Effect of health labelling on expected and actual taste perception of cheese

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Objectives
The frequency of heart disease and hypertension is increasing throughout the world and one of the reasons is a shift towards a more unbalanced diet which includes a higher salt and fat intake. As a growing group of consumers are becoming more conscious with the health aspects of their diet new food products have been developed which could feed those needs and contains for instance less salt and fat. These food products often contains front of pack labelling (i.e. reduced in salt, ‘light’,...) so that consumers are better aware of its composition or its reformulation. However, one drawback is that consumers often associate changes in a particular ingredient as for instance salt with a reduction in taste quality. The purpose of this study was threefold:

- First, to examine the influence of health labels ‘reduced salt content’ and ‘light’ on the expected and perceived sensory evaluation of cheese.
- Next, to investigate which emotional conceptualizations consumers associate with such messages.
- Lastly, this study wants to explore if there are associations between consumer attitudes and the emotional and sensory profiles of labelled cheese.

Materials & methods
PRODUCT:
Young gouda cheese

LABELS:
• Cheese (“control”)
• Light cheese (“light”)
• Reduced salt cheese (“reduced salt”)
• Light cheese with reduced salt (“light + reduced salt”)

CONSUMER TEST
• Attitude and behaviour
  o Eating habits of cheese: consumption and preference of type of cheese, frequency of consumption
  o Shopping behaviour, attitudes and awareness of personal salt and fat intake
  o Health and Taste Attitude Scale (HTAS):
    General health intake, light product interest and reduced salt product interest

• Sensory evaluation
  o 2 conditions: expected and perceived (same cheese)
  o Overall liking, salt intensity fat flavour intensity
  o 7-point scale
  o Emotional conceptualizations and sensory attributes
    o Rate-all-that-apply
    o 5-point intensity scale (very weak – very strong)

• Socio-demographic
  o age, gender, place of living

STATISTICAL ANALYSIS: IBM® SPSS 22

RESPONDENTS:
129 Belgian subjects (47% ♂, 53% ♀)
Mean age: 24.9 years (SD = 9.5)

Results

AWARENESS OF SALT AND FAT INTAKE

ACCEPTANCE, SALT INTENSITY AND FAT FLAVOUR INTENSITY

SENSORY AND EMOTIONAL PROFILES

Health attitudes

Correlations

Conclusions

- Health labels could influence the overall acceptance and sensory perception of label-related attributes.
- No influence of reduced salt label on the overall acceptance when tasting cheese.
- Consumers associate more positive emotional conceptualizations towards the control labelled cheese during the expected condition. But those differences tend to go away when actually tasting the (same) cheese.
- Including consumer behaviour questions could provide additional background information on the emotional and sensory profiling of food products.

Practical applications:
Although producing food products which are better nutritionally balanced is popular, companies should be aware that communicating in means of front of pack labelling is not always advisable and could influence consumers’ taste perception.