

NormTransform: effects of ad restrictions

Capturing Social Tipping Dynamics of Advertisements Shaping and Mirroring Climate-Relevant Norms and Values

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Problem & Project Rationale

High-risk, high-gain: Slow-to-change norm and value systems (+30 years) addressed with quick-to-implement advertisements restrictions

Norm change in meat consumption: habitual & normalized

Theoretical background: Social tipping potentials – critical mass of 10% - 43% of the population with altered preferences needed (Otto et al., 2020) Everall et al., 2025)

Research Objective

The **project aims** to contribute to research on "Social Tipping Interventions" (Otto et al., 2020), specifically those that potentially increase the recognition of the moral implications of fossil fuel use

Research Question: Can advertising interventions trigger social tipping/rapid non-linear changes in norm and value systems, by shaping moralization of norms towards meat consumption (instead of mirroring such consumption patterns as a social norm)? (**Figure 1**)

Methods

(1) Warm Data Labs: transdisciplinary qualitative method with experts (n=56) from the advertising and food industries to reveal complex dynamics of change in advertisements and food industry.

(2) Consumer Experiment: Advertising interventions (**Figure 2**) tested in a longitudinal experiment (n= T1: 855, T2: 758, compliant 697). Eating behavior and CO₂-footprint are measured daily for 3 weeks (**Figure 3**), corresponding consumption norms are measured at three points in time.

(3) Agent-Based-Modeling (ABM): Estimating the emissions reductions potential of interventions under different scenarios (varying frequency, exposure duration), larger sample sizes, as well as indirect spillover effects or social contagion which may lead to social tipping. Experimental data is used to (1) calibrate agents, (2) validate model outputs e.g., direct intervention effects on agents.

Preliminary results

(A) Four Warm data labs with 56 participants, the stakeholder-involvement informed the design of conceptual model (Figure 1) and experiment stimuli (Figure 2). The majority sees ads as shapers of general consumption norms rather than mirrors. The majority favor rather than oppose political ad regulation.

(B) Design of 48 fictional food ads & 8 ad banner stimuli (Figure 2)

(C) Assessment tool for diet-related CO₂e-emission estimation

(D) Experiment dashboard & data analysis: Intervention had no significant effect on norms or meat consumption (Figure 3) (underpowered sample). Descriptive results:

Frequency of meat consumption increased by 18% in the meat ad, while it decreased by 4% in the complete ban condition.

Weight (grams): Overall, more meat was consumed (11,5%), lowest increase in control group (no meat ad) (+ 6,4%), highest in meat ad (+15,3%) and temporary ad ban (15,4%). **CO₂e:** Overall, -2,2% emissions, increase in meat ad condition by +3,3%

(E) Policy monitoring: policies on ads and the use of nutrition and health claims (Regulation EC No 1924/2006), the Green Claims Directive (on hold), Empowering Consumers Directive (2024/835), Directive 2005/29/EC on Unfair Commercial Practices

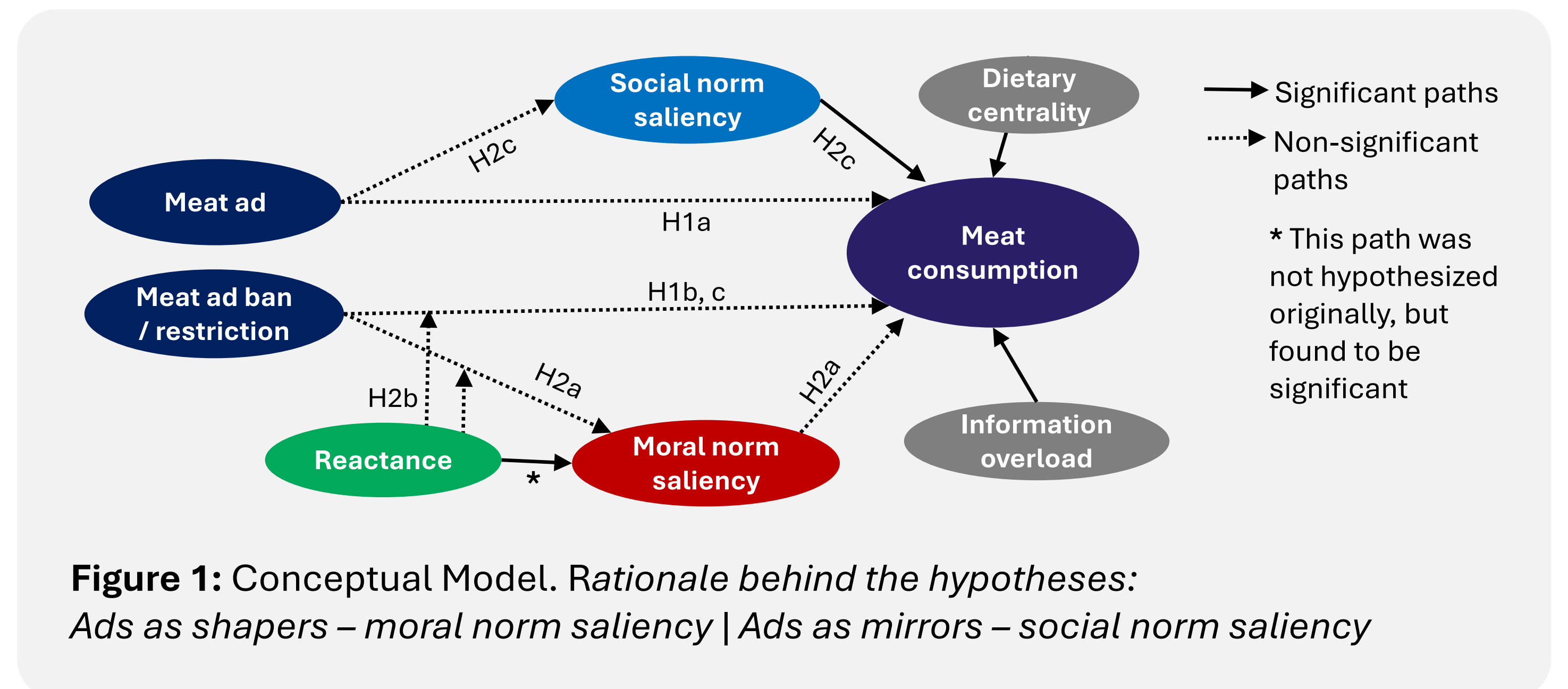


Figure 1: Conceptual Model. Rationale behind the hypotheses: Ads as shapers – moral norm saliency | Ads as mirrors – social norm saliency

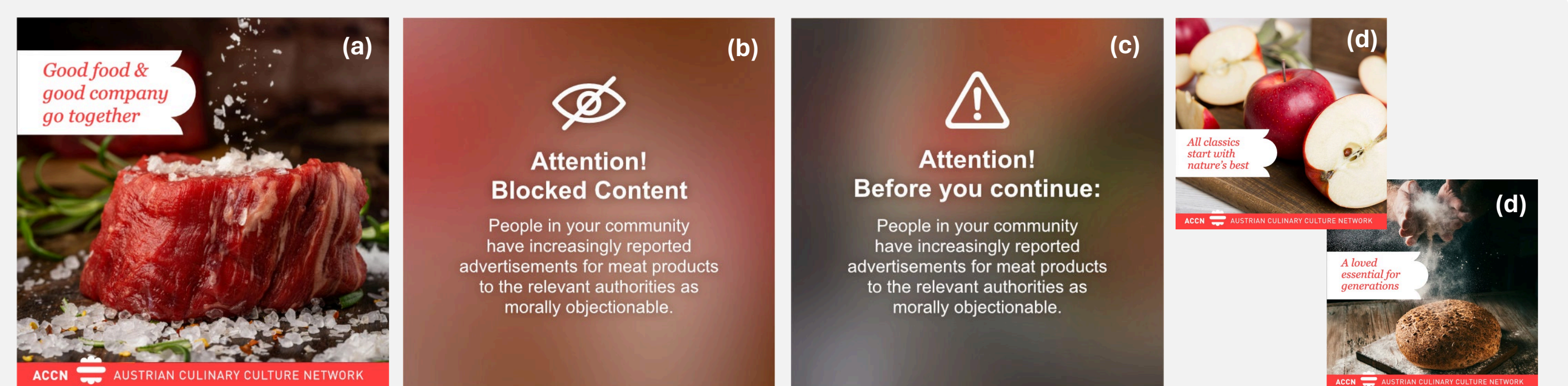


Figure 2: Exemplary advertisement stimuli for the consumer experiment: (a) meat ads, (b) permanent ban, (c) temporary ban, (d) extra stimuli for concealment

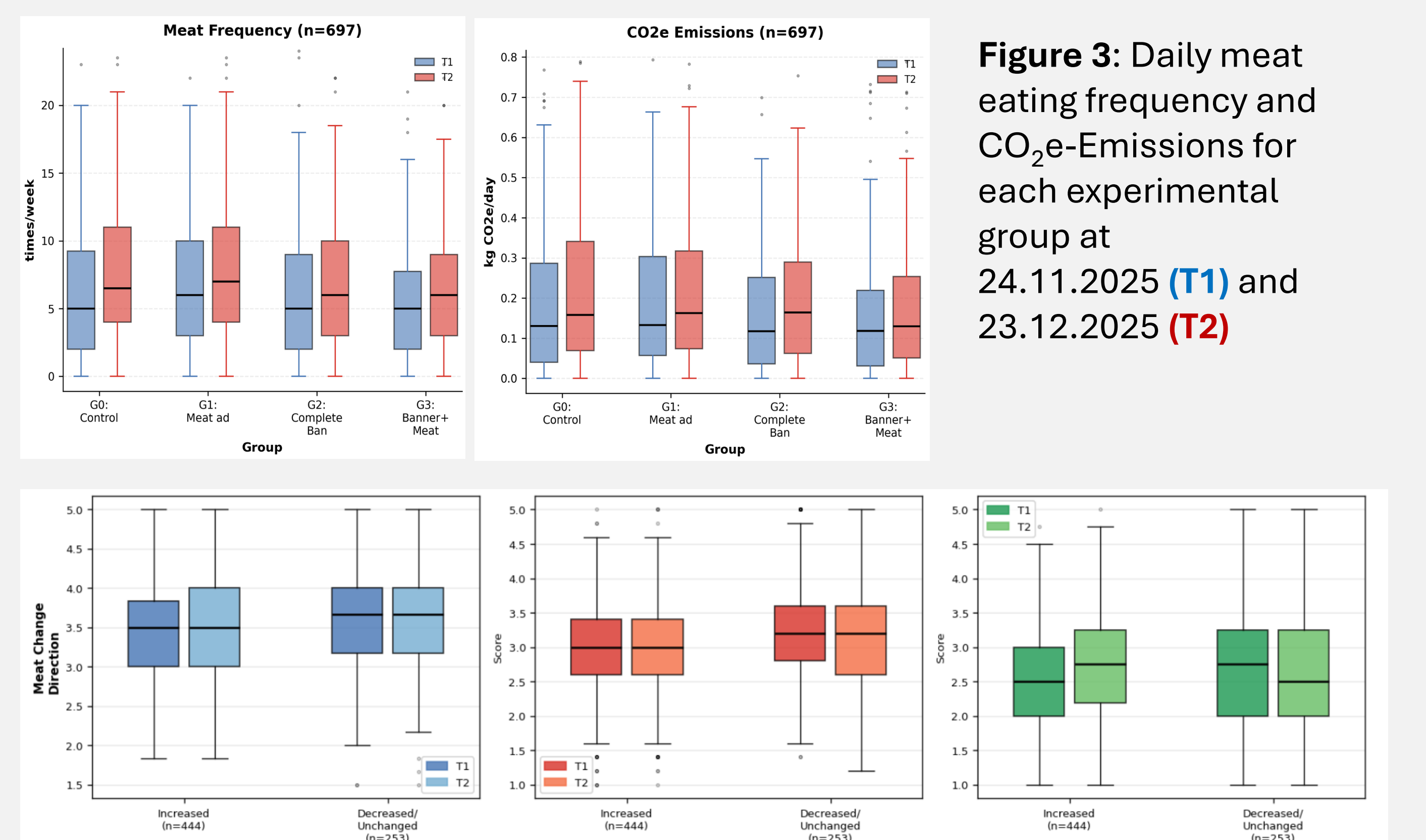


Figure 3: Daily meat eating frequency and CO₂e-Emissions for each experimental group at 24.11.2025 (T1) and 23.12.2025 (T2)

Implications & Contributions

Reduced visibility of meat ads is potentially more effective for consumption reduction than ad bans with warning messages.

Those who saw no meat ad had the lowest consumption increase (weight) and highest CO₂e reduction, while those who saw the complete ban ate meat less frequently, while grams per day increased. For social tipping, it is necessary that the minority who decreased meat consumption was able to induce social contagion through conversations about meat reduction (Everall et al., 2025).

Moral norms are not affected by ad restrictions, social norms are not reinforced by meat ads, while social norms influence consumption.

Thus, the moralization of (climate-damaging) products might be communicated over different media than ads, e.g. the news. Follow-Up Survey at T3 will contain changed moralization stimuli and situational reactance measures.

References (Excerpt)

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