



## **CHANGING PERSPECTIVES ON ADVOCATING FOR MOVING TOWARD PLANT-BASED FOODS: REFLECTIONS FROM TWO APPLIED LINGUISTS**

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**Resumo:** Este artigo apresenta reflexões sobre como a linguística aplicada e nós como cidadãos globalizados poderíamos defender questões de injustiça contra animais não humanos, além de um movimento na direção de alimentos com dietas alternativas. Ele começa recapitulando o percurso de um ativista em prol dos animais não humanos, Paul Shapiro. Como pode ser visto nas Palestras TED que ele proferiu, a atitude de Paul evoluiu. Inicialmente ele enfatizava argumentos éticos sobre porque os humanos deveriam ir na direção de alternativas aos alimentos tradicionalmente de base animal, tais como a carne, mariscos, leite e ovos. Em seguida, Paul alterou sua abordagem para enfatizar o desenvolvimento e a comercialização de alimentos com proteína alternativa, na expectativa de que o público não precise prejudicar nossos companheiros animais, mas usufruir mesmo assim o sabor de alimentos tradicionalmente baseados em animais. Pelo contrário, os humanos podem satisfazer seu desejo via alimentos com proteína alternativa, como hambúrgueres à base de planta e frangos com células cultivadas. O artigo examina também as críticas aos alimentos à base de proteína alternativa e as diferenças entre as perspectivas do bem-estar animal e do direito dos animais. Finalmente, o artigo fala do percurso dos dois autores do presente artigo com exemplos de projetos que temos desenvolvido como linguistas aplicados.

**Palavras-chave:** Linguística aplicada; Alimentos à base de plantas; Alimentos à base de proteína alternativa; Agricultura celular; animais não humanos; Bem-estar animal; Direitos dos animais.

**Abstract:** This article reflects on how we as global citizens and applied linguists might more effectively advocate for addressing issues of injustice to nonhuman animals, particularly a move toward alternative protein diets. It begins by recounting the journey of one activist for nonhuman animals, Paul Shapiro. As can be seen in a series of TED Talks he gave, Paul's stance evolved. Initially, he focused on ethical arguments for why humans should move toward alternatives to traditionally produced animal-based foods, such as meat, seafood, milk, and eggs. Then, Paul changed his approach to focus on the development and marketing of alternative protein foods, hoping that the public would no longer need to harm our fellow animals, while still enjoying the appeal of traditional animal-based foods. Instead, humans could satisfy their craving via alternative

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protein foods, such as plant-based burgers and cell-cultivated chicken. The article also examines criticisms of alternative protein foods and differences between animal welfare and animal rights perspectives. Finally, the article looks at the journeys of the two authors of the current article with examples of projects we have embarked on in our roles as applied linguists.

**Keywords:** Applied linguists; Plant-based foods; Cellular agriculture; Nonhuman animals; Alternative protein foods; Animal welfare; Animal rights.

Climate change and other human-induced disruptions to the environment are causing massive suffering for humans and other animals, and the scale and the injustice (YAKA, 2019) of that suffering will only grow as the climate crisis worsens the longer that our planet remains in the Anthropocene (STEFFEN, 2011), the geologic era in which humans are the main factor in altering climate. Is it too late to stop the damage? Has climate change become an unstoppable avalanche, tsunami, and Category 5 storm all in one? No one is sure, but as Ta-Nehisi Coates (2015) noted in regard to the area of racial justice, we need to try to do something to reverse injustice, whether our actions are effective or not, just to protect our own sanity. This article reflects on how we as global citizens and applied linguists might most effectively try.

The article begins by recounting the journey of one activist for nonhuman animals, Paul Shapiro, and his evolution from focusing his efforts mostly on ethical arguments for why humans should move toward plant-based diets to someone whose focus is now on alternative protein products, products that are equal to or better than traditional animal-based foods, such as meat, seafood, milk, and eggs. These products come from three main channels: plant foods designed to mimic meat; food made from cells of nonhuman animals, such as fishes and pigs, without harming the animals, i.e., clean meat or cultivated meat which grow meat outside of animals; and fermentation (Good Food Institute, 2020), such as the products of Quorn (<https://www.quorn.com>).

On a much smaller scale, the two authors of this article, both academics who work in Applied Linguistics and related fields, have followed a path similar to that of Paul Shapiro, i.e., they first emphasized ethical arguments to reduce demand for animal-based foods. Then, they decided that their efforts would save more nonhuman animals if they pivoted toward giving meat eaters the meat and other animal-based foods they want in ways that did much less harm to farmed animals. For example, one of the authors co-authored a cookbook on the processes and benefits of tempeh (TSENG et al., 2019), a fermented alternative protein food.

This article begins with more details on the aforementioned change in emphasis of Paul Shapiro. This section includes summaries of four TED Talks he did. Next, the article examines the evolution of organizations of animal advocates. Other topics discussed are criticisms of alternative protein foods and differences between animal welfare and animal rights perspectives. Then, the article looks at the journeys of the two authors of the current article before finally giving examples of projects the authors have embarked on in their roles as academics.

### Paul Shapiro's Journey

Paul Shapiro grew up in the Washington, D.C. area in a family that ate meat, but also took in rescued animals, such as dogs. At age 13 in 1993, Paul went vegetarian and one month later, he went vegan. He also worked in animal protection organizations, and in 1995, formed an animal protection club, Compassion Over Killing (COK), at his secondary school. After secondary school, Paul earned a university degree in Peace Studies and Conflict Resolution. Under his leadership,

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COK went nationwide. [It recently rebranded as Animal Outlook [https://animaloutlook.org/about/]. From 2005 to 2016, Paul worked at the Humane Society of the U.S.A., focusing on animal agriculture. He tells this story in a podcast on the Sentience website (SHAPIRO, 2020)

Thus, for 20+ years, Paul did traditional animal advocacy work, focusing on what he has called the trifecta of reasons for moving away from animal-based food: (1) animal-based diets are bad for human health, (2) bad for the environment, and (3) horrendously cruel to our fellow animals (the ethics rationale). In 2017 and 2018, Paul did four TED Talks. By viewing these talks, we can see some of Paul's evolution from emphasizing ethics to relying mostly on food science. Here are summaries of those four talks.

### **TED Talk 1:**

[https://www.ted.com/talks/paul\\_shapiro\\_what\\_will\\_future\\_generations\\_think\\_of\\_our\\_treatment\\_of\\_animals](https://www.ted.com/talks/paul_shapiro_what_will_future_generations_think_of_our_treatment_of_animals)

In this video, Paul wields the moral weapon, celebrating that humanity is expanding our circle of moral concern, using the example of changes in the status of women, such as gaining the right to vote. This is reminiscent of a quote from Nobel Peace Prize winner, Martin Luther King. Reverend King stated, "The arc of history is long and jagged but bends toward justice." Beginning at minute 12.38 in this TED Talk, Paul declares,

This circle of moral concern in our society never expands in a self-executing manner. It happens only because big people stand up for those with little power. And in the case of animals, it will happen only when kind and caring people organize to give a voice to those individuals who figuratively and literally have no voice.

Our generation can be the one that pushes that circle further outward to start considering the interests of those who currently have no consideration, giving our descendants the luxury of accepting what they will consider obvious to any contemporary in their time, that the animals of this world are not mere commodities who exist simply to serve us. Rather, they are our fellow creatures who deserve a so much kinder society than the one that we have given them so far.

### **TED Talk #2**

[https://www.ted.com/talks/paul\\_shapiro\\_are\\_we\\_doing\\_more\\_to\\_protect\\_aliens\\_in\\_space\\_than\\_animals\\_on\\_earth](https://www.ted.com/talks/paul_shapiro_are_we_doing_more_to_protect_aliens_in_space_than_animals_on_earth)

The ethics hook Shapiro uses at the beginning of this TED Talk is the fact that NASA (The U.S. government's National Aeronautics and Space Administration), when preparing to send machines to Mars to gather data on our neighboring planet, was very careful that those machines carry no germs that might harm life on Mars. NASA wanted to be sure that its equipment did not do to Martian life what Europeans did about 400 years ago to the peoples of the Western Hemisphere: the Europeans brought diseases that killed millions of people.

Paul contrasts this concern for life on Mars, even though we don't know if this life actually exists, with our lack of concern for the animal life that we do know exists here on Earth. Factory farming is perhaps the worst manifestation of such lack of concern. A minor point in this talk is that NASA began experimenting with clean meat years ago, because if astronauts want to eat meat on long space voyages, they will have to grow it themselves. After all, that's what the science fiction astronauts do in Star Trek [https://www.livekindly.co/food-predictions-star-trek-vegan/ ]

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### TED Talk #3

[https://www.ted.com/talks/paul\\_shapiro\\_we\\_are\\_better\\_than\\_how\\_we\\_treat\\_animals](https://www.ted.com/talks/paul_shapiro_we_are_better_than_how_we_treat_animals)

The hook here again uses ethics. Paul asks his audience to imagine two scenarios. (1) Thieves break into our home and destroy a painting of a pig. If caught, the thieves would likely be jailed. (2) In the second scenario, on a factory farm, employees notice a piglet who is not growing as fast as the others, thus rendering the piglet harmful to the factory's bottom line. They kill the pig (we'll spare you Paul's description of how this is done). However, unlike the thieves who destroyed the painting of a pig, the employees who killed a real pig have no fear of punishment. Paul goes on to quote Abraham Lincoln, a 19<sup>th</sup> century U.S. president, who said that most people can withstand adversity, but a better test of character takes place when people get power. The point, Paul maintains, is that we humans have great power over our fellow animals, and according to surveys of people in the U.S., we oppose cruelty to animals, yet our consumption practices, such as eating meat and eggs, cause tremendous cruelty to animals. Most of the rest of the talk graphically depicts other abuses to which we subject nonhuman animals, such as caging hens. Also in this TED Talk, Paul reaches for the environment argument. He requests the audience to imagine they are in a supermarket about to buy a package of chicken to cook for dinner and next to the meat aisle are one-gallon bottles of water. The audience are to imagine themselves opening these bottles and pouring all the water on the floor of the supermarket. Well, to equal all the water needed to produce that one package of chicken meat they plan to eat for dinner, they would have to empty one thousand bottles of water onto the floor. Paul ends this TED Talk on an optimistic note, citing ethics-inspired changes in our treatment of nonhumans.

### TED Talk #4

[https://www.ted.com/talks/paul\\_shapiro\\_clean\\_meat\\_the\\_clean\\_energy\\_of\\_food\\_jan\\_2018](https://www.ted.com/talks/paul_shapiro_clean_meat_the_clean_energy_of_food_jan_2018)

It is only in this latest TED Talk that Paul shifts his approach, arguing that advocacy based on ethics will not bring about significant changes in our treatment of our fellow animals. The main engine of transformation will instead be science. He offers many examples in this talk and has since found more. These examples of the power of science, not ethics, for saving animals include:

(1) The ill-treatment of horses used in the 19<sup>th</sup> century for transportation was not ended by the spirited campaigns of animal activists but by the invention of the car. [Read a summary of a recent biography of a key figure in that 19<sup>th</sup> century movement to reform the treatment of horses (FREEBERG, 2020).

(2) Also in the 19<sup>th</sup> century, what saved the whales from being hunted into extinction for their oil were not kind-hearted appeals to protect these beautiful creatures but the harnessing of petroleum as a less expensive, more convenient alternative (KAISER, 2013). Now, in much of the world, whales are hunted only for photo-taking.

(3) In the 21<sup>st</sup> century, the common practice of using rennet from the stomachs of calves to make cheese has become much less common due to the development in laboratories of bacterial rennet (GARCIA-GOMEZ, 2020).

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Paul devotes most of this talk to examples of nascent clean meat, a.k.a., cultivated meat, companies. These efforts are described in much greater detail in Paul's New York Times best-selling book, *Clean Meat: How Growing Meat Without Animals Will Revolutionize Dinner and the World* (SHAPIRO, 2018). Paul does not just talk and write about clean meat. He founded a company called the Better Meat Co [<https://www.bettermeat.co> ], which helps conventional meat companies make blended meat, combining plant foods with meat from our fellow animals. The blended meat concept is being used by some of the world's largest meat company. Despite his work to popularize blended meat, Paul remains a vegan and an adherent to the ethical arguments and the other two trifecta arguments, and his wife, Toni Okamoto (2018), is a major player in plant-based food advocacy via her cookbooks, such as *Plant-Based on a Budget*, as well as on social media and the web.

Paul's weekly newsletter trumpets pro-animal legal and social changes, as well as the successes of companies in the alternative protein spaces. He also includes cute animal videos, including ones featuring Toni and Paul's vegan dog Eddie. Last but not least, Paul hosts the Business for Good Podcast [<https://www.businessforgoodpodcast.com> ] where he interviews people running businesses that are creating cutting edge ways of making the world a better place, often based on technology breakthroughs in the food space and elsewhere. For example, one guest's company collects solar energy, not from solar panels on the roofs of buildings, but from a film on the windows of those buildings.

### **Issues Faced By Animal Advocates**

Centre for a Responsible Future (CRF) is an organization in Singapore that since 1999 has walked the path that Paul Shapiro travelled for many years. CRF also helps to advance the alternative protein space. For example, CRF has highlighted such Singapore-based companies as Sophie's Bionutrients, which uses fermentation technology to produce protein from micro-algae; ShioK Meats, which uses cultivated meat science to replace the need to grow marine species, such as prawns; Quorn, a pioneer in the use of fungi to reproduce meat; and Karana, which uses parts of the jackfruit plant to replace meat.

As usual with movements in which we humans take part, no consensus exists among those of us who encourage change toward diets that do not exploit animals. Next in the current article are some discussion points from different sides of various multifaceted issues. These points are raised not in the hope of everyone agreeing but in the hope of everyone understanding and respecting each others' views.

### **The Relative Ineffectiveness of the Growing Evidence against Animal Agriculture**

Despite all the evidence for plant-based diets, only a very small minority (less than 5%) of people follow such diets, even in countries where the arguments for plant-based diets are relatively well-known. Furthermore, meat consumption continues to rise worldwide, although this is in part because rising income levels in countries in the Global South, such as India and Brazil, have unleashed formerly unmet demand for meat. Note: one estimate attributes 25% of the environmental impact of meat production to pet food (FLEMING, 2018). Thus, a significant proportion of animal agriculture, such as producing meat, eggs, and dairy from animals, is not for direct human consumption.

a. The first author remembers in 2006 when the United Nations issued its report, *Livestock's Long Shadow*, in which animal agriculture receives a large share of the blame for climate change and other forms of environmental destruction, he and his colleagues in Vegetarian Society (Singapore) – now CRF – thought that at long last, environmental organizations would come out for plant-

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based diets. The rising tide of climate change, such as melting icecaps, was being widely recognized as an existential threat to human life. Would governments and the public generally climb aboard the plant-based bandwagon. There has been some movement in that direction, but not so much.

b. In addition to environmental concerns, a second pillar of the why-drop-animal-based-foods trifecta is the health argument. Some animal advocates see this as our best-bet argument, as unlike the environmental and ethical legs of the trifecta, health offers the most selfish and most immediate reasons for diet change. Fortuitously, the chorus of researchers singing of the health benefits of forsaking animal-based foods grows louder with every passing year. Organizations such as NutritionFacts.org, Physicians Committee for Responsible Medicine, and Vegan Health make this research available to health professionals and the general public. Additionally, films such as *Game Changers*, released in 2019, have graphically demonstrated that people on plant-based diets, rather than being handicapped by nutrient deficiencies, are capable of amazing feats of strength and stamina.

c. As to the ethical leg of the trifecta, just as with the health leg, evidence continues to build that while all animal species are unique, including human animals, our cousins in the other species share with us the ability to learn and communicate, and to experience social ties, emotions, and pain. Whereas nonhuman animals were not that long ago portrayed as more like objects than the sentient beings, more and more studies now lay bare the injustice of not affording these beings the respect to which they are due. King (2017) is just one of the books that summarize this evidence.

d. To the trifecta to which Paul refers can be added at least two other research-based arguments for saying adios to animal-based foods. One, COVID-19 and so many other killer viruses, including bird flu, swine flu, and AIDS, are of zoonotic origins, meaning they originate in other animals and then spread to humans (GREGER, 2020). The processes involved in animal agriculture heighten the chance of more and perhaps deadlier pandemics. Two, the inefficiencies of animal agriculture in comparison with eating plants directly (rather than first feeding the plants to nonhuman animals) leave less food for the hundreds of millions of people without enough to eat. This problem, known as World Hunger (A Well-Fed World, 2020), leads to death and unrepairable physical and cognitive stunting. World Hunger is one manifestation of the larger issue of justice for humans on the bottom of the power ladder. These people include not only those suffering from hunger but also the indigenous people who lose their homes to satisfy the demand to increase the quantity of land devoted to animal agriculture, as well as those whose homes are being lost as sea levels rise due to climate change, and those thrust into dangerous, low-paid, and cruel work on factory farms and in slaughterhouses.

### **Criticism of Alternative Protein Foods**

The products coming from the alternative protein space have been criticized for a number of reasons. While some of these reasons do have merit, others do not, and perhaps the best refutation of these criticisms derives from the saying “The perfect is the enemy of the good.”

a. Some critics point out that many of the foods emerging from the alternative protein space are not natural; eating them is similar to, the claim states, eating someone’s science experiment. In fact, in 2020, Lightlife Foods, a maker of plant-based and vegetarian foods, took out a full-page advertisement in the *New York Times*, criticizing Beyond Meat and Impossible Foods for using what Lightlife called “hyper-processed ingredients, unnecessary additives and fillers, and fake blood.” It is true that new foods, such as Beyond Meat and Impossible Foods, contain more ingredients than were found in foods eaten 75 years ago and that many of these ingredients were developed in labs, not grown on farms. However, contrast these foods with the modern animal-

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based foods which contain the antibiotics and the hormones fed to the unfortunate animals so that they grow quickly on factory farms. Modern production methods on factory farms also mean that products are contaminated with harmful pathogens such as salmonella (Mayo Clinic, [<https://www.mayoclinic.org/diseases-conditions/salmonella/symptoms-causes/syc-20355329>]).

This is not to mention the cholesterol, saturated fat, and lack of fiber and antioxidants in the products of animal agriculture.

Also, it is important to realize that this is an increasingly artificial world where even plant foods are becoming increasingly unnatural due to monocropping, artificial fertilizers, pesticides, hydroponics, and the disappearance of the family farm. The use of the methods of agri-business is justified by the need to feed everyone in the face of increasing population and rising expectations as to what and how much people eat. However, it should be kept in mind that the current target audience for the alternative protein foods are not health-conscious consumers of plant-based diets. Instead, these products are meant to appeal to the people for whom the trifecta proved insufficiently convincing.

b. Paul Shapiro and others talk about another trifecta, in addition to the three oft-cited reasons for moving away from animal-based diets. That trifecta are the criteria that protein alternatives must meet to convince people to switch. Just as people would not give up their horses for cars until cars had satisfied the criteria of convenience, experience, and cost, new foods must compete on the same fields. Animal-free foods have made substantial progress as to convenience, as they can be found in more and more supermarket shelves and on more and more restaurant menus. Furthermore, these foods provide an experience increasingly similar to meat-based foods as to taste, smell, look, and mouthfeel. The weak link so far has been cost, with new foods often costing at least twice as much as conventional foods. This can partly be attributed to the various subsidies given by governments to the producers of animal-based foods. Two other cost factors involve the smaller scale of production of nascent alternative protein companies and the heavy research budgets that necessarily burden these companies as they strive to improve their products. The hope is that future developments will lessen these costs.

c. Another issue that arises with alternative protein foods is whether or not they are 100% clean of ingredients of animal origin. With clean meat, the original state of the technology was that animal ingredients were normally used in two aspects of the production process. First, cells were harvested from living animals without harming the individuals from whom the cells were harvested. The harvested cells were then used to grow the clean meat. The hope is to create “immortal cells,” that is, cells that can divide innumerable times in a laboratory, thus making it unnecessary to harvest more. The second issue with creating clean meat is the medium in which the cells grow. For a time, this medium often contained fetal bovine serum, serum made from the blood of dead calves. Fortunately, progress is being made toward reducing or, even better, eliminating the use of animals in the creation of clean meat (WILDER, 2020).

A less scientifically daunting issue, but one that impacts all animal-free protein alternatives involves the other ingredients in dishes using protein alternatives. A simple example is when Swensen’s restaurant chain announced that they would provide Singapore customers with a plant-based patty option for their burgers, the first author went to a Swensen’s to give it a try, but he knew enough to ask before ordering about the ingredients in the bun, and it turned about that unlike the patty, the bun was not plant-based. This highlights the fact that the prime audience for protein alternatives are omnivores, and those wishing to eat a no-kill diet will still need to exercise caution.

### **Animal Rights or Animal Welfare**

Another issue on which animal activists sometimes disagree could be termed animal rights vs animal welfare. Here are some examples.

a. Some very talented and dedicated animal activists have worked for years promoting changes to how chicken eggs are produced for human consumption. Perhaps the worst example of the cruelty that humans inflict on other animals is the use of battery cages (RSPCA Australia, 2018), in which between 4-9 hens are confined to a single cage, with less space per individual than that of a single A4 piece of paper. The hens cannot even spread their wings. Animal welfare advocates have made some progress in campaigning for “cage-free eggs.”

Of course, the hens in cage-free settings remain confined, without any chance of having a family, and once their egg production declines, the hens are sent for slaughter, just as happens to the hens in battery cages. Animal rights advocates call on people to stop eating any eggs. Animal welfare advocates are also fine with no one eating eggs; in fact, many of the animal welfare campaigners whom we know are themselves completely plant-based.

At the same time, alternative protein companies have developed substitute eggs. For example, Just (<https://www.ju.st>) offers an egg product made from mung beans that is claimed to have the same color, texture, and taste as eggs. However, even before that, people on plant-based diets would replace eggs with tofu colored, seasoned, and flavored with turmeric and other spices. Similarly, bananas and flaxseeds were two of the egg substitutes used in baking.

b. Another example of intermediate steps can be seen in campaigns such as Green Monday, Meatfree Monday, and Veggie Thursday which encourage people to reduce their consumption of animal-based foods. Do such campaigns reduce the killing and confinement of nonhuman animals, or do people who reduce consumption one or two days a week, “compensate” by eating more animal-based foods on other days? When advocacy groups endorse these reduction efforts, are they approving of the abuse of our fellow animals, because meat reducers are still meat eaters? The blended meat concept is somewhat similar to meatfree days, as people continue to eat meat but less of it. Alternative protein products promise the best of both worlds: people eat all the meat and other animal-based foods they wish while at the same time avoiding the damage done by animal agriculture.

c. Another type of effort that falls well short of the ideals of Animal Rights proponents are campaigns targeted at saving particular animals, such as campaigns to ban consumption of sharks fin (WWF, 2020), or reducing consumption of particular foods, such as faux gras. These efforts seem to favor certain animals, such as sharks, without addressing the fundamental point that our fellow animals are not here on the planet to meet the needs and to delight humans’ taste buds or otherwise entertain humans. Instead, these sentient beings have their own needs and interests.

The same issue arises with the protection of endangered species. The lives of the last members of a particular species are certainly important to them, but so too are the lives of the chickens whom we breed in their billions so that we can continue to eat their flesh and eggs. The difference between the last members of an endangered species and the same number of members of a species bred by humans may lie more with the interests of humans. By saving a species from extinction, we maintain species diversity, thus making life more interesting to humans, providing more animals to watch on the Discovery Channel. Also, saving species from extinction helps humans by maintaining balance in ecosystems, for example, the depletion of shark populations in the Atlantic Ocean has been thought to lead to increases in the populations of one of the sharks’ prey, cownose rays, which in turn might reduce populations of scallops, one of the rays’ prey (ZABARENKO, 2007). This was seen as bad, because humans make money from capturing and selling scallops.



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The dilemma lies in whether to go for the low hanging fruit, such as protecting animals whom, for whatever reason, advocates might be able to convince our fellow humans to protect, or should advocates take an Animal Rights position and argue for the protection of all of our fellow members of the animal kingdom? Is linking animal protection to human interests just another form of the same anthropocentric (human-centered) view that justifies us doing whatever we choose to animals, or is leading with human interests the smart way to win victories and build momentum? Again, alternative foods could lead to changes that make everyone happy. Plus, alternatives now exist not just for food but also for other products from animals. For instance, alternatives have long existed for products made from the fur of animals, and new companies are making leather in laboratories that substitutes for leather from cows, alligators, and ostriches.

### **Our Personal Perspectives and Reflections**

To add personal perspectives of the co-authors of this article, when George originally went vegetarian in 1980, the key motivator was a book, *Diet for a Small Planet* (MOORE-LAPPÉ, 1971) that used the Justice argument, explaining that World Hunger, a problem plaguing hundreds of millions of people, was linked to meat eating. For the next 20 years, he was a silent vegetarian, not even telling people he was vegetarian unless they asked and not joining or even investigating organizations involved in animal protection. However, he was living in the U.S. during part of that time and while there, he volunteered with organizations that sought to change U.S. foreign policy to protect people in Third World countries. Through such organizations, he was exposed to human rights issues, including women's rights, minority people's rights, and workers' rights, which may explain his preference for linking animal issues with other issues, in what is now called an intersectional approach (DéCOUD, 2016). Intersectionality helps animal advocates to answer the accusation, "You animal advocates only care about animals; you don't care about people."

George became active in Vegetarian Society (Singapore) in 2002, and since then, he has been a leader in that and related organizations. Until 2019, he believed that the trifecta of reasons opposing animal-based foods (ABRISHAMI, 2016) was the best route; it was just a matter of choosing which of the three reasons best suited a particular event, organization, or individual, and of waiting to reach a tipping point in the number of plant-based eaters. When VSS started to work with alternative protein businesses, for example, in 2018 and 2019, organizing the Disruption in Food and Sustainability Summit, he was suspicious of companies, even vegan-led companies, working in the alternative protein space. He worried that they were not sincere, that replacing animal-based foods was, to these companies, just a smart play, a way to make money by hopping on a trend.

Now, he has changed his mind. He has little interest in people's motivations; he only cares about the impact of their companies' action. If they reduce consumption of animal-based foods, he does not care if they become rich in the process. In fact, he hopes that they do become rich, because that will attract others to the space, and maybe some of these newly-rich people will donate some of their riches to NGOs such as Centre for a Responsible Future, VSS's successor, and Kampung Senang Charity and Education Foundation, another organization for which he volunteers. The main reason he is not involved in companies in the alternative protein space is that he lacks the science and business skills needed, although maybe someday, some of his skills will appeal to such companies.

Meng Huat became vegetarian in 1991 at the very young age of 13 years. It was a personal choice, and the key motivation was to be kind to nonhuman animals based on the teachings of Buddhism (VAN TILBORGH, 2019), after he attended a few months of talks on Buddhism and the value of

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acts of compassion. He was the youngest of 12 siblings in his family and the first to become vegetarian, although a sister has since joined him.

For many years, Meng Huat has been aware of research in ecolinguistics but did not really explore and reflect on how vegetarians can (or should!) advocate for nonhuman animals via their academic work. He had always thought that dietary preference was an entirely individual affair, and one is not to impose one's ideals or views on to others. But increasingly, as he is exploring the meaning of his profession as an applied linguist for the world, he finds significance in his life by advocating for greater conscious awareness of issues that are of importance to this world, and this includes raising awareness of issues surrounding the treatment of nonhuman animals and addressing instances of injustice humans have created on this planet as a living place that is shared with nonhuman animals. Meng Huat took his baby steps toward this direction of animal activism with the guidance and support of George.

One project the two authors have recently collaborated on is a commentary (CHAU & JACOBS, 2021), which expressed the concern that the latest edition, the 7<sup>th</sup> edition, of the Publication Manual of the American Psychological Association (APA, 2020), advises that the use of the relative pronoun *who* should be restricted to humans, while *that* and *which* are to be used for nonhuman animals. The authors view this policy as a case of discrimination or more precisely, speciesism (i.e., “a belief of humans that all other species of animals are inferior and may therefore be used for human benefit without regard to the suffering inflicted”, *Collins English Dictionary*, 2018). The APA is a standard guide adopted by many professional journals and universities for their writers and students, and these (journals and universities) are platforms and places where students, professionals, and other scientists develop and express their worldviews, and at the same time have their practices and subconscious thinking shaped and “conditioned” in the process of their participating in a discourse of this kind created in journals and at universities.

This is where the main worry lies: adopting the APA's counsel, as many journals and universities already do, would mean, in this specific case, promoting and reinforcing a worldview that humans decide on how the planet earth is run and that nonhuman animals are subject to the decision making, wise or otherwise, just or otherwise, of humans. That is, it would signify and reaffirm the misleading and most unfortunate belief that the use of *who* is for the superior human species with *that* and *which* for the more object-like nonhuman animals. (Of course, it should be noted that in our experience, it is not uncommon for journal editors and tertiary lecturers to be ignorant of or ignore elements of the guidance provided by APA.)

It should also be noted that human society has no doubt been making slow but steady yet uneven advancement in redressing biases, as shown in the progressive changes championed by the APA to reduce bias in language in areas such as sex and disability. The goal of the commentary that we hope to publish is to promote greater bias-free practices in both academia and society that would include the selection of relative pronouns for use with nonhuman animals. We hope that our efforts are not confused with what some call “cancel culture” (THERIAULT, 2019). Wikipedia (2021) defined cancel culture as, “The cultural phenomenon of publicly shaming, rejecting, and ceasing to provide support to people, companies, stores, etc., deemed unacceptable, and calling on others to boycott them.” Although we have clearly stated our opinion on this matter as far back as Guilquin and Jacobs (2006), we seek to use collegial dialogue to persuade APA and others of the merits of our view.

We are also currently collaborating on a related project that explores this same issue through the eyes of one set of gatekeepers: the editors of academic journals. Along with a colleague, we sent an ethics-approved survey to more than 100 editors of a wide variety of academic journals in which

nonhuman animals might be mentioned. At this point, we are preparing to analyze the data we have collected.

Does changing the language used to refer to nonhuman animals have anything to do with moving toward plant-based foods, which is the focus of this article? We admit the link may not look obvious on the surface. While the concern raised appears to be a language issue, the whole argument is really a fundamental ethical issue that lies at the heart of how we treat nonhuman animals. Possibly when we begin to extend the use of *who* to refer to our fellow earthlings, the circle of moral and ethical concern in our society will expand accordingly, including a greater move toward plant-based diets. We have all learned about the butterfly effect, where small things can have non-linear impacts on greater, more complex systems. That is, small acts or changes, such as changing language use, can serve as catalysts that create bigger changes. It is a direction toward which we are striving.

Another study in which we are involved as applied linguists also has indirect yet real implications for the way that humans view our fellow animals. This study looks at Indonesian English teachers' view of meritocracy, i.e., the belief that success in academia, careers, and other areas of life should be based solely on people's ability to perform relevant tasks, e.g., lecturers should be promoted to professorships based on their publications, their research, their teaching, and other important aspects of their work. Promotion should not be based on such considerations as family ties, financial payments, or favors done for those in powerful positions in university or political hierarchies. Sandel (2020) and others, while supporting the general idea of meritocracy, have expressed serious concerns about the fairness with which the concept is applied in many societies. We hope to extend the critique of meritocracy beyond our species to look at the speciesism of how the concept is applied across animal species to justify humans' domination of our fellow animals. As de Waal (2016) put it in the title of one of his books, "Are we smart enough to know how smart animals are?"

### **Conclusion**

If the best hope for reducing human purchases of animal-based foods lies in replacing those foods with more humanely produced foods created via a range of processes including fermentation, cell cultivation, and repurposing of plant foods, what role is left for organizations, such as Centre for a Responsible Future, that have long banged the three drums of health, environment, and ethical treatment of non-human animals? Perhaps, while companies such as Sophie's Bionutrients, Green Monday, Karana, and Turtletree Labs work on the supply side – as supply increases, prices will, we hope, fall – organizations such as Kampung Senang and CRF can work on the demand side. A similar view was expressed in 2021 by Kateman (2021) who takes a quote from an almost twenty-year-old book (SCULLY, 2002) on the cruelty of animal agriculture. In this quote, Scully praises clean meat, which was then mostly science fiction.

"Here's a technology designed to rehumanize us, putting mankind's brilliance and ingenuity in service to our gentler side. Gone, as this innovation reshapes the market, is any further claim of necessity for industrial animal farming, an enterprise that long ago slipped the boundaries of reasonable and conscientious practice . . ."

This ethical argument, as well as the health, environment, pandemic, and justice arguments deserve to be kept in the public's minds in order to speed adoption of protein alternatives, to garner greater government support, and to spur innovations in other areas related to these causes, such as justice issues. After all, animal agriculture is only one cause of each of these problems. For instance, even if we stop feeding plant foods to animals whom we later eat, that will not guarantee that this now-available food reaches people without enough food, because

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these people may still be too poor to create the “effective demand” (PETTINGER, 2018) needed for them to secure the food for themselves and their families.

A final point is one made by Paul Shapiro when he appeared on the Sentience Podcast: people are reluctant to condemn systems they are still part of. In other words, perhaps one reason why the large majority of people have not been dancing to the beat of any of the three drums that animal activists have been playing is that people resist criticizing their own actions, because people want to be logically consistent. The hope is that when our co-workers in the alternative protein space provide a wide range of products that are as good or better than conventional foods as to price, taste, and convenience, our arguments will suddenly make sense, thereby serving to further increase demand for alternatives, as well as to extend protections for nonhuman animals to other areas.

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