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# What's new in sensory food research in Europe?

Sens Co France Italian Sensory Science Society Spanish Professionals Association of Sensory Science

IG Sensorik Swiss Society of Food Science and Technology

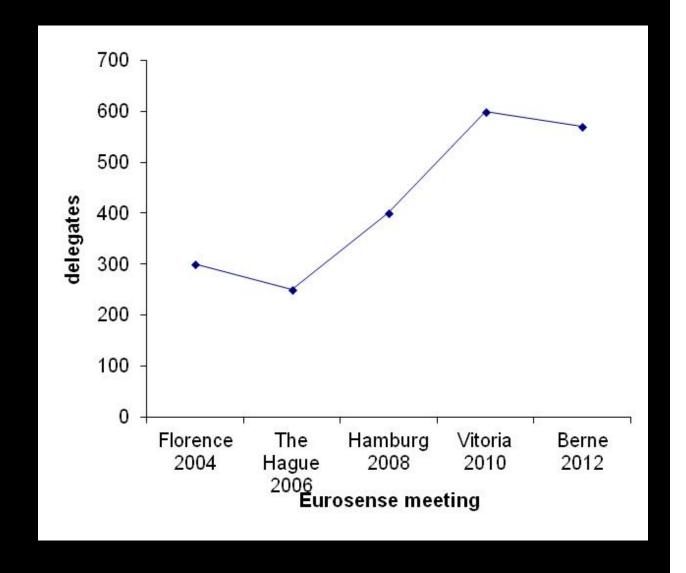
Professional Food Sensory Group Institute of Food Science and Technology UK Vakgroep Sensorisch Onderzoek NL SensNet DKF

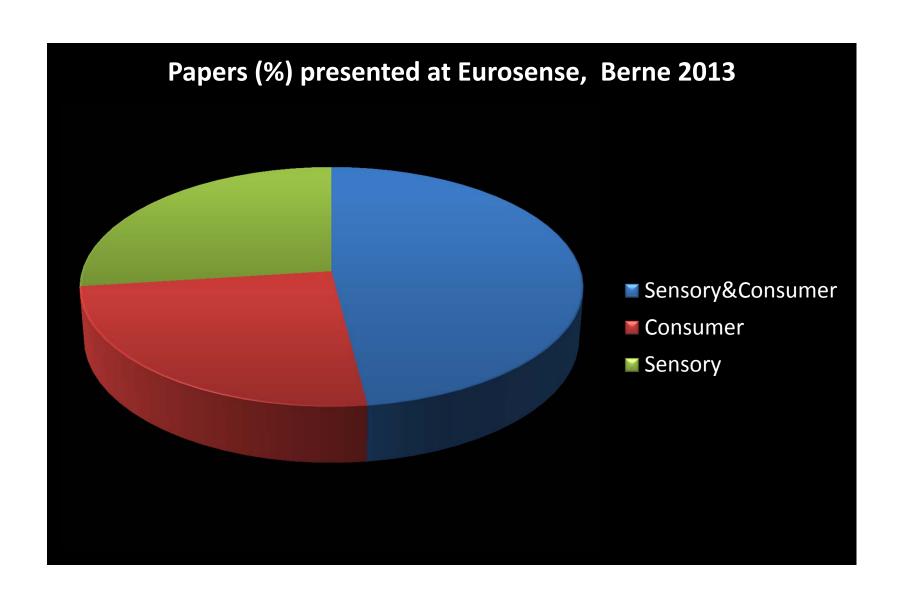
SensNet DKFinnish Society of Food Science and Technology

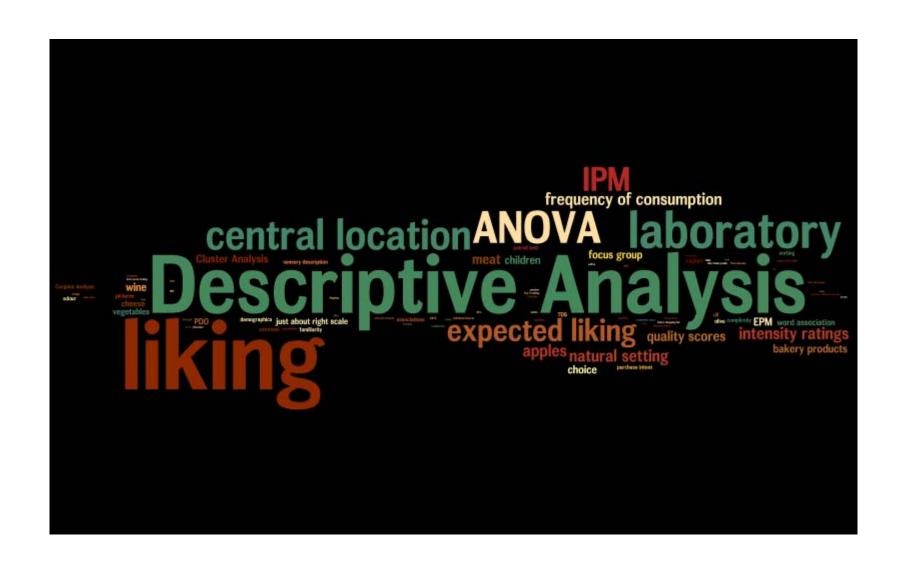
lorwegian Sensory Association

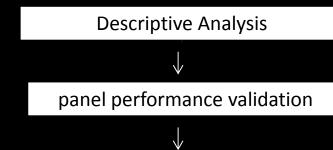


# Eurosense meetings









Perceptual map

**Product selection** 

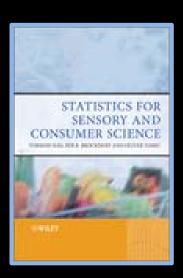
Consumer testing

Preference maps &

consumer segmentation

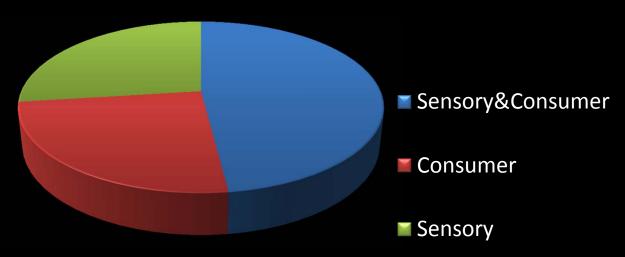


Edited by Hal MacFie



Edited by T. Naes et al.

#### Papers (%) presented at Eurosense, Berne 2013







**Free Sort** 

# Rapid methods:

WHY

the growing industrial demand to develop faster and more cost-effective methods of descriptive analysis

- rapid access (in one or two sessions) to the relative sensory positioning of a set of food products: Perceptual Maps

WHAT

- do not require a training phase and can be performed either by trained or untrained assessors.

- obtain a coarse, but still sufficient, sensory description of products

# Rapid methods:

Descriptive (or verbal)

Flash Analysis
Free Choice Profile
Check-All-That-Apply

HOW

**Similarity** 

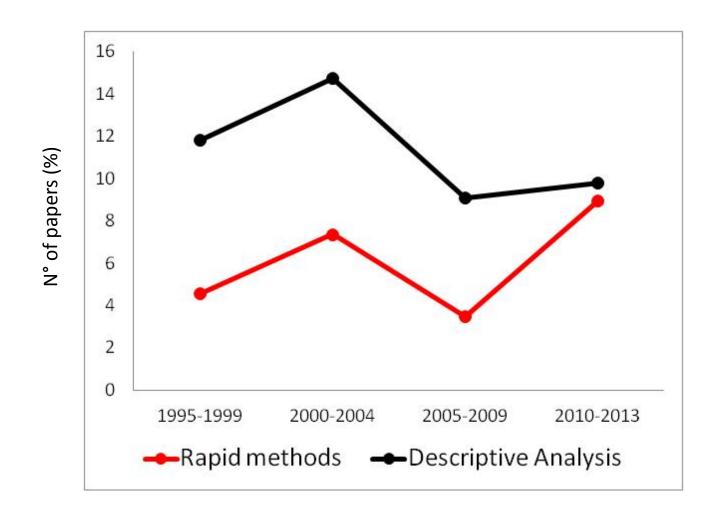
Free Sorting Task
Projective Mapping /
Napping
Direct similarity ratings

Reference-based

Polarised Sensory Positioning

Pivot Profile

Application of Descriptive Analysis and Rapid methods in FQAP & JSS papers from 1995 to 2013



# Rapid methods:

# main limitations

List of attributes

Stable references

samples presented simultaneously numbers of products

Lack of consensus similar samples interpretation of sensory terms

# Research studies on rapid methods:

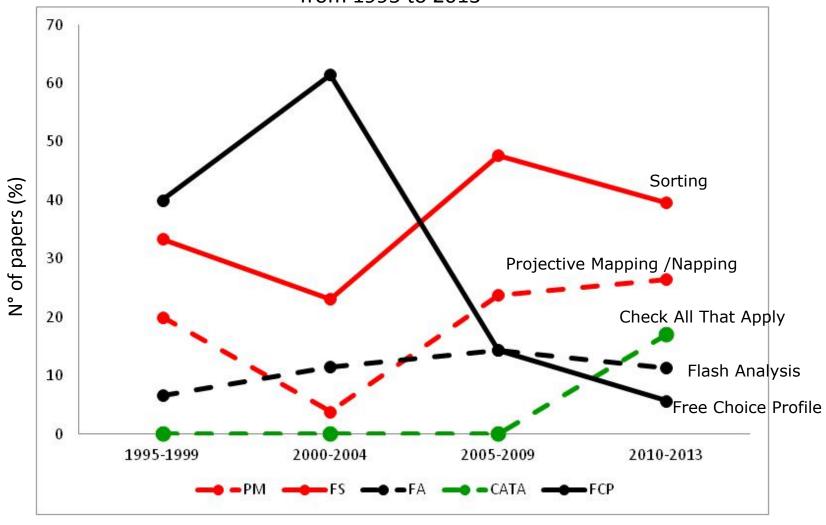
projective mapping or free sorting task vs conventional descriptive analysis

check-all-that-apply vs other rapid method





Application of Descriptive Analysis and Rapid methods in FQAP & JSS papers from 1995 to 2013



# Research studies on rapid methods:

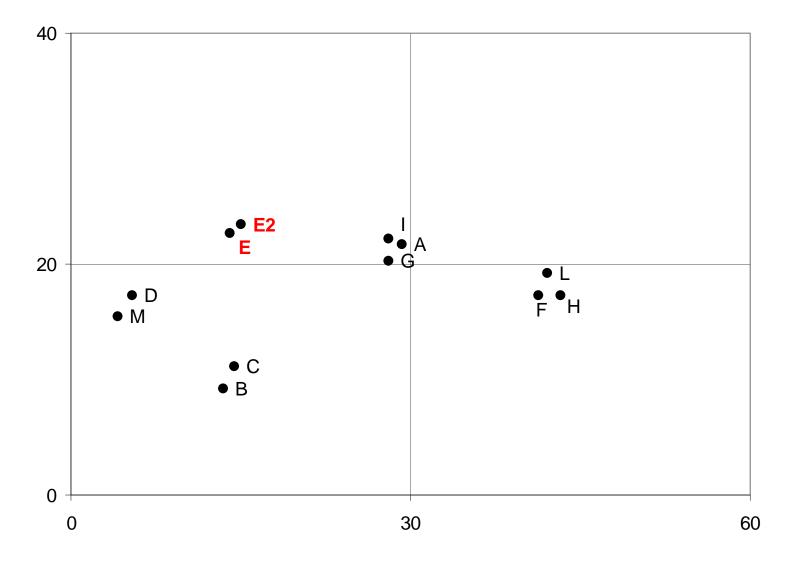
Focus on individual differences among consumers

# Consumer study on wine

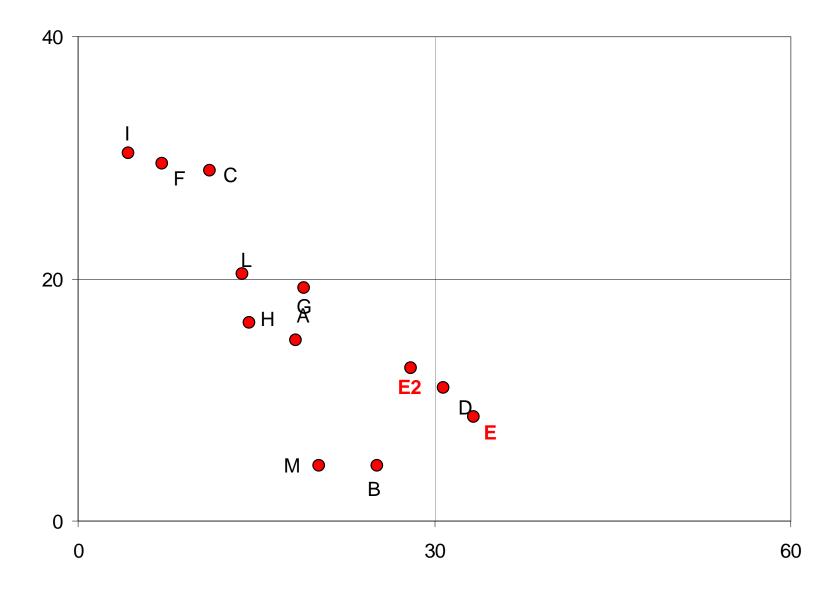


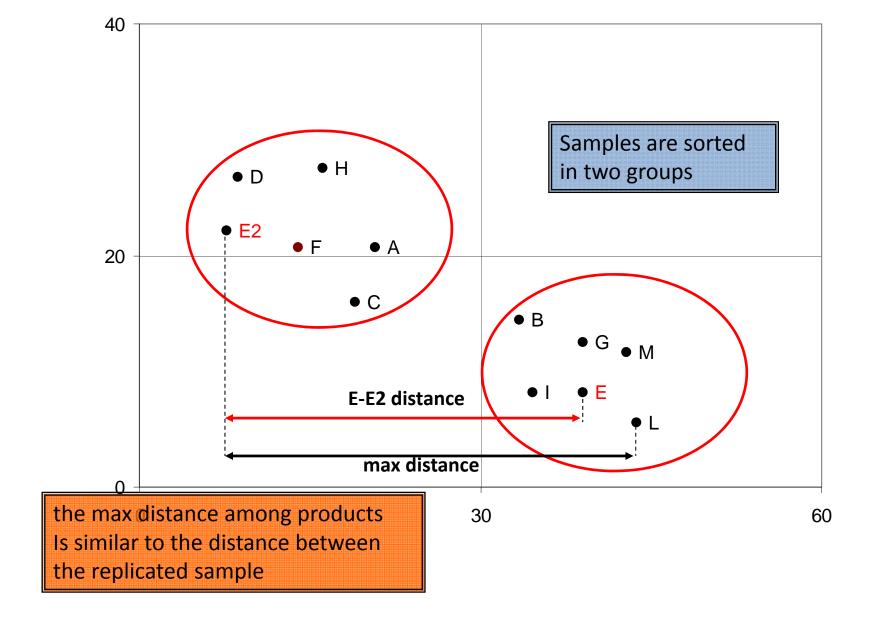


Subj. 26

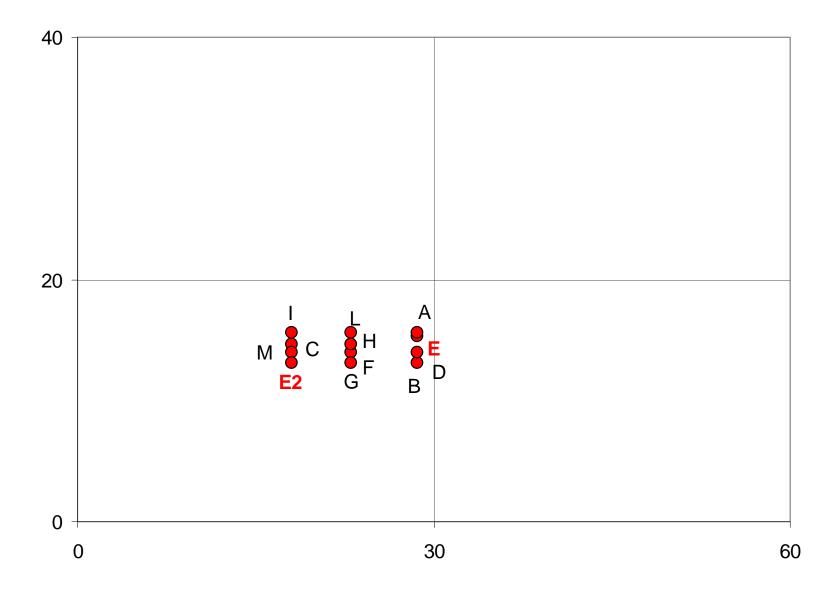


Subj. 70





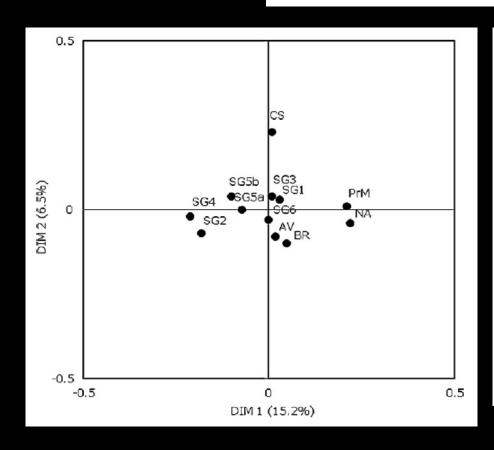
Subj. 59: a very poor positioning

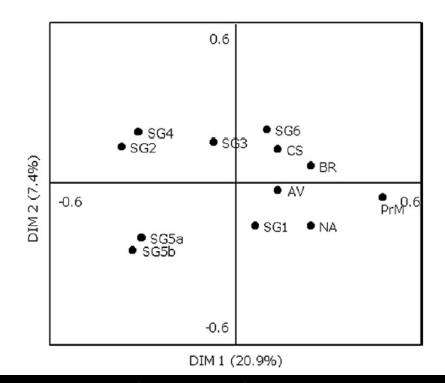


# Research studies on rapid methods:

#### Involvement scale for consumer recruitment

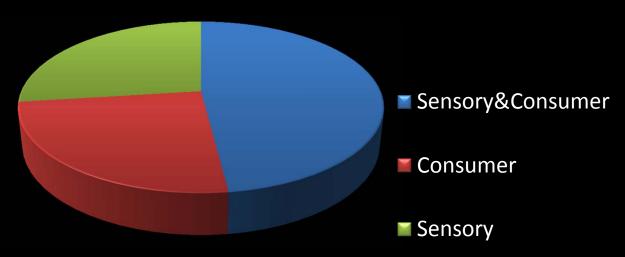
L. Torri et al./Food Quality and Preference 29 (2013) 6-15





High involvement

#### Papers (%) presented at Eurosense, Berne 2013







**Free Sort** 

# New methods: the TDS case



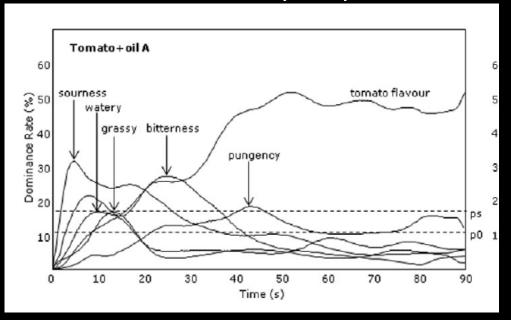
#### 2.1.1. Notion of dominance in TDS

For the training sessions, a dominant attribute was defined as the attribute associated to the sensation catching the attention at a given time. It should be understood mostly as the new sensation popping up at a given time. Therefore, the dominant attribute is not necessarily the one with the highest intensity. For example,

#### The number of papers on TDS keeps growing:

The application of TDS in studies on the sensory functionality of ingredients increases

The application in studies aimed at defining the sensory properties of specific food combinations or complex product increases



### New methods: the TDS case

#### Aspects that need to be further investigated:

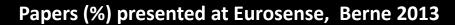
More attention to the generation of the descriptive terms

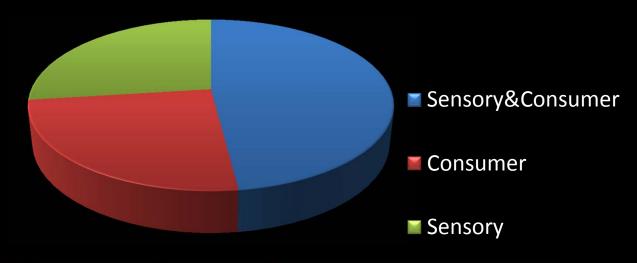
Availability of fast and easy approaches to test significant differences between products in relation to dominant attributes

Better understanding of individual variability among assessors

Role of TDS in product development and optimization

The extension of the evaluation to the consumption of the whole product





# Natural settings Emotion Observation

imagined environment eye tracking immersive

# Measuring Emotions

WHY

The need of a common lexicon for sensory and marketing to communicate

WHAT Defining the emotional profile

HOW

Questionnaires

recent research questions

standardized questionnaire product specific questionnaires

## **Emotions**

Lack of the terms:

Emotions are not product specific

Limits of standardised questionnaires:

Ambiguity (words are not presented in a context):

the same term can indicate different emotions in the same language

Inappropriate translation:

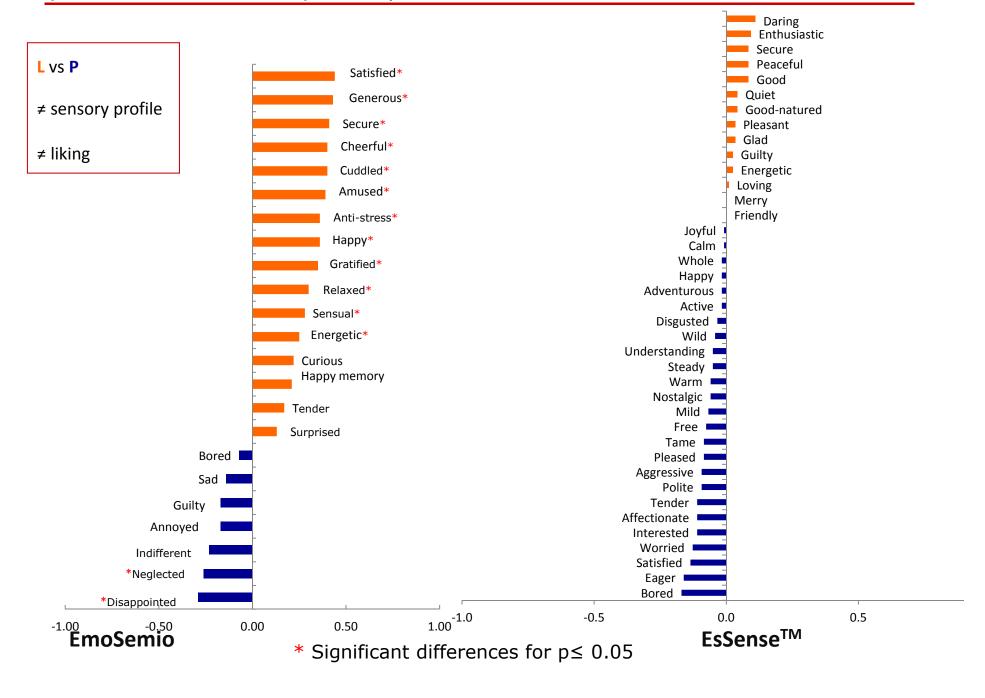
translating emotions in different languages and cultures is difficult

Proposed alternatives

Focus group based method on products presented blind using a master list. (Thompson et al. 2010)

RGM based method on products presented blind and branded (Ng et al. 2012; 2013; Spinelli et al. 2012)

#### (EMOSEMIO VS ESSENSE<sup>TM</sup>) from Spinelli et al.2012



# Focus on the importance of testing conditions in collecting affective consumer responses

.....from laboratory to natural settings

written scenario to evoke a consumption context in a laboratory setting (Hein et al. 2010)

Evoked consumption context using pictures (Hersleth et al. 2012)







"Having a drink in a bar": An immersive approach to explore the effects of context on drink choice

Carole Sester <sup>a,b,c,\*</sup>, Ophelia Deroy <sup>d</sup>, Angela Sutan <sup>e</sup>, Fabrice Galia <sup>e</sup>, Jean-François Desmarchelier <sup>f</sup>, Dominique Valentin <sup>a,b,c,g</sup>, Catherine Dacremont <sup>a,b,c,g</sup>

near future focus on: rapid methods sensory & emotional/"feelings" profiles evoked & simulated consumption contexts