

AfroSense 2015

A Cost/Benefit Analysis of Consumer Check-All-That-Apply (CATA) and Trained Descriptive Analysis (DA)

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Outline

- Objectives
- Research Outline
- Panel Resources
- Test Results
- Conclusions



Research Purpose

- Cost comparison of trained vs consumer panels.
- Assumed similarity in results between Consumer and Trained panels.
- Experimentation performed using best practices for each method.

Experimental Design

- Six whole grain breads
- Consumer CATA and Trained DA
- Conducted in the lab by trained sensory team.
- Software: Compusense Cloud



Trained Panel



- n=12 and 2 replicates
- Prior product training using FCM[©].
- Sensory team required 2 days for preparation.
- Data collected in 1 day.
- Provides: Descriptive Analysis and CATA data.

Consumer Panel

- n=93 and 2 replicates
- Screening, recruitment, and self-scheduling completed in 1 day.
- 7 days lead time given to ensure consumer availability.
- Data collected in 2 days
- Provides: CATA data with hedonic data and ideal profiles.



Big Questions

- Is CATA cheaper?
- Is CATA faster?
- Are the in results similar with Consumer and Trained panels?
- Are the results repeatable?

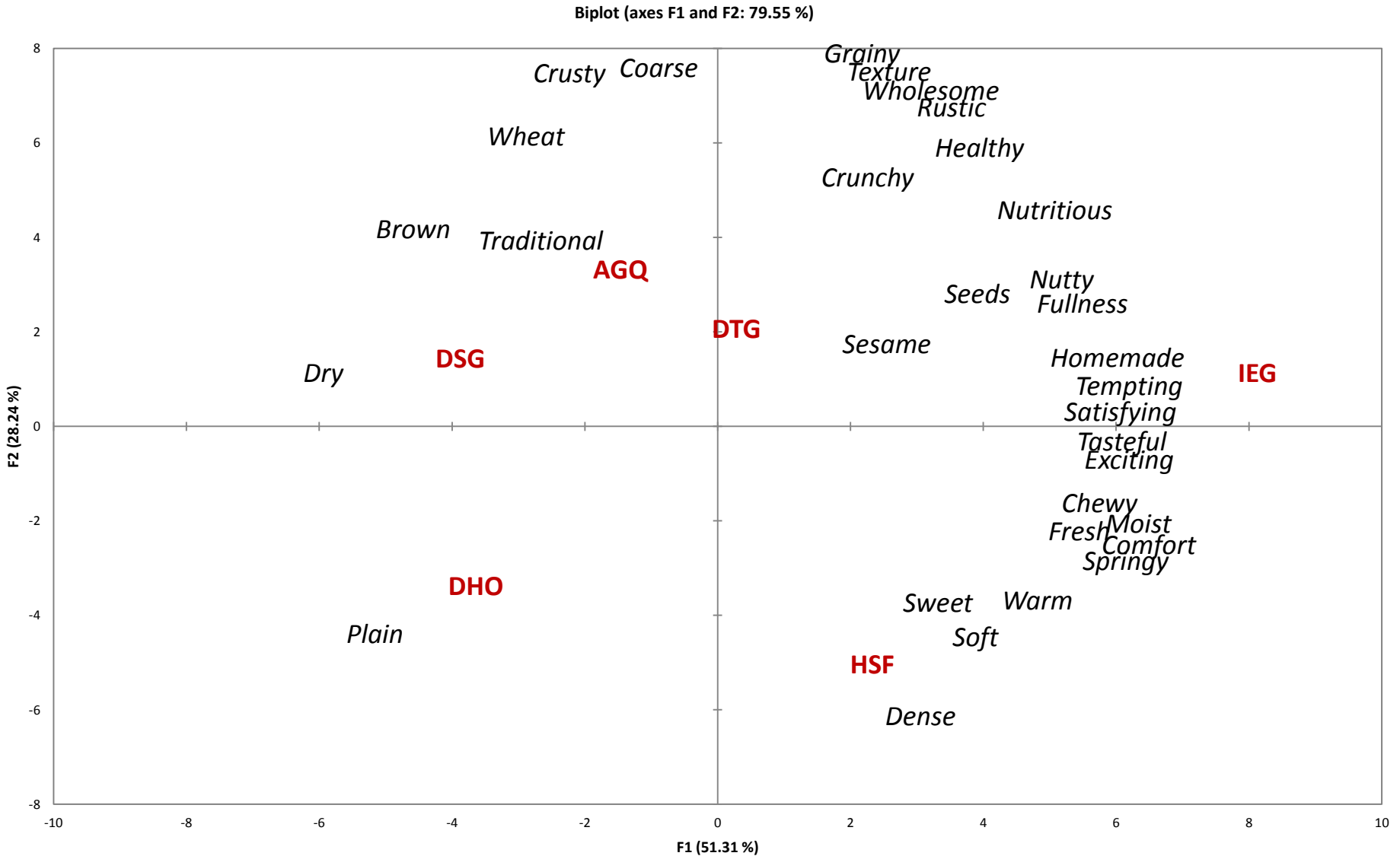
Cost

	CATA	DA	Factor
Overhead	400	100	4.0
Coordinators	150	-	
Panelists	2000	250	8.8
Staff (Prep)	250	100	2.5
Staff (Testing)	300	100	3.3
Products	250	25	9.2
Supplies	25	10	2.5
Total	3375	585	5.7

Time

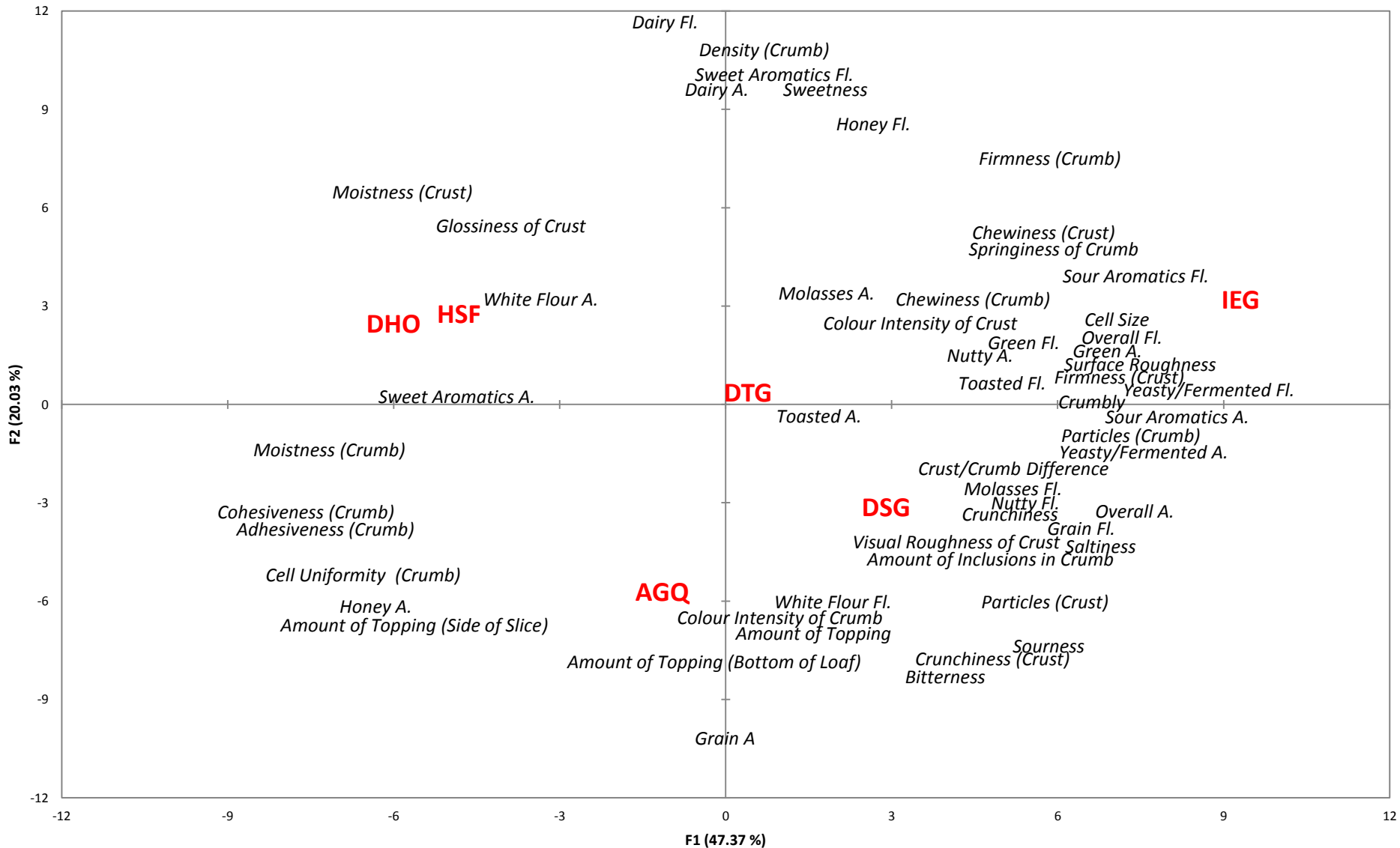
	Unit	CATA	DA	Factor
Coordinators	Hours	14.0	-	3.0
Staff (Prep)	Hours	15.0	5.0	4.0
Staff (Testing)	Hours	20.0	5.0	2.3
Lead time	Days	7	3	4.0
Testing time	Hours	8	2	

Consumer CATA PCA



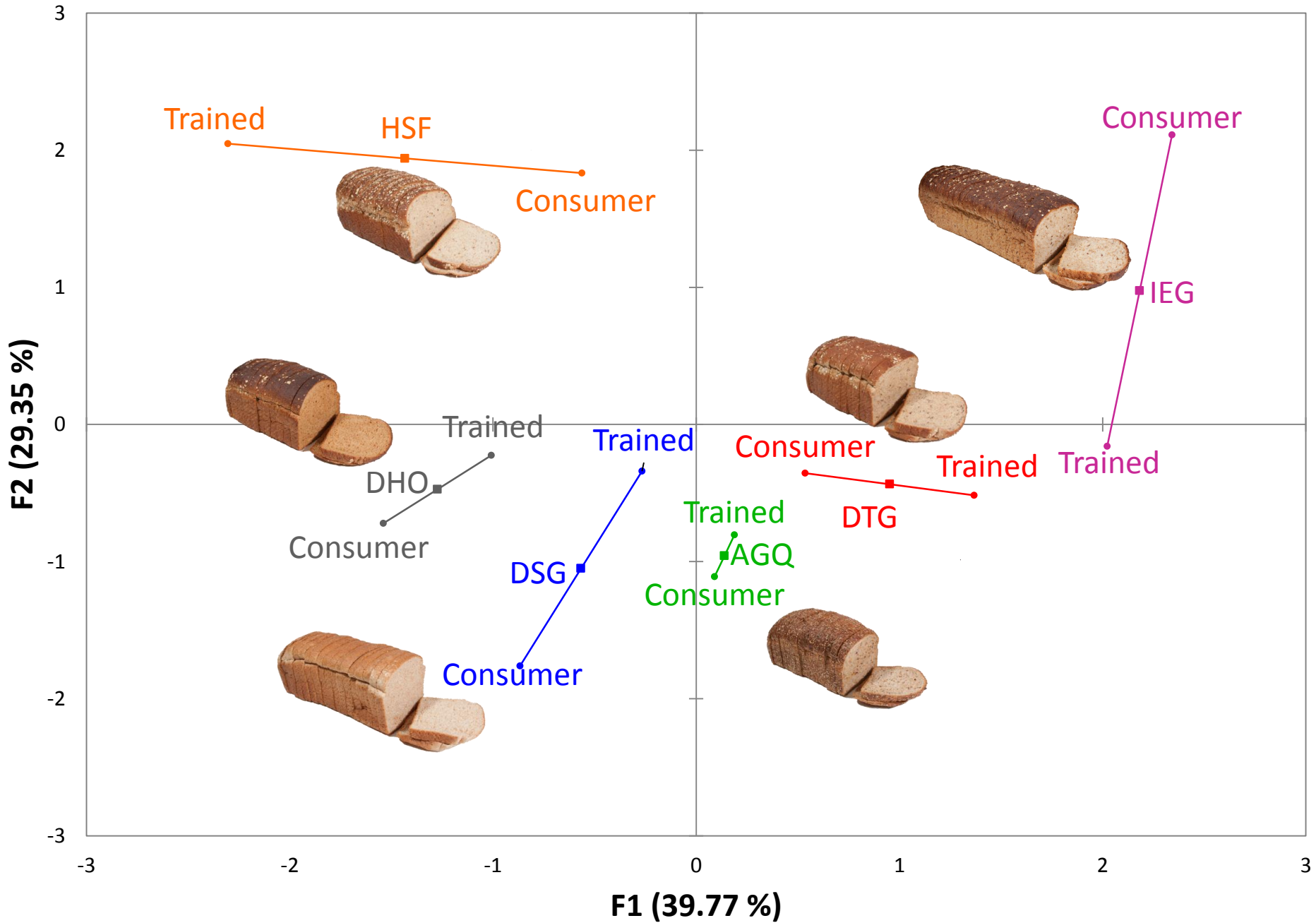
DA PCA

Biplot (axes F1 and F2: 67.40 %)



MFA

Coordinates of the projected points (axes F1 and F2: 69.12 %)



RV coefficients- Consumer and Trained

Dimensions	RV coefficients	Adjusted RV coefficients	Standardized RV coefficients	Mean	Variance	p-value
1	0.112	-0.110	-0.407	0.200	0.047	0.591
1:2	0.490	0.208	0.784	0.356	0.029	0.209
1:3	0.595	0.229	0.852	0.475	0.020	0.194
1:4	0.664	0.250	0.933	0.551	0.014	0.173
1:5	0.688	0.215	0.811	0.603	0.011	0.200

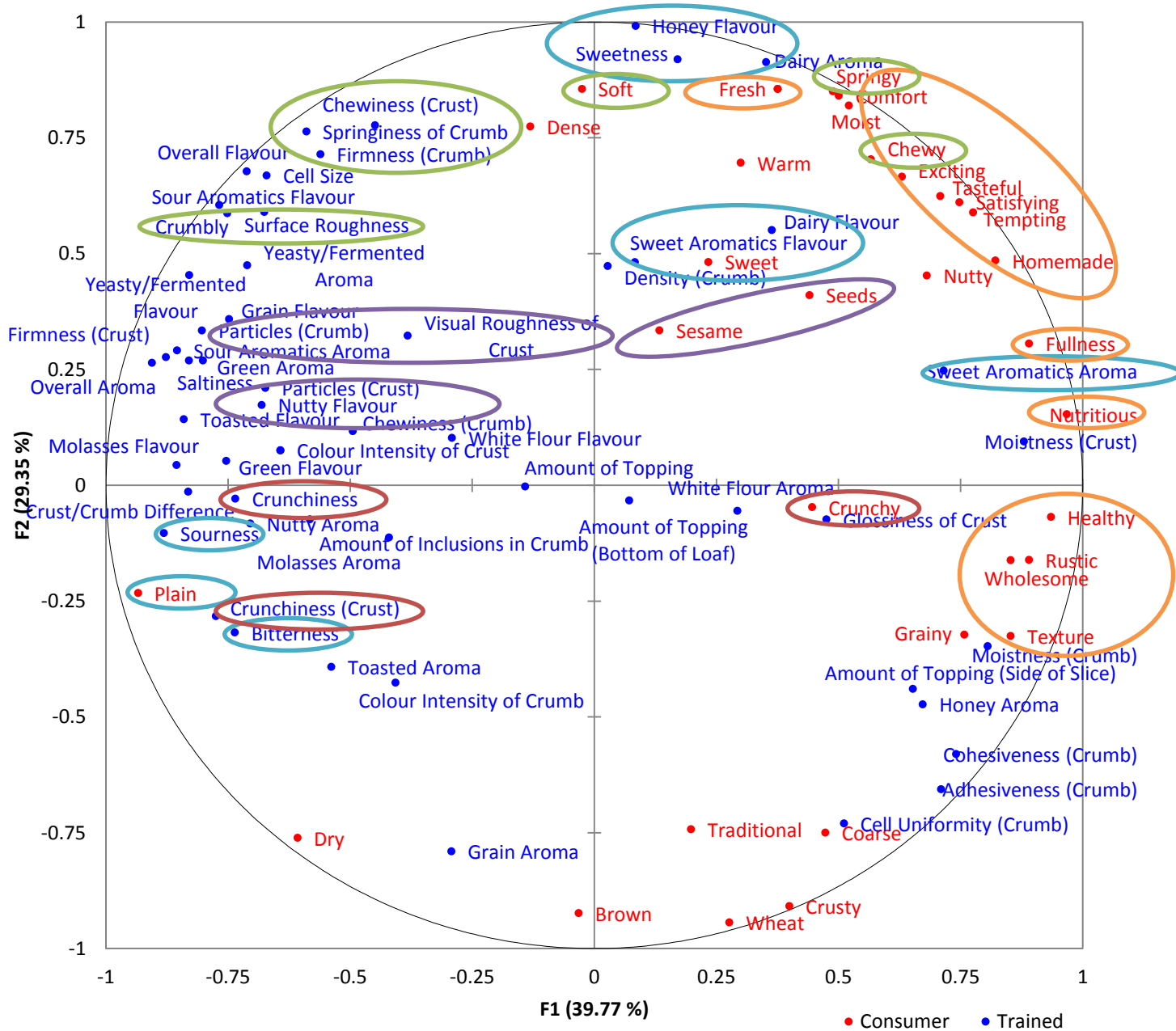
- Product configurations bore some resemblance
- Little objective evidence of a link between panels
- Both methods are highly repeatable

Big Answers

- Is CATA cheaper? NO
- Is CATA faster? NO
- Provided you have a standing DA panel
- Are the results similar between Consumer and Trained panels? Not really

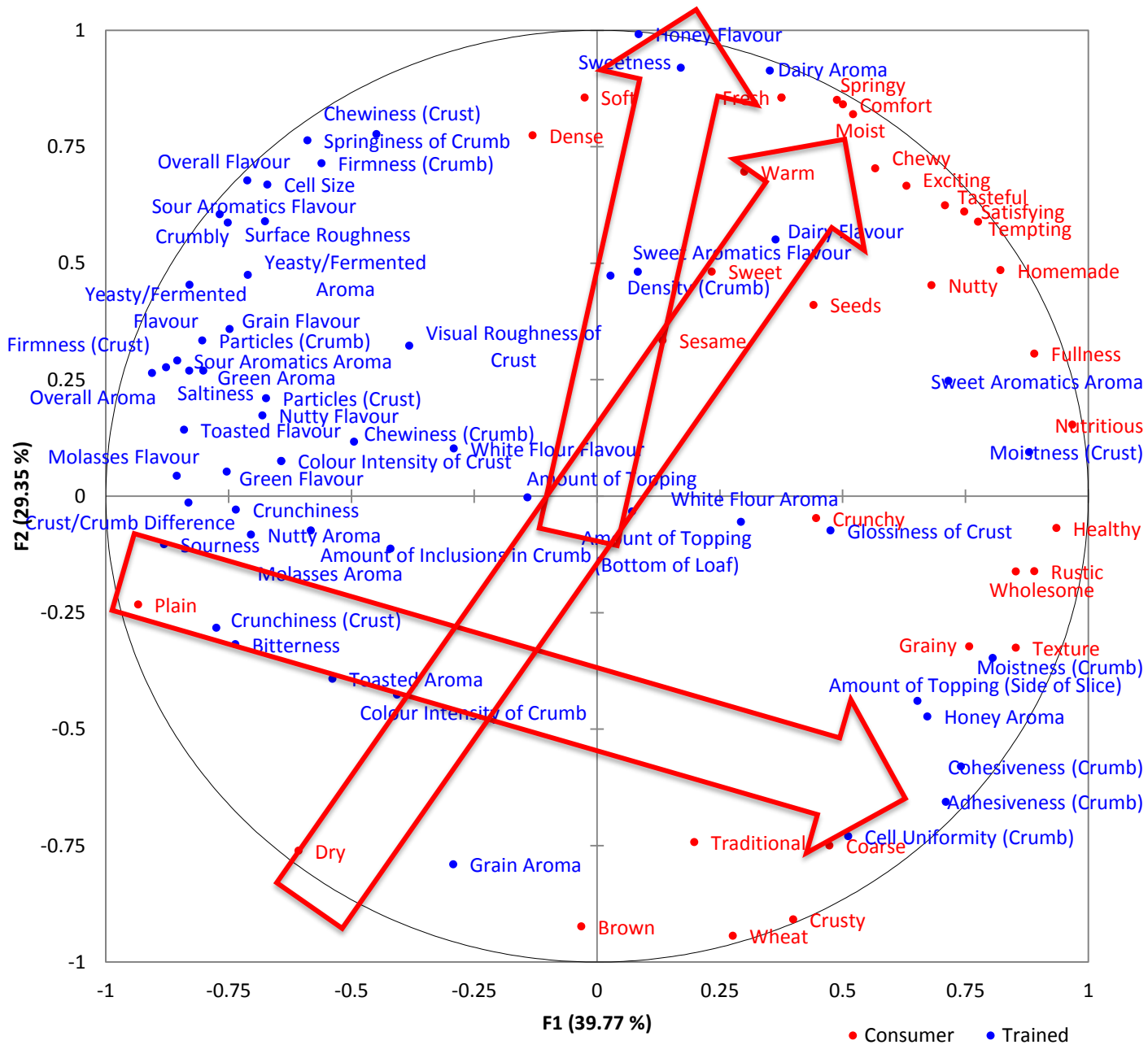
MFA

Variables (axes F1 and F2: 69.12 %)



MFA

Variables (axes F1 and F2: 69.12 %)



Thank You



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