Appetite for Ignorance: Does eating meat cause information avoidance about its harms?*

Bénédicte Droz[1], Berno Buechel[1], Mónica Capra[2,3], Xi Chen[2], Anis Nassar[1], Seong Gyu Park[2], Jin Xu[2], Shanshan Zhang[4], and Joshua Tasoff[2]

[1]Department of Economics, University of Fribourg
[2]Department of Economic Sciences, Claremont Graduate University
[3]Center for the Philosophy of Freedom, University of Arizona
[4]Department of Economics, Wuhan University

March 5, 2025

Abstract

Meat consumption is associated with environmental and animal-welfare harms, and many people consume more than is healthy. Past research has shown that conflicted consumers manage their beliefs in a variety of domains. Based on two independent studies, we test whether eating meat affects people's preferences for information about the environmental, animal-welfare, and health harms of meat, as well as the alleged environmental benefits of animal agriculture. Our findings are mixed. Eating beef causes information avoidance about the environmental effects of cattle, and eating pork causes people to avoid information about the health effects of pork. Other results were not significant. We interpret these mixed results as suggesting that eating meat causes information avoidance, but the effects are nuanced as they are meat-specific and topic-specific. This project combines the independent explorations of two teams regarding the same research question. The joint conclusion reached differs from the initial independent conclusions. Consequently, this paper also serves as a case study about the sensitivity of scientific interpretation to experimental design.

Keywords: Information preferences, information avoidance, cognitive dissonance, motivated beliefs, meat paradox, animal welfare, laboratory experiment

JEL Classification Codes: C91, D83, D91, Q18

*This paper replaces two former papers entitled "The Effect of Contemporaneous Meat Consumption on Attitudes and Behaviors Towards Animal Welfare" and "Meat Consumption Can Trigger Information Avoidance". We thank Thibaut Arpinon, Tom Bry-Chevalier, Raphael Epperson, Romain Espinosa, Mehdi Farsi, Emiliano Huet-Vaughn, and Nicolas Treich for their very helpful comments. We also thank participants at the Western Economic Association's International Annual Conference (2024), the European Economic Association's Annual Meeting (2024), and Romain Espinosa's informal online animal-welfare economics seminar, for useful feedback. We would also like to thank the Fletcher Jones Foundation for a Faculty Research Grant, the Swiss National Bank for a Department Research Grant, and the Fondation SAES which made the experiments possible.
Declarations of interest (all authors): none.

1 Introduction

Meat consumption has substantial environmental and ethical implications. Livestock contribute to greenhouse gas emissions, freshwater usage, agricultural land use (Poore and Nemecek, 2018), air and water pollution (Mateo-Sagasta et al., 2017; Lavaine et al., 2020) and deforestation (FAO, 2022). Animal farming is linked to suffering for the farmed animals. These animals are often raised in confined conditions that prevent them from extending their appendages or turning around (Singer, 2023; Lusk and Norwood, 2011). In recent decades, global meat production has more than tripled, exceeding 350 million tons annually (Ritchie et al., 2023). As research has documented the negative externalities of meat production, there is growing scientific consensus that governments in developed countries should aim to reduce meat consumption (Hedenus et al., 2014; Tilman and Clark, 2014).

Most consumers want to eat meat but do not want to harm the environment (Clayton et al., 2015) or animals (Plous, 1993; Herzog and Foster, 2010; Joy, 2020). These conflicting attitudes present a dilemma as people's ethical values conflict with their consumption choices. In contrast to the classical economic interpretation in which Bayesian beliefs are given and agents choose their actions to maximize expected utility, actual human behavior suggests motivated reasoning in which people attempt to resolve their cognitive dissonance not only by changing their choices but by manipulating their beliefs (Kunda, 1990). In the domain of meat consumption, Loughnan et al. (2010) showed how consuming meat distorts beliefs. They presented participants with either nuts or beef jerky and tasked them with rating the taste. Then, participants completed a survey indicating feelings of moral obligation towards 27 different animals, including a cow. Those assigned to the beef jerky condition showed moral concern for fewer animals and less moral concern specifically for cows, compared to those assigned to the nuts condition. In a subsequent experiment, Bastian et al. (2012) showed that, compared to consuming fruit, consuming lamb or beef lowered people's assessment of the mental capacities and pain tolerance of cows and sheep. The results of these two studies suggest that eating meat (or the anticipation of eating meat) motivates people to deny moral concern toward animals.

A natural implication of motivated reasoning is that the consumption of meat will *cause* consumers to avoid information about its negative consequences. In this paper, we present the results of two experiments designed to test whether contemporaneous meat consumption causes information avoidance. We would view such a result as evidence supporting motivated reasoning in this domain. Furthermore, though the psychology literature has shown that eating meat can shift moral attitudes about animals, it remains to be shown whether eating meat can affect economically meaningful behavior, such as information choice, with real stakes.

Our paper also reflects the synthesis of an unusual collaboration. Two teams independently

designed two experiments to answer essentially the same research question. The experiments led to results that appear contrary when viewed in isolation. However, as we jointly evaluate the results, we are led to a third, more subtle conclusion. Our collaboration, therefore, also exemplifies a largely masked feature of the scientific process: interpretations and conclusions can be contingent on the details of an experimental design.

The first study uses a laboratory experiment to test whether eating beef and pork triggers avoidance of information concerning the environment, animal welfare, or health. Participants' willingness to pay for information regarding the consequences of meat consumption is elicited in an incentive-compatible way. The second study explores a similar question but with a slightly different approach. All participants are served plant-based "faux" chicken nuggets, but only the control group is informed that the nuggets are meat-free. The "faux" meat design allows for studying the effects of meat consumption without actually serving meat to anyone. This study investigates whether the belief that one is consuming meat affects the demand for information on animal welfare and information about the alleged importance of animal agriculture for the environment, contributions to an animal charity, and signing various political petitions.

In the former, the Beef-Pork study, we find that meat consumption increases information avoidance on the environmental impact of beef production and the health consequences of pork consumption. We observe no significant effects on attitudes. In contrast, in the latter, the Chicken study, we do not find significant effects of the treatment on information choice. In the treatment condition, where participants are not informed that the nuggets are plant-based, we observe a shift in their attitudes towards animals that aligns with findings in psychology literature. Specifically, they perceive farmed animals as having lower intelligence. The treatment neither causes information avoidance towards the animal welfare video nor increases preferences towards the pro-animal agriculture video. The treatment also has no direct downstream effects on other behaviors, such as contributions to charity or signing political petitions.

Our paper connects to the literature on motivated beliefs, information avoidance, and meat consumption, as formulated in the economic model by Hestermann et al. (2020). This model captures the idea that individuals wish to eat meat without thinking about the potential harm associated with it. Survey evidence based on self-reports show that consumers tend to ignore how chickens are raised (Onwezen and van der Weele, 2016) and about half do not want to know how animals are slaughtered (Reisch et al., 2021). Leach et al. (2022) present two studies in which individuals who report a high "commitment to eating meat" are less interested in learning about animal sentience and less inclined to read an article about pig intelligence but more inclined to read an article about pig unintelligence. Stronger evidence exists in the form of several revealed preference studies. Bell et al. (2017) show that about one-third of consumers avoid learning

how pigs are raised (they prefer to look at a blank screen than view pictures). Epperson and Gerster (2024) and Huet-Vaughn et al. (2024) find that 30% and 78% of students have negative willingness to pay to view a video of animals' living conditions in intensive farms. Espinosa and Stoop (2021) use incentivized survey data and a structural model to estimate the fraction of their population that is resistant to information about the negative externalities of animal-based diets. Information resistance in this negative-externality context is characterized as information avoidance, pretending ignorance, or outright denial of facts. They estimate that 13.2% of their population is information resistant, higher than in the contexts of alcohol consumption and immigration. Serra-Garcia and Szech (2022) pay participants for correct answers about cows' conditions on a dairy farm, with the option to watch a 1-minute informational video with the answers. Despite the incentive, 29% of participants do not watch the video.[1]

Our paper relates to information avoidance in other contexts. Nordström et al. (2023) find information avoidance about the caloric content of food, which is thematically similar to the health information provided in our Beef-Pork experiment. Freddi (2021) finds that more refugees in a municipality cause fewer news click-throughs on articles sympathetic to asylum seekers. The evidence suggests that natives avoided news articles that exerted moral pressure in favor of admitting more asylum seekers. There is also a large lab literature on the avoidance of morally relevant information beginning with Dana et al. (2007) and Larson and Capra (2009) and summarized in Golman et al. (2017).

The main contribution of this paper is to show that contemporaneous meat consumption can *cause* information avoidance about the harms of meat production. This is consistent with motivated-reasoning models. We view this as a possibility result. Though we find that eating beef causes people to avoid information about the environmental impacts of cows, and eating beef and pork causes people to avoid information about the negative health effects of pork, we also find several null results. Beef does not significantly influence people's preferences for information about cow welfare or the health effects of consuming beef. Additionally, the combination of beef and pork does not significantly affect preferences for information related to the environmental impacts of pigs or their welfare. Believing that one is eating chicken has no significant effect on information preferences regarding generic animal welfare or the alleged environmental need for animal farming. Taken together, the estimated effects are both weaker and less robust than what we inferred from our reading of the psychology literature. Hence, the effects of meat consumption on information demand appear to be meat-specific and topic-specific, making it difficult to predict them in advance.

[1]Relatedly, Haile et al. (2021) measure the impact of vegetarian advocacy pamphlets (primarily animal-welfare-based) on real meat consumption using over 100,000 meals. As they observed no detectable treatment effect, they suspected that many participants disposed of the pamphlets rather than read them.

The joint project is also a case study of how subtle design choices could lead to divergent conclusions. Before the two teams shared results, the Beef-Pork Team concluded that the primary result was positive and the Chicken team concluded that the primary result was null. In consideration of both results, we arrived at a more nuanced conclusion. In Section 4 we discuss insights from our collaboration.

2 Experimental design

2.1 Hypothesis

The central hypothesis of the two experiments is that (believing one is) eating meat will reduce information demand, with the presumed mechanism as cognitive dissonance.

Hypothesis (info)**.** *Meat consumption lowers the demand for information about meat.*

This hypothesis is justified as follows: To reduce cognitive dissonance and keep a positive self-image, subjects who eat meat may demand less information about the harms of meat consumption. In the lab, the treated subjects have just eaten meat, or believe to have done so. Being confronted with facts about the consequences of meat consumption would arguably create stronger feelings of cognitive dissonance than for the control group.

2.2 Beef-Pork Experiment

2.2.1 Overview

The experimental design of the Beef-Pork Experiment is illustrated in Table 1. We exogenously varied consumption of meat by serving small portions of it to the treatment group called *T-Meat*, but not to the control group called *T-Control*. This difference in meat consumption was the only distinction between the two groups. In both groups, we elicited each participant's willingness to pay (WTP) for information about meat and further elicited attitudes towards meat and measured knowledge about meat. We selected two types of meat (beef and pork) because we imagined they would trigger different psychological mechanisms. For instance, people may associate beef with a stronger negative environmental impact compared to pork. On the other hand, pigs might be perceived as being treated less well than cows, which are more commonly seen grazing in open fields. By including two types of meat and three key dimensions (health, animal welfare, and the environment), we aimed to capture a range of information that individuals may obtain or avoid depending on the type of animal involved. For beef we served chips of beef jerky. For pork we served rich salami sticks. Pictures of both types of meat and details on how the meat was served to participants are provided in Online Appendix A.7.2.

We recruited participants with no dietary restrictions, which means both the treatment and control groups are made up of omnivores. The treatment may only slightly change how much meat a participant has eaten in their life, but it does affect how recently they consumed meat. Therefore, one way to understand the treatment is that it made people more aware of being a meat eater.

Table 1: Experimental design for the Beef-Pork Experiment

Control		Info demand about beef		Info demand about pork	Attitudes	Knowledge	Information received
T-Meat	Eating beef	Info demand about beef	Eating pork	Info demand about pork	Attitudes	Knowledge	Information received

2.2.2 Eliciting information demand

To elicit information demand, participants received a multiple price list, starting at negative prices – meaning participants would be compensated for receiving the information item – and went up to positive prices, where participants would need to pay to access the information. (Please refer to the Online Appendix A.3 for more details.) From this multiple price list, we created a dummy variable *Info Avoidance*. This variable takes the value of 1 if the participant refused the information item even when it was for free. Conversely, it takes the value of 0 if the participant was seeking information. This variable is comparable to the Chicken Experiment, which also uses dummy variables to represent information demand.[2]

The presentation of the information items was worded as follows, retaining the original emphasis:

> "You will now be offered 3 information items (some news article or video displayed on your screen) regarding the way cows are treated for beef meat production (**animal welfare**), the consequences of beef meat production on the **environment** and the relationship between beef consumption and **health**."

Likewise we measured information avoidance for each combination of pork and the three information items: animal welfare, the environment, or health. From these six combinations, only two decisions – one for beef and one for pork – were randomly selected and implemented.

[2] A complementary variable uses the midpoints of the intervals as proxy for the willingness to pay, see Online Appendices A.3 and A.4.

If an "accept" decision was made, the corresponding information item would be provided at the end of the experiment. Alternatively, if a "refuse" decision was chosen, an unrelated information item would be given at the end. Each information item had to be viewed for a minimum of three minutes before proceeding to the payoff. The articles on meat were either scientific or journalistic, whereas the two articles provided after a "refuse" decision were taken from *The Economist*. Examples of these are available in the Online Appendices A.16 and A.17.

2.2.3 Implementation

The Beef-Pork Experiment was preregistered on the American Economic Association's platform AEA RCT Registry platform with identification number AEARCTR-0008904.[3] For this experiment we received the approval of the Internal Review Board of the University of Fribourg (reference number 570 R1, 15 July 2020) and of the HEC ethics commission of the University of Lausanne (12 January 2022). The Beef-Pork Experiment was conducted in the laboratory of the University of Fribourg (FriLab) and in the laboratory of the University of Berne (Aare-Lab) in Switzerland (see pictures of the lab and computer desks in Online Appendix A.7). Participants were recruited by the respective recruitment systems of these two labs, plus the University of Lausanne's laboratory (LABEX) whose lab pool members were also invited to the nearby FriLab.[4]

The payoff of the participants included a fixed fee of CHF 15 (CHF 3 for a 15-minute online survey and CHF 12 for the 40-minute lab session). 1 CHF was about 1 USD. Participants could also gain additional variable payoff from the knowledge questions and the implementation of the WTP decisions. The lab experiments were programmed in oTree (Chen et al., 2016).

Two weeks before the lab experiment, participants filled out an online survey. The survey was computerized using SoSci survey. The participants were asked to answer different questions about their eating behavior (e.g., how frequently they consume different types of food). After

[3] All the information can be found here: https://www.socialscienceregistry.org/trials/8904. Pre-registration, as currently practiced by economists, varies in terms of having or not having a pre-analysis plan (PAP) and, given an analysis plan, its level of stringency (Brodeur et al., 2024). We preregistered the experiment with a pre-analysis plan that states the hypotheses and how they can be tested in principle without providing the details. To find the pre-analysis plan please open the Analysis Plan tab or see Online Appendix A.2. In follow-up projects with a less exploratory nature it makes sense to additionally preregister the specific tests that will be run, as already common in other disciplines, e.g., psychology, and as warranted by the conclusions of Brodeur et al. (2024). In this paper, we focus on the first hypothesis, the one that addresses information demand. A report that addresses all hypotheses is also provided at the registry platform under the name *Report Meat Consumption Can Trigger Information Avoidance*.

[4] We used three pools of laboratory participants because we anticipated that it could be difficult to recruit participants with no dietary restrictions – even more so after the pandemic, where laboratory pools declined to a trough. Still, we were not able to recruit the necessary number of participants for the two treatment variations that we originally planned. Therefore, we had to discontinue one of the meat treatments. The discontinued treatment was a variation in which meat was not immediately served but delayed to the end of the experiment. This change was transparently documented in the update to the pre-registration online.

some socio-demographic questions, they faced a series of 26 questions on their attitudes. Finally, they faced a third series of eight incentivized questions that explored the participants' knowledge. The knowledge and attitudes questions in the survey are exactly the same as the ones used in the lab two weeks later.[5]

2.2.4 Descriptive statistics

Table 2 provides descriptive statistics for the main variables in the Beef-Pork Experiment. The outcome variables consist of information avoidance dummies for beef or pork across the three dimensions: animal welfare, environment, and health. The main control variables are: *Female, Age, Lab dummy.*

Table 2: Descriptive statistics of main variables: Beef-Pork experiment

Outcome Variables	Mean	Std. Dev.	Min	Max
Info-avoid. Beef Env.	0.30	0.46	0	1
Info-avoid. Beef A-W	0.32	0.47	0	1
Info-avoid. Beef Health	0.24	0.43	0	1
Info-avoid. Pork Env.	0.31	0.46	0	1
Info-avoid. Pork A-W	0.32	0.47	0	1
Info-avoid. Pork Health	0.27	0.44	0	1
Control Variables				
Female	0.60	0.49	0	1
Age	23.56	4.33	19	46
Lab dummy	0.45	0.50	0	1
Observations	146			

Notes: *Info avoid. Beef Env.* is a dummy variable which is 1 if a respondent avoided the information on beef & environment even if it was free. The same holds for all information items. A-W stands for Animal Welfare. The variable *Lab dummy* is 1 for the observations from the Aare-Lab in Berne and 0 for the observations from the FriLab in Fribourg.

[5]Here we focus on the effects on information demand. The construction of the attitudes and knowledge scores, along with the corresponding analyses, can be found in the Online Appendices A.5 and A.6.

2.3 Chicken Experiment

2.3.1 Overview

To test the hypothesis that eating meat (or, believing that one is eating meat) will reduce information demand for animal welfare in farms, we manipulated information about the food being consumed. Table 3 shows the experimental design for the Chicken experiment.

In the experiment, all participants ate plant-based chicken nuggets (faux nuggets); however, only those randomly assigned to the control group were explicitly told that the food consisted entirely of plant-based ingredients. Participants in the treatment group were not informed of the plant-based nature of the nuggets, leaving them with the natural presumption that the nuggets were real chicken. An essential feature of the design is to create a gap in participants' expectations about the food item across the conditions by withholding information.

There are heterogeneous views in the profession on whether withholding information should be considered deception. Charness et al. (2022) survey the experimental economics community on their views about designs that omit information or are misleading (without explicit lies). Depending on the particular case and circumstances, some uses of omission are considered appropriate by the community, and others somewhat less so. One of the paper's main points is that benefit-cost analysis ought to play a role in the consideration of these "deceptive grey zones." We try to follow practices shown in similar setups for studying animal-welfare issues (e.g. Espinosa and Treich, 2023). Our team considered feeding real chicken nuggets to the treatment group, but preferred the faux chicken-nugget design out of animal-welfare concerns (Norwood and Lusk, 2011; Espinosa, 2024). The harm in producing the several hundred nuggets consumed for the experiment would be on the order of about 100 chicken-days in a factory farm.[6] Furthermore, the omission of information does not violate incentive compatibility, which is often the main concern about deception in economic experiments.

We chose Impossible Chicken Nuggets because our informal taste tests showed that this brand's faux nuggets taste almost identical to real chicken nuggets. Furthermore, to ensure the effectiveness of our manipulation, we asked all participants to write down the first three ingredients of the nuggets. Participants in the control condition who only listed plant-based ingredients and participants in the treatment condition who included "chicken" or a meat

[6]It is unclear how many chicken nuggets can be produced from the meat of a single chicken because exact recipes for large producers of chicken nuggets (Tyson, McDonald's) are not available. The meat of a whole chicken can vary but is approximately 1kg. The weight of a chicken nugget is approximately 16g. Given that chicken nuggets have many ingredients, it is likely that a large fraction of their mass is not from chicken. If we assume 50% of the mass is chicken, then about 120 chicken nuggets can be produced from a single chicken. This would require about 3 chickens to produce the amount of nuggets used in the experiment. A factory farmed broiler takes about 47 days to raise to slaughter in the U.S., yielding a back-of-the-envelope estimate of 150 chicken-days in a factory farm to produce the requisite number of nuggets.

ingredient passed the manipulation check and were included in subsequent analysis.[7] Of the 129 participants in the control condition, 82 passed the manipulation check (63.6%), whereas 121 of 138 participants in the treatment condition passed the manipulation check (87.7%).

Table 3: Experimental design for the Chicken Experiment

Control	Informed that nugget is plant-based	Video selection	Video watching	Attitudes	Knowledge	Behavior
T-Meat	Uninformed that nugget is plant-based	Video selection	Video watching	Attitudes	Knowledge	Behavior

The experiment started with a few brief questions about whether participants had eaten anything in the last 3 hours and their current hunger level. Participants were then presented with positive product reviews of the nuggets they were about to consume, emphasizing the product's taste. The intention was to increase the salience of the nuggets.

Participants were presented with an image and a collection of customer reviews related to the food item. After reading the reviews, participants were directed to a table where they were served the nuggets. Once they finished eating, they returned to their seats to continue with the survey.[8] Participants then rated their satisfaction with the product to further increase the salience of the nuggets.[9]

2.3.2 Eliciting information demand

Participants were provided with written descriptions of two TED Talk videos (of length 10 minutes each), each representing contrasting perspectives on animal agriculture. One was a pro-farm video, emphasizing the positive effects of animal agriculture on the environment, whereas the other was a pro-animal video, discussing issues related to factory farming and advocating for animal welfare. Neither video contained any graphic imagery.[10] After reading the descriptions,

[7] As a robustness test, we also ran the analyses with all subjects, including those who did not pass the manipulation check. The results were essentially the same. We report these results in Tables B.10–B.13 in the Online Appendix B.7.

[8] Due to the Covid-19 pandemic, the IRB required consumption of the food to occur outside the experimental lab.

[9] The average food rating is 17.87 in control vs. 16.18 among uninformed. The difference is statistically significant $p = 2.8 \times 10^{-5}$. This is consistent with the finding in Belot and Teh (2024), who find that people rate a plant-based product higher in taste when they know that it is plant-based.

[10] The videos are a TED Talk *How to fight desertification and reverse climate change* by Allan Savory in 2013 (https://www.ted.com/talks/allan_savory_how_to_fight_desertification_and_reverse_climate_change) and a TEDx Talk *The ostrich effect: The truth we hide from ourselves* by Ed Winters in 2019 (https://www.youtube.com/watch?v=nrVEYTSe-o8). We edited both videos to be of a similar length, approximately

participants were asked to make their video selections. They were presented with three questions: whether they would like to watch the pro-farm video or not, whether they would like to watch the pro-animal video or not, and which video they preferred to watch. If they received no video, participants had to wait for others to catch up before proceeding to the next stage.

We designed this with the intention that the treatment – believing that one is eating meat – would lead one to increase their demand for the pro-farm video and decrease their demand for the pro-animal welfare video. That said, in Online Appendix B.6 we also estimate the effect of the treatment on downstream behavior. Specifically, we estimate the treatment effects on donations to a pro-animal agriculture organization and donations to an animal-welfare organization. We estimate treatment effects on signing a petition to ban farrowing crates and signing a petition to support agricultural education.[11] In Online Appendix B.5, we also estimate the effects of the treatment on mediator variables: knowledge in an incentivized quiz, the bias of mistakes in the quiz towards the direction of pro-animal welfare (we use this as an incentivized measure of pro-animal welfare beliefs), attitudes about animal farming, and attitudes about animal intelligence.[12]

2.3.3 Implementation

Our pre-analysis plan was registered at the American Economic Association's Social Science registry AEARCTR-0010214.[13] Protocols #3573 and #4564 were deemed exempt from IRB supervision by CGU IRB. We recruited subjects from college campuses in California, USA. A total of 267 students participated in the study, with 194 recruited from the Claremont Colleges and 73 from Cal State University, Long Beach.[14] The entire experiment took about 40 minutes,

10 minutes each. The edited versions have been uploaded to our OSF website. The pro-animal video, though not about chickens specifically, is a moral condemnation of factory farming as a whole, which includes chickens (and they are specifically mentioned). The pro-farm video is less related to chickens as the focus is on grazing livestock. This could be construed by participants as irrelevant. We presumed that the video would be construed broadly in favor of animal farming, and the treatment condition as broadly about "eating meat", as opposed to the video being construed more narrowly as in favor of cattle farming and the treatment condition more narrowly about "eating chicken". Our presumption of broad construal is based on the results in Loughnan et al. (2010), which showed that eating dried beef reduced self-reported moral concern for a list of 27 animal species.

[11] Effects on similar outcome variables have been found for undercover videos on intensive farming (Espinosa et al., 2024).

[12] The construction of the attitudes and knowledge scores, along with the elicitation of behavior can be found in Online Appendix B.3 and B.4.

[13] To find the pre-analysis plan please open the *Analysis Plan* tab and click *PAP*. It can also be found in the Online Appendix B.1. While we focus on demand for information in this paper, the results on the outcomes of behavior, attitude, and knowledge, are discussed in Online Appendix B.5 and B.6. Additional analyses specified in our pre-analysis plan are reported in Appendix B.8.

[14] Our PAP states, "The ideal sample is N=300. We have struggled in the past with recruitment. If we cannot reach N=300 by Jan 2023 we may need to revise this number lower in an update." We exhausted our Claremont Colleges sample and proceeded to move the experiment to CSULB. By the end of January 2023, in the aftermath of the COVID-19 pandemic, attendance for lab experiments had dried up on our campuses. Sessions had to be

and average earnings were $12. During the experiment, we also instructed participants not to engage in conversations throughout the entire survey, particularly while they were eating. We did not encounter any adverse events. The instructions are available in Online Appendix B.9.

2.3.4 Descriptive statistics

Table 4 shows the descriptive statistics of our sample. "Number of farmers" and "Number of vegans" refers to the number of friends and family the subject has who fit the label.

Table 4: Descriptive statistics of main variables: Chicken experiment

Outcome Variables	Mean	Std. Dev.	Min	Max
Video Pro-farmer	.96	.21	0	1
Video Pro-animal	.88	.33	0	1
PF over PA	.67	.47	0	1
Control Variables				
Eat before	.37	.48	0	1
Hunger	5.1	1.3	1	7
Female	.62	.49	0	1
White	.39	.49	0	1
Highschool in US	.81	.39	0	1
Political orientation	.29	.46	0	1
Eat on campus	.56	.5	0	1
Pomona College	.72	.45	0	1
Number of farmers	1.1	1.9	0	10
Number of vegans	2.2	2.4	0	10
Observations	203			

Note: The descriptive statistics are generated for the sample that excludes participants who did not pass the manipulation check.

canceled due to zero attendance, and so we concluded recruitment with 11% below are targeted sample size.

2.4 Key differences between the Beef-Pork and Chicken experimental designs

Table 5: Comparison between the Beef-Pork and Chicken Experiments

Main Differences	**Beef-Pork Experiment**	**Chicken Experiment**
Treatment (Eating)	Beef and Pork vs. No meat	Uninformed nugget is plant-based (PB) vs. Informed nugget is PB
Demand for Information	Multiple price list. Information avoidance dummy for Beef/Pork & Environment/Animal Welfare/Health	Yes/No to watch video A and B. Selection between video A and B.
Types of Information	Beef/Pork production & Environment article. Beef/Pork production & Animal Welfare article. Beef/Pork consumption & Health article. (Randomized.)	Pro-Animal Agriculture video. Pro-Farmed Animal Welfare video. No video. (Randomized.)
Knowledge	Knowledge score: 8 multiple-choice questions with "I don't know" (IDK) option.	8 multiple-choice questions. Questions were designed not to assess knowledge conveyed from the videos, but to asses belief in facts either supporting animal welfare or supporting animal agriculture.
Attitudes	Consequences score: 6 questions (Likert scale 1-7) Justification score: 10 questions (Likert scale 1-7)	Animal-farming industry: 8 questions (Likert scale 1-7) Farmed animal intelligence: 7 questions (Likert scale 1-7)
Behavior	– –	Donation to a animal-welfare charity. Donation to an animal-farmer charity. Sign a petition to ban farrowing crates (pro-animal welfare). Sign a petition to support agricultural education (pro-farmer).

3 Results on information demand

3.1 Results on information demand in the Beef-Pork Experiment

The hypothesis stipulates that treated subjects are less willing to pay for information about meat. We measure the information demand with the dummy variable *Information Avoidance*, which is 1 if a subject avoids information even when it is offered for free and 0 otherwise. There are three information items for each beef and pork, as we offer information about environment, animal welfare, and health for both.

Figure 1 shows the frequency of information avoidance for each information item. This bivariate analysis already indicates that the treatment had a mixed effect across the outcome variables. Information avoidance seems to be triggered for some information items but not for others.

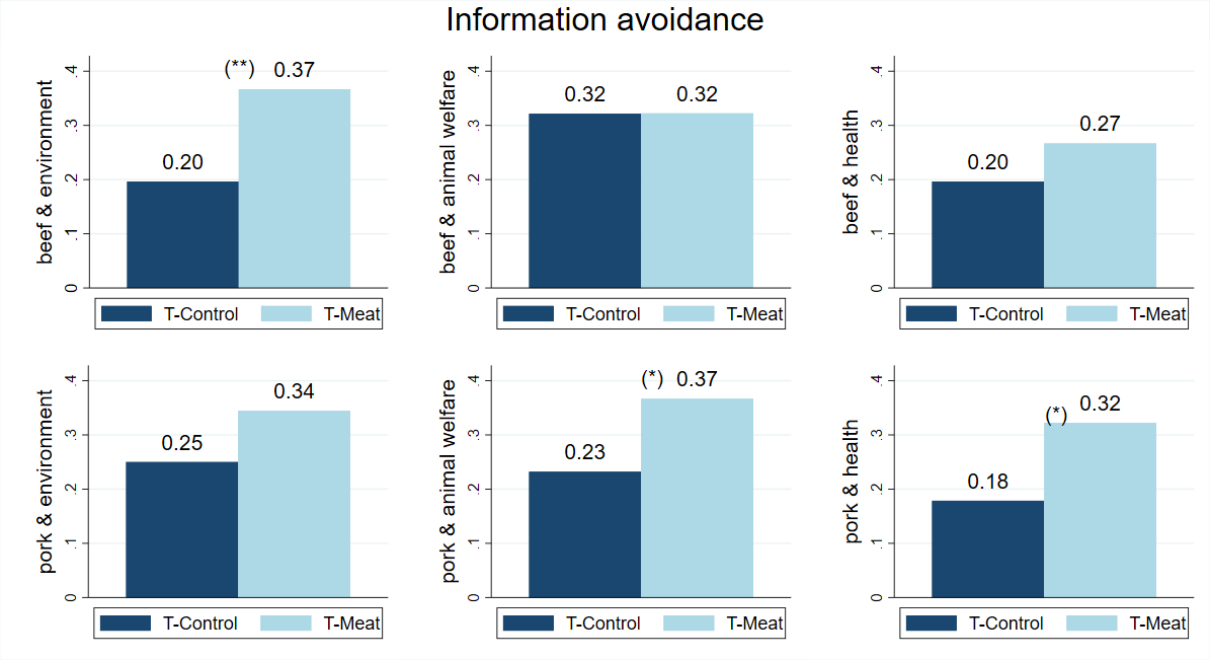

Figure 1: Information avoidance by information item

Notes: The variable information avoidance reflects the proportion of participants who refused the information item even if it is for free. The stars come from the Chi^2-test performed and express $^*p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$. n=146.

To test effects, we run logistic regressions with robust standard errors. We run each model with and without control variables.[15] In particular, we control for age, gender and the lab

[15]Due to the randomization of treatments, it is in principle not necessary to have control variables for causal identification. We still want to test this, as there could be differences between treatment group and control due

Table 6: Information choice in Beef-Pork Experiment

	(1)	(2)	(3)	(4)	(5)	(6)
	Info-avoid. Beef Env.	Info-avoid. Beef Env.	Info-avoid. Beef A-W	Info-avoid. Beef A-W	Info-avoid. Beef Health	Info-avoid. Beef Health
T-Meat	0.179**	0.186**	0.000794	-0.00115	0.0720	0.0964
	(0.0821)	(0.0867)	(0.0798)	(0.0839)	(0.0746)	(0.0779)
Controls	No	Yes	No	Yes	No	Yes
Mean Dep Var	0.301	0.301	0.322	0.322	0.240	0.240
Observations	146	145	146	145	146	145
	Info-avoid. Pork Env.	Info-avoid. Pork Env.	Info-avoid. Pork A-W	Info-avoid. Pork A-W	Info-avoid. Pork Health	Info-avoid. Pork Health
T-Meat	0.0967	0.0852	0.139*	0.151*	0.151*	0.178**
	(0.0807)	(0.0857)	(0.0820)	(0.0878)	(0.0788)	(0.0814)
Controls	No	Yes	No	Yes	No	Yes
Mean Dep Var	0.308	0.308	0.315	0.315	0.267	0.267
Observations	146	145	146	145	146	145

Notes: Logit average marginal effects of information choice. *Info-avoid. Beef Env.* is a dummy variable which is 1 if a respondent avoided the information on beef & environment even if it was free. The same holds for all information items. A-W stands for Animal Welfare. Robust standard errors are in parentheses. $^{*}p < 0.1$, $^{**}p < 0.05$, $^{***}p < 0.01$

in which the sessions were conducted. The marginal effects of the regression are presented in Table 6 (while the original regressions are reported in the Online Appendix A.4). The upper parts of Columns (1)–(2) show the effect of the treatment on information avoidance with respect to beef & environment, with and without controls. The further parts of the table address the other information items in the same way.

The table supports the previous observations. The consumption of meat appears to trigger the avoidance of information specifically related to the environmental impacts of beef production. In terms of marginal effects, meat consumption increases the probability of avoiding information about beef & environment by 17.9 percentage points ($p = 0.029$). For pork, meat consumption increases the probability of avoiding information about pork & animal welfare by 13.9 percentage points ($p = 0.09$) and raises the probability of avoiding information about pork & health by 15.1 percentage points ($p = 0.056$). Although the effects on pork are only weakly significant, they are also quite sizable.

The effects remain significant and do not decrease in size even when control variables are

to noise, which can be substantial given our relatively small sample size. Moreover, including control variables is generally more efficient, yielding more precisely estimated treatment effects.

included. Adjusting for multiple hypothesis testing by the Romano-Wolf correction, the effects on beef & environment, and the effects on pork & health remain significant, while this is not the case for pork & animal welfare.[16] Hence, we conclude from the Beef-Pork experiment that meat consumption *can* reduce the probability of seeking information for specific information items. It seems that the effect of eating meat on information acquisition may be specific to some dimensions linked to the currently consumed animal. This suggests that the contemporaneous effects of meat consumption are limited in scope, but they can be potentially large.

While we have been ex-ante largely agnostic about which dimensions are more or less prone to be affected by our treatment, as the theory did not provide us with much guidance on this, we observe that the results are ex-post plausible. For beef, which embodies red meat, environmental concerns are a significant issue. In contrast, when it comes to pork, particularly in the form of rich salami sticks, health concerns naturally arise. However, animal welfare considerations for cows in Switzerland do not seem to be a major concern.

The elicitation using a multiple-price list allows us to closely examine the extent of information avoidance and information-seeking behavior. The distribution of the willingness-to-pay proxy, shown in Figure A.3 of the Online Appendix A.4, reveals that the most common responses are near zero. Specifically, in the control group, the modal answer for any information item is to accept it when it is offered for free, but to reject it when the cost is the lowest positive amount of 25 points, which is approximately 0.25 USD. In the treatment group, more participants avoid information when it is free, but most of them would still accept it when paid a small amount (25 points). The observation that the shift of behavior happens around zero suggests that the effects on information demand that we find are relatively small.

3.2 Results on information demand in the Chicken Experiment

In the Chicken Experiment, 203 out of the 267 subjects who participated successfully passed the manipulation check. To test for selection based on the manipulation check, we regress the treatment status on the control variables and then conduct an F-test for the joint significance of the control variables. This shows whether treatment assignment can be jointly predicted by the control variables. The resulting p-value of 0.901 indicates no significant difference between the two conditions.[17] We also run a Wilcoxon-Mann-Whitney test for each control variable. No significant differences between treatments are detected. P-values are reported in the Online Appendix Table B.5.

In the treatment group, participants were not informed that the nuggets they consumed were

[16]The results of the Romano-Wolf correction are displayed in Online Appendix A.4.3.

[17]The descriptive statistics without the manipulation check are presented in the Online Appendix Table B.4.

plant-based. We hypothesize that the conflict arising from cognitive dissonance will lead those who believe they are eating meat to be less inclined to seek information about the treatment of animals in factory farms. Conversely, participants who think they are eating meat may exhibit a greater interest in the pro-farmer video, as it offers an ethical justification for consuming meat.

Table 7 shows the results of regressing the information choice on the treatment and shows the average marginal effects.[18] Only subjects who passed the manipulation check are included in our analysis. We also include controls on whether the participants have eaten anything, their hunger level, gender, race, whether they went to high school in the US, their political orientation, where they eat more often, location of the experiment, how many friends and family members are farmers, how many friends and family members are vegans. Columns (1)–(2) show the effect of the treatment on choosing the pro-farmer video, with and without controls, whereas Columns (3)–(4) show the effect of the treatment on choosing the pro-animal video, with and without controls. We also asked subjects to choose between these two videos. Columns (4)–(6) show the results for the choices of pro-farmer video over pro-animal video.

Contrary to our hypothesis in Section 2.1, none of the estimated coefficients of the treatment variable are statistically significant. We cannot reject the null hypothesis, that the manipulation had no effect on the demand for information about the treatment of animals.[19]

Table 7: Information choice in Chicken Experiment

	(1) Pro-Farm Video	(2) Pro-Farm Video	(3) Pro-Animal Video	(4) Pro-Animal Video	(5) Pro-Farm or Pro-Animal	(6) Pro-Farm or Pro-Animal
T-Meat	-0.038	-0.041	0.018	0.020	0.031	0.023
	(0.036)	(0.035)	(0.047)	(0.046)	(0.067)	(0.065)
Controls	No	Yes	No	Yes	No	Yes
Mean Dep Var	0.956	0.956	0.877	0.877	0.665	0.665
Observations	203	203	203	203	203	203

Notes: Logit average marginal effects of information choice. Robust standard errors are in parentheses. $*p < 0.10$, $**p < 0.05$, $***p < 0.01$.

[18]The results of the Ordinary Least Squares (OLS) analysis are presented in the Online Appendix Table B.6 and the results without manipulation check are presented in the Online Appendix Table B.10.

[19]Proportion tests are also performed for the same analyses. The results are presented in the Online Appendix Table B.7.

4 Discussion and conclusion

4.1 Reconciling the mixed results

The Beef-Pork Experiment showed that eating beef causes avoidance of information about the environmental impact of cows, and eating beef and pork causes avoidance of the health effects of pork. For preferences on cow animal-welfare, beef and health, pigs and the environment, and pig animal-welfare we are unable to reject the null hypotheses. Likewise the Chicken Experiment showed no detectable effect on information preferences for the animal-welfare video or the pro-animal farming video. What explains the difference in results? We consider several explanations.

First, the specific type of animal and type of meat appears to play a role. We see different effects from cows versus pigs versus chickens. People have different associations with these animals, and they may perceive the harms differently.

Second, linking the information to the specific type of meat may matter. The Beef-Pork Study found significant effects on information avoidance for topics directly linked to the consumed meat (environmental impacts for beef and health risks for pork), while the Chicken Study, which provided more general information about animal welfare, did not show similar patterns. The effect of eating meat on information preference may be specific to only information about the currently consumed animal.

Third, the topic of the information also appears to be relevant. While the Beef-Pork Experiment observed significant effects related to environmental and health concerns, no detectable effects were found for animal welfare, which was also the focus of the Chicken Experiment. This might indicate that certain information domains may evoke stronger avoidance behaviors due to the perceived severity of the issues involved.[20]

Digging deeper, we speculate that avoiding the messages may not be about avoiding information per se (or a desire to manipulate one's own beliefs), but about avoiding attention towards the topic.[21] Specifically, in the domain of animal welfare and information preferences, Epperson and Gerster (2024) show that animal-welfare information-avoiders seem to avoid mostly from distaste of viewing violence. Their beliefs do not update much from viewing the information (a virtual-reality video), but it does cause them greater negative affect. Many people are concerned about

[20]Consumption can have additional effects on information demand, besides inducing motivated beliefs. Information about a product that one consumes is more relevant and, hence, more valuable than information about a product that is not consumed. Consistently, we find in an additional online experiment (see Online Appendix C) that the demand for information is larger when it concerns one's own favorite product compared to a hypothetical product. Similarly, before starting the Beef-Pork Experiment, we made first tryouts with crocodile meat. Our impression from these tryouts was that those treated had higher net information demand because they were curious to learn more about the meat they had just consumed.

[21]Several recent papers have emphasized the role of attention in information preferences (Tasoff and Madarasz, 2009; Golman and Loewenstein, 2015; Ganguly and Tasoff, 2017; Golman et al., 2022; Falk and Zimmermann, 2023; Saccardo and Serra-Garcia, 2023; Bolte and Raymond, 2024; Capra et al., 2024).

climate change and the effect of cows on climate change is widely discussed in popular media. Likewise, pork is often perceived as the least healthy meat (Verbeke et al., 1999). Subjects may be aware of the messages' contents and avoid them to avoid feeling guilty about their current consumption. They may expect that the most negatively loaded content for cows will relate to the environment, and the most negatively loaded content for pigs will relate to health. Under this interpretation, information avoidance of this kind does not change one's beliefs, as avoiders are already familiar with the content. Instead, it shifts their attention, which causes disutility. The relationship between attention and information remains a fascinating avenue for future research.

Fourth, differences in results may stem from differences in samples. Although both experiments used university students, the Swiss sample in the Beef-Pork Experiment may have different baseline attitudes towards climate change, diet, and animal welfare compared to the Californian sample in the Chicken Experiment. Different baselines may potentially lead to different effects. Ex ante, we would not expect any relevant effect differences between the samples, but cultural attitudes about diet and climate change are likely to differ somewhat. Our casual observation is that Europeans tend to be more concerned about climate change than Americans. We do not think the difference in samples is likely driving the difference in results, but it is possible. Similarly, the possibility of sample variation cannot be ruled out. Replication experiments are especially warranted given the mixed findings.

These results also offer valuable lessons for designing future experiments. Researchers should carefully consider the type of animal and meat, as people associate different harms and perceptions with different animals. They should also consider linking the information to the specific type of meat being consumed and carefully think about the topic of the information. Lastly, the cultural context may influence results and should be taken into account.

4.2 Maybe the real results are the friends we made along the way ...

Originally, the Beef-Pork Experiment and Chicken Experiment were independently designed, run, and analyzed. The different results led the two teams to different initial conclusions. The Beef-Pork team affirmed the possibility result. Their results showed that eating meat could change information preferences. In contrast, the Chicken team found only null results (aside from replicating the treatment effect on attitudes found in the psychology literature) and concluded that the attitudinal shift found in the psychology literature did not translate to a shift in behavior.

Jointly, we arrive at a yet different third conclusion. We interpret the evidence as showing that eating meat does change information preferences, but this change is contingent on the

specific details about the meat and the information, and is less robust overall than what we inferred from our reading of the psychology literature.

In experimental research, scientific teams often work sequentially, with the lead team creating an experimental paradigm which becomes the foundational precedent for the following team. Additional teams may continue along this path, all based on the original framework. But how sensitive were those initial results to the original design?

In our case, we were lucky because the two research teams decided to pursue the research question in parallel. If instead we had worked sequentially, the sensitivity of the results to design choice may not have been uncovered. We wonder to what extent research in experimental economics fits this description. This remains an open question.

Meat consumption is associated with many harms. Finding ways to reduce it is important for the environment, animal welfare, and human health. If eating meat causes motivated reasoning in this domain, it may be relevant for the efficacy of various policies. For example, if eating meat reduces demand for information about the harms of meat, policies that time information when people are not eating meat (avoiding typical lunch and dinner times; using Meatless Mondays, Lent, etc.) may be more effective. Likewise, packaging information with incentives to temporarily reduce meat consumption may be particularly effective.

Finally, more research is needed to better understand the importance of motivated reasoning in maintaining high-meat diets. Our study found evidence consistent with motivated reasoning but that does not imply that motivated reasoning is a key consideration in shifting meat demand. The effects of culture, price, habit, attention, convenience, and contextual cues may swamp the relative importance of motivated reasoning. Future research should help to quantify the relative importance of motivated reasoning in sustaining high-meat diets.

Declaration about generative AI

During the preparation of this work the author(s) used Claude Sonnet and GPT 4o in order to improve language of the introduction. After using these tools, the authors reviewed and edited the content as needed and take full responsibility for the content of the publication.

References

Bastian, Brock, Kimberly Costello, Steve Loughnan, and Gordon Hodson, "When Closing the Human–Animal Divide Expands Moral Concern: The importance of framing," *Social Psychological and Personality Science*, 2012, *3* (4), 421–9.

Bell, Eryn, F Bailey Norwood, and Jayson L Lusk, "Are Consumers Wilfully Ignorant about Animal Welfare?," *Animal Welfare*, 2017, *26* (4), 399–402.

Belot, Michèle and Adelson Teh, "Go Vegan? Prejudice,(Blind) Experimentation, and Food Choices," *AEA Papers and Proceedings*, 2024, *114*, 666–671.

Bolte, Lukas and Collin Raymond, "Emotional Inattention," *Available at SSRN 4776766*, 2024.

Brodeur, Abel, Nikolai M Cook, Jonathan S Hartley, and Anthony Heyes, "Do Pre-Registration and Pre-Analysis Plans Reduce p-Hacking and Publication Bias? Evidence from 15,992 Test Statistics and Suggestions for Improvement," Technical Report, I4R Discussion Paper Series 2024.

Capra, C Monica, Joshua Tasoff, and Jin Xu, "To Savor Consumption or to Confront Dread: The Hedonic Opportunity Cost of Attention," 2024. Working Paper.

Charness, Gary, Anya Samek, and Jeroen van de Ven, "What is considered deception in experimental economics?," *Experimental Economics*, 2022.

Chen, Daniel L, Martin Schonger, and Chris Wickens, "oTree—An open-source platform for laboratory, online, and field experiments," *Journal of Behavioral and Experimental Finance*, 2016, *9*, 88–97.

Clayton, Susan, Paul C. Stern, Lorraine Whitmarsh, Amanda Carrico, Linda Steg, Janet Swim, and Mirilia Bonnes, "Psychological research and global climate change," *Nature Climate Change*, 2015, *5* (7), 640–646.

Dana, Jason, Roberto A Weber, and Jason Xi Kuang, "Exploiting Moral Wiggle Room: Experiments Demonstrating an Illusory Preference for Fairness," *Economic Theory*, 2007, *33* (1), 67–80.

Epperson, Raphael and Andreas Gerster, "Willful Ignorance and Moral Behavior," 2024. Available at SSRN 3938994.

Espinosa, Romain, "Animals and Social Welfare," *Social Choice and Welfare*, 2024, *62* (3), 465–504.

_ and Jan Stoop, "Do people really want to be informed? Ex-ante evaluations of information-campaign effectiveness," *Experimental Economics*, 2021, *24*, 1131–1155.

_ and Nicolas Treich, "Eliciting non-hypothetical willingness-to-pay for novel products: An application to cultured meat," *Environmental and Resource Economics*, 2023, *85* (3), 673–706.

_ , Sylvie Borau, and Nicolas Treich, "Impact of NGOs' undercover videos on citizens' emotions and pro-social behaviors," *Scientific Reports*, 2024, *14* (1), 20584.

Falk, Armin and Florian Zimmermann, "Attention and Dread: Experimental Evidence on Preferences for Information," *Management Science*, 2023.

FAO, "FRA 2020 Remote Sensing Survey," 2022.

Freddi, Eleonora, "Do People Avoid Morally Relevant Information? Evidence from the Refugee Crisis," *Review of Economics and Statistics*, 2021, *103* (4), 605–20.

Ganguly, Ananda and Joshua Tasoff, "Fantasy and Dread: The Demand for Information and the Consumption Utility of the Future," *Management Science*, 2017, *63* (12), 4037–4060.

Golman, Russell and George Loewenstein, "An Information-Gap Framework for Capturing Preferences about Uncertainty," in "Proceedings of the fifteenth Conference on Theoretical Aspects of Rationality and Knowledge" 2015.

_ , David Hagmann, and George Loewenstein, "Information Avoidance," *Journal of Economic Literature*, 2017, *55* (1), 96–135.

_ , George Loewenstein, Andras Molnar, and Silvia Saccardo, "The Demand for, and Avoidance of, information," *Management Science*, 2022, *68* (9), 6454–6476.

Haile, M., A. Jalil, J. Tasoff, and Vargas Bustamante A., "Changing Hearts and Plates: The Effect of Animal-Advocacy Pamphlets on Meat Consumption," *Frontiers in Psychology*, 2021, *12*.

Hedenus, Fredrik, Stefan Wirsenius, and Daniel JA Johansson, "The importance of reduced meat and dairy consumption for meeting stringent climate change targets," *Climatic Change*, 2014, *124* (1-2), 79–91.

Herzog, Hal and Mel Foster, *Some We Love, Some We Hate, Some We Eat*, Tantor Audio, 2010.

Hestermann, Nina, Yves Le Yaouanq, and Nicolas Treich, "An Economic Model of the Meat Paradox," *European Economic Review*, 2020, *129*, 103569.

Huet-Vaughn, Emiliano, Minh Pham, Joshua Tasoff, and Eva Vivalt, "Moral Preferences and the Marketplace of Ideas," 2024. Working Paper.

Joy, Melanie, *Why We Love Dogs, Eat Pigs, and Wear Cows: An introduction to Carnism*, Red Wheel, 2020.

Kunda, Ziva, "The case for motivated reasoning," *Psychological Bulletin*, 1990, *108* (3), 480–498.

Larson, Tara and C Monica Capra, "Exploiting moral wiggle room: Illusory preference for fairness? A comment," *Judgment and decision Making*, 2009, *4* (6), 467–474.

Lavaine, Emmanuelle, Philippe Majerus, and Nicolas Treich, "Health, Air Pollution, and Animal Agriculture," *Review of Agricultural, Food and Environmental Studies*, 2020, *101* (4), 517–28.

Leach, Stefan, Jared Piazza, Steve Loughnan, Robbie M Sutton, Ioanna Kapantai, Kristof Dhont, and Karen M Douglas, "Unpalatable Truths: Commitment to Eating Meat Is Associated with Strategic Ignorance of Food-Animal Minds," *Appetite*, 2022, *171*, 105935.

Loughnan, Steve, Nick Haslam, and Brock Bastian, "The Role of Meat Consumption in the Denial of Moral Status and Mind to Meat Animals," *Appetite*, 2010, *55* (1), 156–9.

Lusk, J. L. and F. B Norwood, "Animal Welfare Economics," *Applied Economic Perspectives and Policy*, 2011, *33*, 463–483.

Mateo-Sagasta, Javier, Sara Marjani Zadeh, Hugh Turral, and Jacob Burke, "Water Pollution from Agriculture: A Global Review. Executive Summary," Technical Report, Food and Agriculture Organization of the United Nations 2017.

Nordström, Jonas, Linda Thunström, Klaas van't Veld, Jason F Shogren, and Mariah Ehmke, "Strategic Ignorance of Health Risk: Its Causes and Policy Consequences," *Behavioural Public Policy*, 2023, *7* (1), 83–114.

Norwood, F Bailey and Jayson L Lusk, *Compassion, by the pound: The economics of farm animal welfare*, Oxford University Press, 2011.

Onwezen, Marleen C and Cor N van der Weele, "When Indifference Is Ambivalence: Strategic Ignorance about Meat Consumption," *Food Quality and Preference*, 2016, *52*, 96–105.

Plous, Scott, "Psychological Mechanisms in the Human Use of Animals," *Journal of Social Issues*, 1993, *49* (1), 11–52.

Poore, Joseph and Thomas Nemecek, "Reducing Food's Environmental Impacts through Producers and Consumers," *Science*, 2018, *360* (6392), 987–92.

Reisch, Lucia A, Cass R Sunstein, and Micha Kaiser, "What Do People Want to Know? Information Avoidance and Food Policy Implications," *Food Policy*, 2021, *102*, 102076.

Ritchie, Hannah, Pablo Rosado, and Max Roser, "Meat and dairy production," *Our world in data*, 2023.

Saccardo, Silvia and Marta Serra-Garcia, "Enabling or limiting cognitive flexibility? Evidence of demand for moral commitment," *American Economic Review*, 2023, *113* (2), 396–429.

Serra-Garcia, Marta and Nora Szech, "The (In) Elasticity of Moral Ignorance," *Management Science*, 2022, *68* (7), 4815–34.

Singer, Peter, *Animal Liberation Now*, Random House, 2023.

Tasoff, Joshua and Kristof Madarasz, "A Model of Attention and Anticipation," 2009. Working Paper.

Tilman, David and Michael Clark, "Global diets link environmental sustainability and human health," *Nature*, 2014, *515* (7528), 518.

Verbeke, W, MJ Van Oeckel, N Warnants, Jacques Viaene, and Ch V Boucqué, "Consumer perception, facts and possibilities to improve acceptability of health and sensory characteristics of pork," *Meat science*, 1999, *53* (2), 77–99.