## CONSUMERS AND MEAT: SATISFACTION, SUSTAINABILITY AND SELINDULGENCE HOW DOES MEAT CONTRIBUTE TO CONSUMER WELL-BEING?

Klaus G. Grunert

MAPP Centre, Aarhus University





## **OVERVIEW**

- 1. Consumer satisfaction with meat
- 2. Beyond satisfaction: Emotional reactions to meat
- 3. Meat and well-being
- 4. Implications for the meat sector









## Consumer satisfaction with meat

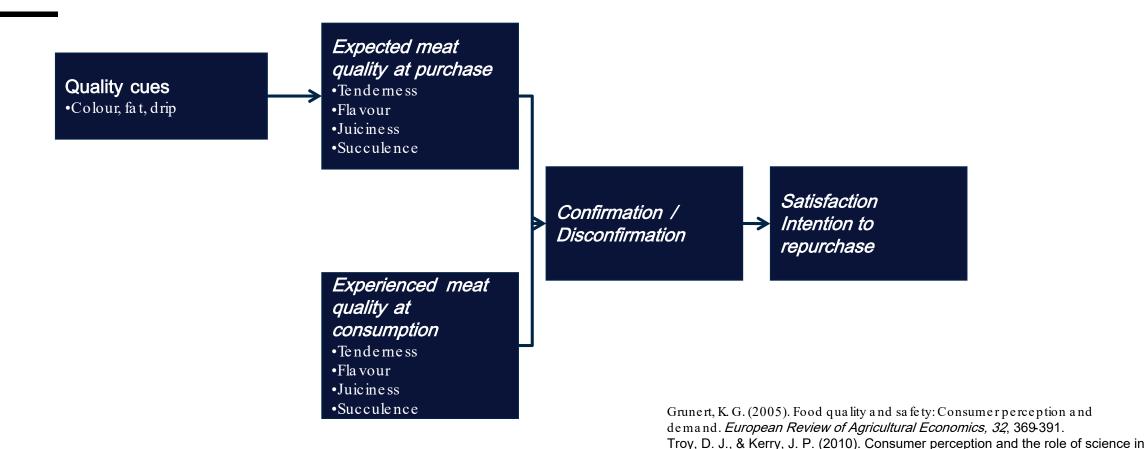








## SATISFACTIONTHECLASSICALAPPROACH



21 JANUARY, 2020



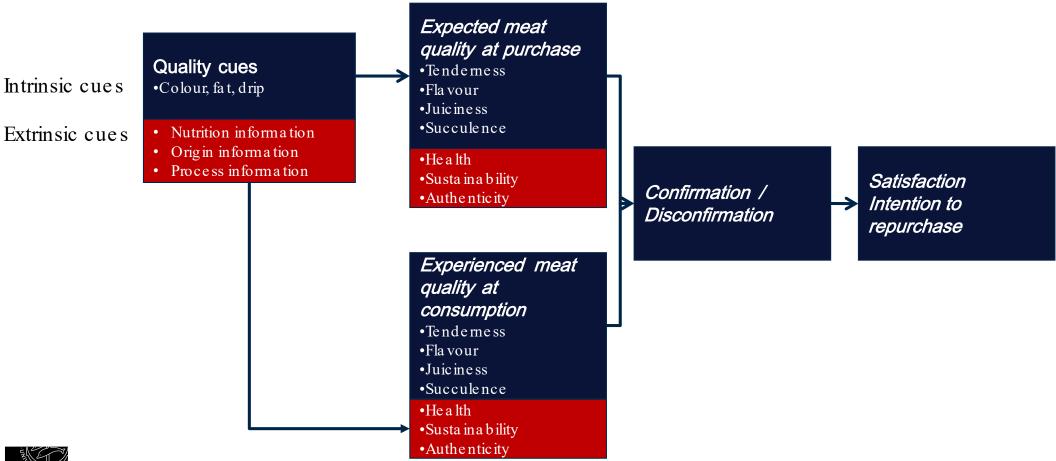


the meat industry. Meat Science, 86(1), 214-226.





## SATISFACTIONTHEEXTENDEDAPPROACH











# CASE 1:PROCESSNFORMATION ON PORKPRODUCTION GERMANY AND POLAND

Colour fat, dip

Nutrition information

Ouglin information

Origin information

Process information

Experienced meat quality at consumption

Intendeness

Succulence

-Health
-Sustanability
-Authenticity

Confirmation

Satisfaction
Intention to repurchase

Experienced meat quality at consumption

Intendeness
-Browour
-Juliciness
-Susculence
-Health
-Sustanability
-Sustanability
-Sustanability
-Sustanability

Which process attributes are most important to consumers?

How much impact do they have on consumer choice compared to intrinsic cues and to origin information?

Based on choice experiment in Germany and Poland

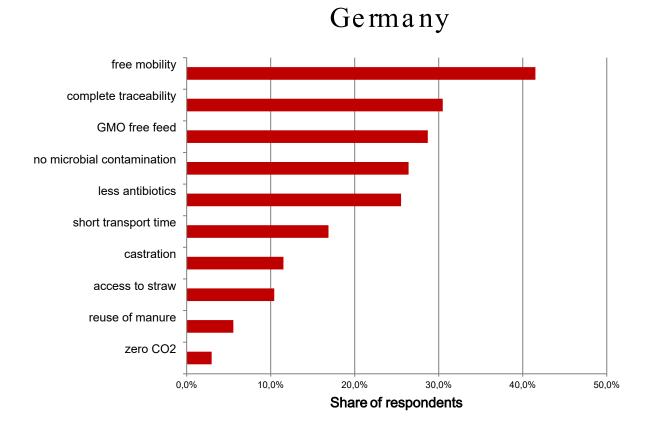
Grunert, K. G., Sonntag, W. I., Glanz-Chanos, V & Forum, S. (2018). Consumer interest in environmental impact, safety, health and animal welfare aspects of modern pig production: Results of a cross-national choice experiment. *Meat Science*, 137, 123-129.

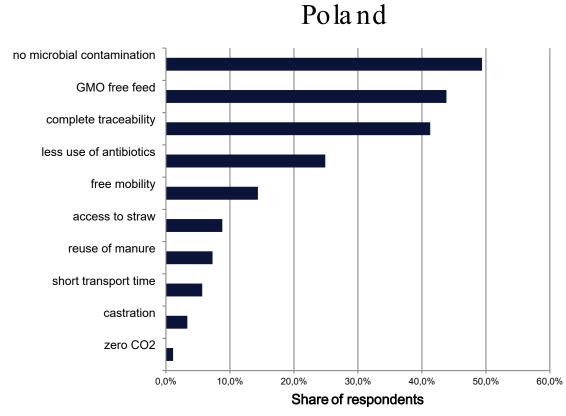










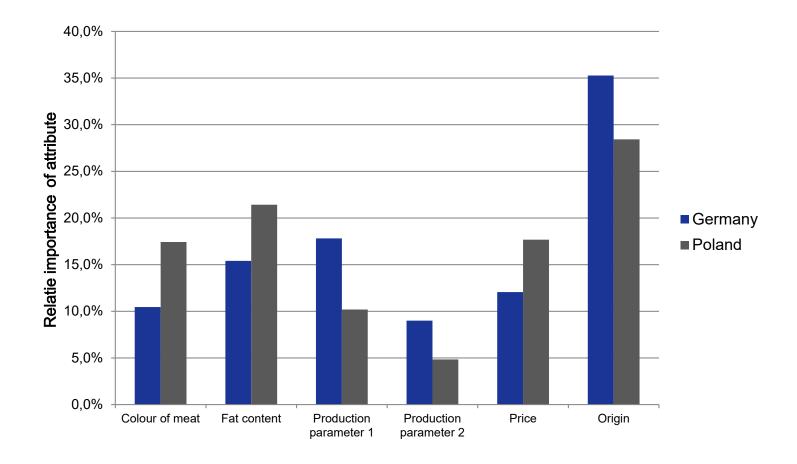




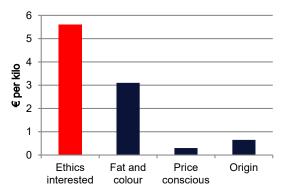




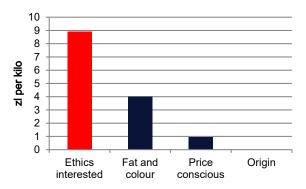




### Willingness to pay extra for the most preferred ethics attribute - Germany



### Willingness to pay for preferred ethics attribute - Poland











KLAUS GGRUNERT ICOMST 2019

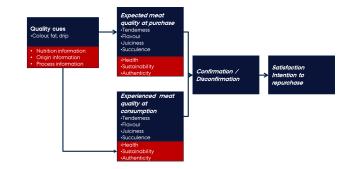
# CASE 2:IMPORTANCEOF EXTRINSICAND INTRINSICCUESWHENPURCHASING PORKIN EMERGENTMARKETS

What is the role of extrinsic and intrinsic cues when selecting pork on emergent markets?

Based on choice experiment in China, Thailand, Vietnam, Singapore, Brazil, Colombia (major cities)

Salnikova, E. & Grunert, K.G. (in press). Consumption orientation, country-of-origin, and sustainability on emergent markets. *Journal of Business Research* 





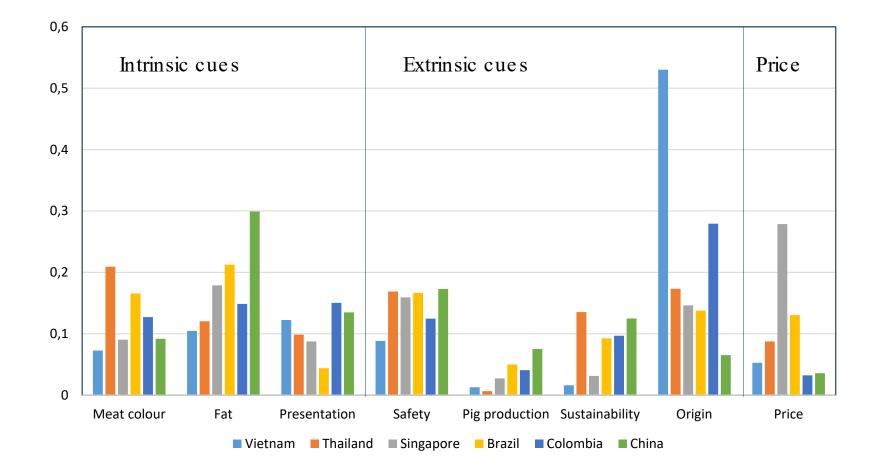












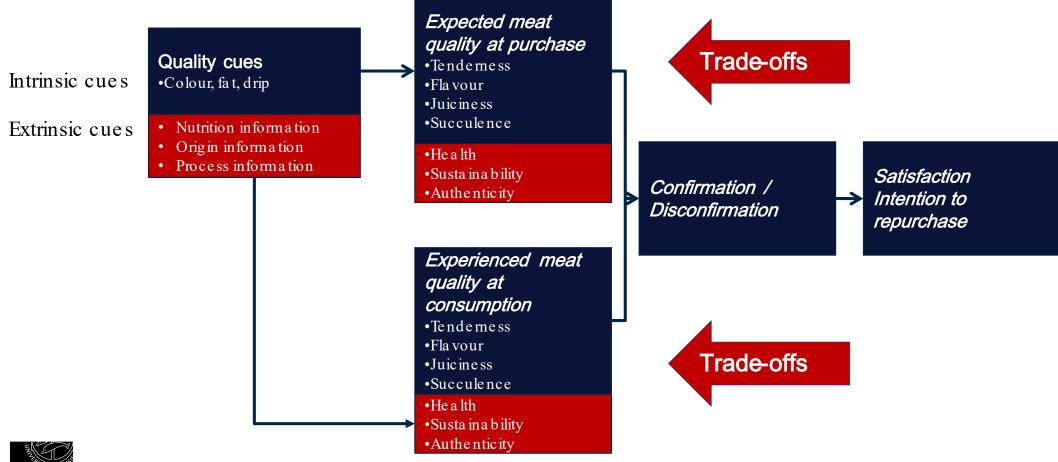








## SATISFACTIONTHEROLEOFTRADEOFFS





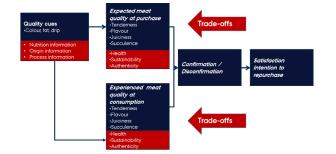




KLAUS GGRUNERT

ICOMST2019

## CASE 3:TRADEOFFBETWEENHEALTH AND TASTE



Do nutrition and enrichment claims affect the perceived healthiness of the product?

Are there perceived trade-offs between the increased healthiness and the expected taste? Conjointstudy in Ireland

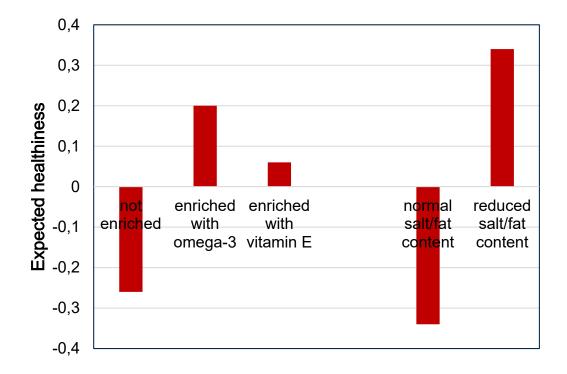
Shan, L.C., De Brún, A., Henchion, M., Li, C., Murrin, C., Wall, P.G., & Monahan, F.J. (2017). Consumer evaluations of processed meat products reformulated to be healthier—A conjoint analysis study. *Meat Science*, 131, 82-89.

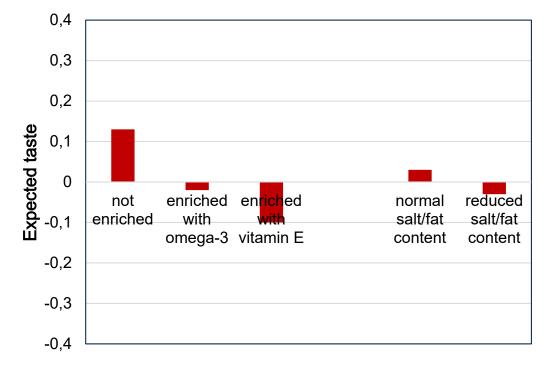












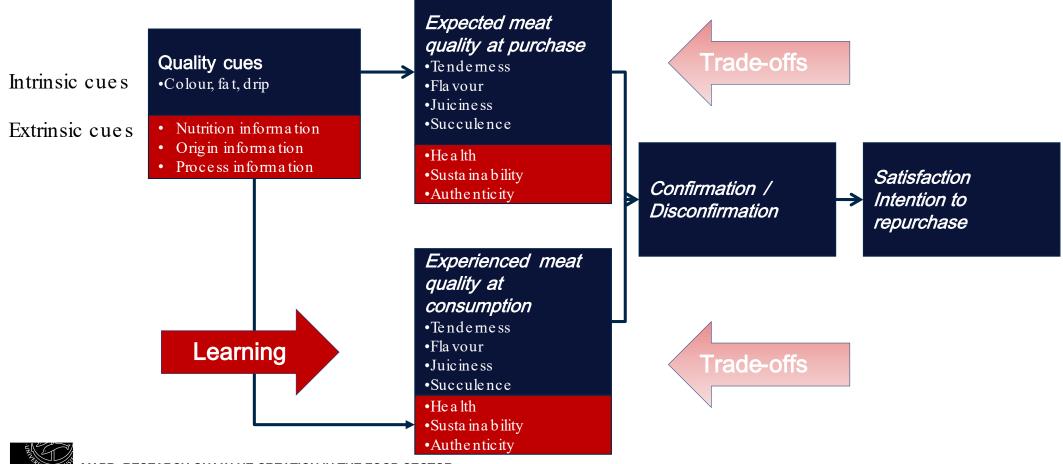








## SATISFACTIONLEARNINGDURING PREPARATIONAND CONSUMPTION



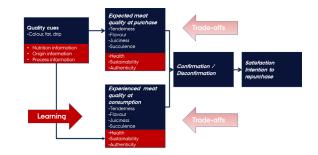




KLAUS GGRUNERT

ICOMST2019

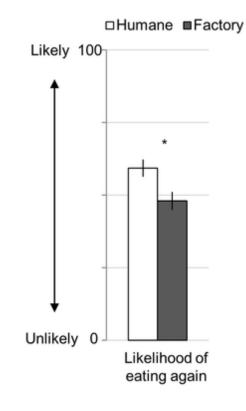
# CASE 4: THEFFECTOF PROCESS INFORMATIONDURING CONSUMPTION

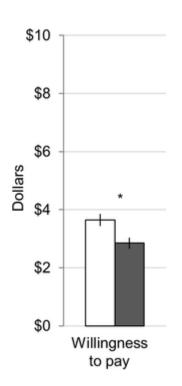


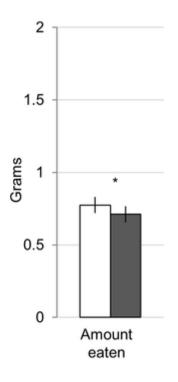
Provision of rocess attribute information during meat tasting

Tasting study in USA

Anderson, E. C., & Barrett, L. F. (2016). Affective be liefs influence the experience of eating meat. *PLoSOne*, 11(8), e0160424.









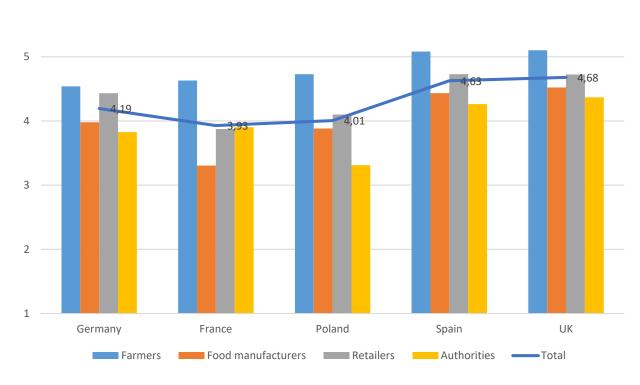




## THEROLEOF TRUST

Information onorigin, nutrition and process a ffects consumer behaviour only to the extent consumers blieve the information is credible and the source is trustworthy

Labelling, third party certification and branding are trust building devices





Results from EIT Food TrustTracker®







### CONCLUSIONSON SATISFACTION

Consumer satisfaction with meat depends on whether consumer expectations are met during consumption

However, meat today is evaluated not only in terms of sensory attributes, but also in terms of health, sustainability and authenticity

Satisfaction is there fore also affected by information on origin, nutrition and process characteristics

This is a worldwide phenomenon

Peoplemay perceive trade-offs between taste, health, sustainability and authenticity



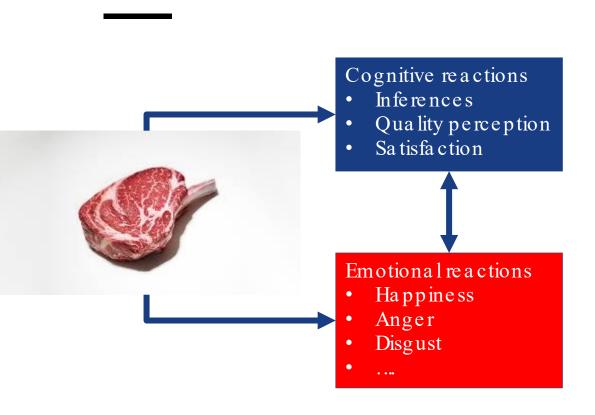


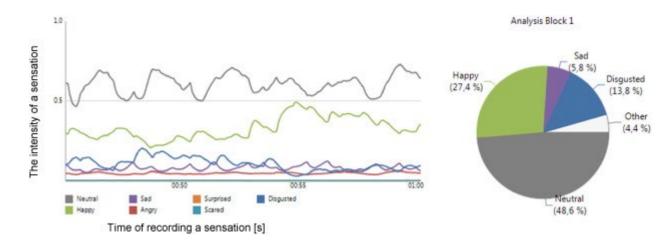


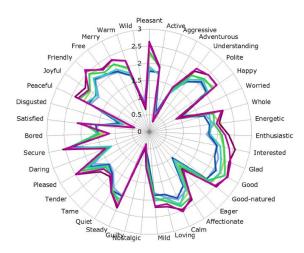
# Beond satisfaction: Emotional reactions to meat



## **MEASURINŒMOTIONALREACTIONS**















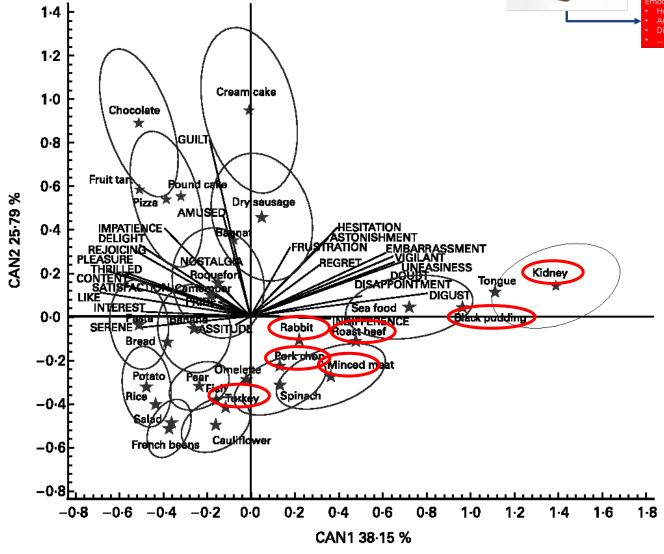




**CASE 5:EMOTIONAL** REACTIONSTO DIFFERENT **FOODS** 

> French women rated intensity of different emotional words in relation to pictures of foods

Rousset, S., Deiss, V., Juillard, E., Schlich, P., & Droit-Volet, S. (2005). Emotions generated by meat and other food products in women. British Journal of Nutrition, 94(4), 609-619.





# CASE 6:OVERCOMINGNEGATIVE EMOTIONALREACTIONSTO MEAT



The 'Four N's': Rationalization of meat consumption

1. Natural

"It is natural for humans to eat meat"

2. Necessary

"Humans need meat to survive"

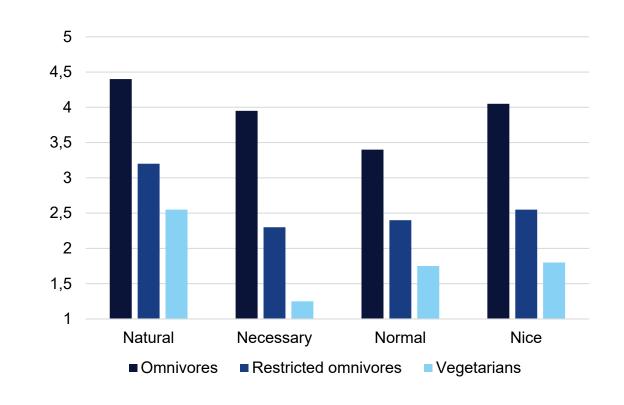
3. Normal

"A lot of other people eat meat"

4. Nice

"It's de licious"

Pia zza, J., Ruby, M. B., Loughnan, S., Luong, M., Kulik, J., Watkins, H. M., & Seigerman, M. (2015). Rationalizing meat consumption. The 4Ns. *Appetite*, 91, 114-128.

















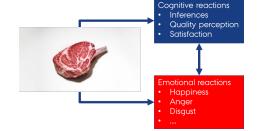






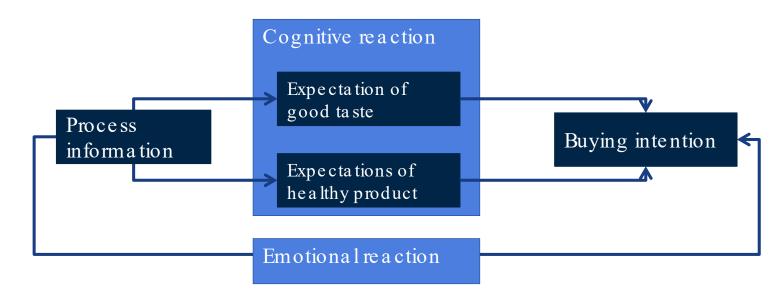


## CASE 7:EMOTIONALREACTIONSTO PROCESS INFORMATION



Process information can lead to cognitive inferences about quality that affect buying intention

However, process information can also elicit spontaneous affect that affects buying intention



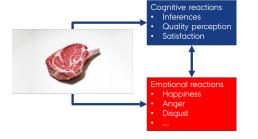
Saeed, F., & Grunert, K. G.. Expected and experienced quality as predictors of intention to purchase four new processed beef products. British Food Journal, 2014, 116, 451-471.











Heather-smoked shoulder filet Smoked with beech-wood and heathertwigs

Expectation of good taste Info on Buying intention preparation Expectations of healthy product

Marinated fried major Marinated in Danish honey and Danish blackthorn schnapps prepared from blackthorn collected in West Jutland

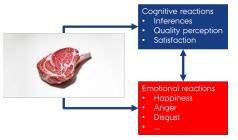


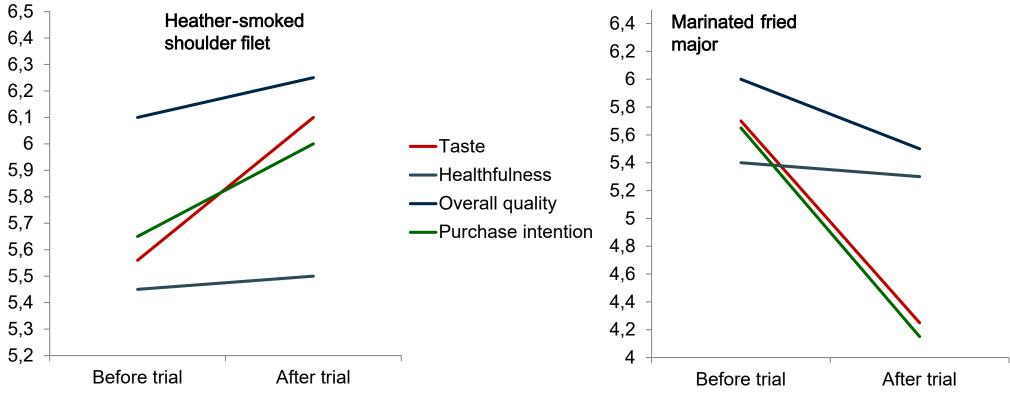






21 JANUARY, 2020











## CONCLUSIONSON EMOTIONALREACTIONS

We know less about the emotional than about the cognitive reactions to meat Negative motional reactions have received more attention than positive ones Emotional reactions to information about origin, nutrition and production process can have an affect on buying behaviour







# Meat and well-being



### WHAT ISWELL-BEING?

Well-being has an objective and a subjective side

Subjective well-being has a cognitive and an affective component

- The cognitive component: satisfaction
- The affective component: happiness

Meat has always been related to well-being!

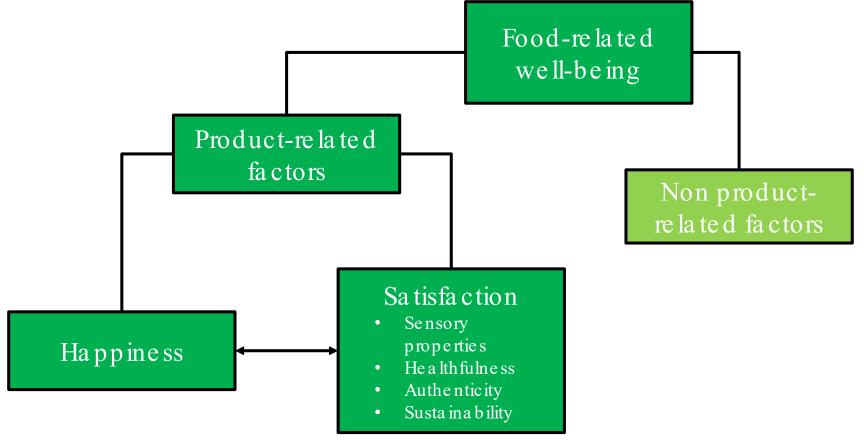
Diener, E. (2012). New findings and future directions for subjective well-being research. *The American Psychologist, 67*, 590-597.







## WELL-BEING, FOODAND FOODPRODUCTS







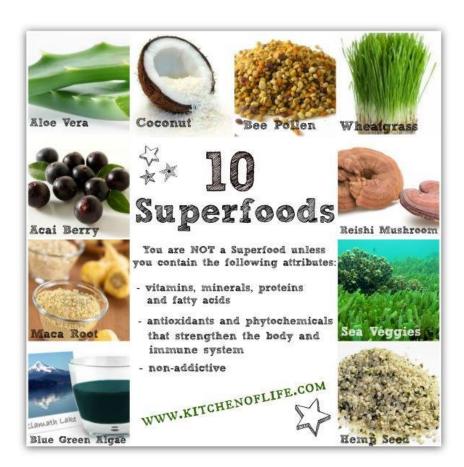


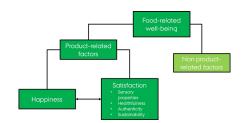


## CASE 8:SUPERFOODSTHEPROMISEOF THEMAGIC BULLET

Superfood is a marketing term for food with supposed health benefits as a result of some part of its nutritional analysis or its overall nutrient density. The term is not commonly used by experts, die titians and nutrition scientists, many of whom dispute that particular foods have the health benefits claimed by their advocates.

Wikip e d ia















"I eat mostly organically grown fruit

"For me, it is important to buy traditional

products from my region" (Hemmerling

and vegetables" (Roininen

**ORGANIC** 

LOCAL

### HOW THE FOOD IS PRODUCED

444

PRODUCTION PROCESS

### THE FINAL **PRODUCT**

### **INGREDIENTS USED**

Free from:

### **ARTIFICIAL INGREDIENTS**

"It is important to me that the food I eat on a typical day... contains no artificial ingredients" (Steptoe et al 1995)

> Mooney & Walbourn, 2001; Locke, 2002; Hemmerling et al., 2016

### F

### **PRESERVATIVES**

"I avoid foods that contain artificial preservatives" (Tobler et al., 2011)

Pula et al., 2014; Olbrich et al., 2015

0

### **ADDITIVES**

"I try to eat foods that do not contain additives (Roininen et al., 1999)

Steptoe et al., 1995: Locke, 2002: Bäckström et al., 2004; Siegrist et al., 2008; Honkanen & Olsen, 2009; Brunner et al., 2010; Pula et al., 2014; Olbrich et al., 2015; Price et al., 2016

### **ARTIFICIAL COLORS & FLAVORS**

"It doesn't contain artificial colors and flavors" (Onyango et al., 2006)

Pula et al., 2014; Olbrich et al., 2015

### **CHEMICALS, HORMONES** & PESTICIDES

"It is important to me that the food I eat on a typical day ... is certified free of chemical hormone residues" (Lockie, 2002)

Renner et al., 2012; Pula et al., 2014



### **GMOs**

"I eat what I eat... because it is natural" (e.g., not genetically modified) (Renner et al., 2012) Presence of:

### NATURAL **INGREDIENTS**

"It is important to me that the food I eat on a typical day... contains natural ingredients" (Steptoe et al., 1995)

Mooney & Walbourn, 2001; Lockie, 2002; Pula et al, 2014

### MINIMALLY 6 **PROCESSED**

"It is important to me that the food I eat on a typical day... has undergone minimal processing" (Pula et al

### **TRADITIONAL PRODUCTION METHODS/HOMEMADE**

"I prefer food that tastes artisan /hand-crafted (e.g., food that is produced by small companies)"



"Natural foods are better for my health" (Tobler et al., 2011)



### **ECO-FRIENDLY/IN ACCORDANCE** WITH NATURE

"I find out what foods are environmentally stressed and do not buy them" (Olbrich et al., 2015)



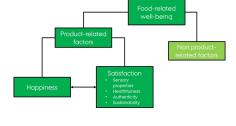
### **TASTY**

"Natural foods taste better than other foods" (Hemmerling et al., 2016)



### FRESH

"It is important to me that the food products I buy are fresh"



### THE CENTRAL ROLEOF **NATURALNESS**

Roman, S., Sanchez-Siles, L.M., & Siegrist, M. (2017). The importance of food natura lness for consumers: Results of a systematic review. Trends in Food Science & Technology, 67, 44-57.









## CONCLUSIONSON MEATAND WELL-BEING

Well-being has a cognitive component—satisfaction—and an affective component—happiness

Future consumer demand for meat will depend both on their satisfaction with different meat products and on the extent to which meat products elicit positive affect (happiness) and avoid negative affect

Sensory properties, healthfulness and sustainability are all important determinants of satisfaction and perceived trade-offs between them are a major driver of consumer behaviour

For many people positive affect is linked to naturalness.







## IMPLICATIONSFOR THEMEATSECTOR

The increasing importance of healthfulness, sustainability and authenticity opens up for new possibilities for new meat products

New meat products can be differentiated at all levels in the value chain

New product development should adopt a well-being approach—aiming for the positive emotional experience and avoiding the priming of trade-offs

The value chain, the processing technology, the communication and the sensory properties need to play together

Credibility and consumer trust become a key success factor in new product development







Thank you for your attention!











## MAPP - RESEARCH ON VALUE CREATION IN THE FOOD SECTOR

DEPARTMENT OF MANAGEMENT AARHUS UNIVERSITY