

THE AGRICULTURE TASTE REGIME AND COLLEGE STUDENT
INTERPRETATIONS OF AGRICULTURAL PRODUCTION INFORMATION

by

Lindsey Rizer

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Dr. Robert Torres
Professor of Agricultural Education

5/4/17
Date

Abstract

The introduction of taste regimes into the agriculture literacy and communications literature is explored and discussed in this study. I analyze how college students interpret taste regime indicators (interpretations, personal view alignment, personal action) influence their perceptions of agriculture food production information. More specifically, I look at how media information effects college students' interpretations of these taste regime indicators. Data were collected from a convenience sample of undergraduate students at a large research-intensive university who responded to an electronic questionnaire developed specifically for this study. Findings indicate that the college students involved in this study have little to no defined opinion between large-scale and alternative agriculture. This indicates that the agriculture taste regime is not taking the general populations beliefs and preferences into consideration when developing campaigns. Recommendations for large-scale and alternative campaigns are to develop more objective campaigns and for the general population become change agents forcing the agriculture taste regime to take their beliefs and preferences into consideration.

Keywords: agriculture literacy, taste regime, college student agriculture literacy

Introduction

Consumers possess a great amount of power when it comes to the marketplace. Particularly within the agriculture industry, consumers' preferences and choices influence how products are introduced and advertised (Martin & Schouten, 2013). Recently, it has become common to see two definitive sides, large-scale and alternative agriculture, creating discourse with each other that focuses on making the other appear illegitimate (Arsel & Bean, 2012). In the form of media and advertisement campaigns, popular agriculture topics provide the content that advocates within these groups use to legitimize their claims while discrediting the other (Martin & Enns, 2017). Paired with the near constant exposure from the media, consumers, particularly college students and other adult learners, can become overwhelmed and experience difficulty separating fact from fiction (Rutsaert et al., 1995). The constant battle between large-scale and alternative agriculture has created an experience for consumers that overlooks their personal beliefs and knowledge, yet continues to persuade consumers to take information at face value, make decisions, and then take action.

To keep up with a growing population, the rate at which food is produced has increased and with that so has the technology that streamlines the process. These changes and advances have caused a shift in consumers; many do not have the same connection to food production as in years past (Martin & Enns, 2017; Birkenholz, Harris, & Pry, 1994). A more urbanized consumer population has shown a decrease in the understanding and education about both large-scale and alternative agriculture practices; methods of closing this gap between consumers and agriculture food production has led to the development of curricula to educate young consumers, mainly K-12 students (Esters & Brown, 2005; Talbert & Larke, 1995). College students and other adult learners have received the least amount of attention from researchers and educators

alike (Martin & Enns, 2017; Mars & Ball, 2016; Colbath & Morrish, 2010). As one of the larger consumer groups and highly affected by media advertisements, the lack of effort to reach these consumers could attribute to agricultural ignorance (Terry & Lawver, 1995; Mars & Ball, 2016; Rutsaert et al., 2013). Accordingly, the current study aims to develop a stronger understanding of how college students make decisions about agriculture food production information and the association of that information to large-scale and alternative agriculture.

Review of Literature

Agricultural literacy is defined as an “understanding of the food fiber system [that] includes its history and current economic, social, and environmental significance to all Americans” (National Research Council, 1988, p.1). By request of the U.S. Secretaries of Agriculture and Education, this definition of agriculture literacy is intentionally broad to encompass all aspects of agricultural topics, with expectations that consumers would be able to gain a basic understanding of these topics. A shift in consumer involvement has led to the agriculture industry as a taste regime gaining power and influence. Taste regimes can be described as a system in which consumers judge, classify and relate to information or objects (Arsel & Bean, 2012, Bourdieu, 1984). As fewer people are directly involved with the agriculture industry, agriculture literacy is becoming increasingly important (Terry & Lawver, 1995; Lyson & Guptill, 2004; Verbeke, 2005; Mars & Schau, 2016). The field of agriculture falls under more scrutiny from consumers who haven’t been provided adequate exposure to information on the different topics of agriculture (Birkenholz et al., 1994). Organizations like FFA and 4H as well as agriculture production programs have developed materials and curricula to assist in improving younger members of the community (K-12) knowledge in agriculture

(Colbath &, Morrish, 2010; Mars, Ball, 2016). At the college level, the competency and focus on improving agriculture literacy begins to decrease (Kovar, Ball, 2013).

Aside from those pursuing careers within agriculture and the life sciences, college students' knowledge of and opinions on agricultural topics are primarily reliant on past experiences and public sources of knowledge (e.g. media) (Smith & Zook, 2011). Public sources of agricultural knowledge vary in perspective, thoroughness, and overall trustworthiness (Birkenholz et al., 1994). Variance in the objectivity and trustworthiness of public knowledge is especially pronounced across increasingly popular web-based outlets and social media platforms (e.g. Twitter, Facebook) (Smith &, Zook, 2011; Westerman, Spence, & Van Der Heide, 2014). College students are relying more heavily on the Internet for information, which increases the importance of carefully constructed and managed communication campaigns that take into account the different interests, values, beliefs, and levels of understanding for particular audience demographics (e.g., college students) (Holt, 1995; Westerman et al., 2014).

Within the scope of the agriculture industry there are numerous groups and organizations that focus their causes within five subject areas: animal welfare, food safety, farming/ranching practices, animal medications, and/or the impact of agriculture (Terry &, Lawver, 1995). Moreover, these groups organize at two polarizing ends of the grand public narrative specific to agriculture: large-scale and alternative agriculture (Martin & Enns, 2017; Beus &, Dunlap, 1990). On one end of the narrative are actors and organizations that champion conventional, large-scale agriculture (i.e., mainstream agriculture). On the other end of the narrative are actors and organizations that advocate for alternative methods and models of agricultural production and consumption (i.e., alternative agriculture). Those working to control either end of the public

narrative on agriculture are strategically focused on persuading audiences to adopt what often equates to a rigid, one-sided worldview of agricultural production and consumption.

For the purposes of this study, it is important to clarify the defining line between large-scale and alternative agriculture. Many agricultural literacy groups identifying with these agricultural food systems include objectives that aim to inform a verity of audiences about food safety and the ethical treatment of animals by food and fiber producers (Terry &, Lawver, 1995). The term large-scale agriculture is typically used when describing mass production, distribution, and marketing of plant and animal products with the use of pesticides, herbicides, antibiotics or other federally regulated chemical products (Beus & Dunlap, 1990). Larger farming and ranching operations falling under the definition of large-scale agriculture have focused much of their attention on efficiency and increasing the number of consumers reached (Morgan & Murdoch, 2000). These objectives involve conventional agriculturalists using modern technologies involving pesticides, herbicides or antibiotics; as a result they face scrutiny for quality control and consumer safety (Beus & Dunlap, 1990; Morgan, Murdoch, 2000). These operations produce goods that are then sent off to processors and distributors for mass distribution, impacting a larger consumer base than many other corporations involved in alternative agriculture (Beus & Dunlap, 1990).

Conversely, the term alternative agriculture is used when describing local/small-scale cultivation, distribution, and marketing of plant and animal products using only environmentally safe/sustainable pesticides, herbicides or medicines as federally regulated (Crosson, 1989; Beus & Dunlap, 1990). Alternative agriculturalists and advocates argue the importance of reconnecting consumers with the production process and promote agricultural goods that are largely undisturbed by chemical pesticides or antibiotics (Crosson, 1989; Beus & Dunlap, 1990;

Morgan & Murdoch, 2000). A focus for alternative agriculture has also been the localization of food production to ensure that consumers not only know where but who is responsible for growing the food they find in their grocery stores, restaurants, and farmer's markets (Kneen, 1993; Lyson & Guptill, 2004). The need for consumers to feel secure in the agriculture products available to them has benefited alternative agriculture advocates in advertising the benefits of their methods and practices, Often, discrediting large-scale agriculture's mass production practices (Kneen, 1993; Lyson &, Guptill, 2004).

Whether advocates support large-scale or alternative agriculture, they are working to communicate and present information to various target audiences about agriculture production practices and methods (Morgan & Murdoch, 2000). As consumers, the public plays an active role in the consumption process in agriculture; it is the growth and processing of food and fiber products causing concern (Birkenholz et al.; Mars & Schau, 2016). A majority of consumers have become so distant from the food and fiber production process that their understanding, confidence, and trust in food systems has decreased. Yet, in recent years consumer interest and concern for knowledge of the food system has increased (Kovar & Ball, 2013; Mars & Ball, 2016). With this growing concern the ability to access information and knowledge has become easier with advances in communication technology (i.e. social media, TV, radio). The use and dependence on media sources for information has contributed to consumers' exposure more channels and deliveries of information (Westerman et al., 2014)). College students are noticeably affected by these sources and utilizing the information found to develop individual opinions (Jones & Madden, 2002; Seo, Almanza, Miao, & Behnke, 2015; Verbeke, 2005). The multiple channels through which the public narrative on agriculture is now being conveyed comes at the risk of misinforming, confusing, and/or overwhelming consumers (Seo et al., 2005).

Conceptual Framework

Public narratives shape how individuals, cultures, and society as a whole interpret and apply collective meaning to phenomena (Howard, 1991; Martin & Enns, 2017). Public narratives ultimately shape and sustain “taste regimes” that work to determine and monitor what cultural and economic practices and products are appropriate within particular settings and environments (Shove & Pantzar, 2012). Taste regimes specific to consumption are introduced, evolved, and perpetuated through widely accessible media outlets (e.g., magazines, websites, social media platforms), dominant product brands, and routine rituals and practices that occur within families, communities, and organizations (Arsel & Bean, 2012). The effectiveness of taste regimes are heavily reliant on the purposeful deployment of communication strategies that continually engage target audiences with messages that reinforce practices and products that have been framed as legitimate and disparage those deemed to be illegitimate (Arsel & Bean, 2012). According to Arsel and Bean, these strategies include three functional components: problematization, ritualization, and instrumentalization (See Figure 1.).

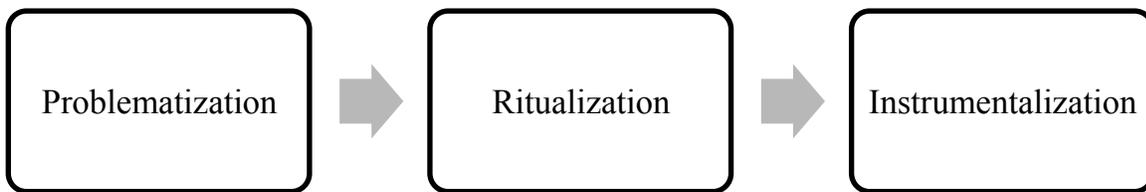


Figure 1. Three Strategies to Taste Regimes, Arsel & Bean, (2012)

The order in which the taste regimes components take place offer some clarity to the process that taste regimes operate through to connect with their intended audiences. Existing topics that are problematized in agriculture fall under five areas as mentioned in the review of literature (Terry & Lawver, 1995). The introduction of new technologies, use of products or

practices act as deviations of normative standards that introduce problems within the taste regime (Arsel & Bean, 2013). For example, the use of antibiotics in livestock is a concern for consumers. While large-scale agriculturalists talk about regulations in place for food safety, alternative agriculturalists focus on the risks involved for both the livestock and consumers (Conway, 2012; Levoke, 2006; Allen & Kovach, 2000).

The ritualization component of taste regimes is the application of problems, linking products or ideas to target audiences belief systems and practices (Arsel & Bean, 2012). Authorities within the regime use persuasive messages in a consistent manner to influence how consumers obtain objects/information as well as what is done with those objects/information (Rook, 1985; Arsel & Bean, 2013). Drawing on the example stated for problematization, authorities build connections between consumers and antibiotic use in livestock. Large-scale agriculture can draw on the family aspect and the desire to keep everyone safe through campaigns that describe the similarities between consumer families with those from large-scale agriculture. While alternative agriculture can pick up on the same connection and advocate for organic practices. To gain momentum using these connections the authorities then use consistent and constant messaging via the media to reinforce their campaigns (Arsel & Bean, 2012).

The third component, instrumentalization, is the step where authorities have perceived the problem, connected the problem to the target audiences belief systems or practices, and influenced an established opinion causing action (Arsel & Bean, 2012). Instrumentalization is the step where consumers have found a place in the market and are presented with opportunities to be an active participant. For instance, instrumentalization specific to antibiotic use is when consumers begin making conscious decisions to either support antibiotic use and buy products

from large-scale suppliers or to oppose antibiotic use and buy products from alternative suppliers (Arsel & Bean, 2012; Martin & Enns, 2017).

The fashion industry is another viable example of how taste regimes and the authorities within them impact consumers. In particular, through problematization, ritualization, and instrumentalization Sacaraboto and Fischer (2013) sought to explain how consumers effect change; plus size fashion was identified with the focus that consumers' style preferences and beliefs have been marginalized inhibiting the options made available to them (Sacaraboto & Fischer, 2013). However, plus size fashion bloggers took the initiative as active consumers to influence change, by problematizing their preferences and beliefs, using blogs to ritualize their problem and generate connections. Then using those connections to instrumentalize the taste regime to take action. In breaking down these barriers that the taste regime has built, plus size consumers initiated a shift in the fashion industry's narrow focus on consumers. This study also delves into the actions that neglected consumers have taken to intervene and make changes to an already established taste regime (Sacaraboto & Fischer, 2013).

The institutional work that underpins the establishment and maintenance of taste regimes is particularly powerful and relevant to social spaces and phenomena that are composed of a diverse range of actors and groups that are motivated by competing logics and worldviews (Glynn & Lounsbury, 2005) For example, Mars and Schau (2016) illustrated the importance of public narratives in reconciling otherwise competing worldviews to form a shared understanding and identity (i.e., taste regime) of local food across the Southern Arizona region. For the purposes of this study, the agriculture taste regime would also need to develop less politicized campaigns to better connect with the general consumer.

Purpose and Research Objectives

The concurrent advances of the agriculture industry and increased use of social media sites for information retrieval illuminates the issue of consumer awareness of agriculture food production. Bringing to light the need for this study that observed how the influence of social media on college students' interpretation of taste regime indicators (interpretation, personal view alignment, personal action). This purpose aligned with priority four of the 2016-2020 National Research Agenda (meaningful and engaged learning in all environments) (Roberts, Harder, & Brashears, 2016). The following research objectives guided the study:

1. Describe students' interpretations of Taste Regime indicators (interpretation, personal view alignment, personal action).
2. Describe students' interpretations of Taste Regime indicators by personal characteristics (gender, formative living experiences, parental education).
3. Describe students' interpretations of Taste Regime indicators by educational characteristics/experiences (academic degree, classification of academic progress, and educational experiences in agriculture)

Methodology

The research design for this study was descriptive-correlational research (Ary et al., 2014) which sought to compare several variables including students' interpretation, personal view alignment, and personal action of photos depicting several agricultural topics (e.g., animal welfare, food safety, farming practices, animal medications, and the impact of agriculture) otherwise referred to as the taste regime indicators (Terry & Lawver, 1995). Correlational research has its advantages for this study in that several variables are being collected and

compared. However, correlational research limits the study in that it doesn't indicate the level of causation among the variables (Ary et al., 2014). The antecedent variables within this study were college students' collective interpretations of photo orientations on agriculture images as 1) large-scale or alternative; 2) whether the agriculture topic (photo) was being depicted is positive or negative; and 3) their level of support/opposition for the photo image. Collectively, these criterion values served as students' interpretation of food production information transmitted via social media. A research proposal received approval from the campus institutional review board.

The target population for this study were undergraduate students enrolled at The University of Arizona during the spring semester of 2017. The course, *The Heritage and Traditions of the University of Arizona* ($N = 249$) served as the convenience sample for this study because of its cross-discipline nature that draws students from a variety of academic interests.

Data were collected using a web-based questionnaire (Qualtrics.com) developed by the researchers in alignment with the conceptual framework of the study. The questionnaire consisted of two-parts. Part one sought to assess students' interpretations of 20 purposefully selected photo images based on whether the individual images are perceived to be large-scale or alternative agriculture (interpretation), their positive/negative perception (personal viewpoint), and their level of support/opposition (personal action). A norming committee of four graduate students served to select the 20 images for the study. Committee members selected the images based upon their various agriculture experiences. For the purposes of this investigation the terms were defined and provided to the sample participants as a point of reference. Large Scale: Mass cultivation, distribution, and marketing of plant and animal products (Beus & Dunlap, 1990; Conway, 2012). Alternative: Local/small-scale cultivation, distribution, and marketing of plant and animal products (Beus & Dunlap, 1990; Crosson, 1989). Personal View: An individual's

opinion developed by personal, family, professional, educational influences (Kramer & Sias 2014). Personal Action: The likely reaction of a person in response to stimuli; either support/advocating or oppose/resistance (Kovar & Ball, 2013; Kramer & Sias, 2014). Each component (Interpretation, Personal View, Personal Action) was measured using a seven-point bipolar adjective scale for each measure (see Figure 2). A bipolar adjective scale present respondents with a list of adjectives that define the polar opposite meanings (Ary et al., 2014) used to measure the connotative meaning of each object (e.g., image). Image one is included as reference to the formatting of the first portion of the questionnaire. Part two of the questionnaire sought to measure students' characteristics (gender, academic degree, classification of academic progress, parental education, formative living experiences) as antecedents for the study.



Please use the photo above to respond to the following items:

Agriculture Perspective: Large-Scale	<input type="radio"/>	Alternative
Personal View Alignment: Positive (+)	<input type="radio"/>	Negative (-)
Personal Action: Support	<input type="radio"/>	Oppose

Figure 2. Sample Questionnaire Item that measures Taste Regimes

The questionnaire was assessed for validity and reliability using a panel of experts and pilot study, respectively. The panel of experts ($n = 5$) comprised individuals with expertise in instrumentation, agriculture literacy and data analysis. Collectively, the panel was used to establish face and content validity by reducing the degree of systematic error generated from ubiquity and structural deficiencies within the questionnaire. A pilot test ($n = 15$) was conducted to determine the reliability estimates for each measure, excluding items that measure respondent characteristics. The participants of the pilot test were selected for their assimilation to the target population. A test-retest analysis (coefficient of stability) of the data were calculated and found to meet or exceed the criterion measure of .70.

The questionnaire was distributed to subjects via email. Email addresses were acquired from the course instructor. Dillman's (2000) suggestions for maximizing response rate were followed when collecting the data. Five points of contact were planned and implemented including a pre-notice, first round of data collection, a reminder, a second invitation, and a final follow-up reminder. Each point of contact including a well-structured message inviting students to participate in the study using social exchange theory along with a weblink to the questionnaire. A 48-hour period was defined as appropriate interval between points of contact. To assist in minimizing nonresponse error, an incentive of Starbucks gift cards was used. Respondents who submitted a completed questionnaire were given the chance to win one of 12 twenty-dollar gift cards. As a result, the data collection process yielded a 24% ($n = 58$) response rate. Despite the number of points of contacts and the incentivize data collection process non-response error remained. No effort was made to address this error. Consequently, the data, results, and conclusions are limited to those who participated in this study. Data were analyzed

using descriptive statistics to summarize the findings. Measures of central tendency and measures of variability are presented.

Findings

Research objective sought to describe students' interpretations of Taste Regime indicators (interpretation, personal view alignment, personal action). Table one presents the results of the taste regime indicators (interpretation, personal view alignment, and personal action). A seven-point adjective bipolar scale (Ary et al., 2014) was used. Mid-range responses were considered neutral while the polar ends were opposing associations (large scale/alternative, positive/negative, and support/oppose). The interpretation (*Mean* = 3.83; 0.75) indicate that respondents find the images neither large scale or reflective of alternative agriculture, or said differently have an agnostic interpretation. Similarly, respondents held a neutral personal view alignment (*Mean* = 3.99; 0.72) as neither positive nor negative. Lastly, respondents held a neutral personal action (*Mean* = 3.88; 0.81) in support or opposition of the image.

Table 1

The Agriculture Taste Regime and College Student Interpretations of Agricultural Production Information (n = 58)

Taste Regime	<i>Minimum</i>	<i>Maximum</i>	<i>Mean</i>	<i>SD</i>
Interpretation ^a	1.45	5.85	3.83	0.75
Personal View Alignment ^b	1.95	5.15	3.99	0.72
Personal Action ^c	1.30	5.65	3.88	0.81

Note. Based upon a seven-point scale using the following bipolar adjectives: Large Scale/Alternative^a; Positive/Negative^b; Support/Oppose^c.

Research objective two sought to describe students' interpretations of Taste Regime indicators by personal characteristics (gender, parental education, formative living experiences)

(Table 1). When analyzing the data, selected characteristics were dichotomized to observe differences among the participants. Of the 58 participants, (34%; $n = 20$) identified as male, and (65%; $n = 38$) identified as female. The demographic observing the environment raised remained rural, suburban and urban. Participants identified with the following, rural (12%; $n = 7$), suburban (53%; $n = 31$), and urban (34%; $n = 20$). Lastly for the same reason parent college experience was dichotomized as college experience (75%; $n = 44$) and no college experience (24%; $n = 14$).

Table 2
Agriculture Taste Regime Indicators by Personal Characteristics (n = 58)

Characteristic	Interpretation ^a		Personal View ^b		Personal Action ^c	
	Mean	SD	Mean	SD	Mean	SD
Gender						
Female ($n=38$)	3.92	0.62	4.13	0.57	4.08	0.57
Male ($n=20$)	3.66	0.95	3.74	0.89	3.51	1.06
Environment Raised						
Rural ($n=7$)	3.60	1.25	3.24	1.08	3.27	1.17
Suburban ($n=31$)	3.78	0.63	4.01	0.65	3.82	0.79
Urban ($n=20$)	4.00	0.72	4.23	0.49	4.18	0.56
Parent College Experience						
College Exper. ($n=44$)	3.74	0.72	3.90	0.74	3.77	0.83
No College Exper. ($n=14$)	4.12	0.78	4.29	0.58	4.22	0.69

Note. Based upon a seven-point scale using the following bipolar adjectives: Large Scale/Alternative^a; Positive/Negative^b; Support/Oppose^c.

Research objective three sought to describe students' interpretations of Taste Regime indicators by educational characteristics/experiences (academic degree, classification of academic progress, and educational experiences in agriculture). Similar and for the aforementioned reason, degree was dichotomized into Bachelors of Arts (B.A.) and Bachelors of Science (B.S.). Of the 58 respondents, (36%; $n = 21$) were pursuing Bachelors of Arts and the

remaining (68%; $n = 37$) were pursuing Bachelors of Science. University classification accounted lower classmen for freshmen and sophomores, while upper classmen accounted for juniors and seniors. Of the respondents, (43%; $n = 25$) were lower classmen and the remaining (56%; $n = 33$) were upper classmen.

When observing respondents' exposure to agricultural education a single question was asked, respondents selected all that apply. Options included formal, non-formal, and informal agriculture education. To analyze the data each form of education was dichotomized as yes or no. Formal agriculture education was observed in two categories, high school (e.g., school based AgEd/FFA) and college (e.g., courses, internships). Of the 58 respondents, (22.41%; $n = 13$) reported yes to exposure to high school agriculture education, the remaining (77.58%; $n = 45$) reported no. For formal college agriculture education, (25.86%; $n = 15$) of the respondent reported yes, while 74.13%; ($n = 43$) reported no. For non-formal agriculture education (e.g., 4-H, Boy Scouts, Girl Scouts), (41.37%; $n = 24$) reported yes, and the remaining (58.62%; $n = 34$) responded no. Lastly, Informal agriculture education (e.g., Museums, T.V., Readings), data showed that (29.31%; $n = 17$) reported yes while the remaining (70.68%; $n = 41$) reported no.

Table 3

Agriculture Taste Regime Indicators by Educational Experiences (n = 58)

Education Experience	Interpretation ^a		Personal View ^b		Personal Action ^c	
	Mean	SD	Mean	SD	Mean	SD
Degree Type						
BA (n=21)	3.78	0.72	3.80	0.66	3.78	0.83
BS (n=37)	3.86	0.78	4.07	0.75	3.94	0.81
University Classification						
Lower Classmen (n=25)	3.95	0.66	4.07	0.61	4.02	0.66
Upper Classmen (n=33)	3.74	0.81	3.94	0.79	3.78	0.91
Formal: High School (e.g., School based AgEd/FFA)						
Yes (n=13)	3.58	0.93	3.54	0.91	3.54	0.94
No (n=45)	3.90	0.69	4.13	0.60	3.98	0.75
Formal: College (e.g., courses, internships)						
Yes (n= 15)	3.45	1.10	3.84	1.08	3.75	1.14
No (n=43)	3.96	0.54	4.05	0.55	3.93	0.68
Non-formal: (e.g., 4-H, Boy Scouts, Girl Scouts)						
Yes (n= 24)	3.74	.77	3.73	.67	3.57	0.76
No (n=34)	3.90	.74	4.18	.70	4.10	0.79
Informal: (e.g., Museums, T.V., Readings)						
Yes (n= 17)	3.83	0.75	4.05	0.66	4.00	0.66
No (n=41)	3.84	0.77	3.86	0.85	3.60	1.07

Note. Based upon a seven-point scale using the following bipolar adjectives: Large Scale/Alternative^a; Positive/Negative^b; Support/Oppose^c.

Research objective two and three further sought to describe the relationship between students' characteristics (personal and educational) and their interpretations of food production information (Taste Regime). When looking at gender (Table 2) female ($Mean = 3.92$; $SD = 0.62$) respondents leaned slightly towards the alternative than male respondents ($Mean = 3.66$; $SD = 0.95$). Also, females' personal action was opposition rather than support with a mean of 4.08 ($SD = 0.57$). Environment where respondents were raised (Table 2) indicated very small differences among respondents rural to urban. Rural respondents interpreted, viewed, and supported large-

scale agriculture while suburban and urban respondents interpreted, viewed, and supported more alternative agriculture. Lastly parent college experience (Table 2) showed respondents whose parents had college experience interpreted, viewed, and supported large-scale agriculture.

Moreover, Table 3 focused specifically on respondents' educational experiences (current degree types, university classifications, and exposures to agricultural education - formal, non-formal, and informal). Within Table 3 the most notable observation was the influence of informal education (e.g., museums, T.V., Readings); those who experienced formal education, either high school ($Mean = 3.54$; $SD = 0.93$) or college ($Mean = 3.45$; $SD = 1.10$) showed more positive personal view alignments. It is also important to note that the differences of interpretation, personal view, and personal action among respondents' characteristics were slight and could not pose any significant observations based on the data collected from the current study.

Conclusions, Implications, and Recommendations

I am introducing the notion of a taste regime the agriculture literacy and communication literatures. In this narrative, the agriculture industry as a whole is the taste regime with authorities constructing persuasive campaigns seeking to capture consumer attention and support (Arsel & Bean, 2013). Large scale and alternative agriculture, the authorities, have as previously described developed these campaigns. The effectiveness in connecting with the general consumer seems to have been overcast with large scale and alternative agricultures' focus on discrediting the opposition (Martin & Enns; 2017). It is this discourse that the general public is being left undefined. It became apparent through this study that the general public is apathetic or at least not compelled by the barrage of information that is broadcast through television, radio,

and social media. This lack of attention results in consumers', like those of the current study, having little to no bias towards either authority.

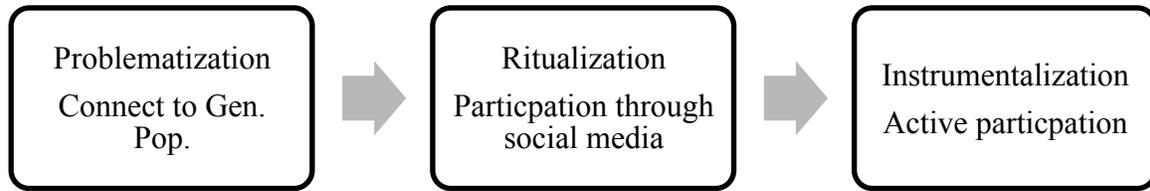


Figure 3. Active Interpretation of Agriculture Taste Regime.

It is also important to consider that the information the general population is exposed to can cause data asymmetry; I introduce this term and define it as the general populations' inability to distinguish between what is "right" and "wrong". The general population has to take into consideration what information being delivered aligns with their personal beliefs and preferences. Thinking back to the three components of taste regimes, this is a critical moment where problematization should take place. Large-scale and alternative agriculture have the opportunity to reach with the general public by connecting the issues or problems in agriculture and displaying how they effect the general public. Forming two recommendations, the first being that large-scale and alternative agriculture need to strive for more holistic campaigns targeting the general publics' beliefs, knowledge, and preferences rather than each other. The second recommendation being that the general population takes into consideration this data asymmetry and how the information they view from large-scale and alternative agriculture relates to their personal beliefs and preferences to decide what is "right" and "wrong".

Participation in communication technologies like social media (e.g. Twitter, Facebook) is supposed to be an active process where the general population interacts with the posts, advertisements, and blogs they encounter on a regular basis. Thinking back to the three components of taste regimes, this is where ritualization comes into play but fails. A lack of

participation by the general population is represented by the findings of this study allowing for the assumption that the ritualization practices the authorities use are being overlooked by the general population. In this study the population of college students' responses indicated little alignment towards either authority no matter the demographic characteristics differentiating them. The lack of definitive opinion gives insight into how the large-scale and alternative agriculture campaigns are not understanding and connecting with general population consumers. It is the researchers' recommendation that agriculture as a taste regime should then take into account audiences' inaction and begin to identify new methods of reaching a more diverse consumer base.

Large-scale and alternative agriculture have been well defined however campaigns have evolved that align with the beliefs and preferences of narrow target audiences. Those who fall within these narrow audiences are those members of the general population taking an active stance within the authority. For example, activists who support either authority participate on social media or other communication technologies to get their points across and gain support from general consumers. This is when the third component of taste regimes should come into play, instrumentalization. On the contrary, it is the lack of consideration for the general population and the manipulation by activists within agriculture that instrumentalization has become apathy. The general consumers observed in this study show these findings in their responses, leading to the recommendation that the general population as consumers begin taking a more active role in the taste regime that is agriculture.

The general public must also become change agents in the agriculture market to ensure their beliefs and preferences are met (Arsel & Bean, 2013; Sacaraboto &, Fischer, 2013). Much like in the fashion industry, plus size consumers took the shortcomings of the fashion taste

regime and in turn used their own informal campaign to gain more inclusion and choice (Sacaraboto &, Fischer, 2013). In a similar way, general consumers can take the shortcomings of the agriculture taste regime to form campaigns that express their need for more choice and consideration by the agriculture taste regime. The agriculture industry is greatly influenced by what their consumers beliefs, preferences, and actions are, providing the general public with the power necessary to open up the authorities' narrow frames. With the expanse of communication technology the general public can also establish a presence that large-scale and alternative agriculture will take notice.

Perhaps, if the authorities within the agriculture industry adjusted their campaigns, taking into consideration the connection between the general population and their familiarity with agriculture, then common ground can be established and more compelling campaigns will be produced. The problems that the agriculture industry address have been the same for many years, as have the ritualization methods to connect with consumers (Coon & Cantrell, 1985). This is where the disconnect happens, the relationship that consumers have with agriculture has evolved calling for the authorities within the taste regime to revamp their campaigns to reach more diverse consumers. Methods of improving the connection with the general population would include large scale and alternative agriculture evaluating the current perceptions that consumers have now, as the current study has done. Once consumer beliefs, preferences, and agriculture knowledge have been assessed more objective campaigns can form. The inclusion of basic agriculture facts, simplifying scientific information, and a decrease in discourse among large scale and alternative agriculture advocates can relieve some tension for consumers. Additionally, the use and adaptation of social media and other media sources provides advocates and consumers alike the opportunity to access information instantly. Advocates can use these

communication technologies to disseminate and adapt their campaigns to fit popular media advertisement methods. For example, photos and video advertisements can be used to visually engage consumers.

This study focused on the agriculture taste regime and the authorities acting within; minimal focus on college students and other adult learners has resulted in a consumer population that is marginalized and apathetic to campaigns set forth by large-scale and alternative agriculture. The relationship between the general public and agriculture food production has grown distant as the population grows and technology advances; bringing to light the need for a new understanding between the general public and the agriculture taste regime. The large-scale and alternative agriculture authorities are not adjusting for this change, narrowing their campaigns and focusing on making their opposition look illegitimate. An expansion of each authorities frame of thinking to include a more diverse population could lead to the general public bettering their knowledge of the food fiber system and the many topics effecting their community, families, and themselves. Accordingly, similar research can be done to expand this understanding of the agriculture taste regime and what roles that large-scale agriculture, alternative agriculture, and the general public plays to influence change.

Recommendations for Future Research

To further the understanding of how college students and other adult learners interpret agriculture information the researcher has several recommendations. The first recommendation is for qualitative research to delve more deeply into the influences that shape consumers' worldviews like those stated by Kramer & Sias (2014). The evaluation of peer, educational, family, organization, and media influences on a consumers' worldviews has the possibility to identify how reliant the consumer is on these to make decisions. Additionally, qualitative

research would help to observe the impact of media as reliance on communication technologies continues to rise. Connections between the variables in the current study were observed and showed some impact on each other but, again, qualitative research would be useful to determine the why behind those connections.

The next recommendation includes an enhancement for quantitative research. The current study observed student perceptions of the taste regime indicators. These variables can be expanded through sets of questions to gain better understandings of each as well as the relationships among them. The media chosen for the study observed how students interpret photos in relation to agriculture food production. In reference to the forms of agriculture education and exposure that were observed in this study, informal education showed some effect on the respondents' interpretations. Possibly, by focusing more closely on the different forms of media that the general population encounters will provide more insight on its effects or where there is room for improvement. It is recommended that a variety of media sources should be used to more accurately simulate the range of advertisements (e.g. photos with comments, videos, blog posts, gifs) that consumers encounter.

Other forms of agriculture education or exposure, formal and non-formal, have the potential to impact the general population as well. For example, non-formal education for college students and other adult learners can include their work environments. A person's work isn't always the first thing thought of when considering where consumers are influenced. However, the amount of time that is spent at work and the interactions with coworkers, company health initiatives, and other possible advertisements can subconsciously effect how the general public establishes beliefs and preferences. The researcher recommends that future research take these

factors into account, possibly conducting a study with longevity to follow consumers and see how changes in environment and organizations alters their beliefs and preferences.

Lastly, the researcher recommends that the population observed contain a greater demographic variety to gain a broader understanding of the general consumer population. This study was limited to a convenience sample that could not be generalized outside of the sample population. A population size larger in number and a greater variety in demographic characteristics has the opportunity to present significant observations about how the agriculture taste regime effects the general populations' opinions, or lack there of. A study that occurs across several different universities would provide data that can satisfy this recommendation as well as identify new considerations not considered in this study like differences between cities, and cultures across the United States.

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