

Preregistration: “The Politicization of Animal-Based Food Production and Consumption: Effects on Attitudes, Policy Preferences and Voter Mobilization”

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1 Abstract

The production and consumption of animal-based food have increasingly become a polarized and salient issue in political debates. The issue resembles the dynamics of a wedge issue – a topic strategically emphasized by parties, especially populist parties, to mobilize and polarize supporters. On 27 September 2026, Swiss citizens will vote on the «Initiative für eine sichere Ernährung (Ernährungsinitiative)» in a popular vote. The initiative calls for increased domestic food self-sufficiency and a shift from animal food toward more plant-based food production and consumption. This pre-registered study leverages this real-world vote to experimentally examine how the politicization around the issue of animal-based food consumption and production, specifically its salience and polarization, shapes citizens' attitudes, food policy preferences, and stated as well as reported voting behavior. Using a two-wave online survey experiment with approximately 2,200 eligible Swiss voters, we randomly assign participants in a first survey wave to one of four information conditions that vary in how salient and polarized the issue is presented. Attitudes, policy preferences, and voting intentions are measured following treatment exposure. A second survey wave, conducted shortly after the vote, reassesses these outcomes and captures participants' reported voting behavior. The study speaks to the broader literature on issue politicization and its consequences for democratic participation and policy preference formation.

2 General Information

2.1 Background

Meeting international climate targets requires substantial changes to food production and consumption patterns, particularly in affluent countries such as Switzerland. Unsustainable diets, especially the overconsumption of animal-based products, are a major driver not only of climate change, but also of biodiversity loss, environmental degradation, and diet-related health problems (IPCC, 2022; Poore & Nemecek, 2018; Westhoek et al., 2014). Research suggests that shifting towards more plant-based diets offers substantial potential to address these challenges (Poore & Nemecek, 2018; Popp et al., 2010). Achieving such a shift is challenging due to established food habits and limited public awareness of the wider impact of different foods, meaning that demand-side policy measures are considered necessary to support a transition toward more plant-based diets (Hartmann & Siegrist, 2020; Kukowski et al., 2023; Schulze et al., 2024).

However, the necessary policy change has largely not materialized, partly due to policymakers' fear of public backlash (Michielsen & van der Horst, 2022) and a growing body of literature points to an increasingly salient and polarized discourse around food consumption and production, particularly concerning animal-based foods (Boterman & Hartevelde, 2026; Garcia et al., 2019; Michielsen & van der Horst, 2022). Public discourse on meat reduction is described as highly polarized, with competing framings among stakeholders posing a substantial obstacle to political and societal consensus (Bateman

et al., 2019). Further, framing an issue as salient and contested in public discourse can in turn shape individual perceptions and behavior (Bateman et al., 2019). In several European countries, including Switzerland, meat consumption has also become an increasingly contested political issue, debated in the media, in political campaigns, and in popular votes (Boterman & Harteveld, 2026). On 27 September 2026, Swiss voters will decide on the “Initiative für eine sichere Ernährung (Ernährungsinitiative)”, a popular vote in which the production and consumption of animal-based food play a central role.

To date, the topic of animal-based food production and consumption has been examined primarily within psychology, consumer behavior, agricultural economics and sociology, with only a small number of studies addressing it from a political science perspective. In particular, there is a lack of political science research on the politicization of animal-based food production and consumption in public discourse, i.e., on its salience and polarization as a political cleavage, and its effects on citizens’ policy preferences as well as their stated and revealed political behaviors (Fesenfeld & Sun, 2023). This gap is compounded by the broader observation that research on governmental efforts to reduce meat consumption is still in its infancy (Garcia et al., 2019; Michielsen & van der Horst, 2022), partly because the scarcity of real-world meat curtailment policies makes it difficult to study how citizens actually respond to such measures once they materialize. A popular vote such as the Ernährungsinitiative therefore offers a rare opportunity to study the politicization of animal-based food production and consumption in a real political context, rather than relying solely on hypothetical policy scenarios.

The study is scientifically relevant because it contributes to a broader understanding of how the politicization (i.e., polarization and salience) around the production and consumption of animal-based food can shape policy preferences and actual reported democratic participation. Specifically, it speaks to how issues that are both salient and contested can impact citizens’ preferences, (populist) attitudes, democratic legitimacy perceptions, voting intentions, and mobilization. Recent findings suggest that animal-based food production and consumption may increasingly be used, particularly by populist parties, in ways that resemble the dynamics of a wedge issue – a topic strategically emphasized to mobilize and polarize supporters (Boterman & Harteveld, 2026; Michielsen & van der Horst, 2022). This contributes to political science, food policy research, and food system transformation research alike. It is also socially relevant, as food policy is likely to remain a recurring subject of political debate and popular votes in Switzerland and elsewhere; understanding how such debates shape citizens’ engagement and preferences can help identify how campaigns, media, and policymakers can communicate about food-related policy issues in ways that support, rather than hinder, the societal transition toward a more sustainable agri-food system.

2.2 Main Question and Hypotheses

This study aims to answer the following research question (RQ1): How does citizens’ perceived politicization of animal-based food production and consumption (i.e., its perceived salience and polarization) affect citizens’ attitudes toward animal-based food production and consumption, food policy preferences, populist attitudes, voting intentions, as well as their subsequent mobilization and voluntarily reported voting on a related policy initiative put to a popular vote?

As further elaborated in section Experimental Details, participants will be randomly assigned to one of four conditions that are designed to represent increasing levels of politicization: a placebo control with no exposure to information about the real world policy initiative, a condition introducing salience without polarizing content (T1; salience treatment), and two conditions additionally presenting balanced pro/con arguments reflecting the existing controversy around the initiative – one in neutral language (T2; politicization treatment, neutral) and one using authentic campaign material and imagery (T3; politicization treatment, authentic). We expect the perceived salience of the issue to increase in the order:

placebo control < T1 < T2 ≤ T3 and the perceived polarization of the issue to increase in the order: placebo control and T1 < T2 ≤ T3.

Based on the existing literature on issue politicization and political mobilization, we formulate the following testable hypotheses related to RQ1.

- **H1:** Presenting the issue as more politicized (i.e., more salient and more polarized) influences individuals' attitudes toward animal-based food consumption.
- **H2:** Presenting the issue as more politicized does not alter individuals' stated food policy preferences on average.
- **H3a:** Presenting the issue as more politicized increases individuals' mobilization, i.e., their stated intention to vote (Wave 1).
- **H3b:** Presenting the issue as more politicized increases individuals' mobilization, i.e., their self-reported participation in the vote (Wave 2).
- **H4a:** Presenting the issue as more politicized does not influence individuals' voting direction (i.e., Yes/No vote), as stated in Wave 1.
- **H4b:** Presenting the issue as more politicized does not influence individuals' voting direction (i.e., Yes/No vote), as self-reported in Wave 2.
- **H5:** Presenting the issue as more politicized (i.e., more salient and polarized) activates individuals' pre-existing attitudes and increases the affective reaction of participants.
- **H6:** Presenting the issue as more politicized activates individuals' populist attitudes.

Beyond the main research question (RQ1), this study explores additional questions. First, we examine whether the effects described in H1–H6 differ across groups of voters, for example by respondents' dietary habits or political orientation. Second, we examine whether presenting information about the initiative through authentic campaign material from both the proponent and opponent campaigns (i.e., the original wording and imagery) produces different effects than presenting the same balanced pro and contra content in the more neutral, factual language typical of official voter information (i.e., as found in the official Federal Council's information on the initiative to be voted on). In addition, we explore if presenting the issue as more politicized affects citizens' satisfaction with democracy and perceived democratic legitimacy. Finally, we explore whether increasing the perceived politicization of animal-based food production and consumption in the context of the Ernährungsinitiative spills over to influence mobilization and voting behavior on the Neutralitätsinitiative, a separate popular vote on Swiss neutrality held on the same day.

3 Sponsors and Partners

The study is conducted as part of the Plant4Value research project at ETHZ funded by the Mercator, Minerva, Seedling, and Fourfold foundations and the True Cost Switzerland project funded by the Swiss National Science Foundation (SNSF) and the HEC Research Fund at the University of Lausanne. The authors declare no competing interests.

4 Experimental Details

4.1 Independent variable: Experimentally varied treatment

Participants are randomly assigned to one of four conditions. The placebo control condition presents neutral factual information on the instruments of direct democracy in Switzerland (popular initiatives and referendums), unrelated to the Ernährungsinitiative. The remaining three conditions present

information about the Ernährungsinitiative that varies in the degree to which the topic is presented as salient and controversial: a condition presenting neutral factual information about the initiative (T1; salience treatment); a condition additionally presenting balanced pro and con arguments reflecting the existing controversy around the initiative, in neutral, factual language (T2; politicization treatment, neutral); and a condition presenting the same balanced arguments using authentic public campaign material, including campaign imagery (T3; politicization treatment, authentic).

The four conditions are designed to vary the perceived politicization of the topic – i.e., its perceived salience and polarization: the placebo control involves no exposure to salient or polarizing information about the initiative; T1 introduces salience without indicating that the topic is controversial; T2 and T3 additionally present balanced pro/con arguments reflecting the existing controversy, with T3 using authentic campaign material and imagery, which may elicit a comparatively higher degree of perceived polarization than T2's neutral language.

T1 (salience treatment) provides participants with baseline information about the initiative so that they know what is being voted on, including its core content (e.g., the 70% net self-sufficiency target). This information is drawn from the Federal Council's explanatory voting booklet.

T2 (politicization treatment, neutral) and T3 (politicization treatment, authentic) aim to illustrate the controversy surrounding animal-based food production and consumption, using the pro and con arguments raised in the debate on the initiative as a concrete example. Both conditions present the same four pro and four con arguments, reflecting the topics most prominently highlighted by proponents and opponents, respectively: Import Dependency, Drinking Water, Subsidies, and Soil Fertility/Fertilizer (pro); Consumption Restriction, Food Prices, Target Feasibility, and Agricultural Land Use (con). T2 presents these arguments in neutral, paraphrased language aligned with the voting booklet, while T3 presents them using verbatim wording and imagery from the official Yes and No campaign websites. The order in which the pro and con argument blocks are presented (pro first vs. con first) is randomized across participants in T2 and T3; the order of arguments within each block is fixed.

4.2 Dependent variables

Primary Outcomes

In the following, you can see the key dependent variables of interest in this experiment, corresponding to our main hypotheses (H1–H6):

- **Attitudes toward animal-based food consumption:** The perceived importance of reducing the production and consumption of animal-based products (7-point Likert scale from very unimportant to very important), measured in Wave 1 and Wave 2.
- **Food policy preferences:** Support for or opposition to seven specific food policy measures related to animal-based food production and consumption (e.g., meat taxation, subsidies for plant-based alternatives, mandatory climate labelling), each on a 7-point Likert scale (ranging from strongly oppose to strongly support), measured in Wave 1.
- **Voting mobilization:** Stated intention to vote on the Ernährungsinitiative (Wave 1) and voluntary self-reported participation in the vote (Wave 2), each measured as a binary variable indicating whether respondents planned to (or did) participate in the vote.
- **Voting direction:** Stated intended vote on the Ernährungsinitiative, measured on a 4-point scale ranging from definitely accept to definitely reject (Wave 1), and voluntary self-reported actual Yes/No vote (Wave 2).
- **Satisfaction with democracy (as proxy for democratic legitimacy perceptions):** Overall satisfaction with the way democracy works in Switzerland, measured on a 7-point Likert scale (ranging from not at all satisfied to very satisfied), measured in Wave 1.

- **Populist attitudes:** Agreement with a parsimonious 3-item scale measuring populist attitudes across three dimensions – popular sovereignty, Manichean worldview, and anti-elitism (Van Hauwaert et al., 2020) – each on a 7-point Likert scale (ranging from strongly disagree to strongly agree), measured in Wave 1.
- **Affective/emotional reaction (mechanism check):** Self-reported anxiety, anger, satisfaction, and enthusiasm following treatment exposure (7-point Likert scales from not strong at all to very strong), measured in Wave 1 and Wave 2.
- **Activation of prior attitudes (mechanism check):** The extent to which the treatment information prompted respondents to reflect on their own attitudes (7-point Likert scale from not strong at all to very strong), measured in Wave 1 and Wave 2.

Secondary Outcomes

- **Intention to change consumption of animal-based products:** Stated intention to reduce or increase consumption of animal-based products in the next two weeks (5-point scale from significantly reduce to significantly increase), measured in Wave 1.
- **Perceived societal support:** Respondents' estimate of how the Swiss population will vote on the Ernährungsinitiative and Neutralitätsinitiative (4-point categorical scale from will definitely be accepted to will definitely be rejected), measured in Wave 1.
- **Attitude reinforcement:** The extent to which the treatment information is perceived to have strengthened versus changed respondents' pre-existing attitudes (7-point bipolar scale from strongly changed to strongly strengthened), measured in Wave 1 and Wave 2.
- **Perceived salience (manipulation check):** Personal and perceived public importance of animal-based food production and consumption as a political topic (7-point Likert scales from very unimportant to very important), measured in Wave 1 and Wave 2.
- **Perceived polarization (manipulation check):** Personal and perceived public contestation of animal-based food production and consumption as a political topic (7-point Likert scales from not contested at all to very contested), measured in Wave 1 and Wave 2.
- **Trust in treatment information (mechanism check):** Perceived credibility of the information presented (7-point Likert scale from not credible at all to very credible), measured in Wave 1 only.

4.3 Experimental Design

This study employs a randomized controlled trial (RCT) using a two-wave online survey experiment fielded around a Swiss popular vote on the Ernährungsinitiative. In Wave 1, participants are randomly assigned to one of four conditions (placebo control, T1, T2, T3) that vary in the salience and polarization of information presented about the initiative (see Interventions). Following treatment exposure, participants report their attitudes, food policy preferences, and voting intentions. Wave 2, fielded shortly after the vote, reassesses these outcomes and collects participants' voluntarily reported voting behavior.

Participants are recruited through the commercial panel provider Bilendi, using quotas to approximate the demographic distribution of the Swiss population with respect to age $\times$ gender (crossed), education, and region. Bilendi handles recruitment, compensation, and recontact, but has no access to survey responses and no influence on the study design or research questions. Eligible participants must be at least 18 years old, be eligible to vote in federal popular votes, and be members of at least one of three major Swiss retail loyalty programs for a potential follow up study in the future. Random assignment to the four treatment conditions occurs after participants complete a baseline set of demographic, dietary, and political attitude items.

Randomization Method

Randomization is conducted by the survey platform (Qualtrics) using its built-in randomizer feature with even presentation enabled, which randomly assigns participants to one of the four conditions while ensuring approximately equal group sizes across the course of data collection. Randomization is independent of all measured covariates; balance on key pre-treatment covariates (e.g., age, gender, education, political orientation) will be verified in the final data, and any imbalances will be reported in the analysis.

4.4 Characteristics

The target sample size for Wave 1 is 2,800 adult Swiss residents eligible to vote in federal popular votes. Participants are recruited through the commercial panel provider Bilendi over a fielding period of approximately three weeks (calendar weeks 36–38, September 2026), until the target sample size and quotas are reached. The final achieved sample size may vary slightly depending on response and completion rates during this recruitment period. Wave 2 is fielded shortly after the vote (calendar weeks 41–43, October 2026) among all Wave 1 respondents; based on expected attrition of 20–30% between waves, the anticipated Wave 2 sample size is approximately 2,000–2,200 respondents.

Participants will be randomly assigned to one of four treatment arms with the aim of achieving approximately equal group sizes:

- Placebo control: approximately 700 respondents
- T1 (salience treatment): approximately 700 respondents
- T2 (politicization treatment, neutral): approximately 700 respondents
- T3 (politicization treatment, authentic): approximately 700 respondents

Actual sample sizes may vary slightly due to randomization and participation patterns.

5 Analysis Plan

We will conduct our analysis primarily in the statistical software R. Before turning to the main hypothesis tests, we will explore the data descriptively to understand its structure and distribution. As a first analytical step, we verify successful randomization by testing for balance across treatment arms: pre-treatment characteristics, including demographic variables (age, gender, education), dietary habits, political ideology, and prior familiarity with the initiative, are regressed on treatment assignment indicators. Should meaningful imbalances emerge, we will report them transparently and include the affected variables as covariates in subsequent regression models.

For each primary and secondary outcome, we will estimate the effect of treatment assignment (placebo control, T1, T2, T3) using OLS (Ordinary Least Squares) regression with robust standard errors (or ordinal/logistic regression models where appropriate given the outcome's measurement level), following an intention-to-treat approach. We will conduct pairwise comparisons between each treatment arm and the placebo control, applying a Bonferroni correction to account for multiple comparisons. Exploratory subgroup analyses will examine treatment effect heterogeneity by dietary habits and political orientation, using interaction terms between treatment assignment and the respective moderator.

Manipulation checks (perceived salience and polarization) will be analyzed using the same regression approach as the primary outcomes (i.e., as dependent variables regressed on treatment assignment), to verify that the experimental manipulation functioned as intended. They will not be used as independent variables when analyzing the primary outcomes described above. As part of this analysis, we will additionally examine whether perceived salience and polarization follow the expected ordering across conditions, as a validation of the intended treatment design. Should the manipulation checks indicate

that the treatment conditions did not produce the expected pattern of perceived salience and polarization, we will report this transparently and interpret the results of the main hypothesis tests (H1–H6) with appropriate caution, without altering the pre-specified analysis strategy.

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