other marketing opportunities for the organization discussed by three of the six focus groups were newspaper advertisements, newsletter/pamphlets/informational handouts, magazine advertisements, website and search engine optimization, and advertising at local agriculture-based businesses, such as cooperatives or feed stores.

Farm Service Agency collaboration. The three groups familiar with the organization seeking to address financial and legal issues of farmers all expressed the organization should collaborate with the Farm Service Agency (FSA) as a part of the overall marketing strategy.

Discussion/Conclusions

Focus group participants felt assistance with transitioning of the family farm was a necessary service in their communities. Participants recognized the overlap of generations and the stressful impact it can have on families. They understood goals of the farm differed between generations. This is similar to the findings of Keating and Munro (1989), who found often there is no clear goal when older generations begin the exiting phase.

In addition to recognizing differences within the farm and the goals each family has for the farm, participants felt mediation could prove beneficial. They expressed that by having a neutral party to discuss the transition process, future stresses related to differing goals could be reduced.

Participants saw a major need for brand awareness related to an organization seeking to address financial and legal issues. Participants indicated marketing and promotion of the existing services were as important as the services themselves. Participants previously using the organization's services felt the services were quality and useful; however, they felt communities were under-utilizing these services because they were unaware of their existence. While working to promote the brand, creating uniformity among the branding efforts will be important. This will help create brand recognition and salience. This relates to work done by Franzen and Moriarty (2009) who indicate an organization can create a unique identity by developing awareness about the organization through branding efforts. This identity becomes recognizable to the organization and to the public, and creates certainty in knowing the product or service that comes with a brand (de Chernatony, 2001).

Focus group participants believed financial assistance was a necessary service in their communities and the organization should continue offering it. Participants valued different aspects of financial assistance, such as assistance filling out financial paperwork, the Farm Analyst Program, and preparing for an economic financial crisis. Participants in this study felt confusion and frustration associated with understanding financial paperwork. They believed by continuing to offer financial assistance through various programs, the organization could help members of their communities.

Participant discussion unveiled that each consumer can perceive one word in a different manor. For example, one participant may suggest a name containing "assistance"; however, a different participant may say they find the word "assistance" offensive because it implies a person needs help. Gathering information regarding consumer perceptions was beneficial to the organization and allows the organization to convey positive contextual messages to its consumers.

Participants expressed a need for farmers to know where to turn prior to being in financial distress. This indicates participants thought brand salience would be advantageous in knowing if a brand were a good fit prior to using the brand. This aligns with research on brand salience, which shows (Romaniuk & Sharp, 2004) the more salient the brand is, the more recognizable it is in the consumer's mind. This also mirrors the work of Romaniuk and Sharp (2004), who concluded that when a brand is more recognizable, consumers can be certain the brand will be appropriate for a given situation. This is also key to marketing and promotion. Through the creation of a consistent brand that is salient with producers, an organization can effectively reach their consumers before they are in need of financial and legal services.

Necessary marketing tools for an organization addressing legal and financial issues for farmers are: social media, the need for an organizational representative as a face for the community, and collaboration with extension. Radio should be a secondary marketing tool being suggested by four out of six focus groups. Furthermore, focus groups having knowledge of financial and legal services provided in communities support collaboration with Farm Service Agency (FSA).

Organizations may find it particullary beneficial to use social media to reach their consumers on an emotional level. Participants expressed an emotional connection with the organization, which could be aided further by social media. Engaging in social media can provide an sense of connetion (Mazali, 2011), and therefore may create a deeper sense of trust for the consumer. These finding are consistent with work of other researchers. In a study conducted by an online service organization, eXtension, O'Neill et al. (2011) suggest beginning social media use with Facebook, Twitter, and/or YouTube. Additionally, other service organization educators are encouraged to use free social media to increase their outreach (Kinsey, 2010).

Radio may have some value in reaching audiences not using social media channels. Researchers recommend radio as a part of the overall brand strategy when marketing financial and legal services to producers. This is supported by Verma and Burns (1995), who found a need to increase marketing in the areas of mass communication, such as radio, newspaper, and television.

Other secondary marketing opportunities should include marketing opportunities newspapers advertisement, newsletter/pamphlets/informational handouts, magazine advertisement, website and search engine optimization, and advertisements at local agricultural-based stores, such as cooperatives or feed stores.

Recommendations

This research developed recommendations of theoretical, practical, and professional use.

Theoretical. This study supported the two-way symmetrical model of the excellence in public relations theory. Researchers found that in focusing on what the public values, the organization can effecitively reach their customers. By conducting focus groups, researchers were able to gain in-depth information about what services the public values. This study confirms the two-way model with rural agricultural participants. Participants continually expressed their appreciation for being asked to participate and encouraged the organization to continue seeking opportunities for two-way communication. This was seen through participants' request for social media and contact with the organization on a regular basis. The two-way model should be adapted by other organizations seeking to connect with rural audiences.

Practical. The results of this study produced practical implications as they can be applied to other agricultural service organizations seeking to reach rural communities. It is important for organizations to provide a clear image about what the organization is and what services the organization offers. Results support the need for organizations to develop and utilize an overall brand strategy. Community members who were familiar with the organization and general community members both saw value in the services offered by the organization but felt the organization should work to increase brand salience. Similar organizations should consider marketing and promotion strategies that represent a two-way communication model, including: social media, having an organizational representative, and collaboration and advertising with extension. Organizations working with rural communities should seek to address the needs of local communities in their marketing and branding strategies.

Other service organizations providing similar services or reaching a similar population, should understand what the public values. For these focus groups, the participants valued family farm transition planning assistance, as well as legal and financial assistance. The participants felt these were complex topics, and it would be beneficial to work with a neutral party on these topics. Branding and marketing techniques should be utilized to create brand awareness for organizations seeking to help producers during a time of crisis. Without the brand being salient prior to the producer needing help, they will be unsure where to turn for help.

Professional. Recommendations for agricultural communication professionals have also resulted from this study. Industry professionals should consider the fear participants expressed in regards to specific terms. The terms mediation and assistance both had negative connotations. Participants felt the term mediation meant someone was in trouble, while asking for “assistance” would hurt the pride of the farmer. Furthermore, participants were concerned that offering “free” services meant they would not receive quality service. It was mentioned that people would rather pay a fee for quality services than to have a service offered free of charge that was not quality. A word with positive connotations for participants was “support”. Professionals should consider using this term in brand names or in taglines. In summary, agricultural communications professionals should:

- Limit the use of the terms “mediation” and “assistance”
- Use caution when marketing free services
- Use the word support

Recommendation for Future Research

Future research should focus on the specific brand attributes consumers desire and/or are fearful of when targeting services to rural communities. Additionally it would be of interest for future studies to test the social media and in-person marking strategies requested by the participants in these focus groups.

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A Qualitative Assessment of a Large Southern Commodity Board's Youth Outreach Promotional Activities in a 2012 Marketing Campaign

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A Qualitative Assessment of a Large Southern Commodity Board's Youth Outreach Promotional Activities in a 2012 Public Relations Campaign

During the past few decades, agriculture has increased its promotional activities to improve understanding of specific commodities and educate audiences. Research analyzing promotional material is lacking in the agricultural industry. A team of agricultural communications researchers at the University of Arkansas utilized semiotic and content analyses to qualitatively assess the visual and content elements of a commodity group's promotional campaign. The purpose of this study was to analyze and assess the youth outreach portion of a communication campaign developed for a large commodity promotion board in a southern state. Each creative piece's content was systematically analyzed using content code sheets. Visually, content was coded denotatively, then connotatively to identify emergent themes. Textual content was coded for recurrent themes. This study identified emergent themes and determined message accuracy and quality of creative pieces. Findings revealed 24 emergent themes, with 234 theme occurrences, within 11 creative pieces used to target the "youth" audience, a message accuracy of 81.8%, and an overall quality score mean of 2.21 on a 5-point Likert-type scale (1 = poor quality and 5 = excellent quality). The top five themes identified through the content analysis were: how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in the Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). In-depth interviews with key players were used to support the researchers' analysis. Additional content analyses should be completed to determine themes, message accuracy, and quality of promotional materials from agricultural commodity campaigns to determine strengths and weaknesses within the industry.

Keywords and Phrases: Campaign assessment, commodity promotion board, communications, emergent themes and theme occurrences, public relations, semiotic and content analysis of promotional pieces, youth outreach

Introduction

The landscape of modern agriculture is shifting as technology, the environment, and global economy continue to change (Doerfert, 2011). The purpose of the National Research Agenda (NRA) developed by the American Association for Agricultural Education was to identify the priority areas for research that would further the interests of modern agriculture (Doerfert, 2011). These key problem areas were divided into six priorities intended to inspire collaboration and research for the improvement of agriculture for 2011 through 2015. One of the priority areas for research needs identified in the NRA is improve public and policy maker understanding of agriculture and natural resources (Doerfert, 2011). Many commodity organizations have recognized the need for educational outreach and have become industry advocates, investing in campaigns to inform the public (Arkansas Soybean Promotion Board, n.d.; Beef Checkoff, 2013; California Milk Advisory Board, 2013; Cotton Incorporated, 2013).

Communication campaign design should begin with a needs assessment to identify learning opportunities, possible barriers, and potential outcomes (Barnard & Parker, 2012; Rice & Atkin, 2013). Organizations should also identify and target specific segments of a population rather than trying to reach broad audience groups (Guth & Marsh, 2006; Marshall & Johnston, 2010; Rice & Atkin, 2013). Basically, if audiences are specific on certain demographic characteristics, messages designed to meet the needs of those characteristics have increased effectiveness because they were tailored to the intended audience (Rice & Atkin, 2013). “Audience analysis is an ongoing, iterative process that informs you of the best ways to appeal to your audience, develop your influence and, when appropriate, change their behavior as your campaign story moves towards its conclusion” (Barnard & Parker, 2012, p. 77). An additional effect on the target audience is the quality of the influences created through the communications or public relations campaign (Barnard & Parker, 2012). Every element of a creative product communicates with that product's audience, including design (Guth & Marsh, 2006). A high-quality creative product gives off a completely different, and more positive image, than a creative product of low quality (Guth & Marsh, 2006).

In the dynamic model of the public relations process, it is recommended that evaluation occur at each phases (Guth & Marsh, 2006). There are four phases in the model consisting of research, planning, communication, and evaluation. "Evaluation research cannot be an afterthought; practitioners are expected to articulate at the outset of any campaign how success is defined" (p. 208). Evaluation is needed to identify the strengths and weaknesses of communication campaigns (Telg & Irani, 2012). "With practitioners facing greater demands for accountability, every public relations plan must achieve an impact that is measurable" (Guth & Marsh, 2006, p. 208). Evaluation of communication campaigns helps the organization determine if the outcome or program was effective in achieving its goals and its efficiency (Rice & Atkin, 2013).

Theoretical Framework

Semiotics is a content-driven theory that discusses how people assign meanings to visual elements (Lester, 2011). "Recent use of semiotics theory has been noted in the field of mass communication. Semiotics [is used to] decode the meaning of a visual image through examination of signs" (Tolbert, 2009, p. 7). Semiotics, simply put, is the study of signs (Lester, 2011; Manghani, 2013). More specifically, semiotics is a theory of the production and interpretation of meaning based on images (Edgar & Rutherford, 2012). "The 'sign' is the most fundamental unit of mainstream semiology" (Rose, 2012, p. 113). According to semiotic theory, signs can take many different forms including words, images, sounds, gestures, and objects

(Chandler, 2002; Lester, 2011; Manghani, 2013; Rose, 2012). Signs are composed of two parts, signified and signifier (Manghani, 2013; Rose, 2012). The signified is an object or a concept while the signifier is the sound or image that is attached to the signified (Rose, 2012). Fundamentally, the sign is the representation of the signified (Rose, 2012).

Semiotics is a theory that is used to identify how people assign meaning to campaign materials, which is used to evaluate campaigns (Tolbert, 2009). Additional research shows that experiential learning activities are effective in reinforcing learning during youth outreach portions of campaigns. "Learning from experience is one of the most fundamental and natural means of learning available to everyone" (Beard & Wilson, 2006, p. 15). Therefore, interaction between the learner and the environment is a foundation of learning (Beard & Wilson, 2006; Kolb, 1984). Additionally, experiences do not simply go away at the end of a learning event or activity, each experience is reinforced, and perhaps modified, through further experiences that may influence the learner's attitudes (Dewey, 1938). This forms the basis of the Experiential Learning Theory, which can be further explained as the process by which knowledge is created through experience (Kolb, 1984). One effect that can impact experiential learning either positively or negatively is the participant's attitudinal position about the event or experience (Beard & Wilson, 2006). Another factor influencing the success of an experiential learning activity or event is if participants perceived the event as being of high quality (Dewey, 1938).

Experiential learning is further supported by and aligned with constructivist theory in that both postulate that an individual's experiences shape how they interpret meaning (Roberts, 2006). Doolittle and Camp (1999) noted the most important element of constructivism was that learners create their own meaning based on past experiences. Additionally, constructivist theory describes how the development of knowledge is not done passively, but rather actively through an individual’s cognition (Doolittle & Camp, 1999). In other words, the learners, in this case, members of the youth audience, are active members in the learning process. With this in mind, it is important for those who develop educational initiatives to research and gain insight into what their audience already knows to achieve a more sophisticated level of understanding (Hess & Trexler, 2011b).

The need for this study was supported by the NRA research priority area focused on public and policy maker understanding of agriculture and natural resources (Doerfert, 2011). Within that priority, the NRA defined a need to increase understanding of the effectiveness of messaging and educational programs within agriculture. As students become further removed from the farm, outlets that provide agricultural knowledge or increase agricultural literacy are imperative (Reidel, Wilson, Flowers, & Moore, 2007). Agricultural literacy can be defined as a person’s ability to understand the agricultural industry and its significance economically, socially, and environmentally and be able to communicate those significances with others (Hess & Trexler, 2011a; Reidel et al., 2007; Pense, Beebe, Leising, Wakefield, & Steffen, 2006). The goal of the researchers in this study was to determine the effectiveness and quality of the youth outreach portion in statewide communication campaign about a particular southern commodity. To do this, researchers at the University of Arkansas examined the messaging, target audience reach, effectiveness, and visual elements of the campaign using semiotic theory and content analysis to drive the qualitative assessment.

Purpose and Objectives

The purpose of this study was to analyze and assess the youth outreach portion of a public relations campaign developed for a large commodity promotion board in a southern state. The semiotic analysis of the creative materials within the campaign was necessary to create a precise account of the intended messages portrayed to the targeted youth audience and determine if meanings behind those messages were audience appropriate. The study was guided by the following objectives:

1) Determine the effectiveness of content in the youth outreach portion of a large, southern commodity board's promotional communication campaign.
2) Complete a content analysis of creative pieces targeted at youth and identify any emergent themes.
3) Determine the accuracy of outlined and implied messages for each creative piece.
4) Assess the quality of creative works used in the campaign's youth outreach.
5) Determine the opinions of key players who assisted with event recruitment using in-depth interviews.

Methods and Procedures

A large southern commodity promotion board hired a full-service, local, regional, and national marketing, advertising, and public relations firm to develop a mass media public relations campaign to promote the commodity. Per the agreement reached by the two parties, the firm was tasked to supply the commodity promotion board with the following core campaign deliverables in 2012 to directly meet the needs of the youth (ages 12-18 as outlined by the public relations firm who developed the promotional material) target audience: (a) website, (b) educational video, and (c) a presence at various statewide events with an educational booth and supporting materials. A team of agricultural communications researchers at the University of Arkansas utilized semiotic analysis to qualitatively assess the visual and content elements of the commodity group's campaign. "Qualitative data analysis is primarily an inductive process of organizing data into categories and identifying patterns and relationships among the categories"

(McMillan & Schumacher, 2010, p. 367). The researchers in this study used inductive analysis to synthesize and make meaning from the data in the campaign deliverables by identifying categories and patterns (McMillan & Schumacher, 2010).

All creative pieces produced by the public relations firm in 2012 for the youth target audience were evaluated in a systematic, content driven approach to assess the potential impact on perceptions of individuals (Edgar & Rutherford, 2012). Eleven creative pieces were coded for emergent themes then were evaluated for quality according to accepted professional standards, and, finally, a perceived message for each piece was derived. A database of emergent themes was developed during analysis of the promotional pieces created in the commodity campaign and used to target youth. The implied message was compared with identified message listed by the full-service public relations firm for each creative piece.

The researchers first developed code sheets to guide the coding process. The researchers created print, visual, video, and quality code sheets based on industry standards. The print code sheet was used to analyze the creative materials containing mostly copy (e.g., print advertisements and news releases) and transcriptions of videos that were a part of the campaign. Again, because the process of analyzing content is systematic and replicable (Edgar & Rutherford, 2012) a code sheet was used to guide the process and words were compressed into categories based on the specific coding rules in this technique (Weber, 1990).

There were 24 emergent themes, with 234 theme occurrences, identified in promotional pieces used to target the youth group. Themes were derived from visual and content analysis. Following Lincoln and Guba's (1985) constant comparative method, words and passages were coded in their original context (Creswell, 1998), and key themes emerged that characterized the creative pieces and there corresponding intended messages used to target youth. Throughout the coding process new themes were added as necessary and at the end of the processes themes were compressed where needed. Credibility of the findings was achieved through content code sheets, member checking, and the use of expert interviews of individuals involved with student recruited for commodity-based educational events. Trustworthiness and dependability were established through purposive sampling, the use of thick description, and the use of an audit trail supporting key findings.

Visual coding sheets were used for creative materials that had a visual element. The visual materials were analyzed denotatively: the contents of the images were deconstructed and researchers listed key words based on what they immediately saw when looking at the image. Next, the objects in the photo were analyzed for connotations, and the associative value of the photos was assessed (Edgar & Rutherford, 2012). "For example, an image of a tropical island would have a basic denotative reading of a tropical location, and a possible connotative reading of a vacation or relaxation and slow living" (Rhodes, 2008, p. 36). This approach created a careful and precise account of how the meanings within images from the campaign are perceived (Rose, 2012). Similarly, the video coding sheet guided the researchers through identifying the denotative and connotative values of the visuals used in each video. Video transcriptions were also coded, as mentioned above, to identify emergent themes.

During content analysis, the researchers analyzed text to identify key words in context (Gall, Gall, & Borg, 2006; Weber, 1990). From the key words in context, emergent themes were identified and compressed (Gall et al., 2006). After completing the content analysis, the identified recurring, emergent themes (Gall et al., 2006; Lincoln & Guba, 1985) were used to ascertain the implied message in each piece. Once the implied message was identified, it was compared with the intended message identified by the public relations firm in its original campaign plan. In the comparison, the researchers assessed if the intended message corresponded with the perceived message. If the perceived message and the intended message were cohesive, it was determined that the piece had accurate messaging. If the perceived message and the intended message were not cohesive, it was determined that the piece's messaging was inaccurate. Some creative pieces did not have an identified intended message in the original campaign plan; in that case the message accuracy was inconclusive.

Quality coding sheets were developed and used by the researchers to evaluate the quality of each individual creative piece. Two quality sheets were used. The first sheet had sections for images, design elements, and video techniques. The image section required researchers to identify image composition used. Next, the design elements section required the researcher to identify design composition used in the creative piece being analyzed. Finally, the video portion of the first coding sheet required researchers to identify the types of shots used and take an inventory of the visuals. Overall, the goal of the first coding sheet was to establish a frame of reference for the second quality code sheet. The second quality code sheet was developed as a way for the researchers to assign a numerical rating to the quality of the piece. The copy, images, design, video, and/or audio elements of each piece were ranked on a 5-point Likert-type scale from 1 (poor quality) to 5 (excellent quality). Quality characteristics were determined by accepted professional journalist and print standards. Telg and Irani (2012) noted the Associated Press is the accepted writing style that every journalist and public relations professional should use. Image quality was based on the use of accepted professional photography principles including focus, angles, rule of thirds, lines, and/or depth of field. For design elements, common design principles were used to judging each creative piece including: balance, proportion, order, contrast, similarity, and unity. Finally, video quality was determined by the use of video shot composition, content, video quality (Telg & Irani, 2012). Then, through statistical analysis the researchers determined the mean and standard deviation of the quality ratings for each piece, leading to an overall quality rating for each public relations piece developed to target youth.

Before proceeding with the content evaluation of the campaign, two researchers independently assessed four creative pieces: (a) print ad, (b) logo, (c) press release, and (d) event signage. Then the researchers compared their individual analyses and measured their inter-coder reliability in the form of percent agreement. This process was repeated until the researchers consistently averaged above 70% of interpretations in agreement. A high percentage of agreement (70% or higher) among researchers during data collection proves the reliability of the coding process (McMillan & Schumacher, 2010). Once agreement among the researchers reached an acceptable percentage, each creative piece for the youth audience was coded independently. Again, agreement was assessed. Researchers maintained an average of 87.52% agreement when coding the promotional materials used to target the youth audience group. Agreement was established by evaluating how often two or more researchers agree on what they have analyzed (McMillan & Schumacher, 2010). Usually there is a level of consensus between qualitative researchers, but, often, the way the researchers individually identify themes is different (Armstrong, Gosling, Weinman & Marteau, 1997). The researchers in this study originally identified similar themes in different ways, but after discussion and repeating their analyses, agreement, and like-mindedness was reached. Ultimately, because the researchers found a high level of agreement consistency in evaluation was established (McMillan & Schumacher, 2010). Last, the use of multiple researchers during the data collection and analysis process enhanced the design validity of the study (McMillan & Schumacher, 2010). A panel of faculty advisors consisting of two agricultural communications professors and one agricultural communications instructor oversaw this process as suggested by McMillan and Schumacher (2010) to ensure study validity.

Quality and effectiveness of the campaign's events were assessed by performing a content analysis on teaching and learning materials produced for the commodity board's youth outreach events. Researchers supplemented content evaluation of the youth outreach portion of the campaign with in-depth interviews of key players involved in the implementation of the youth events. In-depth interviews can be defined as a set of questions posed by a trained interviewer to a key audience member to gather information on what the subject knows about a certain topic (Burns & Bush, 2006). Two key players were interviewed to gain insight and feedback into FFA and 4-H member involvement in the 2012 [commodity education event] at the [celebrity endorser's] farm. The interviews were conducted over the phone by the researcher. A questioning guide was developed by the panel of experts and was used for both interviews. Interviews were recorded and transcribed. A thematic analysis was performed on the interview transcripts, using open and axial coding methodology (Lincoln & Guba, 1985; Strauss & Corbin, 1998) in which general themes were identified (open coding) and further refined through deeper examination into more specific themes (axial coding).

The interview data was used to determine key player perceptions of the strengths and weakness of the events used to target youth in the promotional campaign. "The objective is to obtain unrestricted comments or opinions and to ask questions that will help the marketing researcher better understand the various dimensions of these opinions as well as the reasons for them" (Burns & Bush, 2006, p. 221). The researchers used the in-depth interviews to gain necessary, personal feedback about the youth outreach component of the communication campaign. Responses from in-depth interviews can be more revealing than those in a structured survey and, thus, can be an advantage to the overall evaluation of a campaign by providing actual, unrestricted input from a key person (Burns & Bush, 2006).

Findings and Results

Content Analysis of Creative Materials

The top five emergent themes identified through the content analysis were how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in the Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). The remaining emergent themes, with corresponding frequencies, are noted in Table 1.

Table 1

Emergent Themes Identified in the Youth Creative Pieces

Content and Visual Themes	*n*	%
How [commodity] is produced	31	13.25
Benefits to Arkansas economy	24	10.26
[Commodity] is grown in Arkansas	23	9.83
Promotion of [commodity] Board	22	9.40
Human benefits	16	6.84
For use in animal feed products	13	5.56
General benefits to Arkansas	12	5.13
Diversity of [commodity]	11	4.70
Value of educating about [commodity]	9	3.85
[Commodity] contributes to Arkansas agriculture	8	3.42
For use in energy products	8	3.42
[Commodity] is natural	7	2.99
[Commodity] is environmentally sustainable	7	2.99
Research is valuable to production	6	2.56
Partnerships are important	6	2.56
Celebrity endorsements	4	1.71
[Commodity] contributes to animal agriculture	4	1.71
Economic value to consumers	4	1.71
For use in common household products	4	1.71
Promotion/Use of slogan	4	1.71
[Commodity] is healthy	3	1.28
For use in industrial products	3	1.28

Table 1 (continued)

Content and Visual Themes	*n*	%
[Board] values post-secondary education	3	1.28
For use in food products	2	0.85
Total	234	100.00

Message Accuracy of Creative Pieces

Researchers identified a perceived message for each promotional piece developed in the campaign. Those perceived messages were compared to the intended message outlined by the [public relations firm]. Table 2 shows the percent of message accuracy for all creative pieces.

Table 2

*Message Accuracy Based on Outlined Message as Compared to the Intended Message for the Youth Audience (*N*=11)*
(accounted for 9% of total budget allocation for the [commodity] promotional campaign)

	n	%
Accurate	9	81.8
Inconclusive	0	0.00
Inaccurate	2	18.2
Total	11	100

Note. Inconclusive indicates no intended message outlined in the original campaign plan for comparison.

Creative Piece Quality Assessment

Each creative piece was assessed for quality and after averaging the scores for the 11 promotional pieces intended for the youth target audience, the researchers found the overall mean quality score to be 2.21 (*SD* = .61). Table 3 shows means and standard deviations for the five quality areas used to assess the promotional pieces used to target youth.

Table 3

Overall Quality of Creative Pieces for the Youth Audience

Categories of Quality Measures	*M*	*SD*
Copy	2.08	0.69
Images	2.83	0.26
Design	2.05	0.87
Video	1.75	0.5
Audio	2.33	0.88

Note. Likert scale used: 1 = poor, 2 = fair, 3 = average, 4 = very good, and 5 = excellent. Not all quality categories were represented in each creative piece.

In-depth Interviews with Key Players

After the in-depth interviews were recorded and transcribed, the following findings were discovered through a content analysis: (a) Youth were recruited by the key players with assistance from agricultural science teachers and extension agents close in proximately to [celebrity endorser's] farm; (b) Approximately 25 FFA (ages 13-18 years) and 20 4-H members (ages 8-18 years) attended the event. Most attendees were Caucasian with the two African American youth; (c) Youth generally enjoyed attending the 2012 [commodity education event], but were unclear prior to the event that it would be focused on [commodity] and [commodity] promotion in the state. Generally youth were unaware of who [celebrity endorser] was prior to the event; (d) Learning objectives for the event seemed unclear. However, general information about [commodity] use was covered, but instruction to increase youth's awareness about career opportunities available in agriculture was lacking; (e) Youth involvement was not supported financially. FFA, 4-H, and/or parents of youth attending the event covered costs associated with travel and meals.

One key player was interviewed to determine the level of youth involvement in the Arkansas State Fair Ag in Action booth and to identify training used to prepare youth to effectively manage the booth. The following initial findings were discovered: (a) The Arkansas

FFA State Office handled the recruitment and scheduling of youth assisting with the Ag in Action booth; (b) Each day, before the fair opened, youth were asked to volunteer to work the [commodity] booth during that day (2 to 5 students daily staffed the booth); (c) No formal training program was in place to train youth on how to answer questions specific to [commodity] in Arkansas. "[Person's name], from [public relations firm], would train the youth each morning in a 15 to 30 minute overview of the different aspects of what the booth had, where the different information was located to give out, also a little bit about what the [commodity] Board in Arkansas does and provided some information about [commodity] and also how to run the interactive computer game there"; (d) There was little [public relations firm] involvement daily at the Ag in Action booth. "Personnel from [public relations firm] would stop by once or twice per day to check on the booth and take photos"; (e) An iPad was donated by [public relations firm] to be given away to one youth as an incentive for FFA member's participation; (f) Print and promotional materials and an interactive game were available at the Ag in Action booth; and (g) Youth attending the event enjoyed the interactive game most.

Conclusions and Recommendations

Using semiotic theory to guide the coding of each creative piece, the emergent themes and theme occurrences were identified. It is important to consider if the following major themes were the most appropriate for youth and the goals of the campaign: how [commodity] is produced (13.25%), benefits to Arkansas economy (10.26%), [commodity] is grown in Arkansas (9.83%), promotion of [commodity] Board (9.40%), and human benefits (6.84%). Many of the messages outlined by [public relations firm] focused on promoting awareness of [commodity].

It was difficult to assess the appropriateness of the emergent themes identified in the research because the [commodity] campaign materials did not identify a specific audience segment of Arkansas' youth. As mentioned above, the campaign outlined that youth were between the ages of 12 and 18 would be targeted. However, this was not a specific enough audience segment, because demographic traits of 12 to 18 year olds across Arkansas vary greatly. Therefore, public relation campaigns should utilize messages that are tailored to specific, narrow audience demographic (or other) traits in order to increase effectiveness (Rice & Atkin, 2013). The researchers recommend that groups planning promotional campaigns identify specific audience groups and use a needs assessment to aid in identifying appropriate messaging (Barnard & Parker, 2012; Rice & Atkin, 2013).

As evidenced through this study, 24 emergent themes, with 234 theme occurrences, diluted the message impact from the only 11 creative pieces used to target the diverse youth audience. Evaluation is a critical step, which should be ongoing throughout a communication campaign (Guth & Marsh, 2006). Practitioners should evaluate each creative piece and determine if its messaging is appropriate, concise, and effective (Rice & Atkin, 2013). Additionally, audience analysis should be continued throughout the duration of the campaign to help evaluate the effectiveness of the materials produced (Barnard & Parker, 2012). In the future, the researchers recommend that commodity boards request campaign evaluations throughout the duration of the campaign to maintain accountability, incorporate the involvement of a commodity specialist to ensure accuracy of information, and identify a gatekeeper to approve creative materials developed by an outside communications firm.

It is important to note that some creative pieces were particularly unsuccessful at communicating their intended messages due to a lack of audience engagement. Research shows that interaction between the audience member and their environment is an important aspect of the learning process (Beard & Wilson, 2006; Kolb, 1984). A series of signs and short videos were created for the campaign to promote awareness of [commodity] facts. The signs were used with the promotional booth that was set up at various events to target youth. Their purpose was to direct viewers to the online videos. The linked videos each had less than 15 views at the beginning of this evaluation. This provides evidence of a clear lack of engagement among the target audience. The low-quality experiences with creative materials stay with and, perhaps, reinforce an individual's opinions, especially if further experiences are of similar quality (Dewey, 1938). Similar initiatives, used to target audience segments, should tested by audience members to determine potential interest, engagement, and impact by other members from the audience group.

Findings from this study indicated that there was an 81.8% message accuracy of promotional pieces developed to support the campaign. However, the outlined messages were broad and general. The promotional pieces may have impacted more youth with a targeted, specific message reinforced by experiential learning experiences. Experiential learning activities leave participants with experiences that live through further experiences and continue to influence the attitudes of the participant (Dewey, 1938; Doolittle & Camp, 1999: Kolb, 1984; Roberts, 2006). These activities and messages should be specialized for a specific segment of the target population (Guth & Marsh, 2006; Marshall & Johnston, 2010; Rice & Atkin, 2013). Each member of a target audience has unique experiences that effect how they construct meaning, which further supports the need for segmented audiences with specific traits (Roberts, 2006). So although there were creative pieces used to target youth and experiential learning experiences for youth at [celebrity farm], these items were not used to reinforce and support each other. This should be corrected in the future to increase campaign impact and depth.

As a result of this campaign evaluation, the researchers believe it is important for groups targeting youth to identify precise messages reinforced by experiential learning activities for specific groups of youth that do not have prior agricultural knowledge. These groups should utilize constructivist concepts and perform a needs assessment to gain an understanding of what youth already know about the topic (commodity) they are promoting. Again, because prior experiences shape learning, the active role a participant plays in an experiential learning activity should be included during development. Further research should be completed to determine the effect experiential youth outreach from agricultural companies or commodity boards have on learning and knowledge retention.

The overall quality of all of the pieces that were assessed had a mean of 2.21 (*SD* = 0.61) where each piece was ranked on a 5-point Likert-type scale from 1 (poor quality) to 5 (excellent quality). A mean at this level places the quality of creative pieces in the campaign between fair and average. Because the creative materials were assessed based on industry standard measures for quality, a low score is indicative of low quality. Therefore, the researchers were not satisfied with the quality of the pieces in the campaign being fair to average. "When a document is well designed, readers understand the information more quickly and easily. Readers feel more positive about the topic and more accepting of its message" (Telg & Irani, 2012, p. 99). Efforts should be made to increase the overall quality of creative materials used to target youth in this campaign. Moreover, additional content analysis should be completed to determine the themes, message accuracy, and quality of creative pieces from other agricultural campaigns to determine strengths and weaknesses within the industry.

Content analysis research is supported by the NRA research priority area focused on public and policy maker understanding of agriculture and natural resources (Doerfert, 2011).

Because American citizens are becoming further removed from the farm, promotional communication campaigns are of upmost importance in increasing agricultural literacy (Reidel et al., 2007). The researchers also recommend that other researchers doing campaign evaluation studies include quality measures in the evaluation process. Further research should be conducted to provide general insight on the effect quality has on audience perceptions, especially with commodity groups' audiences. Determining how quality affects an audience will provide more insight and understanding into what makes a successful educational program that informs various publics about agriculture and increase agricultural literacy, thus furthering the mission of the NRA priority area. Also, communication firms working on agricultural-based campaigns must have an agricultural expert on staff. To communicate about agriculture one needs a background and experience in agriculture and communications.

Additionally, the key players that [public relations firm] asked to recruit 4-H and FFA students, mentioned that participants in the education program were not provided a meal and had to make arrangements for the all-day event. The interviewees felt there were more appropriate ways to target youth about commodity promotion. Alternative messages and activities should be updated to better target youth. Only approximately 45 students from a localized area participated in the learning event at [celebrity endorser's] farm. The key players felt the event should have allowed for the participation of more youth. They also thought that there might be another, more cost effective, instructional alternative to educate youth about the Arkansas commodity and careers in agriculture through direct funding to 4-H/FFA to provide instruction for more students. Additionally, creative pieces used to target youth did not include celebrity endorsement information. Therefore, is this really the correct location and celebrity connection for the youth target audience? Also, there may be a better more appropriate method to target youth. Additional efforts should be focused on targeting youth outside the 4-H and FFA programs.

The researchers recommend that other commodity groups targeting youth utilize in-depth interviews with key players. Feedback from those helping with the events gave the researchers an inside look at the campaign they were tasked to evaluate. It would also be beneficial to pre-test and post-test youth participants in the experiential learning events to determine the impact of the curriculum used. Without gathering immediate feedback from students, their knowledge retention, increase of agricultural literacy, and overall impression of the [commodity] after the experiential learning event are unknown. Finally, commodity groups should develop programming that targets the largest possible number of their youth audience members. Targeting a larger number of students would yield higher audience saturation and, therefore, impact. Additionally, specific curriculum should be developed for programs targeting youth.

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Incident Response Planning for Selected Livestock Shows

Abstract

The purpose of this study was to determine local officials' perceptions and awareness of incident planning and response pertaining to selected livestock shows. Little research has been completed in this area; therefore, this foundational study was needed. The five study participants included livestock show officials involved in incident planning and response or local emergency management officials. Each participant was interviewed, and then data were transcribed and categorized to consensus. Nine themes arose including: background information, challenges, communication, example incidents, executing incident response, incident response planning, incident response training, miscellaneous and need for planning. The two livestock show participants were aware of specific incident response plans for the livestock show, while the three local emergency management officials were aware of city emergency management plans. Each participant remarked upon their roles in planning and executing incident response. In addition, communication was thought to be one of the key factors to successful incident planning and response. Challenges ranging from lack of communication to training for incident response were stated. Lastly, participants remarked on recommendations for others planning for incident response at livestock shows. These recommendations included communication, preplanning, building relationship with key stakeholders, training, and a need for more planning and research in this area. This study should be replicated for regional livestock shows and state fairs, and it an instrument with scaled objectives for measuring awareness of livestock shows and incident response plans should be developed.

Keywords: incident response, emergency response, livestock, livestock shows, disasters

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Introduction

"The purpose of the youth livestock program is to teach young people how to feed, fit, and show their animals and to provide an opportunity for personal growth and development of the young person" (Rusk, Brubaker, Balschweid, & Pajor, 2006, p. 105). At any given livestock show, exhibitors and spectators of all ages from across the United States could be in attendance. Many are there to watch livestock competitions, browse the trade show, and take a seat at the rodeo. Therefore, there is a growing need to keep the public and animals in attendance at these events safe.

Incidents affecting the livestock sector of agricultural industry, also known as agriculture emergencies, are unavoidable in today's society (Gilpen, Carabin, Regens, & Burden, 2009). While there is no clear definition of an agriculture emergency in the literature Gilpen et al. (2009) suggest the following: "agriculture emergency is any type of event, regardless of intent, that jeopardizes the economic stability of any sector (farm level to national level) of the U.S. agricultural/agribusiness industry" (Gilpen et al.,, 2009, p. 188). Many contagious animal disease, that could threaten the stability of the livestock industry, such as foot-and mouth (FMD), classical swine ever (CSF), and Venezuelan equine encephalitis (VEE), have been eradicated from North America because of successful veterinary public health intervention during the 20th century (Gilpen et al., 2009). The traditional first responders- firefighters, police officers, emergency medical service providers, volunteer search and rescue teams, public health workers, and hospital healthcare providers – are not well trained to identify the direct or indirect associations between animal health outcomes and human health (Gilpen et al., 2009). Consequently, when animal and human health outcomes have overlapped, the appropriate response was delayed, as demonstrated during the 1999 West Nile virus outbreak in New York City (Gilpen et al., 2009). This revealed communication and cooperation deficits between public health practitioners, traditional first responders, and non-traditional responders (Fine & Layton, 2001; U.S. Government Accountability Office; Gilpen et al., 2009).

Incidents that could affect livestock shows include “intentional” and “unintentional” natural and man-made disasters (Shaluf, 2007). Shaluf (2007) described natural disasters as those from the result of natural forces, often termed an “act of God” (p. 687). Natural disasters include hurricanes, tornadoes, earthquakes, floods, and disease outbreaks. For example, in 1993, hundreds of thousands of pigs were evacuated from farms along the Mississippi River due to flooding, and in 1995, millions of poultry died from a heat wave in Delaware, Maryland, and Virginia (Federal Emergency Management Agency, 2010b). Man-made disasters result from human decisions and include intentional disease outbreaks and agroterrorism. The common denominator between intentional and unintentional disasters, as explained by Shaluf (2007), is the severe impact they have on life safety, property, and the environment. The impact of natural disasters can be reduced by setting up warning systems that forecast impending disasters and through effective disaster management (Shaluf, 2007).

Livestock shows resemble large-scale sporting events. Thousands of people attend these events, which typically take place in confined areas. Livestock shows and large-scale sporting events differ in that large numbers of livestock are present at livestock shows and can house unexpected issues, such as zoonotic diseases. In addition, large-scale sporting events typically have strict placement of people in certain areas (i.e. seating assignments), whereas at livestock shows, people are free to travel to almost any part of the facility, which could be up to hundreds of acres in size (Houston Livestock Show and Rodeo, 2011; Kentucky Exposition Center, 2011).

Preparedness for disastrous events needs to be a top priority for the organizations running livestock shows. The lack of research related to incident planning and response at livestock shows has caused researchers to look at other research pertaining to large event management. In a report pertaining to sports disaster management, the authors reported that "effective security management of large- scale spectator sports events is vital nationwide because of the potential for mass casualties and catastrophic economic impact" (Hall, Ward, Cunningham, & Marciani, 2008, p. 9).

The mission of the Department of Homeland Security (DHS) is to: "secure the nation from the many threats we face" (U.S. Department of Homeland Security, 2011, para. 1). The first responders to a disaster are from the locale and state levels, according to the National Response Framework (NRF) (U.S. Department of Homeland Security, 2008a). In the case of a foreign animal disease outbreak, veterinarians employed with the United States Department of Agriculture, members of the National Animal Health Emergency Response Corps, and members of Veterinary Medical Assistance Teams will be contacted to assist with the response (Wenzel, 2007). With multiple levels and types of responses outlined by the NRF, its imperative for individuals to understand that their pre-disaster responsibilities may change following a disaster event (Moats, 2007). Therefore, officials who manage livestock shows and the local emergency management officials must fully understand the roles they are expected to fulfill in an emergency (U.S. Department of Homeland Security, 2008a). In order to implement the most effective response, incident response planning is essential to meeting this need.

Keim and Kaufmann (1999) studied and discussed the need to determine a systematic structure and recommendations that emergency service officials can use efficiently. Yet, little, if any, information has been reported regarding the effectiveness and efficiency of incident planning and response at major livestock shows in the United States. If preventative measures are in place, officials at livestock shows will be able to respond to incidents more efficiently and effectively, lessening the impact of the disaster. The lack of research in incident planning and response at livestock shows is a barrier to a how well local emergency management officials and livestock shows work together in order to execute efficient and effective response to disasters.

Literature Review

In March 2001, Representative Mac Thornberry recommended the formation of a National Homeland Security Agency (Borja, 2008). This agency would combine infrastructures that were previously separated including the Federal Emergency Management Agency (FEMA), United States Customs Service, Boarder Patrol of the Immigration and Naturalization Service, United States Coast Guard, Critical Infrastructure Assurance Office and the Institute of Information Infrastructure Protection of the Department of Commerce, National Infrastructure Protections Center and the National Domestic Preparedness Office of the Federal Bureau of Investigation and would create one agency (Borja, 2008). Following the September 11, 2001 attacks on the United States President George W. Bush announced that he would create the Office of Homeland Security (Borja, 2008). On October 8, 2001 two entities were established to control homeland security policy, the Office of Homeland Security and the Homeland Security Council (Borja, 2008).

Homeland Security Presidential Directive 7 (HSPD-7) identified the agriculture and food sector of the U.S. economy as a critical infrastructures that is “vulnerable” to potential terrorist attacks (Gilpen et al., 2009). The limited security measures at the farm level; the susceptibility of the livestock to transmissible animal diseases, and the rapid transportation dynamics associated with these animals makes them vulnerable to natural (e.g. disease, drought), unintentional (e.g.

feed contamination), and intentional threats (e.g. criminal and terrorist attacks) (Gilpen et al., 2009). In response to this, HSPD-9 started a "national policy to defend the agriculture and food systems against terrorist attacks, major disasters and other emergencies" (Department of Homeland Security, 2012).

The DHS's mission is "to secure the nation from the many threats we face" (U.S. Department of Homeland Security, 2011, para. 1). The five departmental missions of the DHS are to prevent terrorism and enhance security, secure and manage U.S. borders, enforce and administer immigration laws, safeguard and secure cyberspace, and ensure resilience to disasters (U.S. Department of Homeland Security, 2011).

Ensure Resilience to Disasters

This study takes a deep look at the mission to ensure resilience to disasters. The U.S. Department of Homeland Security (2011) provides the structure for organized, complete federal response in the event of a man-made disaster, natural disaster, or other large-scale emergency. To be prepared for an incident, the DHS has implemented two preparedness and response guiding documents, The National Incident Management System (NIMS) and the National Response Framework (NRF), that describe specific authorities and best practices for managing incidents (U.S. Department of Homeland Security, 2011).

Local Emergency Management Agency Response

The NRF is a guide used to clarify how the nation conducts all-hazards responses (U.S. Department of Homeland Security, 2008a). It provides a community with a guide to emergency response management. NIMS was created to provide "a consistent nationwide template to enable Federal, State, tribal, local governments, non-governmental organizations (NGOs), and the private sector to work together to prevent, protect against, response to, recover from, and mitigate the effects of incidents, regardless of the cause, size, location, or complexity" (U.S. Department of Homeland Security, 2008b, p. i) Therefore, NIMS is the template for general management incidents, while the NRF provides the steps for actual incident management (U.S. Department of Homeland Security, 2008b).

The five key principles set forth by the response doctrine involve engaged partnership; tiered response, scalable, flexible, and adaptable operational capabilities; unity of effort through unified command; and readiness to act (U.S. Department of Homeland Security, 2008a). The first people to respond to an incident are typically local police officers, firefighters, and emergency medical and public health personnel (U.S. Department of Homeland Security, 2008a). These local responders are usually the first to arrive at the incident and they are often the last to leave (U.S. Department of Homeland Security, 2008b).

"Local officials are responsible for establishing strong working relationships with local jurisdictional leaders and core private-sector organizations, voluntary agencies, and community partners as well as planning and executing incident response" (U.S. Department of Homeland Security, 2008a, p. 16). Overall, the main responsibility of local officials is to proactively coordinate with and train with local agencies and develop relationships in order to execute incident response (U.S. Department of Homeland Security, 2008a, p. 16). The NRF outlines a way of preparing for incidents called the preparedness cycle. The preparedness cycle includes planning, organizing, equipping, training, exercising, and evaluating and improving (U.S. Department of Homeland Security, 2008a).

The planning stage involves identifying what an organization's standard operating procedures should include for ensuring that contingencies are in place and for delivering the response during large-scale disasters (U.S. Department of Homeland Security, 2008a).

Organizing and equipping include identifying the competencies and skill sets people delivering a capability should possess and ensuring an organization possesses the correct personnel (U.S. Department of Homeland Security, 2008a). Training provides first responders, homeland security officials, emergency management officials, private and non-governmental partners, and other personnel with the knowledge, skills, and abilities needed to perform key tasks required by specific capabilities (U.S. Department of Homeland Security, 2008a). Exercises assess and validate the speed, effectiveness, and efficiency of capabilities, and test the adequacy of policies, plans, procedures, and protocols in a risk-free environment. The evaluation and improvement of mission and task performance is the final step of the preparedness cycle and is crucial to informing risk assessments, management of vulnerabilities, resource allocation, and other elements of the cycle (U.S. Department of Homeland Security, 2008a).

Training to Safely Handle Livestock

Successful response efforts also require training to safely handle livestock. Livestock are beyond the normal pet planning for local first responders. Livestock are considered domesticated animals; however, handling livestock involves many risks if precautions are not considered beforehand (Webster & Gonzalez, *n.d.*). Animal behavior and patterns should be considered when working with livestock (Bean, 2008; Webster & Gonzalez, *n.d.*; Farm Safety Association, Inc., (*n.d.*); & Slocombe & Ebert, 2010). This is important in understanding that these large animals may be startled easily by shadows. In addition, cattle, horses, and mules have a panoramic field of vision (Bean, 2008). This means these animals can see everything around them except what is directly behind them, making approaching from the front or side less startling. Livestock with young can exhibit distinct material and territorial instincts (Bean, 2008; Slocombe & Ebert, 2010; Webster & Gonzalez, *n.d.*)

Farmers, local officials, first responders and the general public located in the communities that host these large livestock shows should all learn more about handling livestock, particularly during emergency events by participating in FEMA's Independent Study Program (Federal Emergency Management Agency, 2010b). The purpose of FEMA's Independent Study course "Livestock in Disasters" is to synthesize the knowledge of livestock farmers and emergency managers and develop a unified approach that will alleviate the impact of the disasters on livestock agriculture (Federal Emergency Management Agency, 2010b).

Incident Planning and Response at Large Facilities

The initial stages of the development of the incident command system discovered that critical planning for incident response was "overlooked and resulted in poor use of resources, inappropriate strategies and tactics, safety problems, higher incident costs, and lower effectiveness (Federal Emergency Management Agency, 2008, p. 18). The incident command system resource document identifies that it is essential that every event be managed according to a plan (Federal Emergency Management Agency, 2008). In addition, "written action plans provide: a clear statement of objectives and action, a basis for measuring work effectiveness and cost effectiveness, a basis for measuring work progress and for providing accountability" (Federal Emergency Management Agency, 2008, pp. 10-11).

The economic impact that livestock shows have on particular cities is unlike other large-scale events. Livestock shows last approximately three weeks and draw crowds from multiple states and countries. The impact these shows have on a city can be evaluated in many different ways, including number of jobs created, number of visitors to the city, and the dollar amount made by the show and community. For example, the North American International Livestock show is the world's largest all-breed, purebred livestock show. In 2012 there were 26,099 entries, contributing to record numbers in several show divisions. Annually, this show pumps $11.6 million in economic impact (Kentucky State Fair Board, 2012).

The 2013 Houston Livestock Show and Rodeo (HLSR) shattered past attendance records (Latest News, 2013). The attendance actually exceeded the population of the city of Houston, with more than 2.5 million visitors. This year's livestock competitions and horse shows boasted 27, 070 entries (Latest News, 2013). The 2013 HLSR ran for 21 days, instead of the usual 20 days. The amount spent on hotels, food and entertainment was estimated to be $93.8 million dollars (Rutledge, 2013).

The National Western Stock Show in Denver, Colorado overall attendance in 2013 was 628, 366 (National Western Stock Show, 2013). The 16-day shows serves as an entertainment arena, hosting one of the world's richest regular professional rodeos, largest horse show and Colorado's largest trade show (National Western Stock Show, 2013). The 2013 show employed more than 1000 people for the month of January. The Leeds School of Business at the University of Colorado Boulder estimates the stock sow has a $96 million economic impact on the region (Proctor, 2013).

Purpose and Objectives

The purpose of this study was to describe local officials' awareness and perceptions of incident planning and response at selected livestock shows. The specific objectives of this study were to: 1) Determine if local officials are aware of selected livestock shows in their respective cities; 2) Describe local officials' awareness of incident response plans for the selected livestock shows in their respective cities; 3) Describe the self-reported roles of local officials in incident planning and reponse for the selected livestock shows in their respective cities; 4) Describe the level of communication among local officials pertaining to selected livestock show; 5) Describe local officials' perceptions of challenges involved with incident planning and response at the selected livestock shows; and 6) Describe local officials' recommendations for effective incident planning and response related to livestock shows.

Methods

Previous research related to incident planning and response at livestock shows was not available, making qualitative methodology the most suitable approach to building a foundation for this line of research. Strauss and Corbin (1990) stated that qualitative research methods could be used in studies in which little information is known or to add to the depth of knowledge already known. This study sought to describe officials' awareness and perceptions of incident response at livestock shows. The academic community will gain an in-depth understanding of incident response at livestock shows in the United States; through the knowledge gained from questioning local emergency management officials involved in incident response at livestock shows.

The target population for this study included local officials involved in incident planning and response for livestock shows and emergency management in selected cities. These individuals were selected because they had the knowledge the researcher was interested in collecting about incident response. The researcher employed a purposive sampling strategy, intentionally selecting five knowledgeable people involved with facilities in selected communities that host large livestock shows.

Fraenkel and Wallen (2009) stated the selected representatives in purposive sampling have the needed information for the study. In this study, five officials, during the initial contact, commented on the value of this line of inquiry and agreed to participate in individual interviews. Additionally, participants indicated they had not seen previous research of this kind and it noted that it was need to help them in improving their practices related to planning and implementing incident response at their respective facilities.

Data collection for this study included interviews and document analysis of materials pertaining to the incident response planning at livestock shows. Data was collected during the fall of 2010. Five interviews were conducted via telephone from October 19, 2010, to October 22, 2010. The researcher immediately following the interview period transcribed the audio files of the interviews. The transcription process is both a measure of soundness as well as a way to analyze data. Member checks were performed to check for reliability. The documents used to analyze the data were general incident response and planning guidelines obtained by the researcher.

During the opening of the phone interview, the researcher explained to each participant who she was and that she was interviewing local officials involved in incident planning and response in selected cities within the United States that host major livestock shows. The researcher explained why she chose each particular participant as well as the risks and benefits associated with this study. In addition, it was stated that this study was confidential and the researcher provided information on who to contact for more questions about this project. From this point forward, the researcher asked each participant if he wished to participate in the study at this time or if he would like to set up an appointment at a later time. All participants chose to be interviewed during the initial phone call.

After completing the interviews, the researcher transcribed the phone interviews verbatim. The researcher sorted individual data units from the transcribed interviews, ending with 340 data units. This step of the data analysis process is called unitizing. The researcher and one independent rater categorized these data units. The first sort of the data units resulted in 20 categories from the researcher and 11 categories from the independent rater. The researcher and independent rater noted the similarities in their categories and came to a consensus with nine final categories. The researcher and independent rater sorted the 340 data units into the nine new categories. Upon reviewing the new sorting, the researcher and independent rater sorted 281 data units alike and 59 different. The researcher and independent rater reviewed the 59 different data units and came to consensus in which these data units should be placed.

Findings

The final nine themes that emerged from the 340 data units in this study were: background information (26 data units), challenges (67 data units), communication (18 data units), example incidents (15 data units), executing incident response (61 data units), incident response planning (72 data units), incident response training (15 data units), need for planning (29 data units) and miscellaneous (37 data units).

Information supporting objective 1, awareness of selected livestock shows sorted into the theme of background information. Objective 2, local officials' awareness of incident response plans was supported by the theme of incident response planning. Objective 3 describe the self-reported roles of local officials in incident planning and response for the selected livestock shows resulted in information from the themes of incident response planning and executing incident response. The data units supporting objective 4, describe the level of communication among local officials, fell into the theme of communication. Objective 5, local officials' perceptions of challenges involved with incident planning and response, was supported by the themes of challenges and example incidents. Objective 6, local officials' recommendations of effective incident planning and response related to livestock shows, were reinforced by the themes of communication, incident response planning, incident response training, and need for planning.

The theme of miscellaneous contained information such as rhetorical questions and information that did not pertain to incident response planning at livestock shows. This theme did not support any of the research objectives.

Findings for Objective 1: Are Local Officials Aware of Selected Livestock Shows?

All participants interviewed in this study were aware of the selected livestock shows in their respective cities. This baseline question was important in setting the foundation of the study in order to know where participants stood on the subject of livestock shows in general. Once the foundation was set the researcher was able to move forward with the investigation, asking questions that required specific details on how they handle incident planning and response. Objective 1 provided information beneficial to the investigation on how much interaction that certain participant had with the selected livestock show in their city. All participants interviewed provided background information as to whether they previously worked with the livestock show selected.

The data units that formed the theme of background information included but were not limited to: evidence of past work history, past show history, and previous facility history. One participant remarked that they "used to work as a policeman down at the livestock show" and another stated that their facility was used "almost every day of the year." In addition, participants stated that local fire stations are in close proximity to their show facility. Another participant stated that they volunteered at the livestock show in the horse barn and in the radio room.

The information found in background information clearly define objective 1 by discovering if local officials were aware of the selected livestock show in their city. Participants included information they felt needed to be stated about their knowledge of the livestock show, thus creating a foundation.

Findings for Objective 2: Awareness of Incident Response Plans for Selected Livestock Shows and to What Degree

Two of the selected livestock show participants stated they were involved in the process of creating the incident response plans for their respective show and venue. The participants who work with the local emergency management agencies stated they were aware of the emergency operations plans or all-hazards plans for their city. These plans include responding to the venues hosting the livestock shows.

Findings for Objective 3: Describe the Roles of Local Officials in Incident Planning and Response

It was concluded from Objective 2 that participants were involved with creating the specific response plan for their specific job. Some of those plans involve planning for the entire city and surrounding communities while other plans were specific to the venues hosting the livestock show. Participants expressed their self-reported roles via two different channels. One channel was they planned for the possible incidents that could occur. The second channel participants identified their role and included examples of how they executed incident response. It was obvious that participants understood their specific role. One participant indicated that the nature of the incident determined who was liable for the response. This specific participant's main role was getting the correct emergency response personnel, whether it is EMS, fire, police or safety committees to the appropriate place. The participant who works as a local emergency management official indicated that their key role in incident response was to activate the emergency operations center during a large incident response. In addition, they were responsible for getting the necessary resources needed by incident commander on scene.

It is critical for individuals at the local emergency management level and in the livestock organizations to understand their roles in incident planning and response. The NRF defines the roles and responsibilities for the responders at the local level, which can include emergency managers and department heads of the cities. Three of the participants in this study were in this line of work. Each of these participants commented on their role as the coordinator of components of local emergency management and ensuring those components are available and ready to use if an incident were to transpire. This aligns with the responsibilities set forth by the emergency managers and department heads in the NIMS (U.S. Department of Homeland Security, 2008b).

Findings for Objective 4: Level of Communication Among Local Officials

Participants were not directly requested to define the levels of communication among local officials during their interviews; however, every participant mentioned the importance of communication between both the livestock show staff and facility and the local emergency management agencies and headquarters. In addition, participants indicated the importance of building relationships with other key stakeholders in outside communities such as police officers and fire fighters and making sure there the lines of communication open between the two. This is in line with Seeger (2006) who indicated that communication is essential to the best practices in incident planning and response.

Findings for Objective 5: Perceptions of Challenges Involved with Incident Planning and Response at Selected Livestock Shows

When asked to identify the challenges involved with incident planning and response at their respective livestock shows all participants identified different examples, leading the researcher to believe the probability of an incident happening at a livestock show is very high. This information was compiled into two themes: challenges and examples incidents. The participants identified specific challenges such as inclusion of livestock, large masses of people, communication errors or lack thereof, accountability, and training as examples of challenges when it comes to incident planning and response at livestock shows. Example incidents recounted by the participants show the variety of challenges that can and have transpired at livestock shows already.

The purpose of this study was to identify whether livestock show managers are prepared for incidents to occur at their venue. As demonstrated above, incidents can occur with a wide variety of complexity. While it is not possible to plan for all types of incidents, it is important to have a response plan prepared in the case that something does happen. In the theme, example incidents, participants stated incidents that have already occurred at their livestock shows. The sheer volume of possible incidents indicates that it is important to be prepared.

Findings for Objective 6: Recommendations for Effective Incident Planning and Response Related at Livestock Shows

The participants of the this study provide plenty of recommendations on how to execute effective incident planning and response at livestock shows for the use of other show managers or organizations in charge of a livestock show. These recommendations are dived into four themes: communication, incident response planning, incident response training and need for planning. The recommendations provided included preplanning, communicating with key emergency management agencies and officials, training for possible incidents through table-top exercises and real life drills, inviting local emergency agencies to tour your facility, building a relationship with key organizations, being knowledgeable of general incident management and planning process and to take precautions early. This aligns with the preparedness cycle set forth by the U.S. Department of Homeland Security (2008a). The engaged participants recommended, communication and relationship building, two of the key guidelines of the response doctrine of the NRF (U.S. Department of Homeland Security, 2008a). Last but not least, understanding basic incident management principles will be of tremendous help in planning for and responding to incidents.

Conclusions

Due to the complexity of incident planning and response, many emergency management organizations overlook the basic protocol needed to provide a safe environment at their facilities or the events hosted there. The DHS's mission is "to secure the nation from the many threats we face" (U.S. Department of Homeland Security, 2011). Through this mission, the DHS has created guidelines for incident planning and response. It is in an organization's best interest to implement these guidelines. Large organizations and events, such as the national sporting events, hospitals, and schools, have implemented these guidelines, and it is time that livestock shows look at them as well.

The economic impact a livestock show has on a particular city is equal to or more than a large sporting event taking place in a city. The difference is that a livestock show takes place in one city every year and runs for approximately three weeks. With gross sales in the millions for cities that house national livestock shows, it is important to look at safety at these livestock shows. In addition, the one main purpose behind a livestock show is they provide an arena where youth who exhibit livestock projects can demonstrate their hard work. With large numbers of visitors and exhibitors at livestock shows, it is time to develop foundational research about how local officials view incident planning and response at livestock shows. Since little information in the area of incident response at livestock shows has been studied, this is an important topic of study.

In this study, five officials, during the initial contact, remarked on the value of this line of research and agreed to participate. Once contacted, participants stated that they had not seen any research of this kind and it was needed to help guide them on how they could improve their incident response practices.

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