

Sensory perception of home-made products by highly-involved consumers

Renata Januszewska¹, Sara De Pelsmaeker¹, Xavier Gellynck¹, Koen Dewettinck²

¹Ghent University, Department of Agricultural Economics, Coupure Links 653, Gent, Belgium

²Ghent University, Department of Food Safety and Food Quality, Coupure Links 653, Gent, Belgium

renata.januszewska@ugent.be, tel: +32 9 264 5930, fax: +32 9 264 6246, www.sensolab.be

Introduction

Relationship between food involvement and sensory evaluation of home-made versus commercially available products is not clear.

Home-made products are less standardised regarding flavour and textural properties. It is likely that such products are more preferred by high-food involved people who enjoy cooking and experimenting with different flavours and textures.

AIM:

To find out to which sensory attributes high-food involved consumers respond more sensibly than low-involved consumers.

Materials & methods

RESPONDENTS: 76 consumers in Flanders

PRODUCTS:

- A home-made tomato soup with banana
- A commercially available tomato soup

RESEARCH STEPS:

• Segmentation

- ✓ 12-item Food Involvement Scale, measured on 5-point scales (Bell & Marshall, 2001)

• Sensory liking and sensory descriptors

- ✓ 9-point hedonic scale: overall liking for colour, smell and taste
- ✓ 5-point just-about-right (JAR) scales for 6 sensory attributes: *thickness, sweetness, creamy mouth feeling, intensity of banana smell, intensity of banana taste, fatty aftertaste*

• Socio-economic profiles of segments

- ✓ gender, age, income, education, BMI

ANALYSIS:

- ✓ Factor, cluster, discriminant analyses
- ✓ t-test

Reference:
Bell, R., & Marshall, D. W. (2001). The construct of food involvement and its relationship with sensory testing: scale construction and validation. Presented at the Fourth Rose Marie Pangborn Sensory Science Symposium, Dijon France, 21–26 July



Results

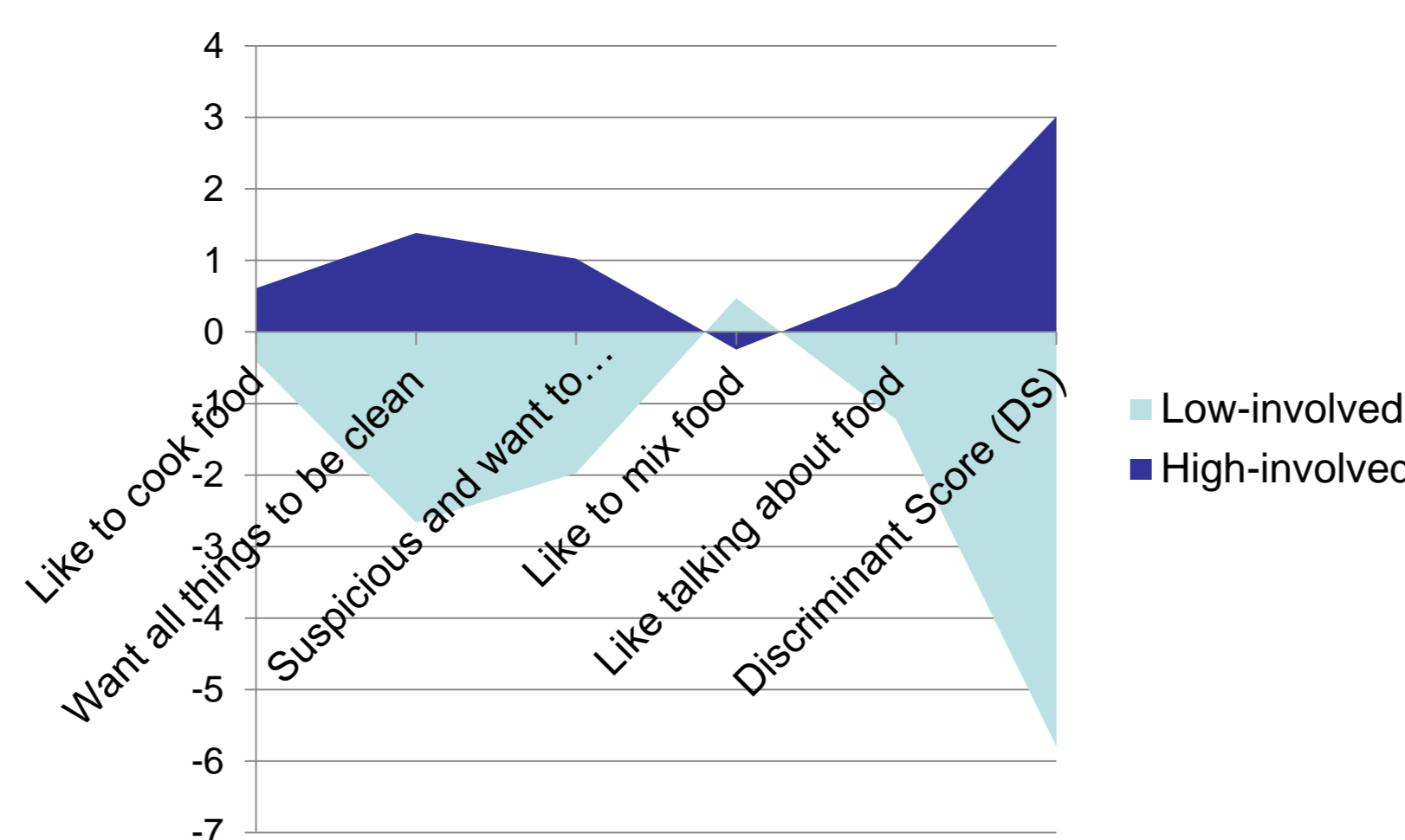
1. Food-Involved Segments

1.1. Factor analysis

FOOD INVOLVEMENT SCALE (Marshall & Bell, 2001)	Factor 1 Like to cook food	Factor 2 Want all things to be clean	Factor 3 Suspicious and want to decide	Factor 4 Like to mix food	Factor 5 Like talking about food
1. I don't think much about food each day (R)			0,823	0,245	
2. Cooking or barbecuing is not much fun (R)	0,860				
3. Talking about what I ate or am going to eat is something I like to do	0,637			0,560	0,205
4. Compared with other daily decisions, my food choices are not very important (R)	0,496		0,450	0,247	0,253
5. When I travel, one of the things I anticipate most is eating the food there			-0,644	0,380	-0,288
6. I do most of all of the clean up after eating		0,786			
7. I enjoy cooking for others and myself	0,847				
8. When I eat out, I don't think or talk much about how the food tastes (R)					0,876
9. I do not like to mix or chop food (R)	-0,201			0,815	-0,200
10. I do most or all of my own food shopping	0,390	0,370	0,549	-0,260	-0,331
11. I do not wash dishes or clean the table (R)		0,800			
12. I care whether or not a table is nicely set	0,402	0,621		-0,200	0,285

71% of total variance explained

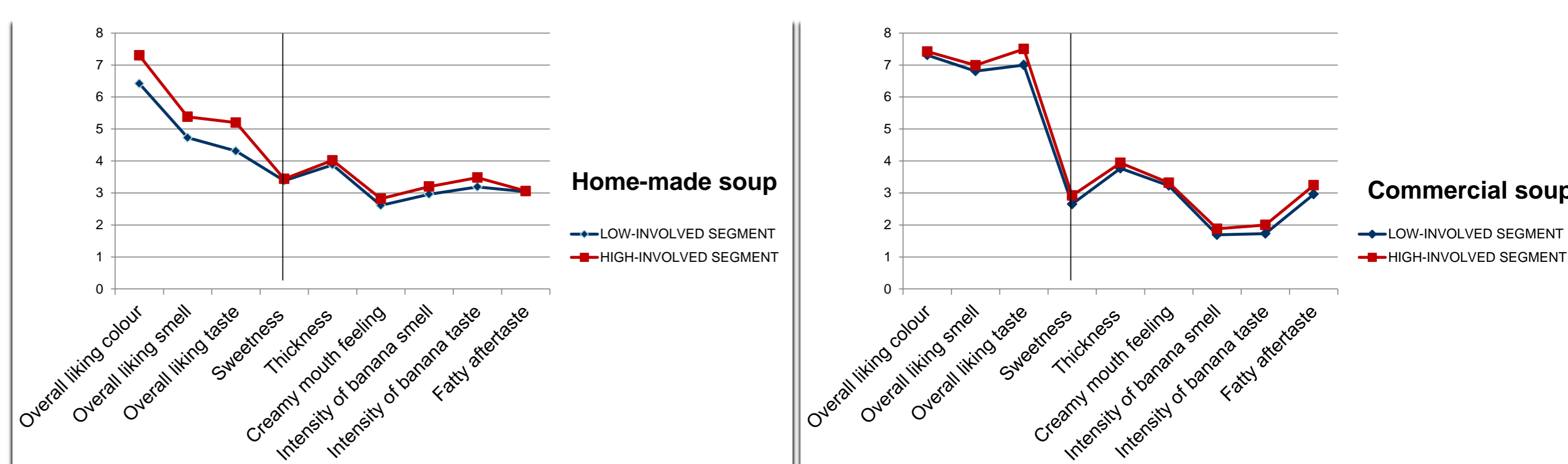
1.2. Cluster and discriminant analyses



Fish shape graph for segmentation based on Food Involvement Scale

Factors	Low-involved #26	High-involved #50
Like to cook food	-0,407	0,611
Want all things to be clean	-2,664	1,385
Suspicious and want to decide	-1,971	1,025
Like to mix food	0,473	-0,246
Like talking about food	-1,225	0,637
Discriminant Score (DS)	-5,794	3,012

2. Sensory liking and sensory descriptors of tomato soups



3. Profile of high-involved consumers

- ✓ 60% of females
- ✓ No relation to age, income, education or BMI
- ✓ Preferred 4P's: commercial soup (75%), tetrapack box (60%), €1,5 for 500ml (74%), consumption in home (60%) or restaurant (25%)

Conclusions

- Research indicates that highly-involved consumers like to cook and talk about food. They decide over a meal and keep kitchen clean. A specific characteristic of such consumers is dislike to mix food.
- **Commercial soup** is preferred over the home-made soup for overall colour, smell and taste. It has better creamy mouth feeling but it could be slightly sweeter.
- **Home-made tomato soup** contains banana, therefore it has better sweetness level with just-right banana smell and taste.
- Both soups are similar for thickness and fatty aftertaste.
- High-involved segment perceives sensory descriptors sharper and gives slightly higher liking and JAR scores than low-involved segment.



Home-made Soup

