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Matching Local Food Messages to Consumer Motivators: An Experiment Comparing the Effects of Differently Framed Messages

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Abstract

Past research suggests the local food movement provides economic and social benefits to consumers and producers alike. These benefits might account for the significant increase in local food sales. Despite its increasing popularity, further communications research is needed since a dominant messaging strategy does not currently exist to advance the local food movement. Food quality, healthfulness, and support of local farmers were previously empirically identified as motivating factors to purchase local food; however, they had not been tested comparatively for effectiveness. Based in framing theory and the theory of planned behavior, we sought to test if brief messages framed to target these motivations could bolster cognitive antecedents known to predict behavioral intent to purchase local foods. The experiment was conducted with 408 study participants recruited from general education courses at a large, public university in Colorado. Results showed no difference between the message frames and no effect (compared to the control group message) on any of the measures. These findings suggest consumers are becoming increasingly savvy when it comes to local food advertisements and probably have developed a relatively stable attitude toward local food. We suggest that future research might yield deeper explanatory results if pre-existing attitudes and participants' elaboration likelihood are considered. Our findings also suggest local food marketers should consider communication strategies and tactics that provide richer information/arguments to consumers; brief ads are likely insufficient.

Keywords

Local food, framing theory, theory of planned behavior, message effects

Cover Page Footnote/Acknowledgements

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Matching Local Food Messages to Consumer Motivators: An Experiment Comparing the Effects of Differently Framed Messages

Supporting the local food movement is considered a noble and worthwhile endeavor for many reasons. Scholars suggest that farmers' markets and local food sales can have a positive influence on small- to medium-sized businesses and the local community (Martinez, 2010). Local foods might also benefit rural communities both socially and economically (Brown, 2003; Lyson & Green, 1999; Schneider and Francis, 2005). Scholars further suggest that local foods could increase the consumption of fruits and vegetables (Jilcott Pitts et al., 2013; Wetherill & Gray, 2015), and could alleviate food deserts (Adams & Salois, 2010). Marketing and communication research examining effective ways in which to promote local foods, overall, to consumers is needed to continue supporting the endeavor. Practically speaking, such findings might be especially useful to small farmers and ranchers who wish to increase their market in the local food sector or create strong social ties within their community.

Although a definition of local foods is somewhat ambiguous and often personalized by individual consumers depending upon their local market and product (Cranfield, Henson, & Blandon, 2012; Martinez, 2010), several common, broad purchase motivators became apparent after a comprehensive review of the literature. Messages highlighting empirically established purchase motivators in local food messaging might invoke a stronger intent to purchase locally grown food. The literature on consumers' motivations for preferring and/or purchasing local foods is scattered across multiple disciplinary scholarly publications and includes one literature summary; therefore, details about where each study was conducted, when and how many consumers participated, methods, and conclusions were synthesized in order to conceptualize the types of information that should be included in messages to enhance persuasion. The studies' relevant details and contexts are summarized in Table 1. Following the table, is our summary and interpretation of this body of knowledge as a whole in comparison to studies on current messaging about local food.

Table 1

Summary of research examining reasons consumers choose or prefer local food from 1998-2012

Study	Methods	Participants	Top 5 Motivating Attributes
Kezis et al. (1998)	Survey distributed at farmers' market in Orono, ME.	*n* = 239 (*n* = 178 for motivations section)	Quality (72.5%) Support local farmers (59.6%) Friendly atmosphere (38.2%) Health & food safety (29.8%) Convenience (13.5%)
Food Processing Center (2001)	Survey distributed to NE, IA, MO, and WI. Question items measured on a 10-point semantic differential.	*n* = 500	Taste (mean: 9.2) Quality (mean: 8.78) Nutritious & Healthy (mean: 8.36) Price (mean: 7.93) Supports Local Farmer (mean: 7.06)

Table 1
Continued

Study	Methods	Participants	Top 5 Motivating Attributes
Brown (2003)	Mail survey distributed to southeast MO using simple random sampling method.	*n* = 544 (total) *n* = 478 (local food questions)	Quality and selection (45%) Locally grown (18%) Price (6%) Direct contact with grower (5%) Buying for canning/freezing (3%)
Zepeda & Leviten-Reid (2004)	Focus group setting. Participants were broken up into four groups. Two groups consisted of those who purchase organic food (alternative food shoppers/AG) and two groups consisted of those who do not purchase organic food (conventional food shoppers/CG).	AG 1: *n* = 10 AG 2: *n* = 12 CG 1: *n* = 11 CG 2: *n* = 10	Conventional consumer attribute importance: Freshness, flavor long-lasting produce, personal relationships Alternative consumer attribute importance: Support local farmers, sustainable land use, personal health concerns
Schneider & Francis (2005)	Consumers and farmers were independently surveyed using mail survey in Washington County, NE. Consumer respondents were recruited using stratified random sampling. Questionnaire items related to food purchase intent were measured using a 10-point semantic differential scale	*n* = 207	Quality (mean: 8.56) Taste (mean: 8.52) Nutritious & Healthy (mean: 8.27) Price (mean: 8.15) Environmentally friendly (mean: 6.76)
Toler et al. (2009)	Field experiment in grocery store and farmers market in Edmond, OK	*n* = 102 total *n* = 51 grocery store *n* = 51 farmers market	Higher quality food (50%) Support local economy (33%) Promote more equitable food production distribution system (8%) Lower food prices (5%)

Table 1
Continued

Study	Methods	Participants	Top 5 Motivating Attributes
Onozaka, Nurse, & McFadden (2010)	Online survey of U.S. primary grocery shoppers in which they asked respondents to compare local food to domestic fresh produce	*n* = 1052	Percentage who rated local as superior: Freshness (~75%) Support local economy (~70%) Eating quality (~65%) Food safety (~50%) Nutritional and health (~50%)
Nurse Rainbolt, Onozaka,& McFadden (2012)	Survey through WebTV or online across the U.S.	*n* > 1000	Farmers receive a fair wage (3.33) Locally grown (3.13) Organically grown (2.65)
Feldmann & Hamm (2014)	Literature review of empirical studies to summarize what is known about consumer perceptions and preferences around local food (includes studies with consumers outside of U.S.)	23 publications	In order of greatest to least frequency of attitudinal association with local foods: Freshness, quality, and taste (as a singular construct) Trustworthy and safer Supporting local economy Environmentally friendly
Gorham, Rumble, & Holt (2015)	10 focus groups with Florida consumers	*n* = 93	Personal preference, versatility, ease/knowledge of preparation to eat, and seasonality. Of note: participants indicated availability and specific growing location did not impact their decisions.
Ruth & Rumble (2016)	Online survey of Floridians who consume strawberries and are primary food shopper, which resulted in majority being white, female 30-50-year-olds	*n* = 500	Attributes rated as highly important or extremely important: taste (97%), freshness (96%), nutrition (74%), season (72%), price (61%), support local farmers (55%), and convenience (39%)

Our assessment of the literature on motivations to purchase local foods shows that quality (inclusive of taste and freshness dimensions), health, and altruistic reasons (supporting local community or local farmers) are the most important factors to consider for messaging. Although previous research has shown local food marketing campaigns often use environmental messages (Hinrichs & Allen, 2008; Lamine, 2015), our literature review showed environmental

sustainability does not seem to be a key motivating factor to purchase local foods across consumers (Brown, 2003; Kezis, Gwebu, Peavey, & Cheng, 1998; Toler et al., 2009; Nurse Rainbolt, Onozaka, & McFadden, 2012). This demonstrates a mismatch between communication practices and consumers' self-identified motivations for their interest and purchase of local food, and thus, an opportunity to improve practice.

Researchers warn that coherent branding of local foods might diminish without a clear messaging strategy (Hughes & Boys, 2015; Thilmany McFadden, 2015). Moreover, scholars call for further research on message frames in the local food context (Gorham et al., 2015; Ruth & Rumble, 2016), and local food labels (Jeong & Lundy, 2015). Given communities' increasing interest in ways to promote local food systems, understanding the relative effectiveness of different local food messages designed to appeal to those consumer motivations (quality, health, and altruism) would be useful for those involved in communicating and marketing local food. Our study was conducted to help alleviate concerns of diminished market power in the local food realm and help catalyze a clear branding strategy in this food sector. To address these needs, our study examined the relative persuasive effects of differently framed local food messages.

Theoretical Framework

Framing

Framing theory describes how information is presented to the public and how audience members process that information (Goffman, 1974). The way a message is framed can draw attention to only a few aspects of the topic (Weaver, 2007) and help individuals process information (Chong & Druckman, 2007). Thus, message frames make specific attributes especially salient (Scheufele, 1999). Entman (1993) pointed out frames are defined by what they include as well as what they omit –meaning a frame identifies what should be considered about a topic at the exclusion of other possibly relevant attributes. Frames are a latent structure that hold information together (Gamson, Croteau, Hoynes, & Sasson, 1992). Research on framing effects has suggested the way an issue is framed can have immense impact on public opinion (Berinsky & Kinder, 2006; Entman, 1993; McCombs & Shaw, 1993).

Message frames can be evaluated from both a macro and a micro-level perspective (Scheufele & Tewksbury, 2007). At a macro-level, framing theory has described how information about an issue is presented from communicators to various audience members (Scheufele & Tewksbury). Frames have been shown to organize information to help individuals make sense of the world around them (Berinsky & Kinder, 2006; Gamson et al., 1992; Goffman, 1974; Schuldt & Roh, 2014; Scheufele, 1999). Over time, various frames create mentally stored clusters of information (Entman, 1993). At a micro-level, framing theory has described how people use this information as they form opinions on a given issue (Scheufele & Tewksbury, 2007). Thus, message frames might invoke or activate interpretive schema (Scheufele, 2000; Weaver, 2007), which can have a strong impact on audience member's interpretation of messages (Gerber, Gimpel, Green, & Shaw, 2011; Scheufele & Tewksbury, 2009). Framing is described as highlighting certain attributes and making them more prominent than others (Druckman, 2001; Entman, 1993; Weaver, 2007), thus affecting how audiences interpret ideas. Gorham et al. (2015) used framing theory in a study on consumers' views on local food attributes and found that health, consumer preferences for a product, and versatility are important attributes in local food marketing.

Theory of Planned Behavior

The theory of reasoned action and its extension theory, theory of planned behavior, have a been used extensively by researchers to explain or predict many types of behaviors, including health and food decisions, and their respective behavioral antecedents (McEachan et al., 2016; McEachan, Connor, Taylor, & Lawton, 2011). The theory of planned behavior (TPB) accounts for attitudes toward the behavior, subjective norms, and perceived behavioral control as antecedents to behavioral intent and overt behavior. Past scholars have used the theory of planned behavior model in food-related research on topics such as local foods (Nurse Rainbolt et al., 2012; Ruth & Rumble, 2016; Shin, Hancer, Song, 2016), food labeling (Lorenz, Hartmann, & Simons, 2015), and organic foods (Suh, Eves, & Lumbers, 2015; Yazdanpanah & Forouzani, 2015). An explanation of each element of the theory of planned behavior model is offered first. Afterward, we offer a synthesis the two theories (framing and theory of planned behavior) to contextualize their importance to our study.

Attitude.

Attitude toward the behavior consists of people's beliefs about and positive or negative evaluations associated with performing the behavior (Azjen, 1991). In more recent developments of TPB, Fishbein and Azjen (2010) identify two components of attitude toward the behavior: instrumental (i.e., cognitive) and experiential (i.e., affective). Most studies have dealt primarily with instrumental attitudes when using semantic differential measures (valuable—worthless); however, a meta-analysis showed that experiential attitude (pleasant—unpleasant) toward the behavior can have influence intent and the behavior even when controlling for other predictor variables (perceived behavioral control, subjective norms) (Connor, McEachan, Taylor, O'Hara, & Lawton, 2015). Although we were unable to measure behavior in this study, we did ensure the attitude measure was inclusive of both the instrumental and experiential components of attitude as theoretical influencers of intent to purchase local food.

Subjective norms.

Colloquially, subjective norms are the social pressure people perceive in whether they should perform a behavior. Subjective norms exist at both the individual level and societal level as they work together to influence how we believe we should behave or are expected to behave based on the judgment of others (Davis et al., 2015; Lapinski & Rimal, 2005; Manning, 2009; Tarkiainen & Sundqvist, 2005). Ajzen's (1991) definition of subjective norms was applied in this study as the strength of normative beliefs (i.e., whether they believe others expect them to buy local food) and the person's "motivation to comply" with the important other (p. 195).

Perceived behavioral control.

Perceived behavioral control refers to our perceived ability to actually engage in the behavior under question (Ajzen, 1991). Not engaging in a behavior could be a result of limitations rather than attitudes or subjective norms around that behavior (Ajzen). In this study, a discrete definition of perceived behavioral control came from Ajzen (2005) as "…the perceived ease or difficulty of performing the behavior and it is assumed to reflect past experience as well as anticipated impediments and obstacles" (p. 111).

Behavioral intent and behavior.

Behavioral intent refers to people's reported intentions to perform a target behavior (Azjen, 1991), like buying local food. According to TPB, attitudes, subjective norms, and perceived behavioral control influence behavioral intent, which accounts for eventual behavior. A study with over 1,000 primary grocery shoppers in the U.S. demonstrated moderate support for the use of theory of planned behavior in predicting willingness to pay for local food —akin to purchase

behavior (Nurse Rainbolt et al., 2012). This study showed attitude and availability (as a component of perceived behavioral control) did not predict willingness to pay, but perceived social norms and perceived consumer effectiveness (a second component of perceived behavioral control) were successful predictors. As a result, the authors suggested communication and outreach efforts for local food should focus on enhancing perceived consumer effectiveness by highlighting the ways in which their purchase of local food will achieve their envisioned end goals (Nurse Rainbolt).

Literature Synthesis and Conceptual Model for the Study

Research examining messaging for local food has studied consumer perceptions and motivations regarding local versus non-local food or focused on state-based branding initiatives. Little research exists examining the potential effects of *impact messages* about local food, which we define as those messages highlighting reasons consumers favor or purchase local food rather than just a broad "it's local" message. For most consumers, consideration of food being locally grown ranks far below more nuanced perceived attributes of the products, like freshness/quality and healthiness among several others (Onozaka et al., 2010). Messaging around the desired impacts of purchasing local food appeals directly to those more specific consumer motivations. Impact messages may be more important as marketplaces become increasingly saturated with local food marketing. As pointed out by Nurse Rainbolt (2012), they would theoretically work by enhancing perceived consumer effectiveness, which would positively influence their intent to purchase local food.

From the literature review (Table 1), three aspects emerged as being important and consistent factors driving consumers' preferences and purchase of local foods: quality (taste, freshness), healthy (nutrition, food safety/health concerns), and altruism (most often in supporting local farmers and community). The rationale behind examining effects of different impact messages about local food centers on the synthesis of the two theories informing this study: framing and theory of planned behavior. Framing theory suggests making certain attributes of a topic salient through message selection/design can impact the beliefs people rely on to make a decision. When the message about local food uses a health frame, for example, it helps activate that schema in people's minds to inform their decision. Although messages might not conspicuously speak to perceived control or subjective norms, we suggest the behavior of eating local food is goal-oriented around those different motivations of quality, health, and altruism. We base this on studies examining consumer motivations around preferring or buying local food show their focus is on the outcomes or goals they associate with the products (see Thilmany McFadden, 2015 and Table 1) and a study showing perceived consumer effectiveness is associated with higher willingness to pay for local food. Consumers eat local food to be healthy or to make an impact on their community. To elaborate with an example, when the message about the food is highlighted as supporting consumers' local farms, it would be influencing their control beliefs about their own ability to make a difference in their community.

A visual model illustrating what was described in the preceding paragraph is shown in Figure 1. To summarize, framing theory supports the notion that people are influenced by information made salient in the message to make decisions and these influences can change depending upon the frame used. Our literature review to discern consumers' motivations for preferring or buying local food identified health, supporting community, and good quality as important aspects of local food to focus on in persuasively framed messages (Table 1). TPB provides a parsimonious means of measuring framing effects on psychological variables that have been shown to be good

predictors of behavioral intent and behavior. Figure 1 illustrates these theory and literature connections; differently framed local food messages would theoretically influence the beliefs that inform attitudes, perceived control, and subjective norms, which collectively affect behavioral intent. This model informed the design of our study as well as its measures.

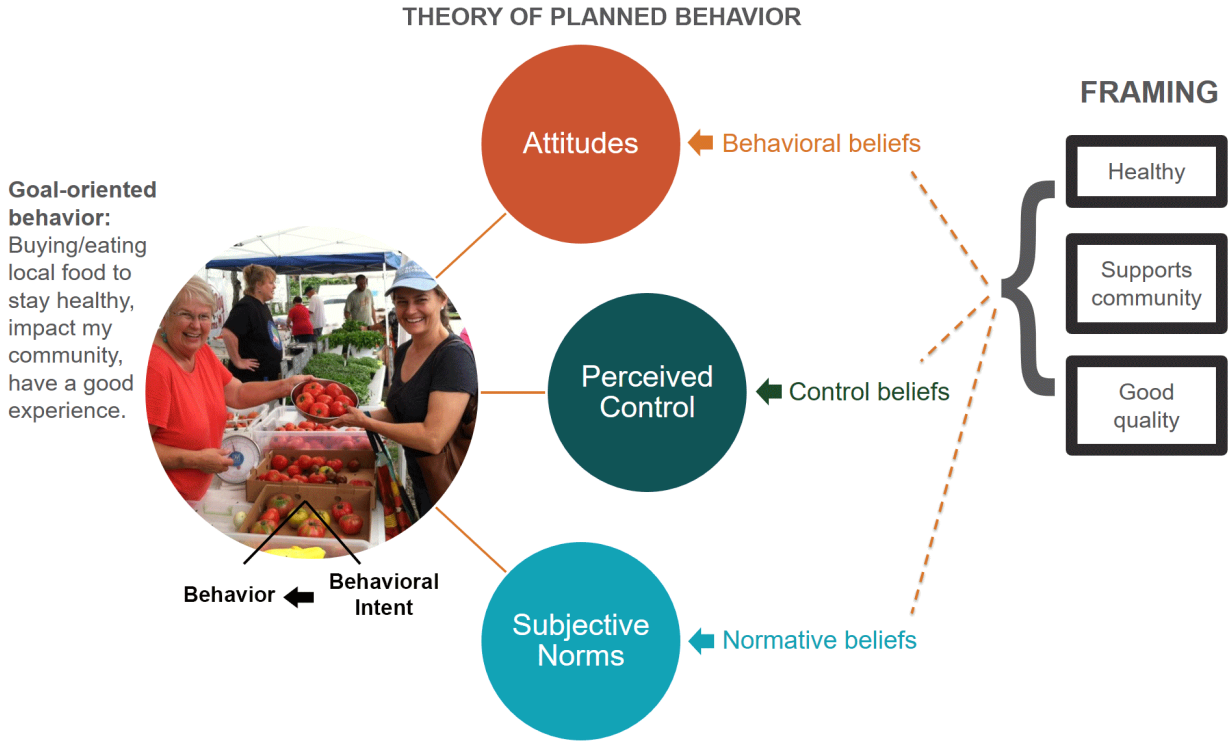

Figure 1. A conceptual model for the study connecting literature on consumer motivations for purchasing local food, framing theory, and theory of planned behavior.

Purpose and Research Question

The need for the study stemmed from scholars' calls to examine the use of impact messages in local food communication efforts (Nurse Rainbolt et al., 2012) and better understand the relative impacts of differently framed local food messages (Gorham et al., 2015; Ruth & Rumble, 2016). The purpose, therefore, was to determine and compare the persuasive effects of local food message frames of quality, health, and supporting local farmers. Using the TPB model and previous scholarship on motivating factors to purchase local foods, the main research question in this study was: How do these different message frames (quality, health, supporting local farmers) affect attitude, perceived behavioral control, subjective norms, and behavioral intent regarding local foods?

Methods

A post-test only experimental design was used. Each subject was randomly assigned to one of three treatment groups (quality, health, or supporting local farmers frame) or the control group. Ajzen's (1991) theory of planned behavior was utilized to measure local food purchase intent among consumers.

According to Wimmer and Dominick (2013), an experimental design allows for added control of confounding variables and the ability to draw causal relationships; however, their unnatural setting is a limitation. Internal validity was controlled for through random assignment of subjects to each treatment group. To aid in the use of the findings of this study for generalizing to other populations, we gathered participants' age, gender, primary income spent on food, and weekly spending habits on food.

Construct validity was controlled for through pre-testing and manipulation checks. The instrument was pre-tested with 125 college students to clarify questions in the instrument, check reliability of scales, and ensure the message frames were operating as intended (i.e., manipulation checks). Manipulation checks showed each message frame treatment was operated as intended; however, slight overlap between the health frame and the quality frame regarding how those frames were interpreted. This means participants may have felt similarly after viewing the quality and health frame.

Participants and Incentives

A convenience sample consisting of 392 students at a large public university participated in this study. Despite the sample of college students, findings should still prove useful. Cranfield et al. (2012) suggest that attitudes are more important than socioeconomic factors in predicting local food purchasing habits, while demographic variables do not seem to be important in predicting local food purchases (Brown, 2003). Participants were recruited on a volunteer basis via announcements through instructors of several general education courses at a large, public university. To incentivize participation, students were offered extra credit in their course and/or the chance to win one of two $25 Amazon.com gift cards.

Independent Variables

Three messages were created as stimulus material along with one control message. The three treatment groups included local food advertisements each framed around supporting local farmers, high quality, or healthiness. Again, these frames were chosen on the basis of evidence from previous studies summarized in Table 1. For each treatment group, an advertisement promoting local food including a photograph and text-based message was created. The control group viewed an ad highlighting snow skiing (designed as similarly as possible to the treatment group ads) because it was deemed unrelated to local food. Seeing some kind of ad was deemed important over solely conducting the measurements because those in the treatment group were required to view the local food ad for at least 10 seconds. So in order to control for that effect of time, we had to display a completely unrelated ad to the control group participants for at least 10 seconds.

The frame was embodied in the photo and text content. This type of frame, which includes both visuals and text, is referred to as multimodal framing (Geise & Baden, 2015). Recent research on multimodal framing shows that both visual and text-based messages can have powerful effects on audience members (Geise & Baden, 2015; Powell, Boomgaarden, De Swert, & de Vreese, 2015). Powell et al. used an experiment to show textual frames impact opinions, regardless of the image, while images impact behavioral intent. Because we examined both attitude and behavioral intent, combining the frame in both image and text was optimal.

All other design aspects between the groups were kept consistent: layout, typography, and all other textual content not pertaining to the frame. Additionally, when food was portrayed, only produce was used. Due to the post-test only design, the control group was used as a comparison for the three frames types. All visuals were selected from online databases and were chosen based

on how well they represented each frame type. Visuals were also selected on aesthetic appeal and similarity in photographic style across all groups.

Dependent Variables and Questionnaire Items

Attitude, subjective norms, and perceived behavioral control were measured as dependent variables through questions drawn from previous research about consumers' purchase intent of organic food (see Chen, 2007). Chen's (2007) questionnaire is based on Steptoe, Pollard, and Wardle's (1995) Food Choice Questionnaire. All items were measured on a 7-point Likert scale ranging of 1 = strongly disagree to 7 = strongly agree, where higher numerical ratings corresponded to greater purchase intention, stronger positive attitudes, greater perceived behavioral control, and stronger subjective norms.

The scales measuring the constructs under consideration were tested for reliability in this study. Removing "Local food products are more expensive than non-local foods," from the attitude assessment increased the Cronbach's Alpha coefficient from .68 to .76. A reliability test of two subjective norms statements revealed a high reliability, with a Cronbach's Alpha of .88. A reliability test of six statements measuring perceived behavioral control had the lowest reliability with a Cronbach's Alpha of .60; thus, results pertaining to this variable should be used with caution since it is below .70. A reliability test of three statements measuring behavioral intent revealed a Cronbach's Alpha of .82.

Procedures

The experiment was carried out online using the survey administration program, Qualtrics. After reading an informed consent statement and agreeing to participate, students were randomly assigned to each treatment group resulting in 102 participants in the health frame group, 91 participants in the quality frame group, 95 participants in the supporting local farms frame group, and 97 participants assigned to the control group. They were shown their assigned advertisement and instructed to examine it for at least 10 seconds because they would be asked questions about it. After 10 seconds lapsed, the button to proceed to the next screen appeared. The next screens contained the questions measuring all of the dependent variables and followed by demographic questions. Manipulation check questions appeared last.

Results

Demographics

More participants were female (53.7%, n = 201) than male (45.3%, n = 178), and three (0.8%) selected 'other' for gender. The mean age of participants was 22 years old (SD = 3.81 years). Most participants (62.9%, n = 246) indicated that they primarily pay for their food, while considerably fewer participants (36.9%, n = 145) indicated that someone else primarily pays for their food, such as a parent or guardian. Although not germane to the research question the present paper addresses, exploratory analyses revealed the only significant relationship found between these demographic variables and the dependent measures was that women (53.7%, n = 201) were more likely than men to have positive attitudes toward local food.

Findings

A MANOVA was conducted to assess the main research question under consideration: how do quality, health, and supporting local farmers frames differ in their effects on attitudes, subjective

norms, perceived behavioral control, and purchase intent for local foods. Preliminary checks were run to test normality, linearity, univariate and multivariate outliers, homogeneity of variance-covariance matrices, and multicollinearity. The distribution of attitude was moderately skewed, but multivariate tests are generally robust to this violation with group sizes of at least n = 25 (Schmider, Ziegler, Danay, Beyer, & Bühner, 2010).

The results showed that a significant relationship did not exist between differently framed messages and attitudes, subjective norms, perceived behavioral control, or behavioral intent to purchase locally grown food, F (12, 1011) = 1.69, p = .064; Wilks' Lambda = .50. The effect size was partial η^2 = .02, which further supports there were no message framing effects.

With attitude as the dependent variable, little variation existed among participants who were shown the quality frame (M = 4.88, SD = .75), those who were shown the health frame (M = 4.79, SD = .76), those who were shown the supporting local farmers frame (M = 4.80, SD = .66), and participants who were shown the control frame (M = 4.67, SD = .91). Likewise, with subjective norms as the dependent variable, little variation existed among participants who were shown quality frame (M = 5.04, SD = 1.01), the health frame (M = 4.75, SD = .88), those who were shown the farmer frame (M = 4.94, SD = .81), and the control frame (M = 5.04, SD = .99). Little variation in the quality frame (M = 4.78, SD = .71), the health frame (M = 4.84, SD = .73), the farmer frame (M = 4.74, SD = .73), and the control frame (M = 4.63, SD = .71) existed when perceived behavioral control was analyzed as the dependent variable. When behavioral intent was analyzed as the dependent variable, little variation existed among the quality frame (M = 4.63, SD = 1.15), the health frame (M = 4.60, SD = 1.36), the farmer frame (M = 4.72, SD = 1.23), and the control frame (M = 4.50, SD = 1.21) (Figure 2).

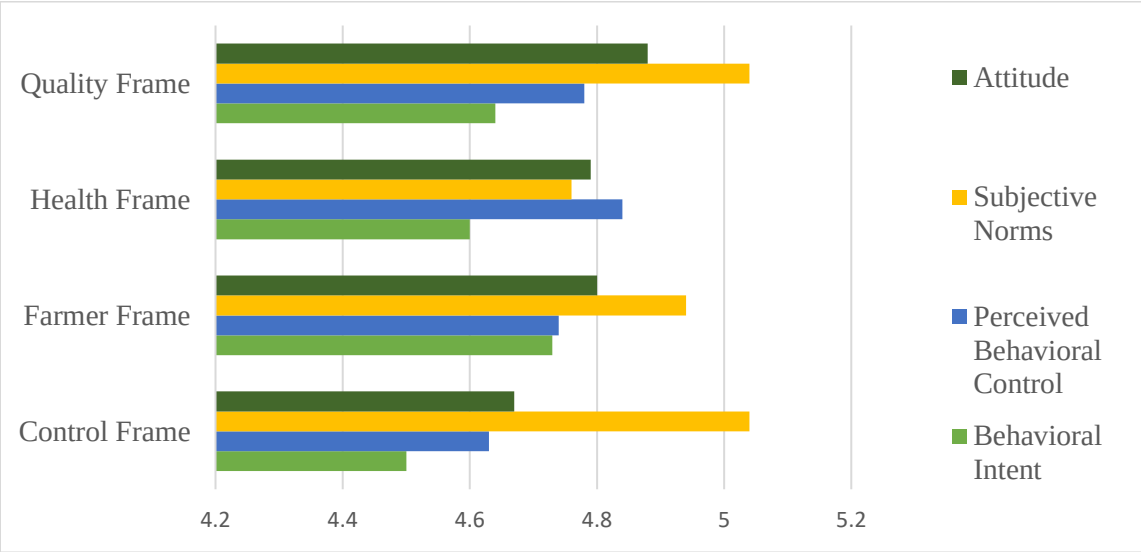

Figure 2. Relative effects of frame type on attitude, subjective norms perceived behavioral control, and behavioral intent. Scale ranges were 1-7, with higher numerical ratings corresponding to greater purchase intention, stronger positive attitudes, greater perceived behavioral control, and stronger subjective norms.

A significant difference did not exist between frame type and any of the dependent variables under consideration. In general, subjective norms to purchase local foods were stronger than attitudes, perceived behavioral control, and behavioral intent to purchase local foods with the

exception of the health frame. Behavioral intent to purchase local foods was the lowest of the four dependent variables for each frame type.

Discussion

Our findings run counter to recommendations from past research. Based on surveys with large numbers of U.S. consumers using TPB as a framework for measurement and analysis, scholars suggested marketers should use impact messages or symbolic messages focused on the long-term goals consumers seek to support and achieve by buying local food (Nurse Rainbolt et al., 2012; Shin et al., 2016). Specifically, the Food Processing Center (2001), Brown (2003), and Schneider and Francis (2005) all suggested highlighting quality attributes in local food marketing would be influential to consumers; Gorham et al. (2015) suggested highlighting the healthfulness of local foods would be most persuasive. Similarly, Kezis et al. (1998) and Toler et al. (2009) recommended highlighting a personal farmer-consumer relationship, while Nurse Rainbolt and colleagues (2012) suggested farmers receiving a fair wage is important to consumers. However, none of this previous research tested messages using an experiment as we did. In sum, our findings suggest a single exposure to any one of these message frames would not affect consumers' attitudes, subjective norms, perceived behavioral control, nor behavioral intent regarding local food.

The discrepancy between recommendations from past research on local foods and the results in the current study might be explained by this study's use of brief message frames. Each participant only had a single exposure to the visual elements of the frame, and the text was akin to a short slogan. At least one scholar has suggested consumers may need richer explanations; Brown (2003) suggested quality attributes should be explained to consumers as the result of an inherently short supply chain. Likewise, Nurse Rainbolt and colleagues (2012) described the altruistic motivators behind local food purchases in terms of consumers believing that their purchase truly makes a positive impact. Perhaps these psychological factors were not evoked strongly enough through the brevity of the ads used in this study. The results of our study are similar to Costanigro, Deselnicu, and McFadden (2016) who suggested that an understanding of outcomes related to food labeling are important in increasing consumer willingness to pay for food products. Costanigro et al. further proposed that well-articulated messages with clear outcomes are especially important in food-related messaging strategies. Typically, short and simple promotional messages as were used in this study are recommended as means to reach consumers in a competitive information marketplace. However, it may be the case these more simplistic promotional messages only garner attention and awareness and are insufficient to move the attitudinal needle, so to speak. In connection with the current study, we recommend those involved in local food marketing should clearly signal how local foods benefit the environment and community more specifically than making sweeping, brief claims.

When considering conventional shopping environments like grocery stores, consumers are typically able to compare locally-sourced (and marketed) foods to those that are not. Part of the explanation of our findings could also stem from presenting the local food messaging without direct comparison to non-local food options. Previous research has suggested when consumers are comparing similar food products, on-package marketing (i.e., labels) for credence attributes (e.g., local, cage-free, sustainable) may function by decreasing consumers' positive attitudes toward the product without credence attributes rather than strongly affecting evaluations of the local product (Abrams, 2015). While more research still needs to be done to determine how consumers process

and are effected by messages of comparable food products, based on this study and Abrams (2015), we can speculate marketers might see different results from more simplistic local food messages as used in this study when they are placed near non-local products. In other words, this type of brief messaging may work better when consumers are presented the information in a choice/comparative food shopping environment.

Another possible explanation of the non-significant results could be a general saturation of local food campaigns, even among grocery giants. Wal-Mart markets local foods (Adams & Salois, 2010), and in February of 2015, King Soopers was reported as the largest purchaser of local produce in Colorado (Progress Colorado, 2015). Additionally, processers like Frito-Lay began to market products as locally grown (Adams & Salios, 2010). Certainly, the opportunity for farmers to sell their product in grocery stores could offer an economic benefit to local farmers (Aldous, 2014). However, this could be at the cost of diminished marketing power in local food campaigns by larger companies and retailers (Adams & Salios, 2010). Literature from Rikkonen, Kotro, Koistinen, Penttilä, and Kauriinoja (2013) further suggested that consumers are more likely to trust communication from small farms than large businesses. Because local foods have become more commonplace across all markets, the local food movement may have followed suit with the organic sector and lost some marketing power among consumers (Adams & Salios, 2010). While those aforementioned articles state the potential of local food messaging saturation, they had no evidence from consumer message testing. This study contributes initial insights demonstrating that saturation has led to a weakening of local food messaging.

Theoretical and Practical Implications

Our results show that each manipulation functioned as intended, evidenced by the significant result of the manipulation checks. However, participants did not exhibit any change in attitude, subjective norms, perceived behavioral control, or behavioral intent to purchase local foods using the theory of planned behavior model. To help explain this result, we compared findings with outside literature from attitude-change models.

Azjen's (1991) theory of planned behavior suggested that each element within the model can be discretely measured as acting independently of one another to predict behavioral intent. For our purposes, the construct attitude will be of primary interest as it relates to other attitude-change models. Under the theory of planned behavior, attitude is conceptualized as a summation of beliefs toward the act or object in question (Azjen). Chong and Druckman (2007) agreed that attitudes are multidimensional. However, other attitude-change models take into account additional individual differences on behalf of the message receiver. These individual differences include elements such as pre-existing attitudes, attitude strength, attitude valence, and elaboration (O'Keefe, 2008; Petty & Cacioppo, 1986). Such individual differences could be vitally important in understanding why each frame had little to no impact on the participant group.

We suggest that when a pre-existing attitude is present, attitudes can be more difficult to change, even when the manipulation appears to be working correctly. A more in-depth explanation is offered by Petty and Cacioppo (1986), who postulated that existing knowledge structures are incredibly important considerations in predicting attitude change and that attitudes tend to be polarized in their initial direction. According to Smith (2012), attitude formation is much easier to achieve than attitude change. However, once the audience has received information about an object, their attitudes can be difficult to influence (Petty & Cacioppo, 1986; Smith, 2012). Petty and Cacioppo (1986) suggested that if a pre-existing attitude is present, messages should present the audience with content that allows them to carefully process the information rather than simple

cues. For attitude change to occur, the audience must receive messages that are stronger than the messages they previously received on the same issue (Petty & Cacioppo). Simple, heuristic cues, do not work well when the audience has a high need for cognition or background information on the topic (O'Keefe, 2008; Petty & Cacioppo, 1986). Given the recent growth in the local food movement as discussed by Low et al. (2015), we presume that participants were already well-aware of local foods and had formed an attitude, positive or negative, toward that sector and its products. If participants had already received information about local foods, which is possibly the case, the message frame manipulations used in this study may not have been strong enough to change participants' initial attitude because they only incorporated simple cues rather than in-depth or explanatory information that could be used in more careful thought processing (i.e., central route processing).

In consideration of information about the processing systems and communication factors pertinent, several theoretical linkages might explain the results of our study. If the participant group had already been exposed to messages about local foods, creating attitude change among those individuals would be harder to achieve. Scholars such as O'Keefe (2008), Smith (2012), and Petty and Cacioppo (1986) might suggest using higher quality messages that generate greater elaboration in this circumstance. Higher quality messages are messages that provoke the audience to carefully think about the issue under consideration, in this case, the potential benefits of local foods.

If pre-existing attitudes are present and the ultimate goal is creating stable and positive attitudes toward local foods, message quality is clearly important as it invokes the audience to more carefully consider and process the message. Findings from research on consumer preference might better explain this phenomenon. Costanigro, Kroll, Thilmany, and Bunning (2014) proposed vague messages only push consumers toward their pre-existing biases. These pre-existing biases might be akin to pre-existing attitudes as described by Petty and Cacioppo (1986). Therefore, our suggestion that simple cues are not impactful at influencing attitude change seems to be in line with literature from both the field of communications and agricultural economics. Drawing on suggestions from Costanigro et al. (2014) and Petty and Cacioppo (1986), strong messages might be more effective at creating attitude change.

Our findings suggest that local food marketers better should articulate the benefits of local food in their messaging strategy. Our manipulations worked as intended, yet were not successful in producing attitude change. Perhaps this unique finding shows that consumers are becoming increasingly savvy when it comes to local food advertisements and probably have developed a relatively stable attitude toward the local food movement. In the context of the current study, we conclude that consumers need more contextual information to understand why local foods are high quality, healthy, and support local farmers. Heuristic cues are simply not strong enough to influence actual behavioral intent to purchase local foods. However, it is important to note, marketers may see different results in settings where local foods are marketed next to or near non-local foods. In this comparison s, previous research has suggested food labels may impact consumer attitudes toward the non-local foods negatively rather than significantly enhance evaluations of the local food (Abrams, 2015). In other words, in the comparison grocery shopping setting, a consumer may perceive the locally-labeled product more favorably. Whether that perception actually results in a purchase, though, is a more complicated matter based on perceived value and other extrinsic qualities of the product.

Finally, the construct overlap found between the health and quality message frames is also noteworthy for local food marketers. Results from the manipulation check showed that participants

did not show a significant difference in how the health frame and the quality frame made them feel about local foods. Perhaps messages around food quality and healthfulness are one the same (i.e., inextricable features) for consumers. Messages could be streamlined to center on one or the other and have the benefits of the expanded interpretation by consumers.

Areas for Future Research

We recommend conducting a similar study using Petty and Cacioppo's (1986) elaboration likelihood model of persuasion. Such a model would alleviate several of the flaws in this study because the model would account for pre-existing knowledge structures, attitude valence and strength, and message quality.

If individuals are likely to have some existing knowledge structure on local foods, we further recommend that messages are carefully constructed and evoke more effortful message elaboration on behalf of study participants. For example, messages should describe why local foods are high quality. We recommend that future researchers create manipulation material with contextual information as to why local foods might be of higher quality. In direct comparison to conventional foods, this contextual information could include a shorter distance traveled from farm to plate. Likewise, the health frame should be more carefully constructed. For example, message strength could be increased by providing consumers with findings from Freedman, Choi, Hurley, Anadu, and Hébert (2013) and Jilcott Pitts et al. (2013) who suggested that those who frequently purchase locally grown food are more likely to consume nutrient-dense foods, which are related to numerous long-term health benefits. In future studies, the support of local farmers frame could be made stronger by incorporating findings from Lyson and Green (1999), Brown (2003), Schneider and Francis (2005), and Martinez (2010), who all suggested that local foods creates community-level benefits and increases farm income.

Another area for further investigation is the role of visual communication in framing local food messages. Powell and colleagues' (2015) work pioneered the relative contributions of images and text in examining framing effects. We used their work to inform an effective design of our study's stimuli, but a robust line of inquiry is open to exploring how frames function differently depending on the communication media and combination of media. Visual communication lacks the explicit syntax verbal communication offers (Lester, 2006). It could be the case that the frames tested in this study would have different effects if they were solely visual or verbal. In other words, perhaps relying on visual communication mechanisms to convey healthiness, for example, could be more effective than verbal descriptors. More research in this area would contribute to advancement of framing theory and models, as well as local food messaging.

As local food campaigns continue to saturate the marketplace, message strength and quality become paramount in reaching the target audience. Hopefully, more research is conducted in this realm because a better understanding of local food messaging might lead to greater marketing power by small farmers and ranchers who wish to enter into or increase their presence in the local food sector. The local food movement could create strong social ties within communities and boost income among small producers.

Abrams, K. M. (2015). Loss aversion and regulatory focus effects in the absence of numbers: Qualitatively framing equivalent messages on food labels. *Journal of Applied Communications, 99*(3), 21-36. doi: 10.4148/1051-0834.1054

Adams, D. C., & Salois, M. J. (2010). Local versus organic: A turn in consumer preferences and willingness-to-pay. *Renewable Agriculture and Food Systems, 25*(4), 331-341. doi: 10.1017/S1742170510000219

Aldous, V. (2014). Local farmers need more products in grocery stores. *McClatchy-Tribune Business News*.

Ajzen, I. (2005). *Attitudes, personality, and behavior*. UK: McGraw-Hill Education.

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. doi: 10.1016/0749-5978(91)90020-T

Berinsky, A. J., & Kinder, D. R. (2006). Making sense of issues through media frames: Understanding the Kosovo crisis. *Journal of Politics, 68*(3), 640-656. doi: 10.1111/j.1468-2508.2006.00451.x

Bredahl, L. (2001). Determinants of consumer attitudes and purchase intentions with regard to genetically modified food–results of a cross-national survey. *Journal of Consumer Policy, 24*(1), 23-61. doi: 10.1023/A:1010950406128

Brown, C. (2003). Consumers' preferences for locally produced food: A study in southeast Missouri. *American Journal of Alternative Agriculture, 18*(4), 213-224. doi:10.1079/AJAA200353

Chen, M. F. (2007). Consumer attitudes and purchase intentions in relation to organic foods in Taiwan: Moderating effects of food-related personality traits. *Food Quality & Preference, 18*(7), 1008-1021. doi:10.1016/j.foodqual.2007.04.004

Chong, D., & Druckman, J. N. (2007). Framing theory. *Annual Review of Political Science, 10*, 103-126.

Costanigro, M., Deselnicu, O., & McFadden, D. T. (2016). Product differentiation via corporate social responsibility: consumer priorities and the mediating role of food labels. *Agriculture and Human Values, 33*(3), 597-609. doi: 10.1007/s10460-015-9640-9

Costanigro, M., Kroll, S., Thilmany, D., & Bunning, M. (2014). Is it love for local/organic or hate for conventional? Asymmetric effects of information and taste on label preferences in an experimental auction. *Food Quality and Preference, 31*, 94-105. doi: 10.1016/j.foodqual.2013.08.008

Cranfield, J., Henson, S., & Blandon, J. (2012). The Effect of attitudinal and sociodermographic factors on the likelihood of buying locally produced food. *Agribusiness, 28*(2), 205 - 221. doi:10.1002/agr.21291

Davis, J. L., Le, B., Coy, A. E., Rickert, J., Regan, B., & Ridgeway, K. (2015). Commitment to the environment: The role of subjective norms in college and community samples. *Journal of Applied Social Psychology, 45*(10), 568-583. doi:10.1111/jasp.12320

Druckman, J. N. (2001). On the limits of framing effects: Who can frame? *Journal of Politics, 63*(4), 1041-1066. doi: 10.1111/0022-3816.00100

Entman, R. M. (1993). Framing: Toward clarification of a fractured paradigm. *Journal of Communication, 43*(3), 51-58. doi: 10.1111/j.1460-2466.1993.tb01304.x

Feldmann, C., & Hamm, U. (2014). Consumers' perceptions and preferences for local food: A review. *Food Quality and Preference, 40*(2015), 152-164. doi: 10.1016/j.foodqual.2014.09.014

Food Processing Center (2001). Attracting consumers with locally grown products. *Reports from the Food Processing Center, University of Nebraska-Lincoln Food Processing Center*. Retrieved from https://digitalcommons.unl.edu/fpcreports/3/

Freedman, D. A., Choi, S. K., Hurley, T., Anadu, E., & Hébert, J. R. (2013). A farmers' market at a federally qualified health center improves fruit and vegetable intake among low-income diabetics. *Preventive Medicine, 56*(5), 288-292. doi: 10.1016/j.ypmed.2013.01.018

Gamson, W. A., Croteau, D., Hoynes, W., & Sasson, T. (1992). Media images and the social construction of reality. *Annual Review of Sociology, 18*, 373-393. doi: 10.1146/annurev.so.18.080192.002105

Geise, S., & Baden, C. (2015). Putting the image back into the frame: Modeling the linkage between visual communication and frame-processing theory. *Communication Theory, 25*(1), 46-69. doi: 10.1111/comt.12048

Gerber, A. S., Gimpel, J. G., Green, D. P., & Shaw, D. R. (2011). How large and long-lasting are the persuasive effects of televised campaign ads? Results from a randomized field experiment. *American Political Science Review, 105*(1), 135-150. doi:10.1017/S000305541000047X

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Cambridge, MA: Harvard University Press.

Gorham, L. M., Rumble, J. N., & Holt, J. (2015). The impact of local: Exploring availability and location on food buying decisions. *Journal of Applied Communications, 99*(2), 30-44. doi: 10.4148/1051-0834.1046

Hinrichs, C. C., & Allen, P. (2008). Selective patronage and social justice: Local food consumer campaigns in historical context. *Journal of Agricultural and Environmental Ethics, 21*(4), 329-352. doi: 10.1007/s10806-008-9089-6

Hughes, D. W., & Boys, K. A. (2015). What we know and don't know about the economic development benefits of local food systems. *Choices: The Magazine of Food, Farm & Resource Issues, 30*(1), 1-6. Retrieved from http://www.choicesmagazine.org/choices-magazine/theme-articles/community-economics-of-local-foods/what-we-know-and-dont-know-about-the-economic-development-benefits-of-local-food-systems

Jeong, Y., & Lundy, L. K. (2015). Evaluating food labels and food messages: An experimental study of the impact of message format and product type on evaluations of magazine food advertisements. *Journal of Applied Communications, 99*(1), 52-67. doi: 10.4148/1051-0834.1040

Jilcott Pitts, S. B., Wu, Q., McGuirt, J. T., Crawford, T. W., Keyserling, T. C., & Ammerman, A. S. (2013). Associations between access to farmers' markets and supermarkets, shopping patterns, fruit and vegetable consumption and health indicators among women of reproductive age in eastern North Carolina, USA. *Public Health Nutrition, 16*(11), 1944-1952. doi:10.1017/S1368980013001389

Kezis, A., Gwebu, T., Peavey, S., & Cheng, H.-T. (1998). A study of consumers at a small farmers' market in Maine: Results from a 1995 survey. *Journal of Food Distribution Research, 29*, 91-99.

Lamine, C. (2015). Sustainability and resilience in agrifood systems: Reconnecting agriculture, food and the environment. *Sociologia Ruralis, 55(1)*, 41-61. doi:10.1111/soru.12061

Lapinski, M. K., & Rimal, R. N. (2005). An explication of social norms. *Communication Theory, 15*(2), 127-147. doi: 10.1111/j.1468-2885.2005.tb00329.x

Lester, P. (2006). *Syntactic theory of visual communication*. Retrieved from http://paulmartinlester.info/writings/viscomtheory.html

Lorenz, B. A., Hartmann, M., & Simons, J. (2015). Impacts from region-of-origin labeling on consumer product perception and purchasing intention – Causal relationships in a TPB based model. *Food Quality & Preference, 45*, 149-157. doi: 10.1016/j.foodqual.2015.06.002

Low, S. A., Adalja, A., Beaulieu, E., Key, N., Martinez, S., Melton, A.,…Jablonski, B. (2015). *Trends in US local and regional food systems: Report to Congress*. Retrieved from https://www.ers.usda.gov/publications/pub-details/?pubid=42807

Lyson, T. A., & Green, J. (1999). The agricultural marketscape: A framework for sustaining agriculture and Communities in the Northeast. *Journal of Sustainable Agriculture, 15*(2/3), 133-150. doi:10.1300/J064v15n02_12

Manning, M. (2009). The effects of subjective norms on behavior in the theory of planned behavior: A meta-analysis. *British journal of social psychology, 48*(4), 649-705. doi:10.1348/014466608X393136

Martinez, S. (2010). *Local food systems; concepts, impacts, and issues*. Collingdale, PA: Diane Publishing.

McCombs, M. E., & Shaw, D. L. (1993). The evolution of agenda-setting research: Twenty-five years in the marketplace of ideas. *Journal of Communication, 43*, 58-58. doi: 10.1111/j.1460-2466.1993.tb01262.x

McEachan, R., Taylor, N., Harrison, R., Lawton, R., Gardner, P., & Conner, M. (2016). Meta-analysis of the reasoned action approach (RAA) to understanding health behaviors. *Annals of Behavioral Medicine, 50*(4), 592-612. doi: 10.1007/s12160-016-9798-4

McEachan, R. R. C., Conner, M., Taylor, N. J., & Lawton, R. J. (2011). Prospective prediction of health-related behaviors with the theory of planned behavior: A meta-analysis. *Health Psychology Review*, *5*(2), 97-144. doi: 10.1080/17437199.2010.521684

McFadden, D. T. (2015). What do we mean by "local foods"? *Choices: The Magazine of Food, Farm & Resource Issues*, *30*(1), 1-6. Retrieved from http://www.choicesmagazine.org/choices-magazine/theme-articles/community-economics-of-local-foods/what-do-we-mean-by-local-foods

Nurse Rainbolt, G., Onozaka, Y., & McFadden, D. T. (2012). Consumer motivations and buying behavior: The case of the local food system movement. *Journal of Food Products Marketing, 18*(5), 385-396. doi:10.1080/10454446.2012.685031

Onozaka, Y., Nurse, G., & McFadden, D. T. (2010). Local food consumers: How motivations and perceptions translate to buying behavior. *Choices: The Magazine of Food, Farm & Resource Issues*, *25*(1), 7-12. Retrieved from http://www.choicesmagazine.org/magazine/article.php?article=109

O'Keefe, D. J. (2008). Elaboration likelihood model. *International Encyclopedia of Communication, 4*, 1475-1480. doi: 10.1002/9781405186407.wbiece011.pub2

Petty, R. E., & Cacioppo, J. T. (1986). *The elaboration likelihood model of persuasion*. New York: Springer.

Powell, T. E., Boomgaarden, H. G., De Swert, K., & de Vreese, C. H. (2015). A Clearer Picture: The contribution of visuals and text to framing effects. *Journal of Communication, 65*(6), 997-1017. doi:10.1111/jcom.12184

Progress Colorado. (2015 February 17). King Soopers: The difference local makes. *Progress Colorado 2016 Business and Economics Guide.*

Rikkonen, P., Kotro, J., Koistinen, L., Penttilä, K., & Kauriinoja, H. (2013). Opportunities for local food suppliers to use locality as a competitive advantage–a mixed survey methods

approach. *Acta Agriculturae Scandinavica, Section B–Soil & Plant Science*, *63*(1), 29-37. doi: 10.1080/09064710.2013.783620

Ruth, A., & Rumble, J. (2016). Branding the berries: Consumers' strawberry purchasing intent and their attitude toward Florida strawberries. *Journal of Applied Communications, 100*(2), 28-42. doi: 10.4148/1051-0834.1028

Scheufele, D. A. (2000). Agenda-setting, priming, and framing revisited: Another look at cognitive effects of political communication. *Mass Communication & Society, 3(2-3),* 297-316. doi: 10.1207/S15327825MCS0323_07

Scheufele, D. A. (1999). Framing as a theory of media effects. *Journal of Communication, 49*(1), 103-122. doi: 10.1111/j.1460-2466.1999.tb02784.x

Scheufele, D. A., & Tewksbury, D. (2007). Framing, agenda setting, and priming: The evolution of three media effects models. *Journal of Communication*, 57(1), 9-20. doi: 10.1111/j.0021-9916.2007.00326.x

Scheufele, D.A., & Tewksbury, D. (2009). News framing theory and research. In Bryant, J., & Oliver, M., (Eds.) *Media effects: Advances in theory and research* (pp. 17 - 33). New York & London: Routledge.

Schneider, M. L., & Francis, C. A. (2005). Marketing locally produced foods: Consumer and farmer opinions in Washington County, Nebraska. *Renewable Agriculture and Food Systems, 20*(04), 252-260. doi: 10.1079/RAF2005114

Schmider, E., Ziegler, M., Danay, E., Beyer, L., & Bühner, M. (2010). Is it really robust? *Methodology, 6*, 147-151. doi: 10.1027/1614-2241/a000016

Schuldt, J. P., & Roh, S. (2014). Media frames and cognitive accessibility: What do "global warming" and "climate change" evoke in partisan minds? *Environmental Communication, 8*(4), 529-548. doi: 10.1080/17524032.2014.909510

Shin, Y. H., Hancer, M., & Song, J. H. (2016). Self-congruity and the theory of planned behavior in the prediction of local food purchase. *Journal of International Food & Agribusiness Marketing, 28*(4), 330-345. doi: 10.1080/08974438.2016.1145612

Smith, R. D. (2012). *Strategic planning for public relations*. New York and London: Routledge.

Steptoe, A., Pollard, T. M., & Wardle, J. (1995). Development of a measure of the motives underlying the selection of food: the food choice questionnaire. *Appetite, 25*(3), 267-284. doi: 10.1006/appe.1995.0061

Suh, B. W., Eves, A., & Lumbers, M. (2015). Developing a model of organic food choice behavior. *Social Behavior and Personality: An International Journal, 43*(2), 217-230. doi: 10.2224/sbp.2015.43.2.217

Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal, 107*(11), 808-822. doi: 10.1108/00070700510629760

Toler, S., Briggeman, B. C., Lusk, J. L., & Adams, D. C. (2009). Fairness, farmers markets, and local production. *American Journal of Agricultural Economics, 91*(5), 1272-1278.

Triandis, H. C. (1971). *Attitude and attitude change*. New York, London, Sydney, Toronto: John Wiley & Sons, Inc.

Weaver, D. H. (2007). Thoughts on agenda setting, framing, and priming. *Journal of Communication, 57*(1), 142-147. doi: 10.1111/j.1460-2466.2006.00333.x

Wetherill, M. S., & Gray, K. A. (2015). Farmers' markets and the local food environment: Identifying perceived accessibility barriers for SNAP consumers receiving temporary

assistance for needy families (TANF) in an urban Oklahoma community. *Journal of Nutrition Education & Behavior, 47*(2), 127-133. doi:10.1016/jjneb.2014.12.008

Wimmer, R., & Dominick, J. (2013). *Mass media research*. Boston, MA: Cengage Learning.

Yazdanpanah, M., & Forouzani, M. (2015). Application of the theory of planned behavior to predict Iranian students' intention to purchase organic food. *Journal of Cleaner Production, 107*, 342-352. doi:10.1016/j.jclepro.2015.02.071

Zepeda, L., & Leviten-Reid, C. (2004). Consumers' views on local food. *Journal of Food Distribution Research, 35*(3), 1-6.

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