EFFoST Seminar - Shaping Consumer Demand for Sustainable Food, 24 June 2022

CHANGING SOCIAL NORMS REGARDING RED MEAT CONSUMPTION

John Thøgersen
Department of Management, Aarhus University, Denmark

BACKGROUND MEAT CONSUMPTION

25-30 % of global greenhouse gas emissions comes from the food system (IPCC 2019).

Red meat globally about 6% (FAO (2020)

Food consumption strongly influenced by social processes

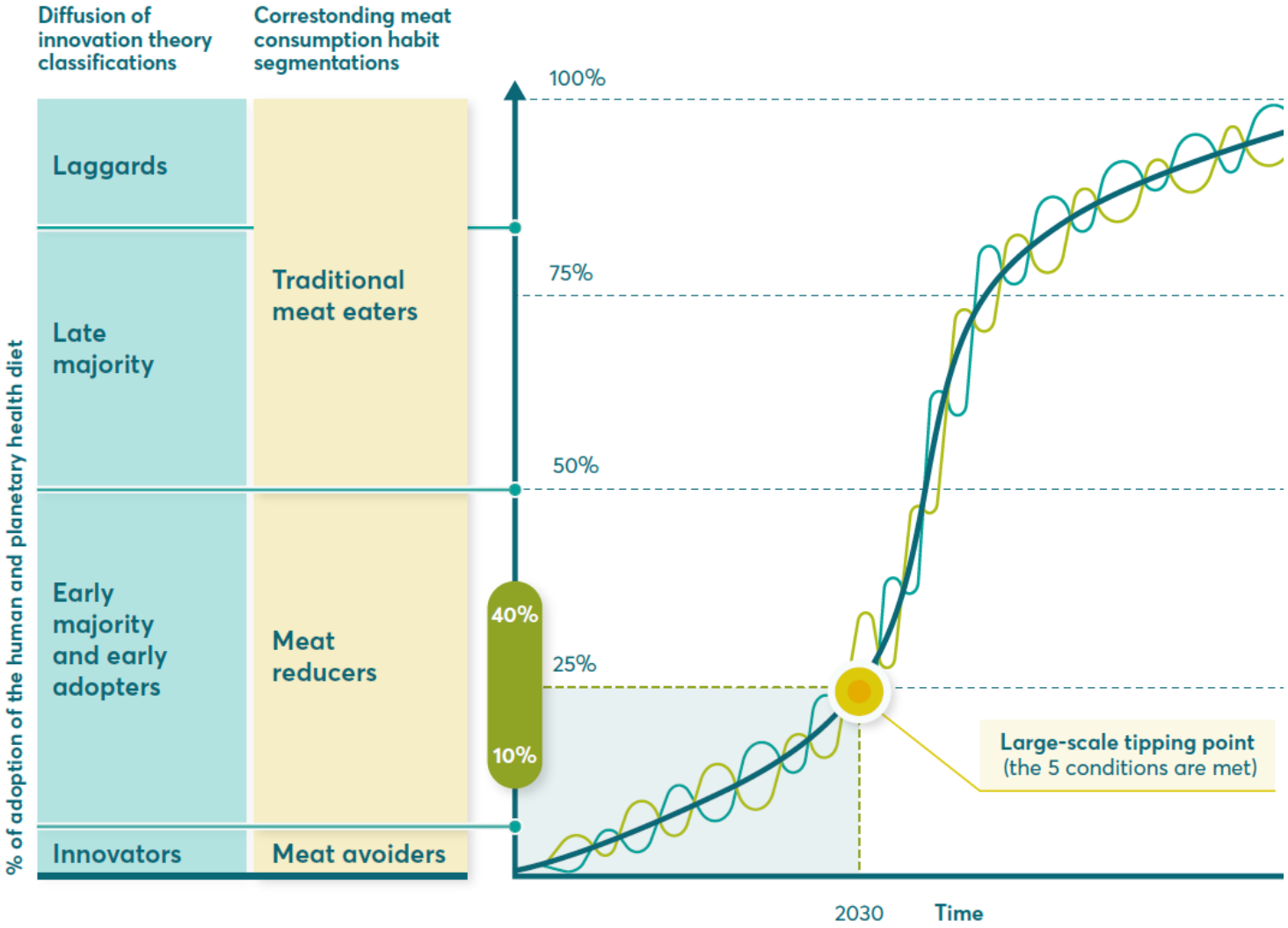



SOCIAL NORMS AND MEAT CONSUMPTION

Red meat has achieved a high social status and symbolic value, making it a desirable food that people want more of, if they can afford it (Lokuruka, 2006; Ruby & Heine, 2011).

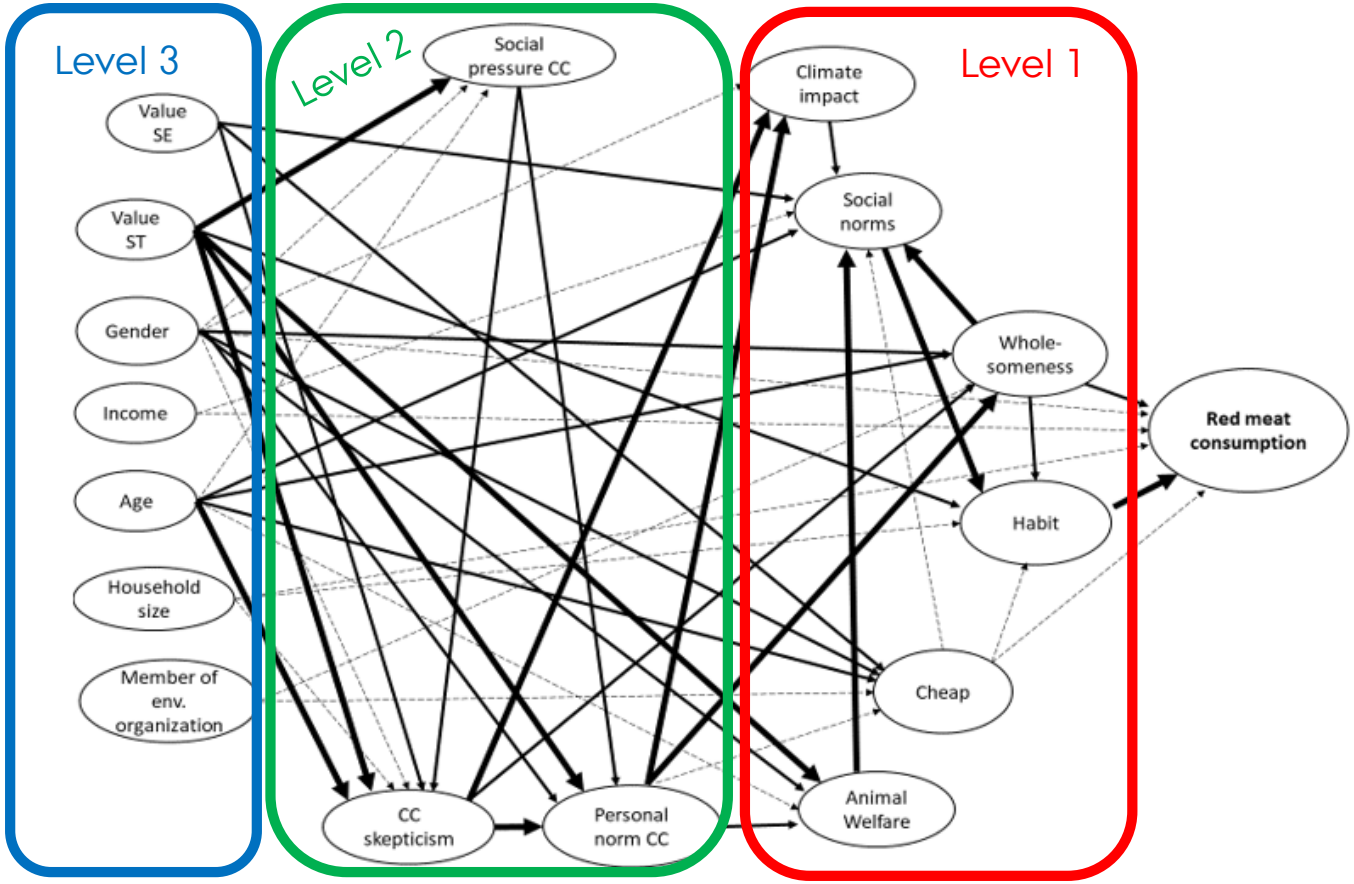
Climate change has led to an increasing moralization of the consumption of (especially red) meat in some countries, entailing a social pressure to refrain from or at least reduce the consumption of red meat (Cheah et al., 2020).

Such a counter-pressure against dominant social norms could potentially lead to a dramatic change towards a more climate-friendly diet, if it reaches a threshold - a "social tipping point" (Nyborg et al., 2016).



The Food and Land Use Coalition (FOLU) and the Globals Systems Institute at the University of Exeter (2021) Accelerating the 10 Critical Transitions: Positive Tipping Points for Food and Land Use System Transformation. https://www.foodandlandusecoalition.org/wp-content/uploads/2021/07/Positive-Tipping-Points-for-Food-and-Land-Use-Systems-Transformation.pdf

Vatn, A., Aasen, M., Thøgersen, J., Dunlap, R. E., Fisher, D. R., Hellevik, O., & Stern, P. (2022). What Role do Climate Considerations Play in Consumption of Red Meat in Norway? *Global Environmental Change, 73*, 102490.



Dotted lines represent standardized regression weights < |.10|. The thinner lines represent weights between |.10| and |.19| and the thickest lines regard weights ≥ |.20|.

Stand. total effect

- Habit = 0.33
- Wholesomeness beliefs = 0.27
- Social norms = 0.21
- Gender = -0.13
- Cheap = 0.09
- Self-transcendence = -0.09
- Personal norm CC = -0.08
  - Social pressure CC = -0.01
- HH size = 0.07
- Age = -0.06
- Animal welfare = 0.06
- Income = 0.05
- Climate impact = 0.03
- Self-enhancement = 0.02

Vatn et al. (2022)
KEY FINDINGS (DATA FROM 2018)

Strong effect of **habits,** which is strongly supported by **social norms** (pro red meat), and also to some extent wholesomeness.

- The habit seems to be an important social dynamic involved here.

Climate concern manifested in a **personal norm** has a negative effect on meat consumption.

- Not strong, though

This norm is influenced by **social pressure**.

- We speculate that we see the start of a social process 'moralizing' red meat consumption

FOLLOW-UP QUESTIONS AND ASSUMPTIONS

How strong are internalized social pressure and emerging moral norms for adopting a more climate-friendly diet?

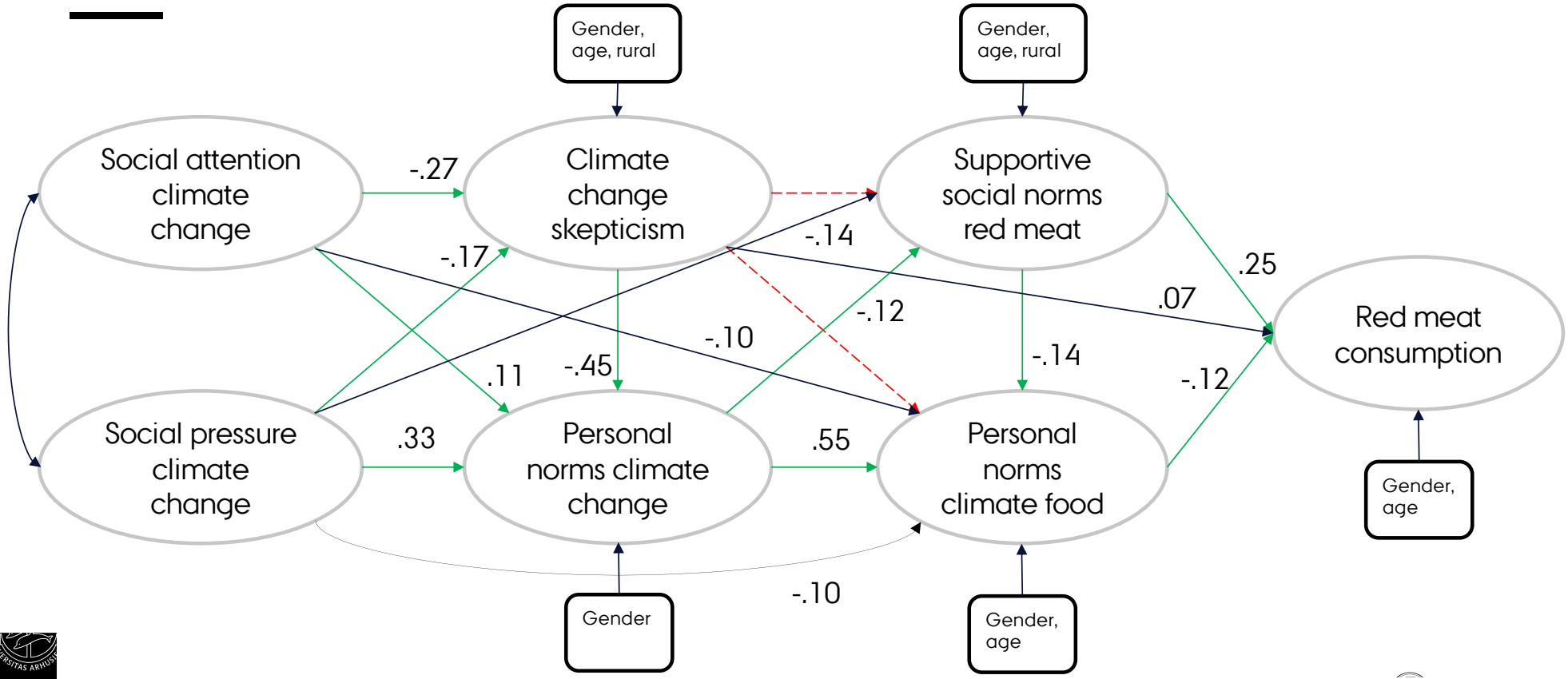
How did it influence red meat consumption in Norway in the 2019-2021 period?

How did it measure up against the dominating social norms supporting red meat consumption?

We assume the first step is acceptance of co-responsibility for climate change mitigation, which is then, in a second step, further specified into norms for specific behaviors that are socially agreed to be particularly climate-relevant.

The process is likely contested at each step along the way, including counterarguments and scepticism regarding climate change.

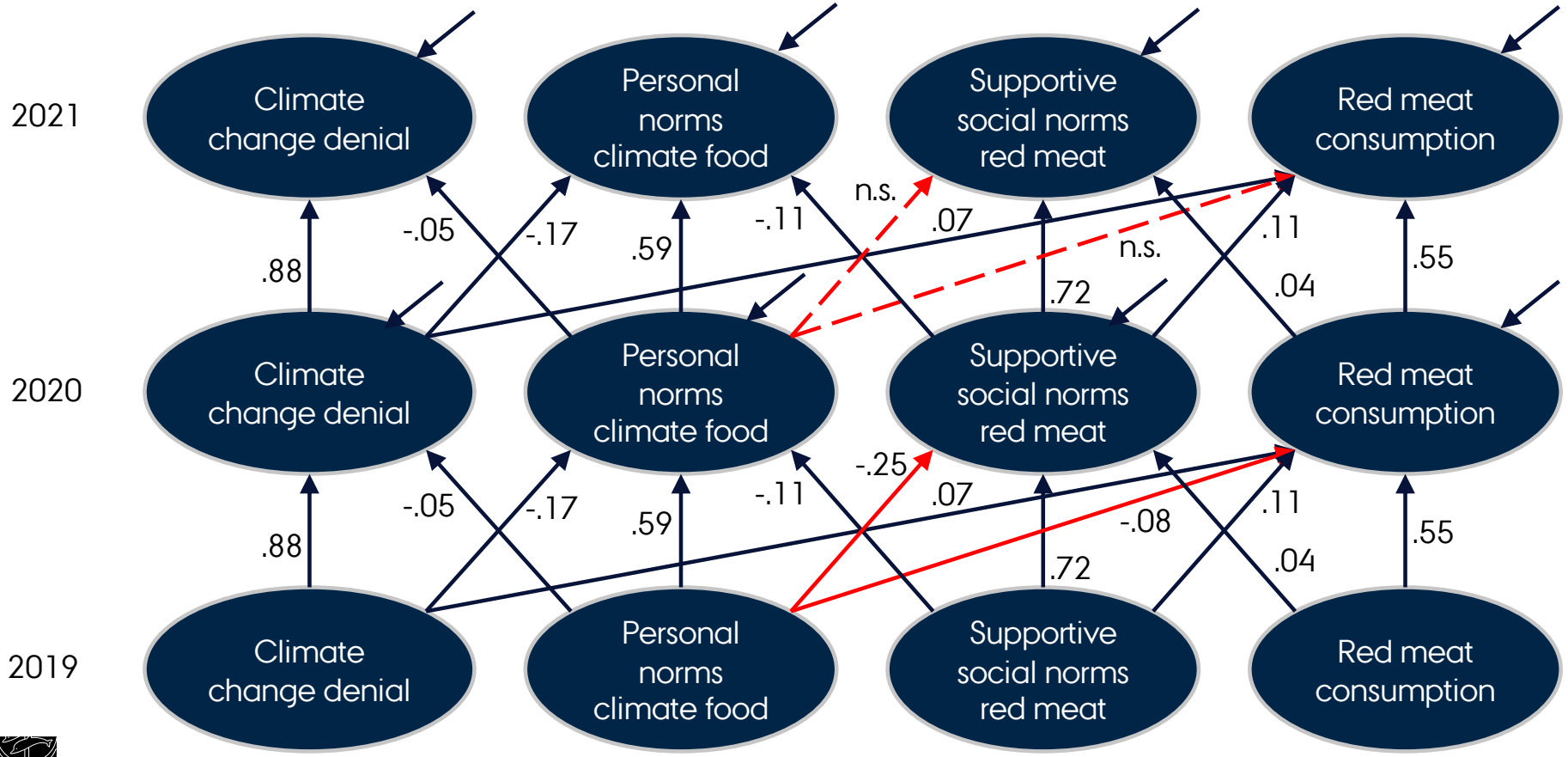
SEM SOCIAL AND NORMATIVE ANTECEDENTS OF RED MEAT CONSUMPTION IN NORWAY 2019. *N* = 1980



AARHUS BSS
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

Structural model, standardized. Model fit: Chi-square = 437.754, 62 df., $p < .001$. TLI = .92, CFI = .96, RMSEA = .055 (CI_{10} =.051 - .060).

CROSS-LAGGED PANEL ANALYSIS OF THE RELATIONSHIP BETWEEN RED MEAT CONSUMPTION AND ITS IMMEDIATE ANTECEDENTS IN 2019, 2020 AND 2021. *N* = 1869



Structural model, standardized. Model fit: Chi-square = 427.301, 144 df., p < .001. TLI = .97, CFI = .98, RMSEA = .032 (CI10 =.029 - .036).

AARHUS BSS
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

CONCLUSIONS FROM NORWEGIAN STUDIES

As expected, red meat consumption is strongly supported by social norms (also) in Norway

But it is challenged by the societal discourse about negative climate impacts of red meat consumption and the resulting negative moralizing of the diet.

As consumers internalize personal norms about a climate-friendly diet, they reduce their red-meat consumption.

- It appears that this social pressure was neutralized during the Corona pandemic

Until now that process has been (too) slow.

- In 2021, 3.8% said they don't eat red meat – 39.4% that they were willing to reduce the number of meals with red meat

Target different consumer segments differently!

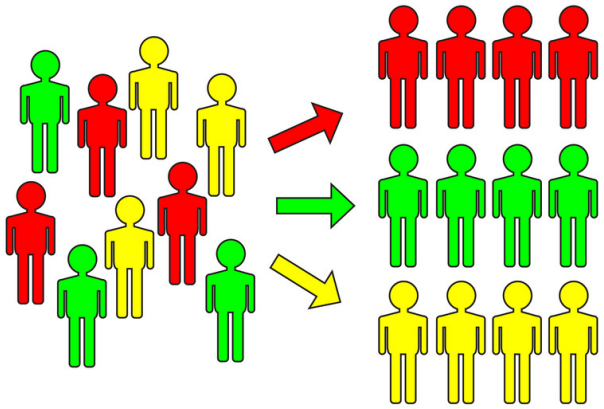
PlantPro contributes to accelerating an **efficient green consumer behaviour transition** towards more plant-rich diets and reduced food waste.

We aim to fill a knowledge gap on factors that drive consumer behaviour change towards more sustainable plant-rich diets and upcycled foods and greater acceptance of sustainable food technologies.

Funded by Innovation Fund Denmark grant nr 0224-00044B

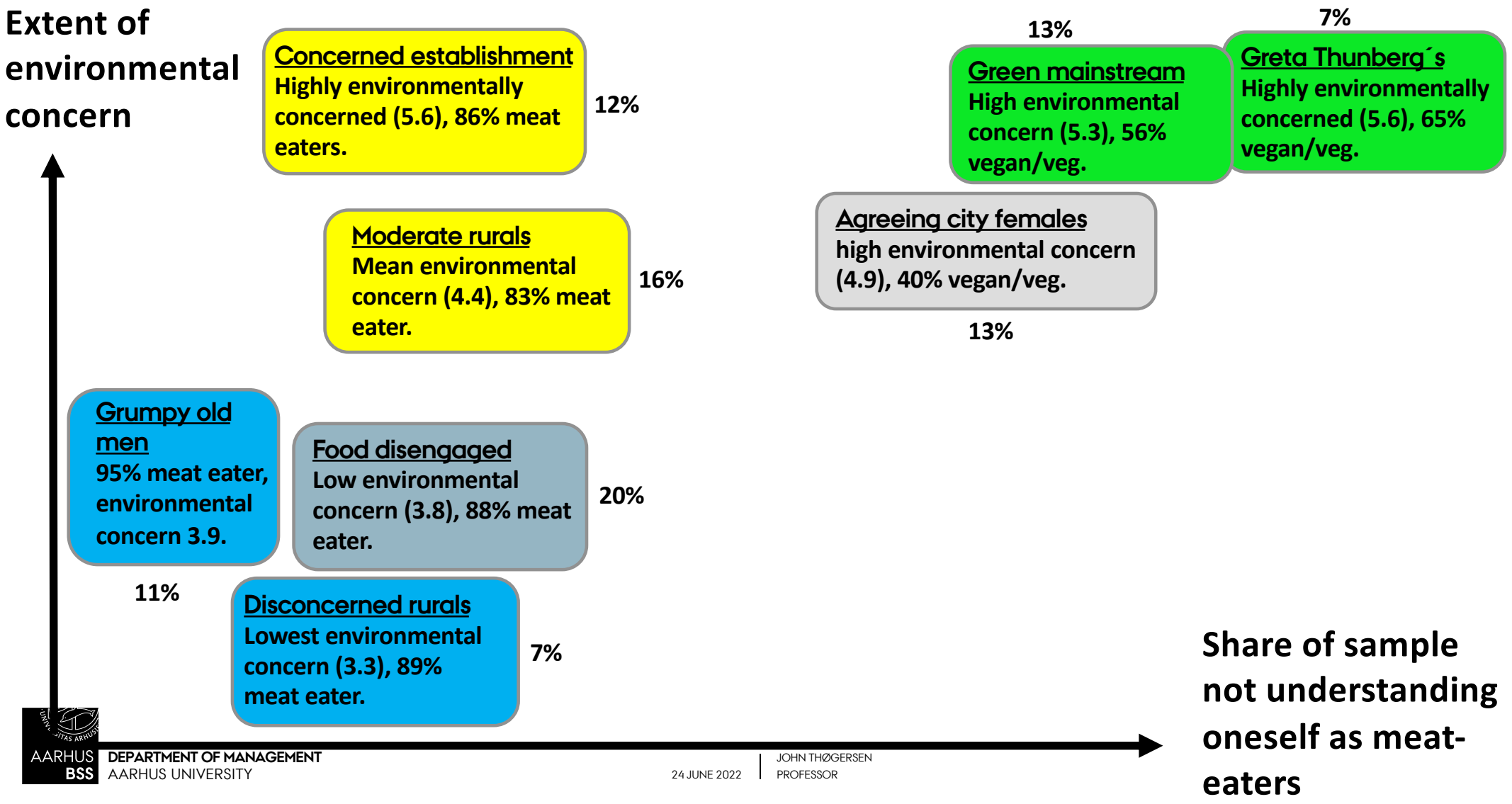
Innovationsfonden

CONSUMER SEGMENTATION APPROACH



1) Segment identification based on mainly psychographic variables.
Perception of conflict, knowledge/beliefs about meat reduction benefits and sustainability of meat production, environmental concern, knowing others who have reduced meat consumption and importance of these.

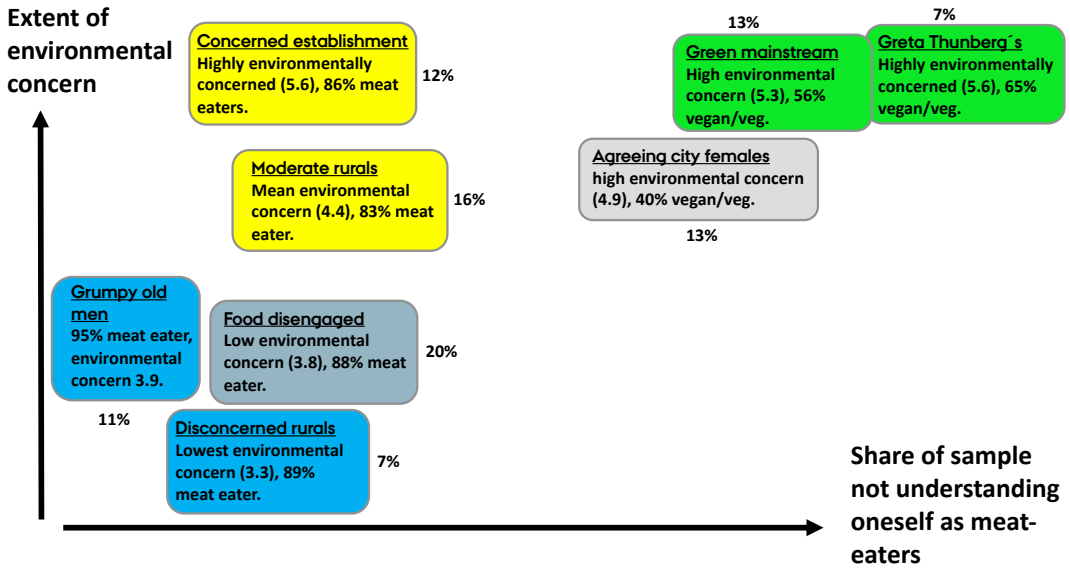
2) Segment characterization based on mainly sociodemographic variables.
Gender, age, region, education, identification as meat-eater, cooking capability, etc.


Extent of environmental concern
Concerned establishment
Highly environmentally concerned (5.6), 86% meat eaters.
12%
13%
Green mainstream
High environmental concern (5.3), 56% vegan/veg.
7%
Greta Thunberg´s
Highly environmentally concerned (5.6), 65% vegan/veg.
Moderate rurals
Mean environmental concern (4.4), 83% meat eater.
16%
Agreeing city females
high environmental concern (4.9), 40% vegan/veg.
13%
Grumpy old men
95% meat eater, environmental concern 3.9.
11%
Food disengaged
Low environmental concern (3.8), 88% meat eater.
20%
Disconcerned rurals
Lowest environmental concern (3.3), 89% meat eater.
7%
Share of sample not understanding oneself as meat-eaters

HOW SHOULD THESE SEGMENTS BE TARGETED?

Ignore ”green” and “blue” segments

Targeting the disengaged (and the “yellow” and “grayish” segments) by changing the “choice architecture” (i.e. “Nudge”)



NUDGING MEAL SELECTION BY INCREASING THE PROPORTION OF VEGETARIAN MEALS

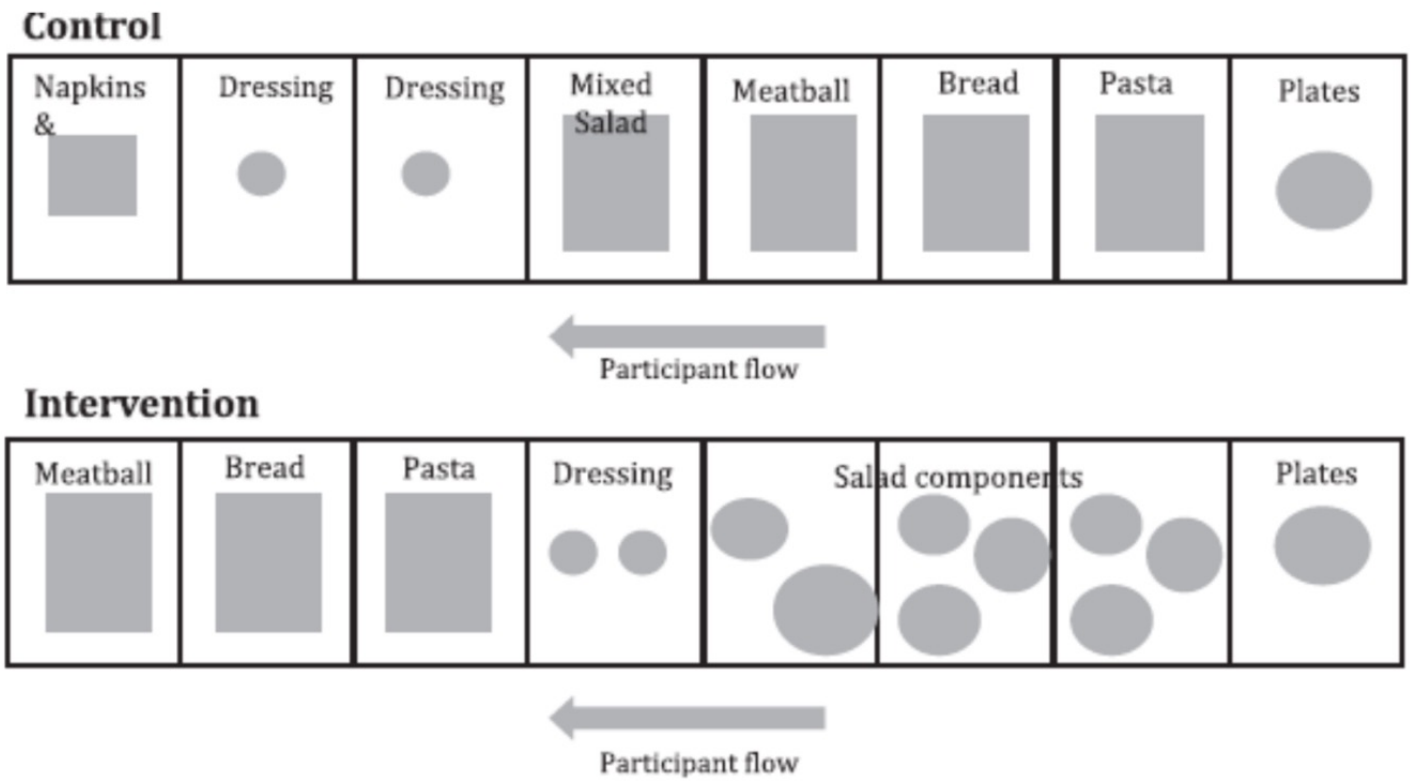
Doubling the proportion of vegetarian meals available from 25% to 50% in student cafeterias in the UK increased vegetarian meal sales (and decreased meat meal sales) by ≈ 15%

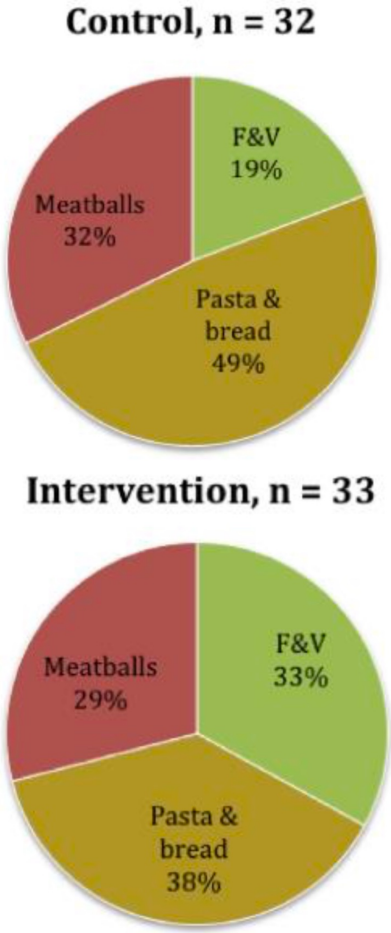
The largest effects were found in the quartile of diners with the lowest prior levels of vegetarian meal selection.

AARHUS BSS
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

Garnett, E. E., Balmford, A., Sandbrook, C., Pilling, M. A., & Marteau, T. M. (2019). Impact of increasing vegetarian availability on meal selection and sales in cafeterias. *Proceedings of the National Academy of Sciences, 116*(42), 20923.

PUTTING SALADS FIRST IN A BUFFET

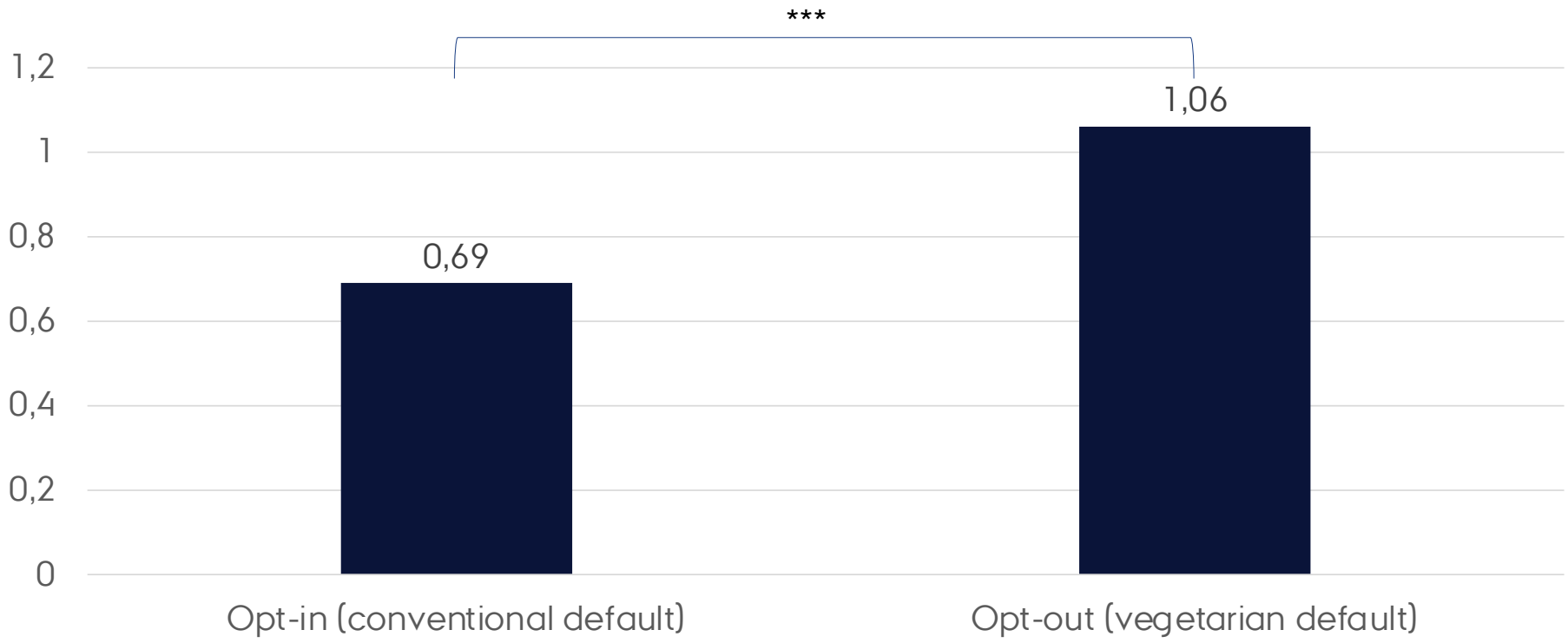




Kongsbak, I., Skov, L. R., Nielsen, B. K., Ahlmann, F. K., Schaldemose, H., Atkinson, L., . . . Pérez-Cueto, F. J. A. (2016). Increasing fruit and vegetable intake among male university students in an ad libitum buffet setting: A choice architectural nudge intervention. *Food Quality and Preference, 49*, 183-188.

DEFAULT-EFFECT AT 8 BOARDING SCHOOLS

NUMBER OF VEGETARIAN WEEKS OUT OF 4, N = 499

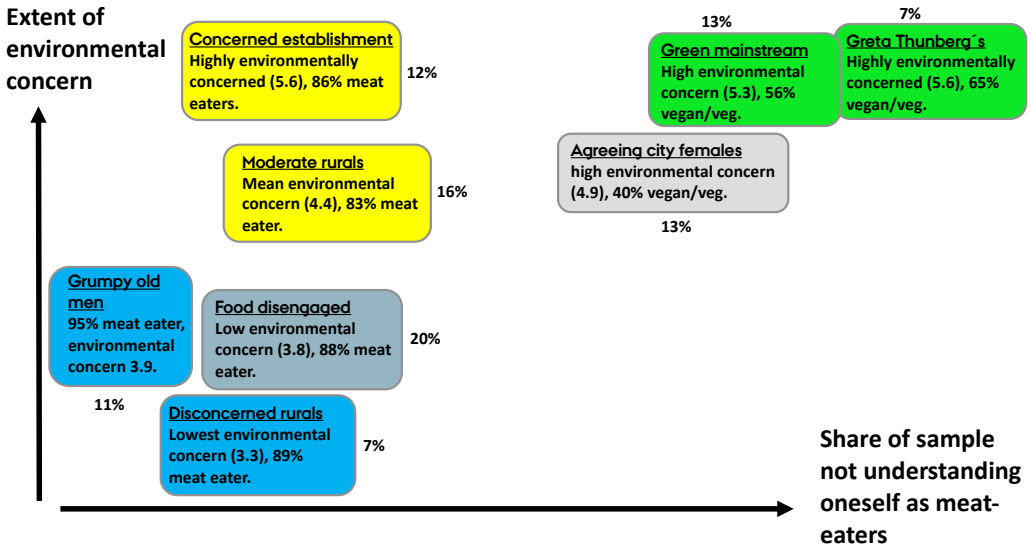


TARGET SEGMENTS DIFFERENTLY

Ignore "green" and "blue" segments

Targeting the disengaged (and the "yellow" and "grayish" segments), change the "choice architecture" (i.e. "Nudge")

Targetting (especially) the "yellow" segments, providing social information to elicit or change social expectations, either empirical or normative (i.e. "social norm nudging").



NORM-NUDGING: PREREQUISITES AND LIMITATIONS

Know the motivation:

- The desire to imitate (as with fashions and fads),
- The desire to be right (as in social proof)
- The desire to be accepted (as with tattoos)
- Coordination (as with language rules, dress codes, etiquette)

Concerned establishment
Highly environmentally concerned (5.6), 86% meat eaters.
12%

Moderate rurals
Mean environmental concern (4.4), 83% meat eater.
16%

Threats to effectiveness:

- Irrelevant reference network – relevance of their approval and example for the target group with regard to the targeted behavior.
- Sources of information lack credibility.
- Insufficient group cohesion
- Too many examples of negative rather than positive behavior.

(Bicchieri & Dimant, 2019)

NUDGING WITH SOCIAL INFORMATION ABOUT WHAT OTHERS DO OR APPROVE/DISAPPROVE OF

A meta-analysis of 91 field-experiments (N = 227'730): a significant, positive effect of social information on pro-environmental behavior (Bergquist, Nilsson, & Schultz, 2019).

But few studies on the effectiveness of social information interventions on meat consumption (Kwasny, Dobernig, & Riefler, 2022).

Dynamic social norms messages (e.g. "in the last 5 years, 30% of Americans have made an effort to reduce their meat consumption") increased the choice of a meatless lunch in a restaurant context (Sparkman and Walton, 2017).

Portraying a meat reduction was as a meat-eater (i.e. in-group) vs. a vegetarian (i.e. out-group), made their information perceived as more legitimate and led to higher willingness to reduce meat consumption (De Groeve, Bleys, & Hudders, 2019).

CONCLUSIONS AND IMPLICATIONS

Red meat consumption is strongly supported by social norms

But it is challenged by the societal discourse about negative climate impacts of red meat consumption and the resulting negative moralizing of the diet.

Since most dinners are eaten in private, reaching a social "tipping point" (Nyborg et al., 2016) may be difficult

- Public events and canteens may be the best setting, and should be used!

Target different consumer segments differently!

JOHN THØGERSEN, jbt@mgmt.au.dk
DEPARTMENT OF MANAGEMENT
AARHUS UNIVERSITY

Thank you for your attention ☺
Any questions?