PHOTOGRAPHIC EFFECTS ON STUDENTS' PERCEPTIONS OF THE AGRICULTURE INDUSTRY

A Thesis

by

KATHRYN ANTHONY BRADLEY

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE

May 2010

Major Subject: Agricultural Leadership, Education, and Communications

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ABSTRACT

Photographic Effects on Students' Perceptions of the Agriculture Industry. (May 2010)

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Chair of Advisory Committee: Dr. Douglas Perret Starr

Photography is a staple in news media, in magazines, in marketing/advertising, in entertainment, and in public relations as a means of persuasion and illustration. The purpose of this study was to determine if photographs had a persuasive effect on reader opinion of the agriculture industry when standing alone and when coupled with agriculture news leads in magazines. A stratified random sample of students (*N*=300) was asked to complete two online surveys—pretest and post test. Parametric- and nonparametric-type questions were used to measure the reactions of students, most of whom had no strong association with agriculture or photography, toward an agriculture photograph, and asked if their reaction were influenced by associating the photographs with a positive agriculture news lead. Descriptive statistics (mean, standard deviation, frequency, and one-way ANOVA) were used to analyze the data. By using two photographs that represented different agriculture settings, this study showed how photographs can either heighten the public's fear of or renew its faith in the agriculture industry. This study showed that most respondents viewed photographs negatively regardless of the presence of a news lead that depicted agriculture positively.

DEDICATION

I dedicate this work, and this degree, to my wonderful support group of family and friends. Always supportive, always keeping me upbeat and focused on my goal, my family and friends stuck with me through the long process of finishing this degree. Thank you for all that you have done to help me achieve this goal.

ACKNOWLEDGEMENTS

I thank the wonderful professors in the Agricultural Communications and Journalism Department. Without Drs. Dunsford, Rutherford, Starr, and Wingenbach, I would not have been able to pursue my love of writing and photography, and I definitely would not have achieved a master's degree. Thank you, from the bottom of my heart, for all you have done for me—especially the poking and prodding along—since I joined the program in 2002. Every bit of knowledge I have has stemmed from you all. Thank you, thank you, thank you!

I credit my mom, dad, and little brother for their support in achieving every goal I have pursued in my 26 years. The love and respect from them is constant and overflowing. Without such a strong base to stand on, I would not have been able to reach so high.

I have a wonderful group of friends who helped me along, some with kind words of encouragement, others giving me the big push I needed most! There are too many to list, but those who are special in my life know who they are. I thank you, not only for helping me through this phase of my life, but through all the crazy decisions along the way.

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CHAPTER I

INTRODUCTION

The agriculture industry has experienced disasters, at least one every decade, ranging from "Mad Cow" outbreaks in beef to avian flu strains in poultry and from *E. coli 0157* in spinach to salmonella in peanut butter. How these stories are visually depicted in national news publications greatly impacts today's agriculture industry. The purpose of this study was to determine if photographs have a persuasive effect on reader opinion of the agriculture industry when coupled with agriculture news leads in magazine publications.

Photography has been used to depict horrors and joys in both global and personal events. The use of photography has become a staple in news media, marketing/advertising, entertainment, and public relations as a means of persuasion and illustration. In covering the news, photographs can be used to sway public opinion both positively and negatively. By using photographs known to represent several settings, this study shows how national news magazines can either heighten fear of or renew the public's faith in the agriculture industry. Knowledge of opinions and perceptions of respondents toward photographs will enable better understanding of image use. The ability to manipulate a photograph through computer programs, or its use in connection with a news lead, may cause readers to no longer take photographs at face value as the truth.

This thesis follows the style of the *Journal of Applied Communications.*

This study was based on five objectives:

1. Determine the reader's initial reaction to a photograph without association to an agriculture news lead.
2. Determine the reader's initial reaction to a photograph with association to an agriculture news lead.
3. Identify credibility associated with each photograph.
4. Determine whether the reader's demographics and background knowledge affect perception of the photograph and the agriculture news lead.
5. Identify the level of significance applied to the photograph.

Theoretical Framework

The purpose of this study was to determine if photographs have a persuasive effect on reader opinion of the agriculture industry when standing alone and when coupled with agriculture news leads in magazine publications. The framework for this study was based on a main theory of visual literacy, supported by a framing theory, through studying the concept of photographic composition and photographic credibility by judging if the photograph had been doctored through editing programs. In addition, thorough study of perceptions of agriculture and the definition of agricultural literacy promote understanding of reader opinion of the agriculture industry. The following sections explain the theoretical framework guiding the study.

Study of Photographic Composition

An appealing photograph should enhance viewer emotion toward the subject of the photograph. Rosser (1998) said, "The employment of photographs to stimulate the release of

strong emotions is premised on the existence of a 'punctum' or trigger for emotions in photographs." When photography is used to enhance the story, the reader or viewer feels an emotional pull toward or away from the subject. If the photograph is used to sway the viewer, whether positively or negatively impacting the story, the photograph is being used as a punctum or trigger. Rosser (1998) defined a punctum as "a small detail in a photograph that triggers a succession of personal memories and unconscious associations, many of which are indescribable by the individual" (p. 79). By understanding the laws of good photography, the page designer has the power to use a photograph as persuasive material rather than as simply an illustration for the accompanying news lead. Rose (2005) defines a punctum as unintentional and unrecognizable; it is a sensitive point in an image which pricks, bruises, disturbs a particular viewer out of their visual viewing habits. Photographs that elicit an emotional response, either positive or negative, is using a punctum. This study attempted to use photographs that had a visual effect that would act as a punctum and elicit a strong response from the students.

Theories of Visual Literacy

This study focused heavily on visual literacy—primarily the theory of semiotics. Semiotics is described as the study of signs (Harris & Lester, 2002), and was studied and used by Norwood (2005). Norwood credited de Saussure and Pierce with the innovation of semiotics. The purpose of semiotics is to become aware of the construction of reality created by signs (Chandler, 1999). Using semiotics as a basis for understanding how the viewer decodes a photograph will allow for deeper understanding of how best to present the photograph to receive the best response. In the *Handbook of Visual Communication:Theory,*

Methods, and Media, Barbatsis, Kenney, Moriarty, and Smith (2005) credit Greenlee with Pierce's definition of signification, "Pierce observed that meanings are determined through signification—a process where one object is thought to represent another." The symbolic signification of images resonates from the conventional associations to which they are anchored with a particular context (Barbatsis et al., 2005).

Harris wrote that semiotics may present images that may be iconic, indexical, or symbolic, but that the study of semiotics is concerned with how images actually represent rather than with how they may be grouped in the mind (Chandler, 1999). Groupings can be based on either personal experiences or learned knowledge. "It [semiology] offers a range of tools for looking at images carefully; it is centrally concerned with the ways in which social difference is created" (Rose, 2005). Questions based on student respondents' background knowledge and experiences enabled the investigator to see the social differences applied when several students viewed the same image.

In *Visual Journalism: A Guide for New Media Professionals*, three theories are presented—Gestalt, semiotics, and cognitive. Gestalt is described as dealing with the entire visual array of an element rather than with its individual parts (Harris & Lester, 2002). In other words, "the whole is different than the sum of the parts" (Haris & Lester, 2002). The Gestalt theory incorporates laws to aid viewer understanding: Similarity, proximity, continuation, and common fate (Harris & Lester, 2002).

Harris and Lester (2002) defined similarity as things grouped if their characteristics are alike; proximity as groupings that are close together; continuance as our eyes making an attempt to fill in incomplete parts of pictures; and common fate as the grouping of things

headed in the same direction. The use of this theory will aid the study in determining how each photograph and the accompanying news lead are presented for evaluation.

Cognitive is described as studying the brain's natural tendency to group images and associations to discern the meanings (Harris & Lester, 2002). Viewers and readers are affected by such outside factors as culture, environment, habitation, memory, projection, and words (Harris & Lester). These will all weigh on how each question is posed to judge visual literacy for each photograph.

This study used these approaches to dissect the perceived meaning or connotation of the photographs presented in connection with the accompanying news leads: studying the photograph alone and studying the photograph with the news lead, and studying how those results change the perception of either. Meanings grow through experiences with other signs, especially icons. As a sign, a symbol is not naturally or universally linked to the semiotic objective, but is bound by the intellectual and emotional associations made through the social conventions used (Barbatsis et al., 2005). One's own experiences dictate perception, and this study shows that background and experience affects perceptions.

Theory of Framing

The framing theory is most often used in relation to mass media, and closely relates to agenda-setting, but also impacts the studying the effects photographs have on readers. "The basis of framing theory is that the media focus attention on certain events and place them within a field of meaning" (Framing, n.d.). There are several possible ways of framing a photograph. These comprise metaphorically, comparing it to something else; story, making it memorable; tradition, defining the illustration to confirm and reproduce consumer values;

and spinning, creating an image to give it a positive or negative connotation (Framing, n.d.). Framing calls upon the viewer to accept one meaning over another. At the core of the assumptions made by framing theory is the influence of media on public thought. Media control the presentation of the news to the public, decide how to portray those topics and, in turn, draw attention to certain topics. "The way in which the news is brought, the frame in which the news is presented, is also a choice made by journalists" (Framing, n.d.).

Perceptions of Agriculture and Agriculture Literacy

Different research has studied perceptions of agriculture as it applies to a specific age group. One study, *Using Focus Groups to Check Youth Perceptions of Agriculture* (1995), studied youth in the sixth, seventh, and eighth grades, using eight questions to measure their perception of the agriculture industry. The stereotypical image of the agriculture industry was found to center on farming. Youth did not equate the benefits of technology, genetic research, or other technological advances as applicable to the agriculture industry (Holtz–Clause & Jost, 1995).

Though answers were stereotypical in nature, many of the answers compiled by the study can be applied to other research. Perceptions gained during youth often transpose to preferences in adulthood. In *Rural and Urban Adult Knowledge and Perceptions of Agriculture*, Birkenholz, Frick, and Machtmes (1995) studied the knowledge of rural and urban adults about agriculture research. They used seven agricultural literacy concept areas to identify shortfalls and misconceptions about agriculture.

Results of the study showed that respondents shared four demographic characteristics; home in a city/town; relatives living/working on a farm; experience in

raising plants, gardens, or crops; and reading newspapers as a regular source of news (Birkenholz et al., 1995). Those respondents produced lower knowledge levels of agriculture than those who did not have these characteristics (Birkenholz et al., 1995).

Four characteristics positively associated with knowledge of agriculture are completing a bachelor's degree or higher, white race, completing some college education, and living in or near a town with a population less than 2,500 (Birkenholz et al., 1995). These demographic factors were used in this study to show whether photographs have a persuasive effect on reader opinion of the agriculture industry when coupled with agriculture news leads in magazines.

The definition of agriculture is not simply farming and producing food and fiber. Agriculture is one of the largest, broadest production industries, and is therefore not easily defined. By studying 78 panelists representing 41 states in *A Definition and the Concepts of Agriculture Literacy*, Frick, Kahler, and Miller (1991) determined that panelists' defined agricultural literacy as

> possessing knowledge and understanding of our food and fiber system. An individual possessing such knowledge would be able to synthesize, analyze, and communicate basic information about agriculture. Basic agricultural information includes the production of plant and animal products, the economic impact of agriculture, its societal significance, agriculture's important relationship with natural resources and the environment, the marketing of agricultural products, the processing of agricultural products,

public agricultural policies, the global significance of agriculture, and the distribution of agricultural products (Frick, et al., 1991).

Failure to grasp the concept of agriculture's use in mainstream technology can conflict with the portrayal of agriculture in news media. The effects of news media can be widely felt, especially when covering a topic that is unfamiliar to most citizens. A conceptual understanding of the definition of agricultural literacy and the uses of agriculture in today's society goes a long way to understanding agriculture-related media coverage.

Photographic Credibility

Photography is often thought of as picturing reality (Rose, 2005). Photographs are considered to possess an innate and tangible presence of reality unlike any other form of communication (Snyder, 1997). Photographic credibility is judged through obvious defects or changes in the image presented. Harris and Lester (2002) wrote that everyone has experienced the truth of a photograph.

With the ability to manipulate a photograph through computer programs or its use in connection with a news lead, photographs can no longer always be taken at face value as the truth. "Although most understand that advertising images are always biased to some extent, we expect new photographs and images to be documents of reality—unbiased, factual representations of events" (Snyder, p. 2, 1997). Photographs do not always realize the expectation of reality. "In the ethics of process, digital alteration undermines what a photographer originally witnessed at the scene" (Barbatsis et al., 2005).

Any undergraduate course in marketing, advertising, or public relations includes some discussion of specific methods for using images to influence viewer opinion, belief,

and action (Helmers & Hill, 2004). "How exactly do images persuade? In other words, how do representational images work to influence the beliefs, attitudes, opinions—and sometimes actions—of those who view them?" (Helmers & Hill, 2004, p. 25). These questions are the framework of this study. Viewers believe that "visual news photography can be basically defined as faithfully recording for those not present anything that has impact on society" (Harris & Lester, 2002, p. 94).

The combination of theories will explore the persuasive effects of photography as it concerns perception of the agricultural industry, especially to those who are unfamiliar with the agriculture industry. The theory of visual literacy, concerning how images are "seen" when associated with agriculture news leads, highlights the need for closer examination of the lead/image combinations used in magazines.

Purpose

The purpose of this study was to determine if photographs have a persuasive effect on reader opinion of the agriculture industry when standing alone and when coupled with agriculture news leads in magazine publications.

Objectives

Five objectives were established to achieve the purpose of this study:

1. Determine the reader's initial reaction to a photograph without association to an agriculture news lead.

2. Determine the reader's initial reaction to a photograph with association to an agriculture news lead.
3. Identify credibility associated with each photograph.
4. Determine whether the reader's demographics and background knowledge affect perception of the photograph and the agriculture news lead.
5. Identify the level of significance applied to the photo.

Design

A pretest-post test control group design was used to compare treatment groups, without over-analysis, assessing how the variables gender, knowledge of photography, and knowledge of agriculture interact. Treatments groups comprised randomly assigned students from one intact group. "The pretest-posttest control group design uses comparison groups, random assignment to pace participants into treatment and control groups, and the pretest-post test procedure. Random assignment and pretesting help to establish equivalence of groups…" (Huston & Merrigan, 2004). Threats to validity are limited in a pretest-posttest control group design, but do exist in the form of generalization on findings to people outside of the current study (Huston & Merrigan, 2004).

Students enrolled in the undergraduate course AGLS 101—*Modern Agricultural Systems and Renewable Natural Resources*, in the College of Agriculture and Life Sciences at Texas A&M University, were randomly selected, grouped, and assigned into one of six groups with replication of none. Each student had an equal and independent chance of being assigned to each group. Each group was contacted during the semester to complete two

assigned survey sections, with an interval of six weeks between contacts. Students were asked to log in to a Web page at a specified time and date to complete a section of the survey.

Photographs used in the instruments were chosen because they were neutral photographs of the agriculture industry. However, photographs were judged positive and negative by the pilot group of students enrolled in ALEC 301—*Topics in Agricultural Leadership and Education* in the Department of Agricultural Leadership, Education, and Communications at Texas A&M University. The photographs are shown in Figures 1 and 2.

Figure 1. Positive Agriculture Survey Photograph 1. The pilot-group judged Positive Agriculture Photograph was taken by the investigator in August 2008.

Figure 2.Negative Agriculture Survey Photograph 2. The pilot group-judged Negative Agriculture Photograph was purchased from istockphoto.com in September 2008.

Population

The population of interest for this study were the students enrolled in the undergraduate course AGLS 101—*Modern Agricultural Systems and Renewable Natural Resources* in the College of Agriculture and Life Sciences at Texas A&M University. This population was of interest because it included students not necessarily enrolled in a major that focused on marketing, journalism, photography, or media courses. Historic course enrollment is 900 students, divided into three sections, from a variety of majors, not necessarily associated with agriculture. Students included upper- and lowerclassmen.

Three course sections, each with 300 students, are offered, thus totaling 900 students. Data were collected using an online questionnaire. A link to the questionnaire was sent to

the students via their Texas A&M University-provided NEO/HOWDY Internet system account (Appendix B–E). The accessible population of the study was $N = 300$.

Sample

Random assignment of 300 students from a convenience population of 900 students, to six groups of 50 with replication of none, represents the population. Each student had an equal and independent chance of being assigned to each group. An interval of six weeks separated the pretest and post-test, thus decreasing possible influence from the initial contact. The same demographic questions were presented to the entire population.

Instrumentation

The instrument developed for this pretest-post test control group design was based on the use of a comparative, weighted scale. Questions for this treatment were modeled from work completed by Davis at Texas Tech University (2003) and Norwood at Texas A&M University (2005), and questions related to three theories of visual literacy.

This study was approved by the Institutional Review Board (IRB #2008-0601), students were given access to an online questionnaire to determine persuasive effects of photographs. The survey consisted of two photographs which, depending on random group assignment, were accompanied by either a positive story lead or a negative story lead, or the respondent was presented only the photograph.

The instrument was designed by the researcher for use as an online survey where respondents compared initial reaction to a photograph and the photograph's credibility based

on the image alone, and the photograph when coupled with agriculture news lead, again rating the photograph's credibility and the respondents' perceptions of the photograph. The scale was assessed for face and content validity with a pilot group consisting of students in ALEC 301—*Topics in Agricultural Leadership and Education* in the Department of Agricultural Leadership, Education, and Communications at Texas A&M University.

The researcher controlled prior knowledge of the photographs by taking one photograph herself, and selecting one photograph from istockphoto.com randomly, and had an independent writer compose the positively and negatively slanted leads. The researcher selected photographs that were neutral images of the agriculture industry, and the pilot group assigned each photograph a positive or negative emotional response. The independent variables concerning respondents' prior knowledge and demographics can not be controlled for the study. The dependent variable is perceptions of respondent's view of the agriculture industry after viewing the photograph.

A 10-point scale was used to determine the effectiveness of both the photograph and the news lead. The same ten questions were used to determine the effectiveness of each photograph for every contact. The survey test schedule, as defined by respondent groups, is seen in Table 1.

Table 1
Survey Pretest and Post Test Schedule as Defined by Groups

Group	1	2	3	4	5	6
Pretest	Positive Photo	Negative Photo	Pos. Photo & Lead	Neg. Photo & Lead	Neg. Photo	Pos. Photo Only
Post-Test	Pos. Photo & Lead	Neg. Photo & Lead	Neg. Photo & Lead	Pos. Photo & Lead	Pos. Photo	Neg. Photo Only

Data Collection Procedure

Data were collected with an online questionnaire. Students were sent a link to the online questionnaire through their NEO/HOWDY e-mail account. Students completed the survey in their own residence or on a public computer, such as the computers available in labs on campus. The questionnaire took no longer than 10 minutes to complete.

A pre-notice e-mail was sent to respondents three days prior to survey distribution. A link to the questionnaire was sent with a time frame for completion. A follow-up e-mail notice was sent one week after the initial questionnaire was sent to students. The final contact with non-respondents was made through a personal e-mail. Finally, a thank-you note was sent to students' NEO/HOWDY e-mail account. Respondents' names, e-mail addresses, and unique passwords remained confidential.

Data Analysis

To meet the specified objectives of the study, the SPSS® 16 Statistical Package (Chicago, IL.) was used to analyze data. Frequencies, percentages, means, modes, medians, and standard deviations were used to analyze the data. Confidence intervals were set *a priori* at .10, or 90%, because the study is similar to studies of perceptions of agriculture. But, the study was one of the first to study the persuasive effect of photographs on reader opinion of the agriculture industry when coupled with agriculture news leads in magazines.

CHAPTER II

ANALYSIS OF INITIAL PERCEPTIONS OF PHOTOGRAPHS AS THEY RELATE TO THE AGRICULTURE INDUSTRY

Overview

To determine how a photograph affects readers' initial reaction to agriculture news leads, this study measured respondent's answers to questions that determined readers' initial reactions to photographs with, and without, association to an agriculture news lead, and determined the level of significance applied to the photographs.

Introduction

How agriculture stories are visually depicted in national news publications greatly impacts today's agricultural industry. Although agriculture significantly impacts the life of every American, it continues to be a neglected topic in mass media (Stringer & Thomas, 1999).

Photographs are often used to illustrate a news event and can influence public opinion both positively and negatively. There is a lack of substantive research in agricultural communication that addresses the portrayal of agriculture in media (Ruth, Park, & Lundy, 2005). Using two photographs that represent two different agriculture settings, this study showed that photographs can either heighten the public's fear of or renew its faith in the agriculture industry.

Theoretical Framework

Photographs are considered to possess an innate and tangible presence of reality unlike any other form of communication (Snyder, 1997). This study used three theories of visual literacy presented in *Visual Journalism: A Guide for New Media Professionals*: Gestalt, semiotics, and cognitive. This article focuses on how understanding the Gestalt and cognitive theories allowed for greater understanding of how photographs are perceived.

Gestalt theory is the entire visual array of an element rather than with its individual parts (Harris & Lester, 2002). In other words, "the whole is different than the sum of the parts" (p. 35). Gestalt theory incorporates laws to aid viewer understanding: Similarity, proximity, continuation, and common fate (Harris & Lester). Harris and Lester defined similarity as things grouped together if their characteristics are alike; proximity as groupings that are close together; continuance as our eyes making an attempt to fill in incomplete parts of pictures; and common fate as the grouping of things headed in the same direction (2002). Knowledge of this theory aided in determining how each photograph and the accompanying news lead were presented for evaluation.

Cognitive is studying the brain's natural tendency to group images and associations to discern meanings (Harris & Lester, 2002). Viewers and readers are affected by such outside factors as culture, environment factors, habitation, memory, projection, and words (Harris & Lester, 2002). These factors were considered in the development of the questionnaire specifically related to how each question was posed to judge visual literacy for each photograph.

Based on how perceptions of agriculture and the definition of agricultural literacy were studied in scholastic journals such as the *Journal of Applied Communications* and the *Journal of Agricultural Education*, the investigator had a deeper understanding of reader opinion of the agriculture industry. How a photograph is associated, or framed, by a news lead affects the perceptions of the photograph. Framing theory is most often used in relationship to mass media, and closely relates to agenda-setting, but it also impacts the study of how photographs affect readers. "The basis of framing theory is that the media focus attention on certain events and then places them within a field of meaning" (Framing, n.d.).

There are several ways of framing a photograph. These include metaphorically, comparing it to something else; story, making it memorable; tradition, defining the illustration to confirm and reproduce consumer values; and spinning, creating an image so as to give it a positive or negative connotation (Framing, n.d.). Framing calls upon the viewer to accept one meaning over another. Many of the assumptions made by the framing theory is based on the influence of media on public thought. Media control the presentation of news to the public, decide how to portray those topics, and in turn, draw attention to certain topics. "The way in which the news is brought, the frame in which the news is presented, is also a choice made by journalists" (Framing, n.d.).

An appealing photograph should enhance viewer emotion toward the subject of the photograph. Rosser (1998) said, "The employment of photographs to stimulate the release of strong emotions is premised on the existence of a 'punctum' or trigger for emotions in photographs." When photography is used to enhance the story, the reader or viewer feels an

emotional pull toward or away from the subject. If the photograph is used to sway the viewer, whether positively or negatively impacting the story, the photograph is being used as a punctum or trigger. Rosser (1998) defined a punctum as "a small detail in a photograph that triggers a succession of personal memories and unconscious associations, many of which are indescribable by the individual" (p. 79). By understanding the laws of good photography, the page designer has the power to use a photograph as persuasive material rather than as simply an illustration for the accompanying news lead. Rose (2005) defined a punctum as unintentional and unrecognizable; it is a sensitive point in an image which pricks, bruises, disturbs a particular viewer out of his or her visual viewing habits. Photographs that elicit an emotional response, either positive or negative, is using a punctum. This study attempted to use photographs that had a visual effect that would act as a punctum and elicit a strong response from the students.

The theory of visual literacy, concerning how images are "seen" when associated with agriculture news leads, highlights the need for closer examination of the lead/image combinations used in magazines.

Purpose of Study

The purpose of this study was to determine if photographs had a persuasive effect on reader opinion of the agriculture industry when presented alone or when coupled with agriculture news leads in magazines.

Methods

The population of interest was students enrolled in an introductory undergraduate course AGLS 101—*Modern Agricultural Systems and Renewable Natural Resources* in the College of Agriculture and Life Sciences at Texas A&M University. Historic course enrollment is 900 students, divided into three sections, from a variety of majors, and not necessarily associated with agriculture. Students included upper- and lowerclassmen. This population was of interest because it included students not necessarily enrolled in a major that focus on marketing, journalism, photography, or media courses.

A stratified random sample was derived from the undergraduate course, AGLS 101. The sample population was randomly sorted into six testing groups of 50 students. Group sorting was determined using Dillman's (2006) methods for deriving a probability sample. All classifications—freshman, sophomore, junior, and senior—of male and female students, ranging in age from 18 to 25, were the sample population.

Each student within the six groups was given a separate, random identification to access the online instrument. Respondents were asked to complete two instruments with a lapse of three weeks between pretest notification and post test notification.

Data were collected with an online questionnaire. The research instrument measured respondent's perceptions of agriculture and photographs. Students responded using a 10-point scale to determine effectiveness of each photograph and the associated news lead. The agriculture news leads were written by the investigator and edited for bias and errors by an outside source, Clint Saunders, managing director of communications at the Houston Livestock Show and Rodeo™. Questions for this treatment were modeled from work

completed by Davis (2003) and Norwood (2005), and questions related to three theories of visual literacy. Example response questions included: *The news lead represents the subject in the same "light" as the photograph.* Response choices for the Likert-type scales were *1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree.* The 10-point scale was used to answer questions such as "*How much does the photograph influence your perception of the lead?*" Response choices for the 10-point Likert-type scales were *0 = Not at all and 10 = Very Influential.*

Students were contacted through their NEO/HOWDY Web portal accounts with a series of personalized e-mails notifying them of the questionnaire. Respondents' names, unique passwords, and e-mail addresses remained confidential. Students were asked to log in to a Web page at a specified time and date to complete a section of the survey. Procedures modeled after Dillman's *Mail and internet surveys: The tailored design method* (2006), were used to contact the sample population. A pre-notice was sent to the sample population November 3, detailing the need for respondents' opinions on the subject and giving information on the time constraints of participation (Appendix G). The first notice was sent November 5 (Appendix H), and four follow-up notifications were sent prior to the post test notification. The post test notification was sent November 24 (Appendix I), and four follow-up notifications were sent through December 5 to obtain responses.

Four online survey instruments were created for student completion. The first contained only an investigator-judged negative photograph of the agriculture industry and questions asking respondents to judge the photograph's credibility and their initial response to the photograph. The investigator based photograph perceptions on knowledge from

photography courses, and reviewed by a three-person, expert panel of agriculture communications professors. The second survey contained only an investigator-judged positive photograph of the agriculture industry and questions asking respondents to judge the photograph's credibility and their initial response to the photograph. The third survey contained the investigator-judged positive photograph with a positive agriculture news lead and questions asking respondents' perceptions of the photograph and news lead. The fourth survey contained the investigator-judged negative photograph with a negative agriculture news lead and questions asking respondents' perceptions of the photograph and news lead. Each group was given a pretest and post test instrument. Table 2 represents the group pretest and post test assignments.

Table 2
Group Pretest and Post Test Survey Schedule

Group	1	2	3	4	5	6
First Contact	Positive Photo Only	Negative Photo Only	Positive Photo & Positive Lead	Positive Lead	Negative Lead	Positive Photo Only
Second Contact	Positive Photo & Positive Lead	Negative Photo & Negative Lead	Positive Photo & Negative Lead	Positive Photo & Positive Lead	Negative Photo & Negative Lead	Negative Photo Only

Results

Respondents were 72 freshmen, 33 sophomores, 39 juniors, 21 seniors, and five graduate students. The majority (*n* = 136) of the respondents, 75.1%, identified themselves as white or Anglo-American, one American Indian, two Asian Americans, seven Black or African Americans, 20 Hispanic Americans, and four Other. Ninety-nine respondents identified themselves as female and 69 as male. Respondents were asked to indicate their interest in photography; 107 (59.1%) indicated they took photographs as a hobby (Figure 3).

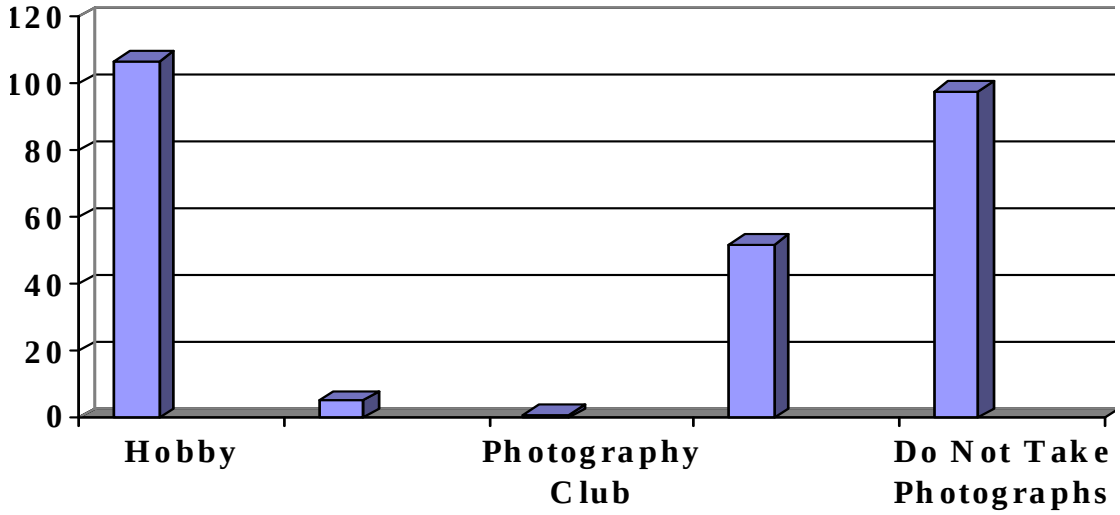

Figure 3. Respondent Interest in Photography (*N* = 159).

Respondents indicated if they were involved in agricultural associations. The largest (*n* = 69) of association members, 38.1%, were FFA; second largest (*n* = 46), 25.4%, were in a 4-H Club. Other associations represented, in very low percentages: animal judging teams,

17.7%; Young Farmers, 2.2%; Saddle and Sirloin, 9.4%; Cattleman's Association, 3.9%; veterinary associations, 2.8%; and Other, 6.1%.

Response rates for the individual instruments ranged from 35% to 50%. Of the sample of 300 identified to complete the questionnaire, three opted out, resulting in response rate of 57% (n = 172) for the pretest and 42% (n = 126) in the post test. The small size of this sample is recognized as a limitation of the study.

The majority of respondents (83.6%) showed a strong initial reaction to the photograph, and indicated that the photograph communicated a message to the reader without association with an agriculture news lead. This result was confirmed by 43.9% (n = 75) of respondents who responded that the photograph represented a negative message and negatively represented the agriculture industry. The remaining respondents indicated their perceptions of the photograph as being a neutral (n = 51, 29.8%) or positive (n = 45, 26.3%) image of the agriculture industry. No significant differences were found when asked if the photograph communicated a positive message between groups who saw only the positive photograph and those who saw the same photograph and its news lead (χ^2 = -1.61, df = 1); or between groups who saw only the negative photograph and those who saw the same photograph and its news lead (χ^2 = -0.58, df = 1). When asked if the subject was represented positively, no significant differences were found between groups who saw only the positive photograph and those who saw the same photograph and its news lead (F = 0.20, p = 0.66); or between groups who saw only the negative photograph and those who saw the same photograph and its news lead (F = 1.09, p = 0.30). In addition, the photograph judged as a positive photograph by the pilot group was judged as negative by 68% (n = 85) of

respondents when summing the strongly disagree and disagree totals. This judgment was repeated with the pilot group-perceived negative photograph which produced a positive response.

The data showed that respondents experienced strong initial reactions to a photograph, regardless of the presence of a news lead, when analyzing the photograph. In the pretest, 86.6% indicated yes, and in post test, 80.8% indicated yes, that the photograph depicted or communicated a message. Respondents were asked to judge whether the photograph depicted or communicated a message to the reader, what that message was (positive, negative, or neutral), and how much the photograph influenced perceptions of the news lead and vice versa. When the photograph was associated with an agriculture news lead, a larger percentage of respondents (61.4% pretest, 50% post test) judged the photograph as negative, than those who responded to the photograph positively (12.3% pretest, 20.9% post test) when presented both the photograph and the news lead simultaneously.

Overall, no significant differences existed between pretest and post test responses to the questions "The news lead represents the subject in the same 'light' as the photograph" $t(35) = 0.92$, $p = 0.36$; "How much does the photograph influence your perception of the news lead?" $t(38) = 0.70$, $p = 0.49$; and, "How much does the news lead influence your perception of the photograph?" $t(38) = -0.53$, $p = 0.60$ (Table 3).

Table 3
Descriptive Statistics for Level of Influence of Photographs

	Pretest		Post-test			
Question	*M*	*SD*	*M*	*SD*	*t*	*p*
The news lead represents the subject in the same 'light' as the photograph. [a]	2.58	.84	2.42	.73	.92	.36
How much does the photograph influence your perception of the news lead? [b]	5.92	2.76	5.54	2.74	.70	.49
How much does the news lead influence your perception of the photograph? [b]	6.69	2.26	6.92	2.68	-.53	.60

Note. [a] Scale = 1 = *Strongly Disagree,* 2 = *Disagree,* 3 = *Agree, and* 4 = *Strongly Agree;* [b] Scale = 0 = *Not at All Influential*, 10 = *Very Influential*.

The data showed that even when respondents were presented with a news lead to positively represent the photograph depicted, they had the same initial reaction to the photograph as when no news lead was present.

To identify the level of significance applied to the photograph, respondents were asked to judge the emotional effect conveyed by the photograph, how the photograph influenced their perceptions of the news lead, how the perceptions of the photographer's credibility influenced their perceptions of the photograph, and their interest in photography. The data showed that prior knowledge of photography had no influence on level on influence applied to the photograph. The level of influence the photograph had on respondents' perceptions of the news lead revealed no significant difference when analyzed by levels of interest in photography in the pretest ($\chi^2 = 0.33$, $df = 2$) and post-test ($\chi^2 = 0.64$, $df = 2$). Similarly, no significant differences existed in respondents' perceptions of the photographer's credibility having had an influence on their perceptions of the photograph

when analyzed by levels of interest in photography in the pretest ($\chi^2 = 0.64$, $df = 2$) and post-test ($\chi^2 = 0.89$, $df = 2$).

The level of influence the photograph had on respondents' perceptions of the news lead showed no significant difference when analyzed by participation in photography clubs during the pretest ($\chi^2 = 0.71$, $df = 2$) and post-test ($\chi^2 = 0.25$, $df = 2$). Likewise, no significant differences existed in respondents' perceptions of the photographer's credibility as having an influence on their perceptions of the photograph when analyzed by participation in photography clubs during the pretest ($\chi^2 = 0.32$, $df = 2$) and post-test ($\chi^2 = 0.74$, $df = 2$).

Conclusions and Recommendations

The majority of respondents had no formal education on photography concepts and took photographs only as a hobby. Despite not having strong background in photography, respondents were consistent in their judgment of photographs as being positive or negative and in their judgment of both the photograph's credibility and the photographer's credibility.

Rose (2005) defines a punctum as unintentional and unrecognizable; it is a sensitive point in an image which pricks, bruises, disturbs a particular viewer out of their visual viewing habits. Photographs that elicit an emotional response, either positive or negative, is using a punctum. Initial reaction to the photographs was overwhelmingly negative, and when the photograph was judged negatively, respondents indicated that the photograph cast a negative light on the agriculture industry. The results led to the conclusion that the photographs had an impact on the reader's view of the agriculture industry, regardless of its judgment as positive or negative. In each survey, the majority of respondents agreed that the

photograph conveyed an emotional effect. The responses supported the theory of using a punctum, or strong photograph, to draw out an emotional response. The theory of using a punctum, or trigger, as put forth by Rosser (1998), is to stimulate the release of emotion during the initial viewing of a photograph. Mainstream media uses strong photographs to draw out strong responses, positive or negative, from readers. Knowing that mainstream news stories are illustrated using photographs that trigger an emotional response, promoters of the agriculture industry need to work more closely with media to ensure that photographs represent the stories they illustrate.

Between the respondents who saw only the photograph and the respondents who saw the photograph and the news lead simultaneously, the data showed that there were no significant differences in the groups' responses when asked to indicate if the photograph communicated a positive message. This finding further supported the conclusion that the news lead does not have more weight than the photograph and does not add to the photograph's impact on readers' perceptions of the agriculture industry.

There are several possible ways to frame a photograph, these include story, or making it memorable (Framing, n.d.). When the news lead framed the photograph in a positive light, the response was still negative. The lack of conceptual photographic practices should not be a factor in the average American's ability to properly perceive a photograph. Within the agriculture industry, those disseminating news must be aware of the lack of knowledge on the part of the average American consumer. Results of this study show that photographs illustrating agriculture practices will more than likely be taken negatively.

Harris and Lester (2002) wrote on the effects of outside forces on viewers and readers. Culture, environment, and habitation/living situation were three of the factors Harris and Lester listed in their work. This study judged the influence of these three factors on respondents' perceptions of photography and the agriculture industry. The investigator believes that association with an agriculture organization, or participation in a photography club (Figure 3), does not affect the cultural thinking of respondents, as seen in the results.

CHAPTER III

DEMOGRAPHIC AND BACKGROUND KNOWLEDGE EFFECT ON CREDIBILITY AND PERCEPTION OF AGRICULTURE INDUSTRY PHOTOGRAPHS

Overview

This study identified the level of credibility associated with photographs, and whether readers' demographics and background knowledge affected the perceptions of the photographs and the agriculture news leads.

Introduction

Whether a positive story about the industry, or a story detailing a new threat in agriculture, the use of photographs to illustrate news leads is imperative to gaining a readers' attention. How the public perceives these images greatly affects their perceptions of the agriculture industry as a whole.

Photography has been used to depict horrors and joys in both global and personal events. The use of photography has become a staple in news media, marketing/advertising, entertainment, and public relations as a means of illustration and persuasion.

Knowledge of respondents' opinions and perceptions toward photographs will enable better understanding of image use in mass media. The ability to manipulate photographs with editing programs, or their use in connection with news leads, may cause readers to no longer trust photographic images as truthful depictions of actual events.

Theoretical Framework

The framework for this study was based on the theory of visual literacy, supported by a framing theory, through study of photographic composition and photographic credibility by judging if photographs had been changed with editing programs. In addition, thorough study of perceptions of agriculture and the definition of agricultural literacy promote understanding of reader opinion of the agriculture industry. The theory of semiotics relates to the agriculture industry through perceptions of photographs.

Semiotics is described as the study of signs (Harris & Lester, 2002), and was studied in and used by Norwood (2005). Norwood (2005) credited Saussure and Pierce with the innovation of semiotics. The purpose of semiotics is to become aware of the construction of reality created by signs (Chandler, 1999). Using semiotics as a basis for understanding how the viewer decodes a photograph will allow for deeper understanding of how best to present the photograph to receive the best response. Harris and Lester (2002) wrote that semiotics may present images that may be iconic, indexical, or symbolic, but that the study of semiotics is concerned with how images actually represent rather than with how they may be grouped in the mind. This study used these approaches to dissect the perceived meaning or connotation of the photographs presented in connection with the accompanying news leads: Studying the photograph alone and studying the photograph with the news lead, and studying how those results change the perceptions of either.

Research has studied perceptions of agriculture as it applies to a specific age group. One study, *Using Focus Groups to Check Youth Perceptions of Agriculture* (Holtz–Clause & Jost, 1995), studied youth in the sixth, seventh, and eighth grades using eight questions

asking their perceptions of the agriculture industry. The stereotypical image of the agriculture industry was found to center on farming. Youth did not equate the benefits of technology, genetic research, or other technological advances as applicable to the agriculture industry (Holtz–Clause & Jost, 1995).

Though answers were stereotypical in nature, many of the answers compiled by the study can be applied to other research. Perceptions gained during youth often transpose to preferences in adulthood. Birkenholz, Frick, and Machtmes (1995) studied the knowledge of rural and urban adults about agriculture research. They used seven agricultural literacy concept areas to identify shortfalls and misconceptions about agriculture.

The study showed that respondents shared four demographic characteristics: home in a city/town; relatives living/working on a farm; experience in raising plants, gardens, or crops; and reading newspapers as a regular source of news (Birkenholz et al., 1995). Those respondents produced lower knowledge levels of agriculture than those who did not have these characteristics (Birkenholz et al., 1995).

Four characteristics positively associated with knowledge of agriculture are completing a bachelor's degree or higher, white race, completing some college education, and living in or near a town with a population less than 2,500 (Birkenholz et al., 1995). These demographic factors were used in this study to show whether photographs have a persuasive effect on reader opinion of the agriculture industry when coupled with agriculture news leads in magazines.

The definition of agriculture is not simply farming and producing food and fiber. Agriculture is one of the largest, broadest production industries, and is therefore not easily

defined. By studying 78 panelists representing 41 states, Frick, Kahler, and Miller (1991) determined that panelists' defined agricultural literacy as

> possessing knowledge and understanding of our food and fiber system. An individual possessing such knowledge would be able to synthesize, analyze, and communicate basic information about agriculture. Basic agricultural information includes the production of plant and animal products, the economic impact of agriculture, its societal significance, agriculture's important relationship with natural resources and the environment, the marketing of agricultural products, the processing of agricultural products, public agricultural policies, the global significance of agriculture, and the distribution of agricultural products (Frick et al., pg. 52, 1991).

Failure to grasp the concept of agriculture's use in mainstream technology can conflict with the portrayal of agriculture in news media. The effects of news media can be widely felt, especially when covering a topic that is unfamiliar to most citizens. A conceptual understanding of the definition of agricultural literacy and the uses of agriculture in today's society goes a long way to understanding agriculture-related media coverage.

Purpose of Study

The purpose of this study was to identify credibility associated with each photograph, identify the level of significance applied to the photograph, and determine whether demographics and background knowledge affects respondents' perceptions of the photographs and the agriculture news leads.

Methods

The population of interest was students enrolled in an introductory undergraduate course AGLS 101—*Modern Agricultural Systems and Renewable Natural Resources* in the College of Agriculture and Life Sciences at Texas A&M University. Historic course enrollment is 900 students, divided into three sections, from a variety of majors, and not necessarily associated with agriculture. Students included upper- and lowerclassmen. This population was of interest because it included students not necessarily enrolled in a major that focus on marketing, journalism, photography, or media courses.

A stratified random sample was derived from the undergraduate course, AGLS 101. The sample population was randomly sorted into six testing groups of 50 students. Group sorting was determined using Dillman's (2006) methods for deriving a probability sample. All classifications—freshman, sophomore, junior, and senior—of male and female students, ranging in age from 18 to 25, were the sample population.

Each student within the six groups was given a separate, random identification to access the online instrument. Respondents were asked to complete two instruments with a lapse of three weeks between pretest notification and post test notification.

Data were collected with an online questionnaire. The research instrument measured respondent's perceptions of agriculture and photographs. Students responded using a 10-point scale to determine effectiveness of each photograph and the associated news lead. The agriculture news leads were written by the investigator and edited for bias and errors by an outside source, Clint Saunders, managing director of communications at the Houston Livestock Show and Rodeo™. Questions for this treatment were modeled from work

completed by Davis (2003) and Norwood (2005), and questions related to three theories of visual literacy. Example response questions included: *The news lead represents the subject in the same "light" as the photograph.* Response choices for the Likert-type scales were *1 = Strongly Disagree, 2 = Disagree, 3 = Agree, and 4 = Strongly Agree.* The 10-point scale was used to answer questions like *How much does the photograph influence your perception of the lead?* Response choices for the 10-point Likert-type scales were *0 = Not at all and 10 = Very Influential.*

Students were contacted through their NEO/HOWDY Web portal accounts with a series of personalized e-mails notifying them of the questionnaire. Respondents' names, unique passwords, and e-mail addresses remained confidential. Students were asked to log in to a Web page at a specified time and date to complete a section of the survey. Procedures modeled after Dillman's *Mail and Internet Surveys: The Tailored Design Method* (2006) were used to contact the sample population. A pre-notice was sent to the sample population November 3, detailing the need for respondents' opinions on the subject and giving information on the time constraints of participation (Appendix G). The first notice was sent November 5 (Appendix H), and four follow-up notifications were sent prior to the post test notification. The post test notification was sent November 24 (Appendix I), and four follow-up notifications were sent through December 5 to obtain responses.

Four online survey instruments were created for student completion. The first contained only an investigator-judged negative photograph of the agriculture industry and questions asking respondents to judge the photograph's credibility and their initial response to the photograph. The investigator based photograph perceptions on knowledge from

photography courses, and reviewed by a three-person, expert panel of agricultural communications professors. The second survey contained only an investigator-judged positive photograph of the agriculture industry and questions asking respondents to judge the photograph's credibility and their initial response to the photograph. The third survey contained the investigator-judged positive photograph with a positive agriculture news lead and questions asking respondents' perceptions of the photograph and news lead. The fourth survey contained the investigator-judged negative photograph with a negative agriculture news lead and questions asking respondents' perceptions of the photograph and news lead. Each group was given a pretest and post test instrument. Table 4 represents the group pretest and post test assignments.

Table 4
Pretest and Post Test Schedule Sorted by Survey Groups

Group	1	2	3	4	5	6
First Contact	Positive Photo Only	Negative Photo Only	Positive Photo & Positive Lead	Positive Lead	Negative Lead	Positive Photo Only
Second Contact	Positive Photo & Positive Lead	Negative Photo & Negative Lead	Positive Photo & Negative Lead	Positive Photo & Positive Lead	Negative Photo & Negative Lead	Negative Photo Only

Results

Respondent's classification included 72 freshmen. Figure 4 illustrates respondents' student classification.

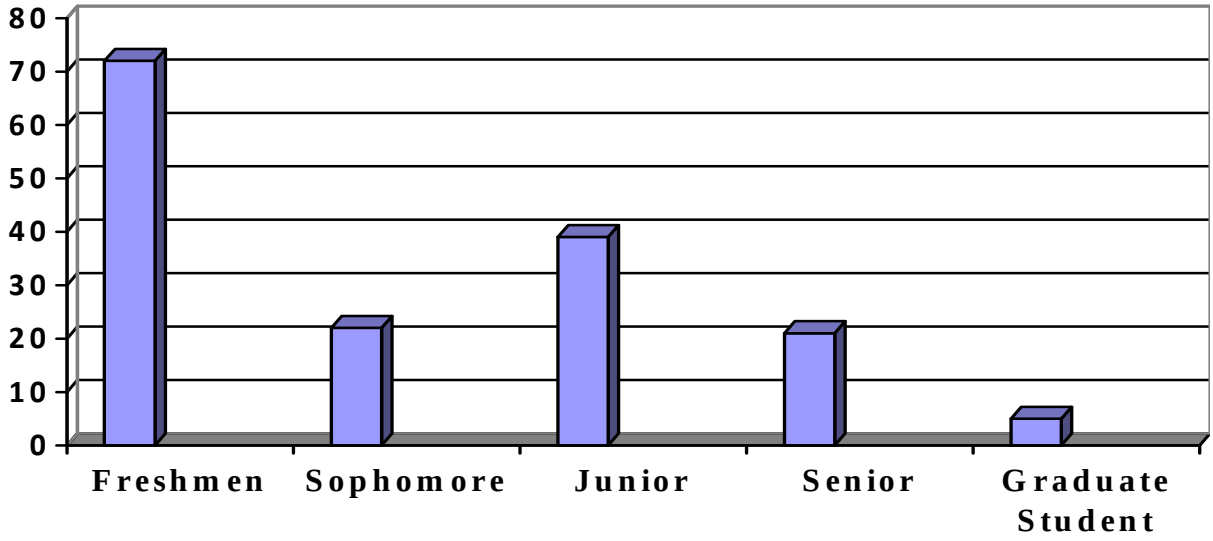

Figure 4. Respondents' University Classification (*N* =181).

The majority (*n* = 136) of the respondents, 75.1%, identified themselves as white or Anglo-American, one American Indian, two Asian Americans, seven Black or African Americans, 20 Hispanic Americans, and four Other. Ninety-nine respondents identified themselves as female and 69 as male.

Respondents indicated if they were involved in agricultural associations. The largest (*n* = 69) of agriculture members, 38.1%, were FFA members (Figure 5).

Seventy-five respondents had worked in the agriculture industry (Figure 6). Sixty-five respondents grew up on a working farm or ranch (Figure 7).

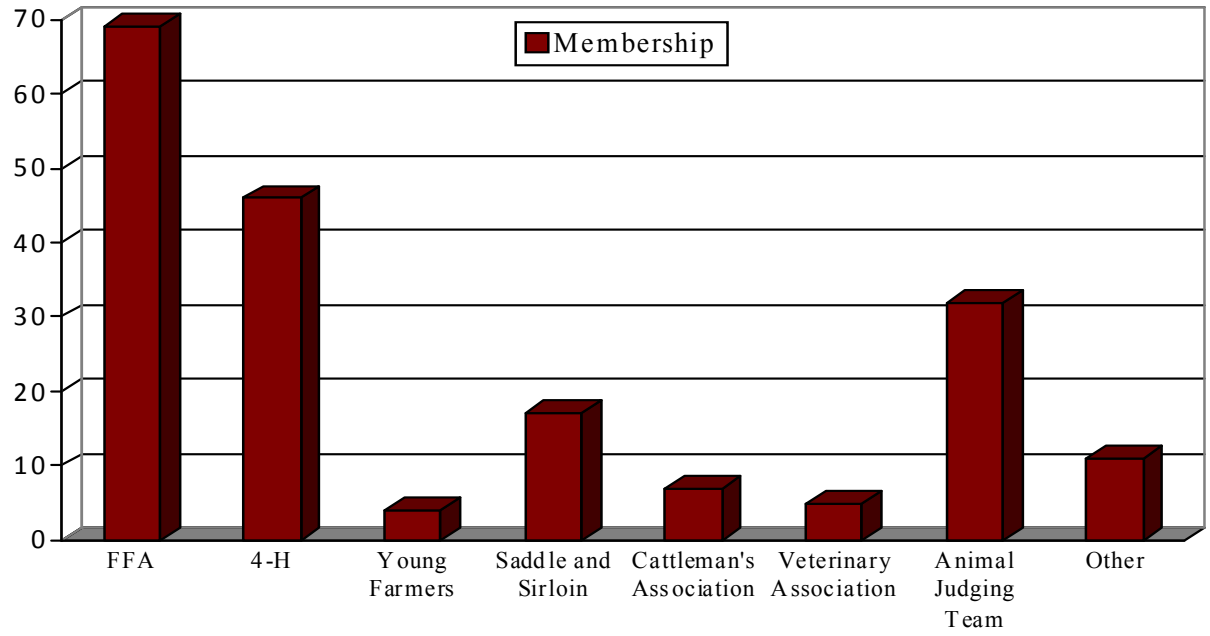

Figure 5. Association Membership Totals by Respondent Answers (*N* =181).

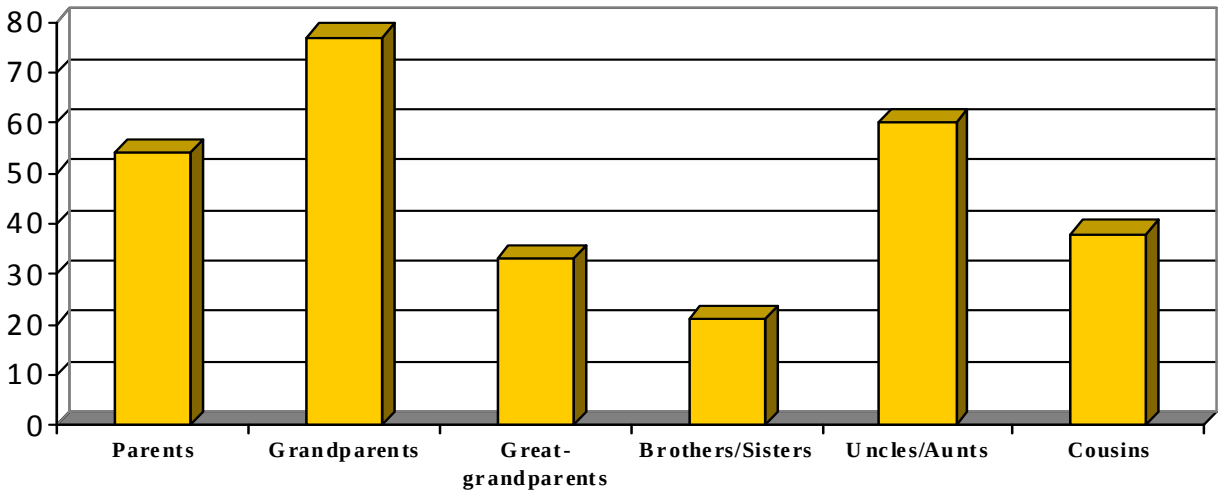

Figure 6. Respondent Family Members Who Work in the Agriculture Industry (*N* =181).

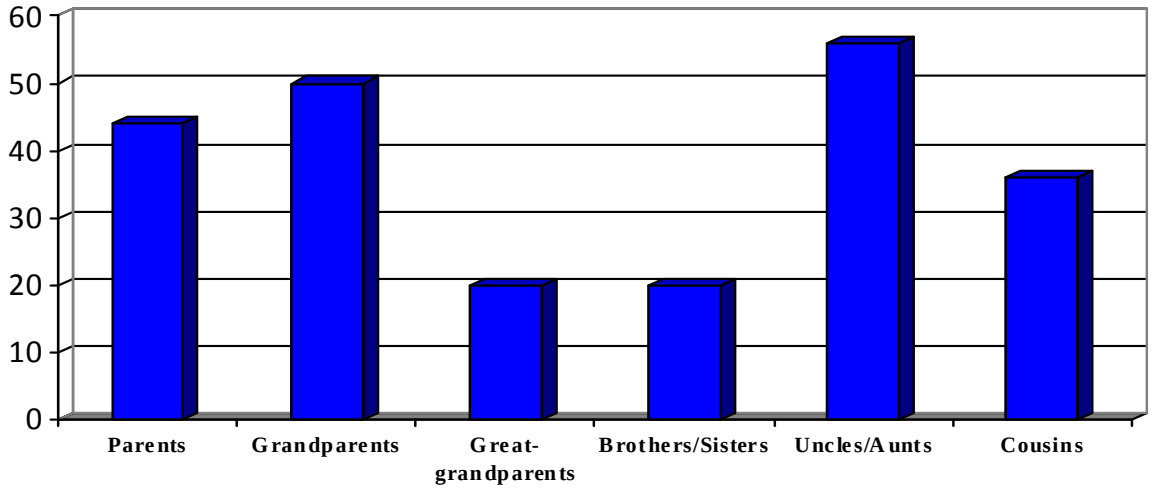

Figure 7. Respondent Immediate Family Members Who Live on a Working Farm or Ranch (N = 165).

Response rates for the individual instruments ranged from 35% to 50%. Of the sample of 300 identified to complete the questionnaire, three participants opted out, thus resulting in response rate of 57% (n = 172) for the pretest and 42% (n = 126) in the post test. The small size of this sample is recognized as a limitation of the study.

Respondents were asked to indicate their interest in photography; 107 indicated they took photographs as a hobby (Table 5).

Table 5
Respondent Interest in Photography

	Interest in Photography	*f*	%
Valid	Not interested	60	34.9
	Hobby	107	62.2
	Future career	5	2.9
	Total	172	100.0
Missing	System	9	
Total		181	

No significant differences existed in respondents' perceptions of the photographer's credibility as having an effect on their perceptions of the photograph when analyzed by gender in the pretest, $F(1, 54) = 0.26$, $p = .61$, and in the post test, $F(1, 75) = 0.09$, $p = .77$. Similarly, no significant differences existed when analyzed by year in school for the pretest, $F(4, 51) = 0.97$, $p = .43$, or post test, $F(4, 74) = 0.91$, $p = .47$.

Respondents' agricultural background revealed no significant differences in their perceptions of the photographer's credibility as having an effect on their perceptions for the pretest, $F(1, 54) = 1.37$, $p = .25$, or post test, $F(1, 75) = 0.23$, $p = .64$. Questions relating to the credibility of both the photograph and the photographer reflected the level of significance that respondents associated with each photograph.

To determine if selected demographic factors influenced the message communicated by the photograph, Chi-square analyses revealed no significant differences in either the pretest ($\chi^2 = 11.84$, $df = 6$) or the post test ($\chi^2 = 6.98$, $df = 6$) , when analyzed by respondents' family member involvement in the agricultural industry. No significant

differences existed in respondent answers to whether the photograph communicated a message in the pretest ($\chi^2 = 0.18$, $df = 1$) or the post test ($\chi^2 = 0.08$, $df = 1$) when analyzed by gender, or year in school ($\chi^2 = 7.07$, $df = 4$) or the post test ($\chi^2 = 9.00$, $df = 4$).

In responding to whether the photograph had been staged, in the pretest, 85.8% ($n = 145$) indicated no, and, in the post test, 83.1% ($n = 103$) indicated no. In responding to whether the photograph had been altered in a photo editing program, in the pretest, 76.3% ($n = 129$) indicated no, and in the post test, 78.9% ($n = 97$) indicated no. In responding to whether the photograph had not been digitally edited in a photo editing program, in the pretest, 73.7% ($n = 42$), indicated no, and in the post test, 70.6% ($n = 60$) indicated no.

Respondents were asked to indicate how much their perceptions of the photographer's credibility influenced their perceptions of the photograph ($N = 57$ pretest; $N = 84$ post test), the majority, 29.8% ($n = 17$) indicated neutral in the pretest, and 16.3% ($n = 14$) indicated neutral in the post test. These respondents were not influenced by the photographers' credibility when judging the photograph. Table 6 illustrates the pretest and post test differences in influence level.

Table 6
Frequencies for Levels of Perception of the Photographer's Credibility Influencing Respondents' Perceptions of the Photograph

		Pretest		Post Test	
		f	%	*f*	%
Valid	Not at all influential	4	7.0	9	10.5
	1	3	5.3	6	7.0
	2	1	1.8	5	5.8
	3	4	7.0	7	8.1
	4	8	14.0	5	5.8
	5	17	29.8	14	16.3
	6	5	8.8	13	15.1
	7	5	8.8	7	8.1
	8	2	3.5	11	12.8
	9	5	8.8	2	2.3
	Very Influential	3	5.3	7	8.1
	Total	57	100.0	86	100.0
Missing	System	124		95	
	Total	181			181

To judge respondents' perceptions of the photograph only, they were asked to indicate whether they thought the photograph had been digitally edited. In the pretest, 73.7% (n = 42) indicated no, and in the post test, 70.6% (n = 60) indicated no.

In the pretest, of the 16 respondents who had indicated yes, 25% (n = 4) indicated that the digital editing was not at all influential. In the post test, of the 29 respondents who had indicated yes, 17.2% (n = 5) indicate neutral, that the digital editing did not heavily influence their perception of the photograph.

To determine whether a background in the agriculture industry affected reader response, respondents were asked whether the photograph depicted or communicated a

message, and what if any, emotional effect was conveyed by the photograph. In responding to whether the photograph depicted or communicated a message, in the pretest, 86.5% (*n* = 148) indicated yes, and in the post test, 80.8% (*n*= 101) indicated yes.

In responding to what emotional effect was conveyed by the photograph, 47.1% (*n* = 81) of the pretest respondents indicated that it was negative, and 61.2% (*n* = 77) of the post test respondents indicated that it was negative (Figure 8). The data indicated that, overall (*N* = 171 pretest, *N* = 126 post test), 43.9% (*n* = 75) of pretest respondents, and 49.2% (*n* = 62) of post test respondents indicated that the photograph depicted a negative image of the agriculture industry.

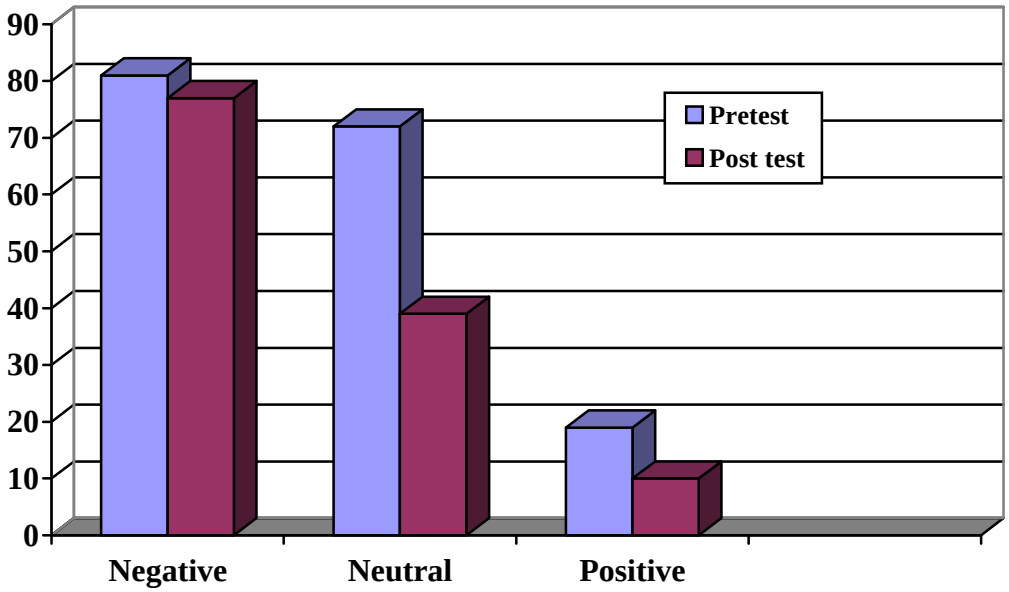

Figure 8. Pretest and Post Test Results of Photograph's Effects on Respondents.

To identify whether, and how much, interest in photography and participation in photography clubs influenced judgment, respondents were asked whether the emotional effect conveyed by the photograph influenced their response to the news lead, and how much their perceptions of the photographer's credibility influenced their perceptions of the photograph.

To identify the level of significance applied to the photograph, respondents were asked to judge the emotional effect conveyed by the photograph, how the photograph influenced their perceptions of the news lead, how the perceptions of the photographer's credibility influenced their perceptions of the photograph, and their interest in photography. The data showed that prior knowledge of photography had no influence on level on influence applied to the photograph. The level of influence the photograph had on respondents' perceptions of the news lead revealed no significant difference when analyzed by levels of interest in photography in the pretest ($\chi^2 = 0.33$, $df = 2$) and post test ($\chi^2 = 0.64$, $df = 2$). Similarly, no significant differences existed in respondents' perceptions of the photographer's credibility having had an influence on their perceptions of the photograph when analyzed by levels of interest in photography in the pretest ($\chi^2 = 0.64$, $df = 2$) and post test ($\chi^2 = 0.89$, $df = 2$).

The level of influence the photograph had on respondents' perceptions of the news lead showed no significant difference when analyzed by participation in photography clubs during the pretest ($\chi^2 = 0.71$, $df = 2$) and post test ($\chi^2 = 0.25$, $df = 2$). Likewise, no significant differences existed in respondents' perceptions of the photographer's credibility as having

an influence on their perceptions of the photograph when analyzed by participation in photography clubs during the pretest ($\chi^2 = 0.32$, $df = 2$) and post test ($\chi^2 = 0.74$, $df = 2$).

Conclusions and Recommendations

The research did not support the investigator's belief that agriculture literacy was an influential factor in perceptions of a photograph and association of that photograph with an agriculture news lead. An understanding of the agriculture industry is just as important for students whose major course of study within the College of Agriculture and Life Sciences does not require extensive agriculture courses, as students who are studying in a heavily focused agriculture major in eliminating negative stereotypes of agriculture practices.

The respondents in this study answered questions relating to four of the seven characteristics Birkenholz, Frick, and Machtmes (1995) developed to determine shortfalls and misconceptions about agriculture. The questions relating to agriculture background and demographics helped the investigator to determine whether agriculture literacy was present in respondents, and if that knowledge affected their judgment.

Conclusions from the data analysis corresponded with the findings of Birkenholz et al. (1995). Respondents were mainly white, were completing a college degree, and had a low, but present, affiliation with the agriculture industry; the largest association participation was FFA (38.1%). Though respondents did not have first-hand knowledge of living on a working farm or ranch, they had relatives who did; 30.9% had aunts or uncles who lived on a working farm or ranch, and 42.5% had grandparents who worked in the agriculture industry. These are four characteristics positively associated with knowledge of agriculture

(Birkenholz et al., 1995). However, no significant differences in demographics were found in respondents, indicating that an agriculture background had no bearing on respondents' perceptions of the photograph and what message the photograph conveyed. This study did not have similar findings as the Birkenholz et al. (1995) study in relation to agriculture literacy and demographics and background knowledge. In addition, the respondents in this study did not meet the agriculture literacy definition as determined by Frick, Kahler, and Miller (1991). Therefore, it is recommended that agriculture industry representatives do not focus their information on those who have an in-depth background in the agriculture industry, but rather, focus efforts on those who have a basic understanding of agriculture, but would perceive the industry in a positive light if provided more education.

To determine credibility associated with photographs of the agriculture industry, the investigator wanted to construct an image of reality based on signs provided in the photographs. The signs would point to themes present in today's agriculture news. Using semiotics, or the study of signs (Harris & Lester, 2002), the respondents drew conclusions from each photograph and associated that conclusion with the news lead to judge their perceptions of the agriculture industry. The investigator had two photographs, judged by a panel of agriculture communications experts, which positively and negatively represented the agriculture industry. The signs in each photograph were used as a punctum to elicit an emotional response. As stated by Chandler (1999), the concern of semiotics is that images actually represent [the industry] rather than how they are grouped in the mind.

As a sign, a symbol is not naturally or universally linked to the semiotic objective, but is bound by the intellectual and emotional associations made through the social

conventions used (Barbatsis et al., 2005). One's own experiences dictate perception, and this study shows that background and experience affects perceptions. Respondent's agriculture background and certain demographics, such as age, race, and year in school, made no significant difference on their perception of the message communicated by the photograph. As respondents did not have strong links to agriculture background, though they were studying within the College of Agriculture and Life Sciences, they would not make strong emotional associations to the picture if one follows Barbatsis et al. (2005) in theory.

Respondents were asked to judge both photographer and photograph credibility, and judge whether that credibility affected their perceptions of the agriculture industry. Respondents in both pretest and post test judged the photograph as credible. The majority of respondents, 62.2%, were interested in photography only as a hobby. The lack of professional training indicated that respondents had little upon which to base their responses. The number of participants who said they did not take photographs was higher than investigator expected. The investigator had found that most college students take photographs during activities with family and friends, but the data did not support the investigator's assumption and showed the majority of respondents responded that they did not take photographs.

Despite respondents' low level of agriculture literacy and lack of photography background, the majority felt qualified to judge the credibility of the photograph and the photographer positively. This did not affect perceptions of the agriculture industry positively. Though respondents considered the photographs and photographer credible, the majority still had a negative perception of the agriculture industry. Correlating respondents'

judgments of the photographs and their background information, the results showed that demographics and background knowledge of agriculture have no influence on perceptions of agriculture when viewing a photograph.

This study showed that students with the College of Agriculture and Life Sciences did not have a strong knowledge of agriculture, its practices, or economic impact. Students within an agriculture college, and within agriculture majors, should be ambassadors of the agriculture industry.

CHAPTER IV

SUMMARY AND CONCLUSIONS

The results of this study showed that respondents were unsophisticated viewers of agriculture photographs. Respondents showed that college students age 18–25 in general agriculture courses at Texas A&M University will evaluate a photograph in the same way regardless of background, demographics, and association with agriculture or photography. There was no difference associated with a positive photograph and a negative photograph of the agriculture industry.

Research Implications and Recommendations

Overall, it was found that photographs evoked a strong initial response from viewers, and association with a news lead did not alter the initial perceptions of the photograph. The students enrolled in this introductory course did not have knowledge of the agriculture industry, and the demographic and background information showed the students were not highly educated in photography courses. This contribution may be the cause for the lack of agriculture literacy shown when judging the photographs and agriculture news leads. Further research should be conducted to see if students with more advanced knowledge of both agriculture and photography come to the same conclusions as this study's respondents, or if perceptions differ after obtaining a higher education level.

Other influences (agriculture association member, living/working on a farm or ranch, member of a photography club) were shown to not have an effect on respondent judgments of the photograph or the news lead. Culture, environment, and habitation/living situation

were three of the factors Harris and Lester listed in their work. This study looked at the influence of these three factors on respondent perceptions of photography and the agriculture industry. These factors were not found to be statistically significant and did not alter perceptions of the photograph. The factors presented by Harris and Lester (2002) were not supported, but, conclusions drawn from the data analysis did correspond with the findings of Birkenholz, Frick, and Machtmes (1995) used to determine shortfalls and misconceptions about agriculture. It is a common misconception that white, educated, and agriculture-affiliated people will have a higher knowledge of the agriculture industry. Birkenholz et al. (1995) found this to be one of the highest misconceptions of agriculture-based products. This was supported by this study, which showed low levels of agriculture literacy, though the majority of respondents were white and enrolled in higher education courses and had an affiliation with agriculture, though at low levels. Further research should be conducted to see if agriculture literacy is something to be taught in a classroom only, or if it is developed from life lessons and greater exposure to agriculture news stories.

Respondents were asked to judge both photographer and photograph credibility, and whether that credibility affected their perceptions of the agriculture industry. Respondents in both pretest and post test judged the photograph as credible. However, as shown in Figure 3, the majority of respondents, 62.2%, were interested in photography as a hobby. The lack of professional training indicated that respondents had little on which to base their responses. If the photograph was judged as negative, regardless of the message in the news lead, the agriculture industry was perceived negatively. Although respondents could have been influenced by photographs of agriculture news topics on television, in magazines, and on the

Internet, there is no sound basis for judging photograph or photographer credibility. Further research could pursue different views of the same material to see if perceptions is related to the view through the camera lens. A larger sample, with a broader population base, could be used to determine both agriculture literacy and perceptions on multiple levels when associated with photographs.

Practical Implications and Recommendations

The majority of respondents, more than 60% answered no for each association, were not members of agriculture associations (Figure 5). If more emphasis were put on exposing members of these associations to different types of agriculture literacy programs and defining photograph credibility, association members would have broader perceptions of the agriculture industry as it is represented in media.

The perceptions of students, who do not have an opportunity to be exposed to the agriculture industry, whether through agriculture associations or educational courses, should become the focus of agriculture marketing. This study showed that the agriculture industry should attempt to work more closely with media to ensure that photographs represent the stories they illustrate.

In addition, it is recommended that agriculture industry representatives do not focus their information on those who have an in-depth background in the agriculture industry, but rather, focus efforts on those who have a basic understanding of agriculture, but would perceive the industry in a positive light if provided more education.

Overall, more research is needed, on a broader level, to determine why photographs are perceived negatively, and therefore the agriculture industry is perceived negatively, even when those photographs are associated with a positive news lead.

REFERENCES

Barbatsis, G., Kenney, K., Moriarity, S., & Smith, K. (2005). *Handbook of visual communication: Theory, methods, and media*. Mahwah, NJ, Lawrence Erlbaum Associates.

Birkenholz, R. J., Frick, M .J., & Machtmes, K. (1995). Rural and urban adult knowledge and perceptions of agriculture. *Journal of Agricultural Education*, *36*(2), 44-53.

Chandler, D. (1999). *Semiotics for beginners: Syntagmatic analysis*. Retrieved from http://www.aber.ac.uk/~dgc/sem04.html

Davis, C. (2003). *Cognitive and affective responses by West Texas Hispanics/Latinos to agricultural news : A comparison of four English and Spanish presentation media*. (Doctoral Dissertation). Retrieved from Texas Tech Electronic Theses and Dissertations (etd- 07312008-31295018720895).

Dillman, D. A. (2006). *Mail and internet surveys: The tailored design method 2007 update with new internet, visual, and mixed-mode guide* (3rd ed.). New York: John Wiley & Sons.

Framing. (n.d.) In *University of Twente: Communication processes*. Retrieved from http:// www.tcw.utwente.nl/theorieenoverzicht/Theory clusters/Communication Processes/Framing/

Frick, M. J., Kahler, A. A., & Miller, W. W. (1991). A definition and the concepts of agricultural literacy. *Journal of Agricultural Education*. *32*(2), 49-57.

Harris, C. R. & Lester, P. M. (2002). *Visual journalism: A new guide for new media professionals*. Needham, MA, Allyn and Bacon.

Helmers, M. & Hill, C. A. (Ed). (2004). *Defining visual rhetoric*. Mahwah, NJ, Lawrence Erlbaum Associates, Inc.

Holtz–Clause, M., & Jost, M. (1995). Using focus groups to check youth perceptions of agriculture. *Journal of Extension*, *33*(3). Retrieved May 6, 2009, from http://www.joe.org/1995june/a3.html

Huston, C. L. & Merrigan, G. (2004). *Communication research methods*. Belmont, CA: Wadsworth/Thomson Learning.

Norwood, J. L. (2005). *A semiotic analysis of biotechnology and food safety photographs*. (Master's thesis). Retrieved from http://txspace.tamu.edu (http://hdl.handle.net/1969.1/3353).

Rose, G. (2005). *Visual methodologies: An introduction to the interpretation of visual materials.* London, U.K., Sage Publications.

Rosser, J. ed. (1998). *Image-based research: a sourcebook for qualitative researchers*. London, U.K., Falmer Press.

Ruth, A., Park, T., & Lundy, L. (2005, June). *Glitz, glamour, and the farm: Portrayal of agriculture in "the simple life."* Paper presented at the annual meeting of the Association for Communication Excellence in Agriculture and Natural Resources, and Life and Human Sciences, San Antonio, TX.

Snyder, S. (1997). *Photographic credibility: An experiment in the believability of news versus advertising imagery*. (Doctoral dissertation, The University of Southern Mississippi). Retrieved from Texas Tech Electronic Theses and Dissertations (etd-04102009-31295006625411)

Stringer, S., & Thomas, J. (1999, June). *Defining agricultural issues: Daily newspaper editors' perspectives.* Paper presented at the 1999 Agricultural Communicators in Education Conference, Knoxville, TN.

APPENDIX A

CONSENT FORM

Effects of Photographs on Reader Perceptions of the Agriculture Industry

Information and Consent Form

The purpose of this study is to determine if photographs have a persuasive effect on reader opinion of the agriculture industry when coupled with agriculture news leads in magazine publications.

The participant is aware that this study consists of completing an online survey, which will take about **three minutes** to complete. There will be approximately 300 participants in this study.

The study is conducted using methods and protocols approved by the Institutional Review Board of Texas A&M University. **Click here** for a printable statement of research protocols.

If you want a copy of this Information and Consent Form, you can Print this Window.

By typing in the password (guest), the participant consents to participate in the study:
Sign In

The participant does not consent to participate in the study and wants to Exit.

If you have questions about this project, contact Kate Bradley at kaggie05@hotmail.com

If you have questions about this site, please contact Ag-Communicators

APPENDIX B

INSTRUMENT 1: POSITIVE PHOTOGRAPH ONLY

Effects of Photographs on Reader Perceptions of the Agriculture Industry

The purpose of this study is to determine if photographs have a persuasive effect on reader opinion of the agriculture industry.

Instructions: Complete the following questions based on your perception of this photograph.

Effects of Photographs on Reader Perceptions of the Agriculture Industry

Questions	Responses			
	Please answer these questions as Yes or No			
	Yes		No	
The scene in this photograph has been staged.	○		○	
This photograph has been altered in a photo editing program.	○		○	
Does the photograph depict or communicate a message to the reader?	○		○	
	Please answer this question as Positive, Neutral, or Negative			
	Pos	Neu	Neg	
What emotional effect is conveyed by this photograph?	○	○	○	
What image of the agricultural industry does this photograph represent?	○	○	○	
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree			
	SA	A	D	SD
This photograph implies a positive message about the subject.	○	○	○	○
The subject in this photo is represented positively.	○	○	○	○

Thank you for your interest in this survey. All data collection has ceased.
If you would like a similar survey posted to this portal, please contact us!

APPENDIX C

INSTRUMENT 2: POSITIVE PHOTOGRAPH AND NEWS LEAD

Effects of Photographs on Reader Perceptions of the Agriculture Industry

The purpose of this study is to determine if photographs have a persuasive effect on reader opinion of the agriculture industry, when coupled with agriculture news leads in magazine publications.

Instructions: Complete the following questions based on your perception of this photograph.

Questions	Responses			
	Please answer these questions as Yes or No			
	Yes		No	
The scene in this photograph has been staged.	○		○	
This photograph has been altered in a photo editing program.	○		○	
Does the photograph depict or communicate a message to the reader?	○		○	
	Please answer this question as Positive, Neutral, or Negative			
	Pos	Neu	Neg	
What emotional effect is conveyed by this photograph?	○	○	○	
What image of the agricultural industry does this photograph represent?	○	○	○	
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree			
	SA	A	D	SD
This photograph implies a positive message about the subject.	○	○	○	○
The subject in this photo is represented positively.	○	○	○	○

Instructions: Considering the above photo, read the following news lead and answer all questions.

LAND IS PROFITABLE IN TEXAS — AUG. 11, 2008 — ROSENBERG, TEXAS — FOR IMMEDIATE RELEASE — As the economy forces hard decisions for Texans every day, many family farmers have made the decision to sell.

"Many see selling land that has been in the family for generations as a painful process," said Tom White, 48, of Rosenberg. "But I saw it as a way to set my family up for a better life. I sold my land for millions."

Questions	Responses									
	Please answer this question as Positive, Neutral, or Negative									
	Pos		Neu						Neg	
What message does the news lead depict with this image?	○		○						○	
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree									
	SA		A						D	SD
The news lead represents the subject in the same "light" as the photograph.	○		○						○	○
	Please use the scale: 0 = Not at all . . . 10 = Very Influential									
	0									10
How much does the photograph influence your perception of the news lead?	○	○	○	○	○	○	○	○	○	○
How much does the news lead influence your interpretation of the photograph?	○	○	○	○	○	○	○	○	○	○
How much does your perception of a photographer's credibility influence your perception of the photograph?	○	○	○	○	○	○	○	○	○	○
Do you think this photo has been digitally edited?	○ Yes								○ No	
If you answered yes to the previous question, how much of your perception of the photo was influenced by the digital editing?	○	○	○	○	○	○	○	○	○	○

Thank you for your interest in this survey. All data collection has ceased.
If you would like a similar survey posted to this portal, please contact us.

APPENDIX D

INSTRUMENT 3: NEGATIVE PHOTOGRAPH ONLY

Effects of Photographs on Reader Perceptions of the Agriculture Industry

The purpose of this study is to determine if photographs have a persuasive effect on reader opinion of the agriculture industry.

Instructions: Complete the following questions based on your perception of this photograph.

Questions	Responses			
	Please answer these questions as Yes or No			
	Yes		No	
The scene in this photograph has been staged.	O		O	
This photograph has been altered in a photo editing program.	O		O	
Does the photograph depict or communicate a message to the reader?	O		O	
	Please answer this question as Positive, Neutral, or Negative			
	Pos	Neu	Neg	
What emotional effect is conveyed by this photograph?	O	O	O	
What image of the agricultural industry does this photograph represent?	O	O	O	
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree			
	SA	A	D	SD
This photograph implies a positive message about the subject.	O	O	O	O
The subject in this photo is represented positively.	O	O	O	O

Thank you for your interest in this survey. All data collection has ceased.
If you would like a similar survey posted to this portal, please contact us!

APPENDIX E

INSTRUMENT 4: NEGATIVE PHOTOGRAPH AND NEWS LEAD

Effects of Photographs on Reader Perceptions of the Agriculture Industry

The purpose of this study is to to determine if photographs have a persuasive effect on reader opinion of the agriculture industry, when coupled with agriculture news leads in magazine publications.

Instructions: Complete the following questions based on your perception of this photograph.

Questions	Responses			
	Please answer these questions as Yes or No			
	Yes		No	
The scene in this photograph has been staged.	○		○	
This photograph has been altered in a photo editing program.	○		○	
Does the photograph depict or communicate a message to the reader?	○		○	
	Please answer this question as Positive, Neutral, or Negative			
	Pos	Neu	Neg	
What emotional effect is conveyed by this photograph?	○	○	○	
What image of the agricultural industry does this photograph represent?	○	○	○	
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree			
	SA	A	D	SD
This photograph implies a positive message about the subject.	○	○	○	○
The subject in this photo is represented positively.	○	○	○	○

Instructions: Considering the above photo, read the following news lead and answer all questions.

NUMBER OF DISEASED CATTLE ON THE RISE AT OVERCROWDED FACILITIES — Aug. 29, 2008 — FOR IMMEDIATE RELEASE — Amarillo, Texas — Results of a six month study of feedlots preparing cattle for slaughter show a 35% increase in contagious disease among cattle meant for consumption. Researchers at Texas A&M University in College Station conducted the study in conjunction with the United States Department of Agriculture after reports of diseased cattle reached the USDA center based near the campus.

"This study impacts the quality of the meat being sold, and does not greatly affect public health. This is not mad cow disease," said Donna Evans, USDA representative who correlated data from the study. "The public should be aware there are steps being taken to ensure that all cattle being prepared for consumption are completely disease free prior to slaughter," she said.

Questions	Responses										
	Please answer this question as Positive, Neutral, or Negative										
	Pos		Neu		Neg						
What message does the news lead depict with this image?	○		○		○						
	Please use the scale: Strongly Agree, Agree, Disagree, or Strongly Disagree										
	SA		A		D		SD				
The news lead represents the subject in the same "light" as the photograph.	○		○		○		○				
	Please use the scale: **0** = Not at all . . . **10** = Very Influential										
	0										10
How much does the photograph influence your perception of the news lead?	○	○	○	○	○	○	○	○	○	○	○
How much does the news lead influence your interpretation of the photograph?	○	○	○	○	○	○	○	○	○	○	○
How much does your perception of a photographer's credibility influence your perception of the photograph?	○	○	○	○	○	○	○	○	○	○	○
Do you think this photo has been digitally edited?	○ Yes							○ No			
If you answered yes to the previous question, how much of your perception of the photo was influenced by the digital editing?	○	○	○	○	○	○	○	○	○	○	○

Thank you for your interest in this survey. All data collection has ceased.
If you would like a similar survey posted to this portal, please contact us.

APPENDIX F

DOCUMENTATION OF CONSENT TO USE AGLS 101 ROSTER

Subject: RE: AGLS 101
Date: Tue, 23 Sep 2008 12:59:02 -0500
From: a-kenimer@tamu.edu
To: kaggie05@hotmail.com
CC: d-starr@tamu.edu; trutherford@aged.tamu.edu

Hi Kate—

I'd be happy to work with you to access students in AGLS 101. A couple of questions for you, though:

I assume you've completed necessary IRB documentation, correct?

Will you be providing students rudimentary information about your project and why you need their input?

Will you make it clear to the AGLS 101 students that their participation in the project will have no influence on their course grade?

I'd be happy to meet to discuss further or we can continue our conversation by email. Let me know what you prefer. When you're ready to proceed I'll work on the rosters for you.

Best regards,

Ann

Ann L. Kenimer, Ph.D., P.E.

Interim Executive Associate Dean

Associate Dean for Academic Operations

College of Agriculture and Life Sciences

2142 TAMU

College Station, TX 77843-2142

APPENDIX G

PRE-NOTICE TO RESPONDENTS

November 3, 2008

«Fname» «LName»
«School»
«Email»

Dear «Fname»:

Are you ready to make a difference in the agriculture industry? As a student in AGLS 101, Modern Agriculture Systems and Renewable Natural Resources, your opinion is valuable to an upcoming study at Texas A&M University. The purpose of this study is to determine if **photographs have a persuasive effect on reader's opinion of the agriculture industry**.

In a few days, you'll get an e-mail (with a unique password and Web link) for a brief online survey. It will take about 10 minutes to complete.

I value **your** perceptions because you're studying agriculture and majoring in AGCJ. Also, I really need your input to this survey because as a randomly selected member of the graduate class, your opinions may represent many other graduate students.

«Fname» no prior knowledge or experience with photography is required to complete the survey; I am interested only in your perceptions. There are no correct or incorrect answers! All responses are confidential and will be reported as group summaries.

You are receiving this pre-notice because research indicates people like to know ahead of time that they will be contacted. Thank for your time «Fname». It's only through your help that this research can be successful.

Thanks and Gig 'em!

Kate Bradley, '05
Senior Investigator
Agriculture Leadership, Education and Communications
Texas A&M University
kaggie05@hotmail.com

APPENDIX H

NOTICE OF PRETEST

November 5, 2008
«Fname» «LName»
«School»
«Email»

Dear «Fname»:
Are you ready to make a difference in the agriculture industry? Today is the day you tell us if **photographs have a persuasive effect on reader opinion of the agriculture industry**. This study was approved (#2008-0601) by the Institutional Review Board—Human Subjects in Research, Texas A&M University.
The online survey takes about 10 minutes to complete. There isn't any right or wrong answer in this survey; we just want your honest response to each question. If you're ready, please go to:
(replace with specifics group's link here)
Read the Information and Consent Form, and then enter your unique password, which is:
«ID»
Remember «Fname», no prior knowledge or experience with photography is required to complete the survey; I am interested only in your perceptions. There are no right or wrong answers!
«Fname», your responses are important because they might represent many other agricultural students thoughts about the **effects of photographs on readers opinion of the agriculture industry**. Thanks for your time!

Sincerely,

Kate Bradley, '05
Senior Investigator
Agriculture Leadership, Education and Communications
Texas A&M University
kaggie05@hotmail.com

APPENDIX I

NOTICE OF POST TEST

November 24, 2008

«Fname» «LName»
«School»
«Email»

Dear «Fname»:

Thank you for making a difference in the agriculture industry! You've already completed one brief survey to help determine if **photographs have a persuasive effect on reader opinion of the agriculture industry**. Now, please take **three minutes** to complete a **second** survey with different content.

«Fname», there is no right or wrong answer to these short questions! I just want your honest response. If you're ready, please go to:

(replace with specifics group's link here)

Read the Information and Consent Form, and then enter your unique password, which is: **«ID»**

As with the first survey, no prior knowledge or experience with photography is required to complete this survey.

«Fname», your responses are important because they might represent many other agricultural students' thoughts about the **effects of photographs on readers' opinions of the agriculture industry**. Thanks for your time!

Sincerely,

Kate Bradley, '05
Senior Investigator
Agriculture Leadership, Education and Communications
Texas A&M University
kaggie05@hotmail.com

VITA

Kathryn (Kate) Anthony Bradley was born July 5, 1983, in Houston, Texas, the daughter of Fred Emmett and Kathy Anthony Bradley, and the sister of Charles Preston Bradley.

Kate received a Bachelor of Science in Agricultural Journalism from Texas A&M University at College Station in August 2005. She was a member of the 2002–2003 national champion Texas A&M Women's Equestrian Team, was cited as a Verizon CHAMPS Scholar-Athlete in 2003, and received a team letter award in 2003 and in 2004. Kate was active in the Agriculture Communicators of Tomorrow student organization as Vice President of Programs.

After graduation, Kate was employed at the V.G. Young Institute of County Government, a part of the Texas AgriLife Extension. She entered the Department of Agricultural Leadership, Education, and Communications at Texas A&M University in 2006, and received her Master of Science in May 2010. Kate was inducted into Phi Kappa Phi Honor Society in 2008. From October 2007 to June 2009, while completing her master's degree, Kate was employed full-time at the Houston Livestock Show and Rodeo™ in Houston, Texas. As Coordinator, Communications, Kate published several articles and several press releases, oversaw the quarterly publication of the Show's magazine, the *Bowlegged H*, and was responsible for marketing and promoting the Houston Livestock Show and Rodeo.

Kate may be reached at the Department of Agricultural Leadership, Education, and Communications, Texas A&M University, College Station, Texas 77843–2116.