Article

Plant-based sausage at Cracker Barrel?! A cognitive linguistic analysis of the ecological impacts of Facebook comments

Sara Sowers-Wills*

Abstract

Online and in person, people who follow a vegan or vegetarian (VV) diet meet antagonism in society. While providing the benefit of real-time access to public opinion, social media platforms like Facebook are known to foreground antagonism, magnifying conflict already in place. When Cracker Barrel announced on its Facebook page that it would begin serving plant-based sausage, responses ranged from gratitude to rejection of the franchise. This paper conducts a cognitive linguistic analysis of these comments (n = 100) to better understand conflicting discourse around VV diets. Comments fell into two groups, (1) favoring and (2) disfavoring the move, and we examined 50 comments in each group. Aiming to identify conceptual knowledge underlying the comments, we connected salient words in the comments to concepts common to frames defining attitudes toward VV diets (e.g., HEALTH, CHOICE, AUTHENTICITY). Trends emerged distinguishing those who accept and those who reject Cracker Barrel's announcement. The results are discussed in terms of their ecological impact. This research contributes cognitive and ecological perspectives to the existing literature on vegan discourse, revealing conceptual motivations for harmful narratives and pointing to sources of conflict about plant-based dietary choices.

Keywords: cognitive linguistics; ecology; frames; conceptual blending; vegan; vegetarian; Facebook

1. Introduction

Language reflects a society's relationship with its environment. This is because the language its members use influences how they think, speak, and, thus, act. In this way, society is built on the stories its members construct, some which support and some which disturb its well-

^{*} University of Minnesota Duluth, USA. E-mail: sowe0034@d.umn.edu

being (Stibbe, 2021). More specifically, dinner table conversations, online exchanges, and public efforts for a quick laugh expose discord in the narratives people carry about vegan and vegetarian diets. Vegans and vegetarians, who generally share concerns about animal welfare and environmental turmoil, are often derided on other premises by omnivores, suggesting a fundamental misunderstanding. Because the meaning speakers construe impacts the environment in which we live (Halliday, 2001), this disconnection between language use and ecological issues warrants examination (Zhou, 2021, p. 464).

In 2022, the American chain restaurant Cracker Barrel announced on its Facebook page that it would add Impossible sausage, a plant-based product, to its menu: "Discover new meat frontiers. Experience the out of this world flavor of ImpossibleTM Sausage Made From Plants next time you Build Your Own Breakfast" (Cracker Barrel Old Country Store, 2022). Cracker Barrel, known for its Southern-themed cuisine and gift shop, draws a loyal customer base. Popular menu items include fried chicken and steak, meatloaf, and homestyle breakfast items, like pancakes, bacon, and hashbrowns. While the announcement thrusts its energy into positively connotative imperative verbs (i.e., "discover", "experience", "build"), many opposing the item were outraged. Business Insider (Konstantinides, 2022) reported that some commenters had accused Cracker Barrel of "going woke" by offering plant-based sausage. Sharply oppositional responses to Cracker Barrel's announcement, highlighted in the media, prompted us to analyze the language used to see what it could reveal about underlying knowledge and assumptions about plant-based choices. Ideally, this would allow us to identify the source of an apparent gap in understanding.

In response to concerns about environmental sustainability, personal health, and animal welfare, plant-based alternatives to meat have become more widely available and more visible in American society. Antagonism, nevertheless, dominates attitudes about vegan and vegetarian choices. This paper examines the nature of these attitudes with the goal of identifying points of conflict in the societal narrative to facilitate a more ecologically advantageous understanding of divergent dietary choices. A cognitive linguistic framework (Fillmore, 2006; Kövecses, 2006; Langacker, 1987) is employed to identify conceptual structure in the Facebook comments, and the results are discussed in terms of their impact on the natural world, pointing to ways in which stories about the way we eat can be reframed.

An incongruence exists between the language people use to talk about food choice and the relationship of that food with the environment from which it is derived. The proportion of comments carrying disfavor in the present study is low relative to favorable comments. Nevertheless, it is the outraged comments that received attention among Cracker Barrel devotees, Facebook users, and the media. The extremity of these reactions calls for analysis. Both society and the environment are impacted by the attitudes and actions of its people regarding food choices. The narratives we present shape our lives. Indeed, some of the stories people tell are damaging to society and to the environment (Stibbe, 2021). Identifying how these stories divide people can reveal the parts of the stories

with potential for mutual understanding.

The paper is structured as follows: Section 2 presents a review of the literature relevant to this study, including vegan and vegetarian studies, Facebook discourse, and conceptual structures. Section 3 details the methodology undertaken to identify trends among the Facebook comments analyzed, while Section 4 displays the trends observed. Finally, Section 5 presents a discussion of the results in terms of their ecological impact.

2. Literature review

2.1. Vegans and vegetarians in American society

People who choose to follow a plant-based diet do so for different reasons. Vegetarians exclude meat, and vegans exclude meat, dairy, and eggs from their diets. Motivation for either of these diets lay in any combination of concerns about animal welfare, the environment, and personal health. A growing number of alpha-gal cases caused by tick bites have pushed numerous people into vegetarianism, but society generally accepts this as a legitimate reason not to eat meat. Vegetarian and vegan (VV) choices, on the other hand, incite strong responses among many meat-eaters, which suggests a deeper societal issue that is reflected in everyday discourse. The extremity of the antagonism, though, is imbalanced. Among the United States' population, VV are few. A 2023 Gallup poll (Jones, 2023) lists vegetarians at four percent of the United States' population and vegans at one percent, yet their choices draw hostility and derision from many meat-eaters.

Research on language concerning vegans identifies their negative representation in both public and private communication. While some researchers have been interested in online exchanges between VV and meat-eaters (Sneijder & te Molder, 2005), others have focused on vegans' reports about their experience among meat-eaters (Buttny & Kinefuchi, 2020). In their discourse analysis of vegans discussing conflict with meat-eaters, Buttny and Kinefuchi (2020, p. 567) list instances in which VV are portrayed as odd or abnormal, which "help[s] to shape a cultural context for omnivores to treat veganism as odd or obsessive and thereby protect mainstream meat-eating practices from ethical criticism". A European study of responses to meat-alternative consumers identifies aggression and contempt among attitudes of meat-eaters toward VV (Malila et al., 2025). Cole and Morgan (2011), furthermore, examined derogatory discourse about vegans in UK newspapers, characterizing "vegaphobia", wherein veganism is persistently misrepresented in a negative light and proliferates damaging relations between human and non-human animals. Language use carries with it attitudes bound up with its conceptual structure.

The literature collectively identifies the fact of omnivore antagonism toward VV, a sentiment displayed in the Facebook responses to Cracker Barrel's announcement. Because this response is unproductive for societal engagement and for the environment, there is a need to understand its multiple facets. While prior studies address media representation and interpersonal interaction, the concepts and attitudes underlying language used to

communicate about VV topics remain underexamined. The frame analysis presented in the present study categorizes the conceptual structures evoked by words used to comment on plant-based dietary choices. This approach aims to locate implicit sources of conflict and misunderstanding present in the problematic discourse.

2.2. Facebook comments

Discourse is experienced in a range of modalities. Online discourse presents challenges in clarity, given its inherent lack of non-verbal expressive cues that facilitate in-person discourse. Social media platforms, like Facebook, introduce an accumulative challenge due to the draw for reactive responses that can become decontextualized.

Prior research on Facebook discourse points to high levels of intensity and access to unfiltered opinion. In their paper analyzing responses to news articles about plant-based protein, Phillipov et al. (2025) discuss social media as real-time access to responses to ongoing issues. As such, social media comments are a valuable resource, serving as a window into cultural and social contexts already in place. A similar study found that these contexts contribute to heightened hostility in the social media space (Humprecht et al., 2020). Similarly, upon observation of polarization often present on Facebook, a research group in Australia found clear lines dividing divergent groups in their analysis of comments responding to a prominent post about childhood vaccination (Faasse et al., 2016). In further exploration of social media hostility, a sentiment analysis by Pudaruth et al. (2018) revealed that, out of 626 comments examined, 62% were found to contain negative sentiments. In this discourse environment, sentiment is intensified, which can result in a chasm between differing opinions.

Taken together, Facebook comments serve as valuable data for understanding current public opinion, particularly where there is rift. From the data in the present study, we gain access to informative public discourse about plant-based food, with a sharp view of concentrated opposition in contrast with an otherwise positive response to the new option for plant-based sausage. Examining the conceptual structure of the Facebook comments leads us to more deeply understand the source of contrast.

2.3. Conceptual structures

Conceptual structures of knowledge are activated by words used in discourse (Lakoff, 2010). A speaker deploys conceptual structures, or frames, in communication, and the words used evoke a frame's related elements. As an example, Fillmore and Atkins (1992) discuss a COMMERCIAL TRANSACTION frame in detail, which is built upon a buyer, seller, goods, and money, relying on a set of verbs that include "buy", "sell", "spend", "pay", and "cost". In the same paper, Fillmore and Atkins (1992, pp. 79–80) devote attention to a RISK frame, which involves "the possibility of an unwelcome outcome" in a future that is uncertain; a set of words that forms this frame includes "risk", "danger", and "hazard",

with additional words in the more expansive semantic space, including "venturesome", "risky", and "investment". These related details form a conceptual structure represented in the cognitive space. Analyses of frames (Fillmore, 2006), also domains or schemas, illuminate the structure of conceptual knowledge as a dynamically structured product of culture (Kövecses, 2006).

Indeed, a frame embodies a set of values grounded in cultural experience. Defined in this way, Lakoff (1995) has productively used frames to understand differences between conservative and liberal approaches to governance. He argues that conservatives and liberals in the United States draw from fundamentally different metaphors, mapping across frames, rooted in family structure. Specifically, conservatives draw from a "strict father" frame that supports its people by imposing rules and exerting punishment for flouting those rules; in contrast, liberals draw from a "nurturant parent" frame, wherein obedience results from love and respect rather than from fear. The logic of these two approaches, carved out at a conceptual level, surfaces in words that sit on opposite sides of a cavernous divide. This prevents mutual understanding. The rhetorical theorist Kenneth Burke (1969) identifies a process of identification with discursive communities based on a set of values. Such alignment serves to cement division at a cognitive level.

Nevertheless, identifying the conceptual structure underlying divergent discourse also reveals opportunities for reframing. Congruous with the present issue, the conceptual structure underlying the language speakers use can reveal much. Speakers readily use conceptual metaphor to talk about everyday things (Lakoff & Johnson, 1980, 2008), mapping elements from one frame with elements from another frame. Stibbe (2001) discusses the metaphor "pigs are machines" to justify the persistence of factory farming, which is known to be damaging to the animals, the environment, and human health. If people think of pigs as mere industrial tools to produce meat for food, then it is not necessary to consider their well-being, and their use to churn out product may continue. If, however, pigs are viewed as living beings, then society must reconsider. Reframing the story such that pigs are not machines but rather living creatures, justification for factory farming loses its footing.

In a paper examining frames in discourse on vegan parenting, Phillips (2019, p. 164) presents an argument for identifying "blind spots" produced by frames as a way to reframe. For example, a VEGAN MALNOURISHMENT frame is frequently evoked in public discourse on vegan parenting to subvert arguments considering the benefits of the diet. Phillips discusses the way rhetorical strategies lead people to dismiss relevant details outside a frame. By identifying blind spots in the discourse, the way an issue is framed can be shifted. In fact, Lakoff (2014) argues that this is necessary for reframing an issue so that language can be employed to shift perspective rather than to reinforce disadvantageous frames by using the words that evoke them.

Complicating the issue, beyond individual frames and metaphor (i.e., the mapping across frames), the simultaneous use of multiple frames in novel ways results in conceptual blends. Considering a frame as a kind of category, Barsalou (1983) has argued that

categories are constructed ad-hoc on-line, gradient in their structure and less wellestablished in memory. For example, "ways to make friends" can be an impromptu category (Barsalou, 1983, p. 215), whose members (e.g., join a club, go to school) differ based on one's goals and living situation. The elements that comprise the frame are contingent on agreement among speakers, based on what details are salient. This understanding of meaning construction as dynamic and continuous can make sense of connections people make, which may be unconventional. These kinds of connections are found in the sharply divisive discourse found in social media exchanges.

Reframing the vegetarian and vegan choices in society is essential. The way that society frames its conception of food, where its food comes from, and its attitudes toward the choices people make about food and the environment is crucial for ecological health, particularly at a time of social division and environmental crisis. Prior research on vegan discourse addresses media and interactional exchanges. The present study directs focus to the conceptual structure activated by the words used in Facebook comments. Peeling back the surface layer of language use in this way adds depth to our understanding of the persistent divisiveness in this and of its impact on human-non-human animal relations and the environmental consequences of eating animals.

3. Methods

We examine a selection of comments posted on Facebook in response to the Cracker Barrel company's announcement that it would begin offering plant-based sausage as an additional menu item, with the goal of identifying the conceptual structures underlying the comments.

3.1. Data collection

Over 6,000 comments were posted in response to Cracker Barrel's announcement on its Facebook page. A selection of comments was collected, coded, and analyzed. We began at the top of the comments list, with the most recent and worked backward (i.e., down the list) until we had collected 50 comments in favor of the addition of the menu item and 50 comments opposed to it. This number was set after an initial exploratory examination of comments. Beyond this point, the content of the comments became repetitive. Since the purpose of this study is to examine the conceptual content, irrespective of a quantitative analysis, this process was deemed sufficient.

Each comment was considered for inclusion or exclusion. Comments were excluded if the presence of sarcasm was unclear, making it difficult to determine if the intent was to praise or oppose the new menu item; most comments were easily categorized as favorable or unfavorable to the new menu item. Additionally, comments were excluded if the meaning expressed was unclear. Comments with the sole purpose of insulting previous commenters, without implicit commentary on the announcement or the product, were also

excluded. In cases where a comment criticized previous commenters but also expressed an opinion about Impossible sausage, the comment was included in the analysis. In some cases, this required the researcher's discretion.

Once ineligible comments were excluded, the comments were collected into a spreadsheet, with favorable comments in one sheet (FAVORABLE) and opposing comments in a separate sheet (UNFAVORABLE). Some commenters opposing the addition of plant-based sausage indicated that they were rejecting the restaurant altogether because of this announcement, while others expressed oppositional opinions about the product itself. Comments in both categories were included in the UNFAVORABLE set.

Once the comments were selected and organized into the two categories, FAVORABLE and UNFAVORABLE, their content was examined and coded.

3.2. Data coding

3.2.1. Frames

We examined the language in each Facebook comment to identify frames evoked by the words used, referencing domains of experience (Lakoff & Johnson, 1980), including bodily experiences, interaction with the physical environment, and sociocultural interaction. Locating frame-based meaning as grounded in word choice (Fillmore & Atkins, 1992), we identified key words in the Facebook comments and categorized responses by the domains of experience they suggest.

A first pass identified frames we judged the language to elicit. Examining comments in both the FAVORABLE and UNFAVORABLE categories, we adjusted the frame identifiers to be consistent across the two groups. Subsequent passes confirmed the frames identified for each comment as a check for accuracy after the initial revisions, with attention to phrasing that required interpretation. An independent rater provided additional assessment as a check on interpretation and consistency; disagreement was resolved by discussion.

Each frame identified connects with the contexts linked with the words in the comments, conceived as the primary concern of the commenters when responding. To clarify the coding process further, some of the resulting frames are described here in the methodological description; each frame is characterized more explicitly in Section 4 (Results).

The AUTHENTICITY frame was assigned to comments suggesting either authentic or inauthentic experience; this primarily addresses whether the food item itself was perceived to be "real" but also references the genuineness of the restaurant and its supposed values. In either case, commenters approached Cracker Barrel's announcement with concern about authenticity. Specific words that led to a coding of AUTHENTICITY include "look like", "fake meat", "synthetic junk food", "real sausage", "pretending it to be meat", and "manufactured", among others. Some comments did not use these words explicitly, but

rather used phrasing that suggests concern about authenticity: "plant based meat crap" or "If I wanted vegetables, I would order the green beans". These comments suggest that the product is not real: if one received it as "sausage", one would be deceived. Other comments similarly suggest that a member of one category cannot be part of another, in terms of cuisine type: "I don't go to Indian food restaurants because I don't like Indian food. And if I wanted Indian food that was made to look and taste like Mexican food, I still wouldn't go." Similarly, another commenter wrote, "If I wanted a salad... I would in fact order a salad". Comments like these point to the idea that meat is meat and a vegetable should not conflate categories and pose as meat.

The HEALTH and DIET frames were coded separately because some VV follow a regimen that excludes meat, eggs, and dairy (DIET), but not necessarily with the goal of enhancing physical well-being, although these frames overlap in some cases. In the same way, meat-eaters may keep a diet that includes meat (DIET), without consideration of good health (HEALTH). Scrutiny, necessarily guided by some subjectivity, sought to disentangle the complex of concepts underlying each comment in this way. Phrasings that led to a code of DIET include "due to a health diet", "I only get to eat one meal a day and eggs don't cut it for the amount of protein you need", and "don't want to eat meat". Comments coded as HEALTH included phrasings like "rare protein allergy that makes animal meats off limits", "need plant-based diets", and "alpha-gal".

Many comments evoked multiple frames and were cross-categorized. For example, for some people, the addition of plant-based sausage is an issue of physical well-being (HEALTH); for others, it is an issue of whether the product is real (AUTHENTICITY). Others yet noted Cracker Barrel's upkeep with current trends (CURRENCY). A comment in which the addition of the item was praised for health-based purposes was assigned both frames: HEALTH and PRAISE.

In another example of cross-categorization, the following comment was coded as both CHOICE and CULTURE WAR: "It's amazing the snowflakes here getting triggered by a meat alternative showing up on a menu." The CULTURE WAR frame references comments including words like "snowflake", "triggered", and "woke", terms relating to social justice issues (e.g., Critical Race Theory, transgender, LGBTQ), and words positioning social identity in an oppositional way. A domain of CHOICE is evoked throughout the data by words like "option" and "alternative", considering the menu addition to simply add choice, without interfering with the identity or authenticity of the restaurant.

3.2.2. Conceptual blends

Conceptual blending theory contributes to the analysis of comments coded as frames whose anchoring words less directly connect to vegan/vegetarian choices. The theory employs frames in a model of meaning construction, in that speakers blend elements from separate frames into a combined space (Coulson, 2006). In this process, multiple frames are activated and integrated in language use. For example, Fauconnier and Turner (2003,

p. 67) depict a blend representing the noun-noun compound "land yacht", in reference to a luxurious automobile; their model is adapted in Figure 1.

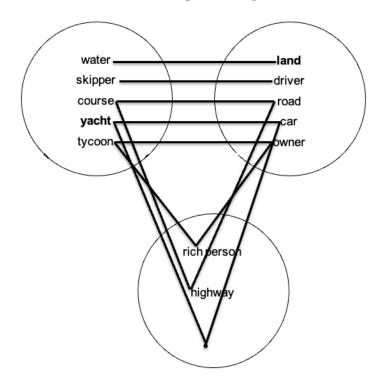


Figure 1: Conceptual blend for "land yacht"

The meaning of the compound draws from two domains, involving having a car on land and having a yacht on water. The blend results from a speaker mapping and mixing corresponding elements across the two domains (i.e., water / land, skipper / driver, course / road, yacht / car, tycoon / owner). By way of pulling correspondent elements from separate frames into a joint space, a conceptual blend emerges. Coulson (2006, p. 204) makes an important observation about the construction and use of a blend: "the inputs ... are being exploited not only for their inferential possibilities, but also for their sociocultural significance". The "land yacht" blend is likely restricted to speakers in whose culture it is relevant, emerging from immersion in a sociocultural space.

This approach to meaning construction illuminates the unexpected connections made by Facebook commenters. Conceptual blending leads us to more clearly recognize the frames from which comments are drawn so that we can identify points of conflict and misunderstanding about Cracker Barrel's decision to offer a plant-based protein product.

3.2.3. Umbrella categories

After frames were coded for each of the 100 total comments, preferred frames were identified for each of the FAVORABLE and UNFAVORABLE groups. This allowed us to identify and combine related frames into umbrella categories. For example, the HEALTH and DIET frames can be categorized as part of a physical domain; US/THEM and CULTURE

WAR can be captured as part of a social domain; and CHOICE and AUTHENTICITY form a philosophical domain. The purpose for this higher-level categorization is to locate the nature of the issue of plant-based food choice among commenters, particularly in view of conflict.

4. Results

Identifying the conceptual structures underlying the Facebook comments provides insight into the associations people hold, and stories they propagate, about vegans, vegetarians, and plant-based food. Many of the comments are complex in their expression, requiring consideration along multiple linguistic parameters. The resulting frame codes appear in Table 1.

Table 1: Frames identified among Facebook comments (most frequent in bold)			
	ANIMAL WELFARE	HEALTH	
	AUTHENTICITY	LOVALTV	

ANIMAL WELFARE	HEALTH
AUTHENTICITY	LOYALTY
CHOICE	MARKET
COMPETITION	PERSONAL RELATIONS
CONTROL	POSSESSION
COST	PRAISE
CULTURE WAR	PROTEST
CURRENCY	QUALITY
DIET	REGRET
ENVIRONMENT	RESPECT
ETHICS	SLIPPERY SLOPE
EVIDENCE	TASTE
GRATITUDE	TRADITION
GREED	US/THEM

Table 2 presents each of the frames identified, listed alphabetically and organized by FAVORABLE and UNFAVORABLE groups, with the number of comments associated with each. Frames used most frequently for each of the two groups are in bold. For clarity, "most frequent" does not have associated with it an independent number or percentage, but, rather, the frames that accrued the highest count among the selected comments qualified.

For those who favor the addition of the plant-based sausage (FAVORABLE), the most prominent frames include CHOICE, DIET, and HEALTH; for those in opposition to it (UNFAVORABLE), AUTHENTICITY, US/THEM, CULTURE WAR, and HEALTH are the most prominent. A discussion of prevalent frames (Section 4.1), representative comments (Section 4.2), conceptual structures for prevalent frames (Section 4.3), and relevant conceptual blends (Section 4.4) follows.

Table 2: Frame distribution in favorable and unfavorable groups

Frame	Favorable	Unfavorable
ANIMAL WELFARE	4	4
AUTHENTICITY	2	29
CHOICE	38	1
COMPETITION	0	2
CONTROL	0	2
COST	0	1
CULTURE WAR	5	9
CURRENCY	4	0
DIET	18	1
ENVIRONMENT	2	3
ETHICS	2	0
EVIDENCE	1	0
GRATITUDE	6	0
GREED	0	3
HEALTH	14	8
LOYALTY	3	3
MARKET	4	6
PERSONAL RELATIONS	3	0
POSSESSION	0	1
PRAISE	7	0
PROTEST	0	2
QUALITY	0	3
REGRET	0	1
RESPECT	0	1
SLIPPERY SLOPE	0	2
TASTE	8	4
TRADITION	1	6
US/THEM	1	12

4.1. Frames frequently evoked in comments

The distribution of the most frequently evoked frames in each of the FAVORABLE and UNFAVORABLE groups is presented in Table 3. For the FAVORABLE group, only three frames were evoked in the double-digits across the 50 comments: CHOICE (38), DIET (18), and HEALTH (14). For the UNFAVORABLE group, only two frames occurred in double-digits: AUTHENTICITY (29) and US/THEM (11).

The FAVORABLE group most frequently evoked CHOICE (38/50 comments). DIET was the next most frequent (18), followed by HEALTH (14). While issues of bodily wellness were cited among this group, it is the opportunity to choose that drove many comments.

The UNFAVORABLE group most frequently evoked AUTHENTICITY (29), which

suggests concern about whether one is being deceived by something that is not real or genuine. The next most frequently evoked frame is US/THEM (12), pointing to firm category boundaries between group identities. The next two "most frequent" frames are not very frequent but are noted here for their contribution of content.

1		
Frame	Favorable	Unfavorable
HEALTH	14	8
DIET	18	1
CHOICE	38	1
AUTHENTICITY	2	29
US/THEM	1	12
CULTURE WAR	5	9

Table 3: Most frequent frames associated with favorable and unfavorable commenters

The CULTURE WAR frame (9) warrants discussion because it defines the comments that (a) received the most media attention and (b) evoke meaning that does not clearly relate to the issue, namely, plant-based protein. This topic will be addressed in more detail in Section 4.3.

The HEALTH frame (8) is also highlighted here because it is the only frame of any frequency shared by the FAVORABLE and UNFAVORABLE groups. Comments from both groups suggest that commenters from the two groups are working from different sets of health information. Nevertheless, both groups indicate concern with the impact of food intake on the body. For example, FAVORABLE group comments suggest that meat-eaters could turn to vegan protein to "cut back on all those pill bottles", point to "issues with fatty foods", and express concern about protein intake. Among the UNFAVORABLE group, plant-based protein is described as "synthetic junk food", with sodium content "through the roof", and one person tallies that while Impossible sausage is made from 50 ingredients, "natural humanely raised beef" has one ingredient, advancing the accusation of plant-based meat being "synthetic junk food".

While choice is generally valued by those in favor of the addition of plant-based protein to Cracker Barrel's menu, authenticity is prized by those who disfavor it, ranging from simply not wanting to eat it or rejecting the franchise for leaving its purported roots.

4.2. Selected comments characterizing prevalent frames

Representative comments for the most frequently occurring frames are displayed in Tables 4–9. Up to five comments, where available, were selected from the top of the list in order, skipping comments only in the case of lengthy verbiage that buries the frame being highlighted. Additionally, when possible, a comment that appears in another table was skipped to present a broader array of comments overall. Where comments evoke multiple frames, words relevant to the frame being highlighted are set in bold.

Table 4: Comments associated with the HEALTH frame

Favorable	Unfavorable
Cracker Barrel Old Country Store we're an	No thanks. Impossible sausage may look and
RV'ing family of 4 who has stayed in your	taste somewhat like meat, but it's synthetic
parking lots many times. (We are so grateful	junk food from a factory, containing only
for your hospitality). We're also vegetarians,	highly processed ingredients, and no actual
and in fact, my son has a rare protein	normal food in it. People can eat what they
allergy that makes animal meats off limits.	want, but the notion that this ultra-processed
I appreciate beyond words this option. Thank	imitation meat product is good for your
you!	health, for animal welfare, and / or for the
, , , , , , , , , , , , , , , , , , , ,	environment is a sham. I'll stick to real food.
Awesome!!! I love Cracker Barrel I'm a retired	& I bet the sodium content is thru the roof!!!
US ARMY AIRBORNE INFANTRY	Better to eat the regular.
SOLDIER!! Shortly after retirement I had	Detter to cut the regular.
some medical issues the doctor told me to	
stay off of meat Thank you for the new	
option.	
Simple changes will help cut back on all	All natural humanely raised beef, 1 ingredient.
those pill bottles you Boomers have taking	Impossible burger 50. Go ahead and tell
up the whole bathroom sink area.	yourself it's healthier. I don't care what
	people eat really. I'll stick to normal food and
	eat less of the bad rather than put
	manufactured things into my body.
Stay the course with what's right for human	Can you imagine how much processing and
health, animal lives, the environment, the	deadly chemicals are needed to make plants
climate. The hatefulness on this post	taste like sausage???? As if we didn't have
represents a tiny percentage of human society.	enough processed food and the diseases
	which are the result of that food now they
	want to turn plants into meat and try to fool
	us into thinking its healthy!! They think
	we're stupid!! Listen as I said If I want plants
	I will have a salad and if I want a good old
	fashioned country meal I will NOT go to
	Cracker Barrel!!!!!!!!!!!
Loves delicious. We love the veggies burgers.	Fake meat full of chemicals and fillers is
Some are better than others. We have never	better for you then actual meat?? Man,
tried the sausage, but it looks really good. Had	some people are delusional and easily
a friend that used to make pea sausage.	manipulated.
Delicious. Enjoy your breakfast and don't	•
even think about what someone else might	
think. Your health is more important than	

 Table 5: Comments associated with the DIET frame

Favorable	Unfavorable
That's great for those of us shifting to plant	I'm not a rabbit. I love meat!! Lettuce is as far
based diets!	as I'll go.

Plant based is the future! everyone stop eating	
carcass and eat plants.	
I don't get why this bothers people so much!	
If you don't want, don't get it. That simple!! I	
know plenty of people that need plant	
based diets. Its an OPTION, therefore OPT	
to get something else	
I'm a meat loving meaty meat meat eater	
and very confused as to how this impacts me	
in any way whatsoever why should I be	
upset if my vegetarian/vegan/plant-	
based food eating friends have an option	
on the menu? Someone please explain why	
more options is a bad thing. Use small words.	
I can't tell you how nice it is, to have these	
protein filled options.	

Table 6: Comments associated with the CHOICE frame

Favorable	Unfavorable
It's amazing the snowflakes here getting	May be for some folks, but not me. I like old
triggered by a meat alternative showing up	fashioned sausage with my breakfast. If some
on a menu. Y'all can still order regular meat,	customers want this and willing to paid
you know that right? Some of y'all need to	for it, then more power to them; but give
grow a backbone immediately.	me real sausage and bacon.
I also hate the idea of a menu having	
options that I specifically don't want to eat!	
Restaurants should limit their options to	
exactly my specifications and nothing more!	
How dare they cater to anybody other than	
myself!	
Awesome!!! I love Cracker Barrel I'm a retired	
US ARMY AIRBORNE INFANTRY	
SOLDIER!! Shortly after retirement I had	
some medical issues the doctor told me to	
stay off of meat Thank you for the new	
option.	
Great addition to the menu , as it shows CB	
is listening to the audience that's asking for it.	
It shouldn't bother anyone because they	
never said they were replacing the real	
meat sausage. Not reading so into it is key.	
Lol. If it's of any consolation, the hashbrown	
casserole is still live and in effect with that	
heavy cream and chicken stock! Don't worry,	
this isn't that serious.	
For those who want plant based	
meatwelcome to Cracker Barrel. For	

those who prefer the traditional meat	
choiceswelcome to Cracker Barrel. It's	
really that simple. If you really need	
something to complain about, CB puts a	
Popsicle in a glass of bubbly and calls it a	
Mimosa. Now that's atrocious!	

Table 7: Comments associated with the AUTHENTICITY frame

Favorable	Unfavorable
As long as you keep real meat and real food	I don't go to Indian food restaurants because
on the menu too You dance with who	I don't like Indian food. And if I wanted
brung ya.	Indian food that was made to look and taste
	like Mexican food, I still wouldn't go. I'd go
	to a Mexican restaurant. This is getting
	BEYOND silly. If you don't like meat, go to
	Panera.
May be for some folks, but not me. I like old	What I don't understand is people being
fashioned sausage with my breakfast. If some	vegan and vegetarian and then wanting to
customers want this and willing to paid for it,	eat food that looks like meat.
then more power to them; but give me real	
sausage and bacon.	
	If I wanted a salad I would in fact order a
	salad stop with the plant based "meat"
	crap.
	I can't believe Cracker Barrel has bought into
	this 'fake meat' junk!
	But do they have any meat based vegetable
	substitutes! I love carrot shaped pork sticks.

Table 8: Comments associated with the US/THEM frame

Favorable	Unfavorable
Simple changes will help cut back on all those	Disgusting. What happened to serving high
pill bottles you Boomers have taking up the	quality old-fashioned food? How many
whole bathroom sink area.	vegans do you think would darken your
	doorstep, anyway?
	Never understand how vegans spend their
	life trying to recreate meat based products
	"I don't like meat but I'll eat fake meat
	that's made from a plant."
	1- they ain't old; 2- sausage comes from a pig,
	hog or swine; I respect your right for a
	salad for breakfast but hands off my pig.
	I just want to know why all these companies
	feel that they have to follow the leader on all
	of this crap. Cracker Barrel is a great
	company and they got great Without Woke
	Meat. Get the message most people don't

want this crap. You are only appealing to
a small percentage of people. I still love
Cracker Barrel but please stick to your roots.
The Venn diagram of people who eat at
Cracker Barrel and people who eat
Impossible meat are two separate circles.

Table 9: Comments associated with the CULTURE WAR frame

Favorable	Unfavorable
It's amazing the snowflakes here getting	Send them back to Gates. We don't eat in an
triggered by a meat alternative showing up	old country store for woke burgers.
on a menu. Y'all can still order regular meat,	
you know that right? Some of y'all need to	
grow a backbone immediately.	
Imagine being so triggered by a restaurant	Check the menu for Critical Race Theory!
offering an option for those who can't or	
don't want to eat meat.	
Love the temper tantrums from all the	They are trying to get all of us to eat plant
snowflakes who can't believe that there's an	based food they think cows are polluting
option besides dead pig.	the world liberalism is truly a disease.
We've come a long way since the tough	Oh Noes the Cracker Barrel has gone
cowboy and Rosie the Riveter. Now it's a	WOKE!!! It really is the end times
bunch of fragile snowflakes who are	
wigging out because their favorite restaurant	
is serving something they will personally	
never try. Clutch them pearls!!!	
Why is everyone so triggered? I'm	Once you go woke, you go broke.
vegetarian and I really liked having a meat	
substitute option on the menu. It tasted great	
too!	

4.3. Broader domains in play

Once we determined the most frequently occurring frames for both major groups of commenters, we observed that frames of HEALTH and DIET concern, broadly speaking, the PHYSICAL domain, while CHOICE and AUTHENTICITY concern a PHILOSOPHICAL domain. The frames US/THEM and CULTURE WAR are situated within SOCIAL dynamics. Notably, this larger SOCIAL domain motivated comments that came primarily from those UNFAVORABLE to plant-based sausage. The distribution of comments among these broader domains of experience appears in Table 10.

The majority of the FAVORABLE comments have philosophical and physical motivation, while UNFAVORABLE comments have philosophical and social motivation (Table 10). Again, this paper does not intend to provide a quantitative analysis; not all comments posted could be accessed. As such, the percentages reflect the proportion of comments among the 50 comments analyzed for each of the two groups to offer

perspective based on the selection analyzed. The percentages do not equal 100% because comments were coded with as many frame identifiers as were applicable.

	8	
	Favorable	Unfavorable
PHYSICAL	32 (64%)	9 (18%)
SOCIAL	6 (12%)	21 (42%)
PHILOSOPHICAL	40 (80%)	30 (60%)

Table 10: Distribution of comments among the broad domains

5. Discussion

Society develops narratives about issues out of their social, cultural, and philosophical grounding, whether it is abortion or politics or plant-based diets, and an ecolinguistic perspective can support an understanding of both the roots and effects of conflicting premises. The present examination of conceptual structure points to the ideological problem of anthropocentrism (Zhou, 2021), in that one story society tells is that animals are ours to eat, without reservation, and to do otherwise is worthy of disdain and mockery. This narrative contributes to an already ailing environment and to the physical health of people.

5.1. A conceptual blend: "CULTURE WAR"

Close examination of elements associated with the most prevalent frames (i.e., CHOICE, HEALTH, DIET, US/THEM, and AUTHENTICITY) evoked by the Facebook comments (Figure 2) highlights the building blocks of these destructive stories. The elements in each frame represent a shared understanding of their terms across speakers. For example, DIET evokes knowledge of different kinds of foods and nutrients, habitually consumed, and also evokes different kinds of diets specific to certain goals that people may have (e.g., vegetarian, low-carbohydrate). The purpose in visualizing these frames is to (1) depict the kinds of information evoked by a certain term and (2) demonstrate conceptual blending by compressing information mapped across frames. While the cultural and political semantics of "culture war" calls for analysis beyond the scope of this paper, the discussion here examines the conceptual structure underlying "culture war" for its role in the present categorization of attitudes concerning vegan and vegetarian choices.

A conceptual blend for the term "culture war" (Figure 3), modeled on a figure in Fauconnier and Turner (2003, p. 67) for a conceptual blend of the noun-noun compound "land yacht", demonstrates how frames can interact in the creation of novel meaning. Each frame is simplified to highlight salient points. The formation of the noun-noun compound "culture war" requires correspondence mapping across the domains of CULTURE and WAR to a blended space in which elements from both domains compress into a new concept. This compound places identity into a context of conflict and power struggle. Culture entails

beliefs, practices, and knowledge of a single group or community, while war requires distinct groups in conflict, typically armed. This term references people living within a society that has broken into conflicting ideologies. In this way, blending theory aptly captures "the joint influence of input domains and the origin of emergent inference" (Coulson, 2006, p. 192). The generality of the terms leaves doors open to novel extension.

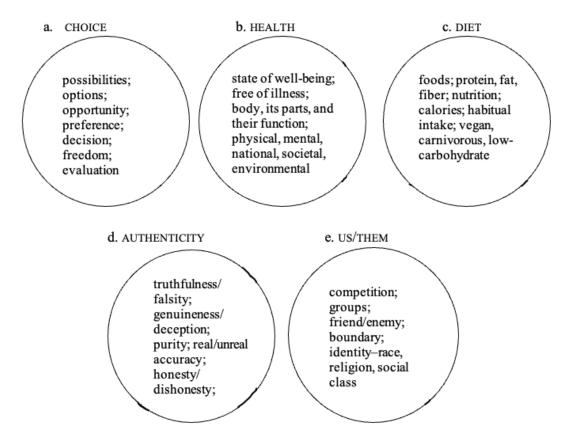


Figure 2: Frame structure for most frequent frames

The meaning of "culture war" may seem evident. Analyzing it as a conceptual blend, however, structures the way the elements of each domain are employed, referencing details salient in each category (Barsalou, 1983) when the spaces blend. Why is culture war evoked in context with plant-based protein? Speakers may find it easier to establish firm boundaries between social groups, and remove the issue from its domain(s) of origin (i.e., DIET, HEALTH, ANIMAL WELFARE, ENVIRONMENT), than to confront one's own decisions about choosing to eat animals in view of troubling facts about factory farms, health maladies, and environmental strain. Placing the issue within a social domain enables an "us/them" scenario, creating distance between the speaker and the issue. Indeed, in the data, those opposed to plant-based sausage exert stringently-bound categories in terms of social values. Rather than unifying on human grounds, distinct groups strengthen separately, in conflict.

Grounded lexically, vocabulary evoking culture wars appears in the Facebook comments. "Snowflake" appears three times to reference someone with a fragile ego. The idea of someone being "triggered", or having an intense emotional reaction, by something

is also a word grounded in culture war discourse. "Triggered" is additionally used three times in the data. All uses of "snowflake" and "triggered" appear in the FAVORABLE set of data, disparaging those outraged by plant-based protein being offered at Cracker Barrel.

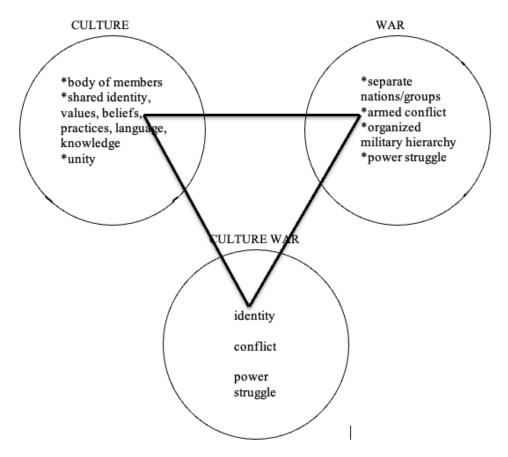


Figure 3: CULTURE WAR conceptual blend

The term "woke", which has undergone continuous redefinition, is used five times in the UNFAVORABLE data, but not at all in the FAVORABLE set. At its most neutral, being woke is to be informed and educated about systemic injustices and prejudices. The word has come to be used to insult people savvy to these issues. In the present data, "woke" is used to insult Cracker Barrel and the plant-based protein itself. Neither Cracker Barrel nor the plant-based sausage bear on the systemic injustices intended by the conventional — yet evolving — use of the word. The incongruous use of this word is reflected in the blended space, culture war, that evokes it. Similarly, comments from the UNFAVORABLE group also invoke liberalism, Critical Race Theory, LGBTQ, and transgender issues, none of which relate directly to plant-based sausage.

Because blending theory captures creative, dynamic, and complex conceptual processes (Coulson, 2006; Coulson & Oakley, 2000; Fauconnier & Turner, 2003), it is well-suited to bring clarity to novel connections that may seem illogical on the surface. In fact, blending theory can frame taboo topics in terms of domains more readily accepted in discourse (Coulson, 2006). It seems possible, then, that — if speakers can blend elements

from separate mental spaces in online discourse, and if speakers can frame taboo topics in non-taboo frames the way many jokes do — their cognitive capacity must allow them to blend continuously evolving frames that include continuously evolving elements. Influenced by the culture in which speakers exist, they must deploy frames in discourse that reflect the continuously reshaping ideologies of their community. Conceptual blending, as a cognitive linguistic mechanism, facilitates both creativity and novelty. Its products become part of stories that threaten a society's ecological health by fostering incongruity between issues and the language used about them.

5.2. Broad domains of understanding

Language in the Facebook comments falls into three major domains: PHILOSOPHICAL, PHYSICAL, and SOCIAL. Overlap across the two groups is seen in the PHILOSOPHICAL domain. Both groups communicate concerns about genuineness in human knowledge and behavior, but their concerns arrive by divergent motivation. While those in the FAVORABLE group point to the capacity for choice as an opportunity for all (i.e., VV and meateaters alike), the UNFAVORABLE group approaches the issue of plant-based protein from a perspective on authenticity, identifying it as inauthentic or "fake", irrespective of choice.

Health concerns also surface in both groups, within the PHYSICAL domain. While the FAVORABLE group determines the addition of plant-based sausage as a healthy dietary choice, the UNFAVORABLE group argues that plant-based protein is "synthetic junk food", full of chemicals, which harm the body. Both positions raise important questions in a time when food has become increasingly toxic to the body. Humans with low meat intake tend to be healthier than those with high meat intake, and factory-type meat production causes harm to the environment (Godfray et al., 2018). Furthermore, much food is replete with health-disruptive chemicals from fertilizers, pesticides, and fungicides (Yilmaz et al., 2020). With this in view, the food people eat needs scrutiny. Despite being in opposition, the two groups share concerns that could mutually benefit each other, making this domain a potentially productive place to reshape the story toward ecological health.

If Impossible sausage is taken for what it is — plant-based ingredients that resemble sausage —, "fake" is not the issue. As seen in the Facebook comments, meat-eaters often ask why VV would want a sausage if they choose not to eat meat. This question ignores the range of motivations for not eating meat. They may know the taste of sausage pre-VV diet; also, if given the choice, most people would not choose to eat the same thing (e.g., salad) every day. VV create greater dietary variety by shaping soy, beans, pumpkin, and other plants into food that resembles traditional meat-centered fare. In consideration of each of the PHILOSOPHICAL and PHYSICAL domains, neither the FAVORABLE nor UNFAVORABLE group reflects concern about animal welfare or the environment. If the discussion of plant-based food is removed from the AUTHENTICITY frame, and factual accuracy is established within the HEALTH and DIET frames, this issue can be reframed as

one of choice, recognizing animal and environmental well-being. This reframing could shift societal perspective advantageously.

The SOCIAL domain, also, presents a viable space for reframing. As Lakoff (2014) articulates in the introduction to his *Don't Think of an Elephant!*, "reframing is social change". The presence of the SOCIAL domain in these comments is interesting because it bears little relation to the motivation to eat plant-based protein. People who follow a VV diet generally cite animal welfare, environmental concerns, personal health, or ethics. The choice to follow a VV diet or to order plant-based protein at a restaurant is not, however, generally driven by one's "wokeness" or by one's sexual orientation, race, or religion, as some of the UNFAVORABLE comments suggest. The comments that fall into this domain are intended for insult and deepen the divide between social groups and identities (US/THEM, CULTURE WAR), while neglecting the more immediate impact of this discord on the environment.

5.3. Productive reframing

Social media platforms promote divisive discourse (see Faasse et al., 2016; Humprecht et al., 2020; Pudaruth et al., 2018). Reaching mutual understanding across the divide will promote a healthier community. But how? The schematic nature of a frame allows it to be filled in with cultural details, with contemporary idiom specific to a speech community or social group. Interpreting the Facebook comments in context with Coulson's (2006) analysis of conceptual blends used for humor or persuasion can explain some of the more surprising comments, which do not logically connect to the announcement. That is, if those who identify Cracker Barrel's announcement, or the sausage itself, as "woke", perhaps it is because they have constructed ad-hoc categories that classify together plant-based protein with wokeness. To repair harmful and ill-informed discourse, these categories of information need to be disentangled to redirect the trajectory of the narrative.

Like any linguistic unit, a frame is an evolving symbolic structure whose meaning and function are determined by convention among the speakers of the language. The disparate ways that different groups fill in the details is where our society's narratives are built. This is where stories can be reshaped, and this is why it is important to understand the conceptual structures underlying these stories.

While we examined comments aligned with two groups, neither group is monolithic, and future work could contribute a more nuanced analysis of speaker dynamics in other discourse arenas. This paper examines only Facebook comments, which should be considered a window into the issue, but not the complete picture for understanding American society's views on VV. Future work could productively examine language on this topic found in other venues, like conversational analysis or interview, focused on targeted populations. Furthermore, a quantitative analysis would strengthen this analysis of conceptual content.

In American society, those following VV diets frequently serve as the punchline of

jokes. Even people who otherwise demonstrate knowledge or concern about health, animals, and/or the environment mock VV, ranging from suggestions that they must be hungry to affronts on them as people. Possibly, people feel threatened by the inherent confrontation they must make with killing an animal to eat it or facing the fact of the harmful conditions in which many animals live before they become food. It may be easier for some to disparage those who have chosen to confront these facts in lieu of doing so themselves. This process of identification leads to a strengthening of boundaries between discursive communities (Burke, 1969), which serves to cement the division at a cognitive level. By identifying "blind spots" in the discourse, members of society can shift the way an issue is framed (Phillips, 2019). Very few Facebook comments addressed animal welfare or the environment. However, factory farms persist, and pigs and other animals are still cast as machines that produce food rather than as living creatures. This story does not reflect awareness of the environmental or health effects of high meat consumption.

As exemplified in Facebook discourse, the language used to talk about VV choices or plant-based food reflects a narrative that society has constructed and reinforces an ideology that harms societal and environmental health. Indeed, the language people use reflects their society's relationship with its ecology (Zhou, 2021) — with its environment, namely with the animals people eat and the land used to prepare those animals for eating. VV choices reframed in terms of these concerns about animal welfare, the environment, and personal health better nurture our ecology. The challenge is to appeal to those threatened by VV on these grounds, particularly when the issue is viewed as a social problem and not one of environmental health. Conflict between narratives concerning plant-based eating, better understood, can be revised in the service of ecological well-being.

6. Conclusion

The outrage displayed in the Facebook comments analyzed here warrant scrutiny because they indicate a fundamental opposition to plant-based food and to VV people themselves. The comments evoke issues distinct from what is truly at stake, namely the addition of a plant-based option for people who choose to eat it, which has resulted in the abandonment of a franchise by a known loyal customer base. Our frame analysis defines conceptual details activated by words in the comments responding to the announcement, which reflect narratives society has created. These narratives leap to connect plant-based sausage to issues of social identity, sexuality, and race, while identifying it as fake, revealing an inaccurate understanding of what plant-based sausage is or why it has been added to a restaurant's menu. Discussing the ecological impact of the results supports a path forward. The livelihood and well-being of our society and planet depends on listening and understanding the way language portrays evaluation and conviction, and this is precisely what is missing from the comments analyzed here. By examining the conceptual structure at the root of differences, a society's narrative can be reframed to nurture the environment and its people living within it.

References

- Barsalou, L. W. (1983). Ad hoc categories. *Memory & Cognition*, 11, 211–227. https://doi.org/10.3758/BF03196968
- Burke, K. (1969). A rhetoric of motives. University of California Press.
- Buttny, R., & Kinefuchi, E. (2020). Vegans' problem stories: Negotiating vegan identity in dealing with omnivores. *Discourse & Society, 31*(6), 565–583. https://doi.org/10.1177/0957926520939689
- Cole, M., & Morgan, K. (2011). Vegaphobia: Derogatory discourses of veganism and the reproduction of speciesism in UK national newspapers. *The British Journal of Sociology,* 62(1), 134–153. https://doi.org/10.1111/j.1468-4446.2010.01348
- Coulson, S. (2006). Conceptual blending in thought, rhetoric, and ideology. In G. Kristiansen, M. Achard, R. Dirven, & F. J. R. de Mendoza Ibáñez (Eds.), *Cognitive linguistics: Current applications and future* (pp. 187–209). Mouton de Gruyter.
- Coulson, S., & Oakley, T. (2000). Blending basics. Cognitive Linguistics, 11(3-4), 175-196.
- Cracker Barrel Old Country Store. (2022, August 1). Discover new meat frontiers. Experience the out of this world flavor of ImpossibleTM Sausage made from plants next time you build your own breakfast. [Status update]. Facebook. https://www.facebook.com/crackerbarrel/photos/a.207628002620308/5288633637853027/?type=3
- Faasse, K., Chatman, C. J., & Martin, L. R. (2016). A comparison of language use in proand anti-vaccination comments in response to a high profile Facebook post. *Vaccine*, 34(47), 5808–5814. https://doi.org/10.1016/j.vaccine.2016.09.029
- Fauconnier, G., & Turner, M. (2003). Conceptual blending, form and meaning. *Recherches en Communication*, 19, 57–86. https://doi.org/10.14428/rec.v19i19.48413
- Fillmore, C. J. (2006). Frame semantics. In D. Geeraerts (Ed.), *Cognitive linguistics: Basic readings* (pp. 373–400). De Gruyter.
- Fillmore, C. J., & Atkins, B. T. (1992). Toward a frame-based lexicon: The semantics of RISK and its neighbors. In A. Lehrer & E. F. Kittay (Eds.), *Frames, fields, and contrasts* (pp. 75–102). Routledge.
- Godfray, H. C. J., Aveyard, P., Garnett, T., Hall, J. W., Key, T. J., Lorimer, J., Pierrehumbert, R. T., Scarborough, P., Springmann, M., & Jebb, S. A. (2018, July 20). Meat consumption, health, and the environment. *Science*, *361*(6399). https://doi.org/10.1126/science.aam5324
- Halliday, M. A. K. (2001). New ways of meaning: The challenge to applied linguistics. In A. Fill & P. Mühlhäusler (Eds.), *The ecolinguistics reader: Language, ecology, and environment* (pp. 175–202). Continuum.
- Humprecht, E., Hellmueller, L., & Lischka, J. A. (2020). Hostile emotions in news comments: A cross-national analysis of Facebook discussions. *Social Media + Society,* 6(1). https://doi.org/10.1177/2056305120912481
- Jones, J. M. (2023, August 24). In U.S., 4% identify as vegetarian, 1% as vegan. Gallup.

- https://news.gallup.com/poll/510038/identify-vegetarian-vegan.aspx
- Konstantinides, A. (2022, August 4). People are vowing they'll never go back to Cracker Barrel after the chain added vegan sausage to its menus. *Business Insider*. https://www.businessinsider.com/cracker-barrel-adds-impossible-sausage-menu-2022-8
- Kövecses, Z. (2006). Language, mind, and culture: A practical introduction. Oxford University Press.
- Lakoff, G. (1995). Metaphor, morality, and politics, or, why conservatives have left liberals in the dust. *Social Research*, *62*(2), 177–213. https://www.jstor.org/stable/40971091
- Lakoff, G. (2010). Why it matters how we frame the environment. *Environmental Communication*, 4(1), pp. 70–81. https://doi.org/10.1080/17524030903529749.
- Lakoff, G. (2014). The all new don't think of an elephant!: Know your values and frame the debate. Chelsea Green Publishing.
- Lakoff, G., & Johnson, M. (1980). The metaphorical structure of the human conceptual system. *Cognitive Science*, 4(2), 195–208.
- Lakoff, G., & Johnson, M. (2008). Metaphors we live by. University of Chicago Press.
- Langacker, R. W. (1987). Foundations of cognitive grammar: Volume I: Theoretical prerequisites. Stanford University Press.
- Malila, R-M., Pennanen, K., & Luomala, H. T. (2025). Meat alternative consumers still frowned upon in Europe: Analysis of stereotypical, emotional and behavioral responses of observing others. *Food Quality and Preferences, 125*. https://doi.org/10.1016/j.foodqual.2024.105380
- Phillipov, M., Buddle, E. A., McLean, S., & Ankeny, R. A. (2025). What's in my mince? Reader responses to news coverage about novel plant-based protein foods. *Food, Culture & Society, 28*(1), 41–59. https://doi.org/10.1080/15528014.2024.2315792
- Phillips, R. J. (2019). Frames as boundaries: Rhetorical framing analysis and the confines of public discourse in online news coverage of vegan parenting. *Journal of Communication Inquiry*, 43(2), 152–170. https://doi.org/10.1177/0196859918814821
- Pudaruth, S., Moheeputh, S., Permessur, N., & Chamroo, A. (2018). Sentiment analysis from Facebook comments using automatic coding in NVivo 11. *Advances in Distributed Computing and Artificial Intelligence Journal*, 7(1), 41–48. http://dx.doi.org/10.14201/ADCAIJ2018714148
- Sneijder, P., & te Molder, H. F. (2005). Moral logic and logical morality: Attributions of responsibility and blame in online discourse on veganism. *Discourse & Society, 16*(5), 675–696. https://doi.org/10.1177/0957926505054941
- Stibbe, A. (2001). Language, power and the social construction of animals. *Society & Animals*, 9(2), 145–161.
- Stibbe, A. (2021). Ecolinguistics: Language, ecology and the stories we live by (2nd ed.). Routledge.
- Yilmaz, B., Terekeci, H., Sandal, S., & Kelestimur, F. (2020). Endocrine disrupting chemicals: exposure, effects on human health, mechanism of action, models for testing and strategies for prevention. Reviews in Endocrine and Metabolic Disorders, 21,

127–147. https://doi.org/10.1007/s11154-019-09521-z
Zhou, W. (2021). Ecolinguistics: A half-century overview. *Journal of World Languages, 7*(3), 461–486. https://doi.org/10.1515/jwl-2021-0022