


# Rapid Profiling Techniques: How do they compare to traditional methods?

S. Gough, A. Hasted, I. Wakeling, T. Hollowood\*,  
L. Buntinas, P. Beyts





- How does each method compare to the output from QDA?



- How consistent is each method?



- Are naive panellists comparable to trained panellists?

## Napping

### Trained

Separate modalities  
Flip chart paper  
Descriptive words

### Untrained

Separate modalities  
Flip chart paper  
Descriptive words

## Flash

### Trained

Independent att. Gen  
Ties allowed  
Reps - separate days

### Untrained

Independent att. Gen  
Ties allowed  
Reps - separate days

## FCP

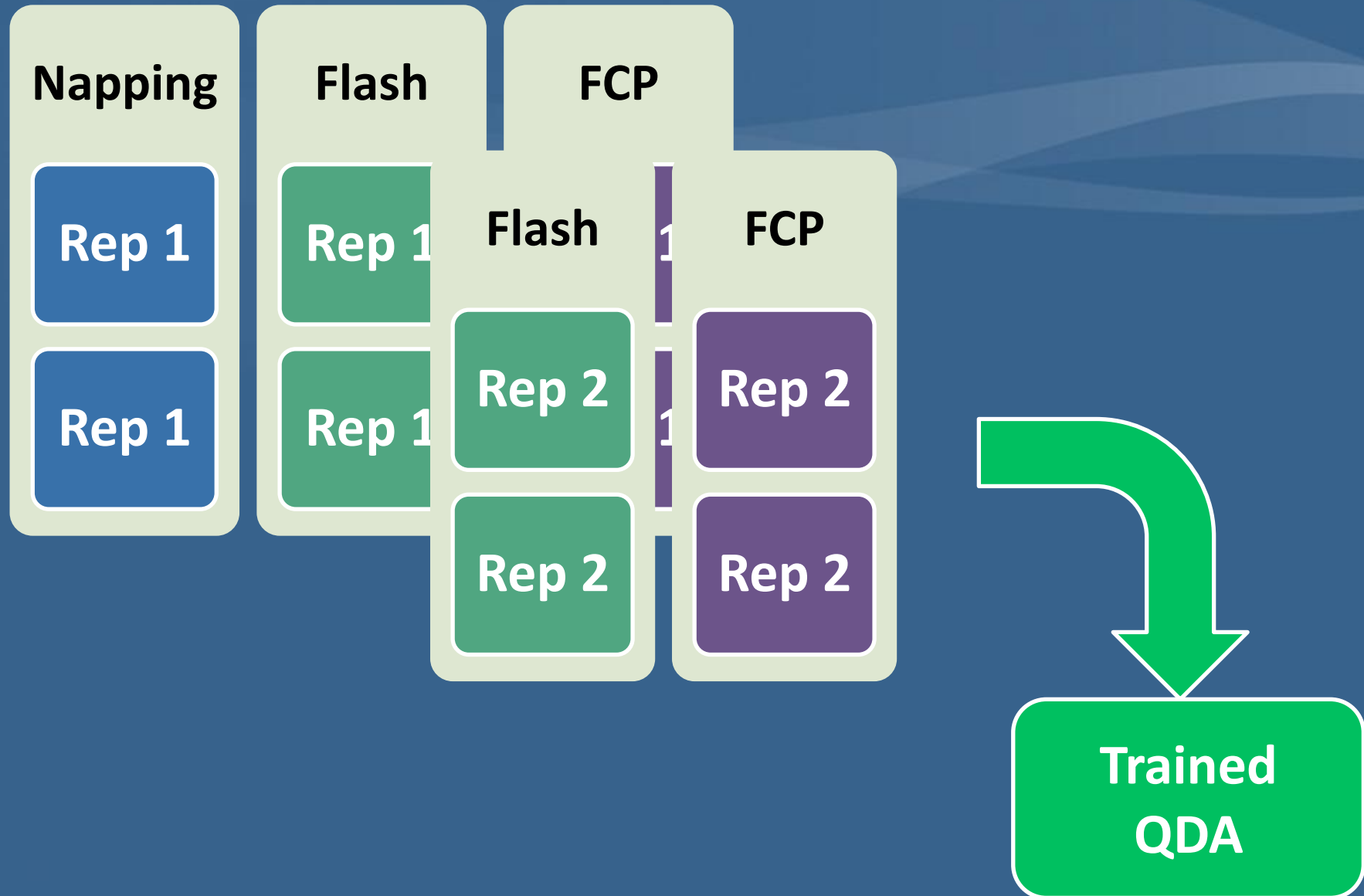
### Trained

Att gen same as Flash  
Reps – separate days  
Unstructured line scale

### Untrained

Att gen same as Flash  
Reps – separate days  
Unstructured line scale

# Study Design



# Samples

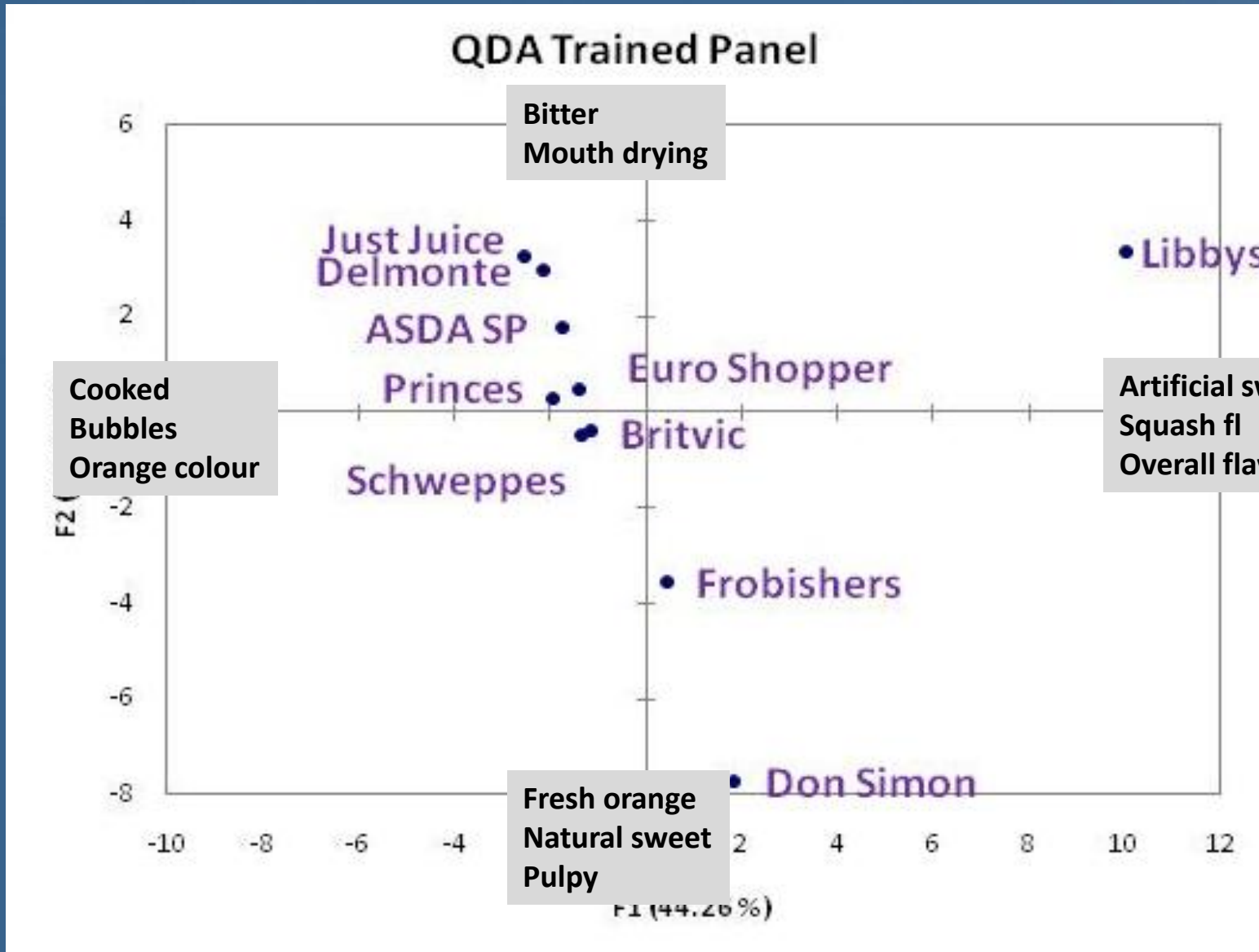


# Attributes generated

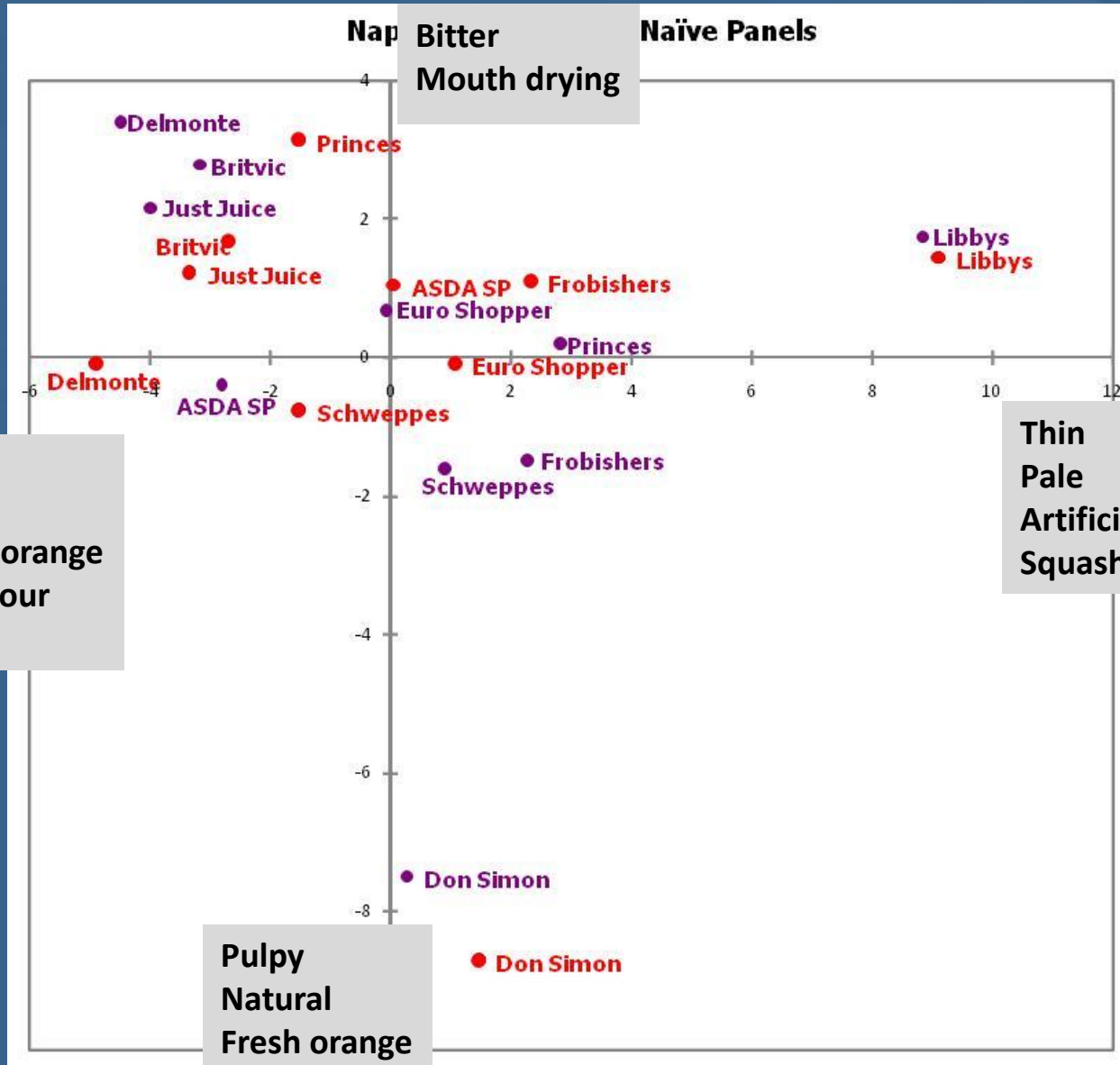
Technique	No. of attributes		No. consensus attributes	
	Trained	Naïve	Trained	Naïve
QDA			32	
Napping	21-62	32-91	28	24
FCP/Flash	23-51	16-55	25	23

- **Napping:** both panels generated more terms for Appearance; Napping for each modality showed greater discrimination.
- **Flash and FCP:** terms were similar to QDA; more flavour terms
- **QDA:** Terms not included in rapid methods; derived through discussion.

# QDA Trained Panel

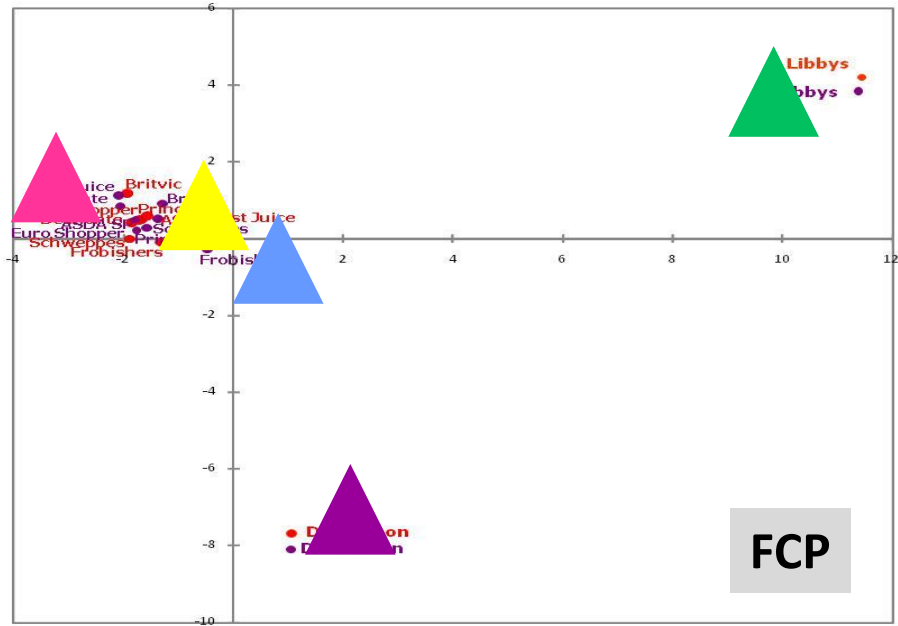


# Napping: Trained vs Naive

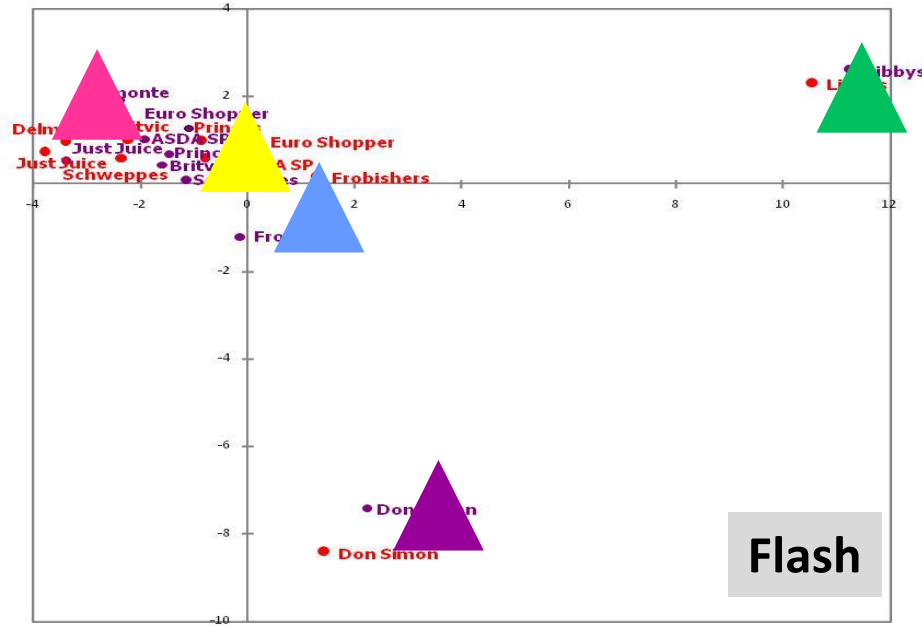




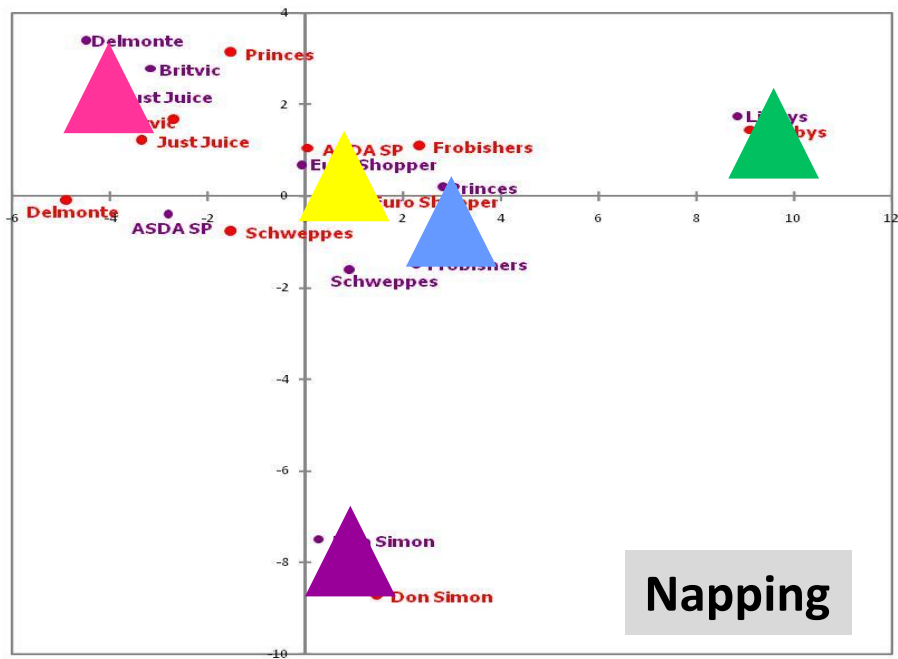
Free Choice Profiling Trained & Naïve Panels



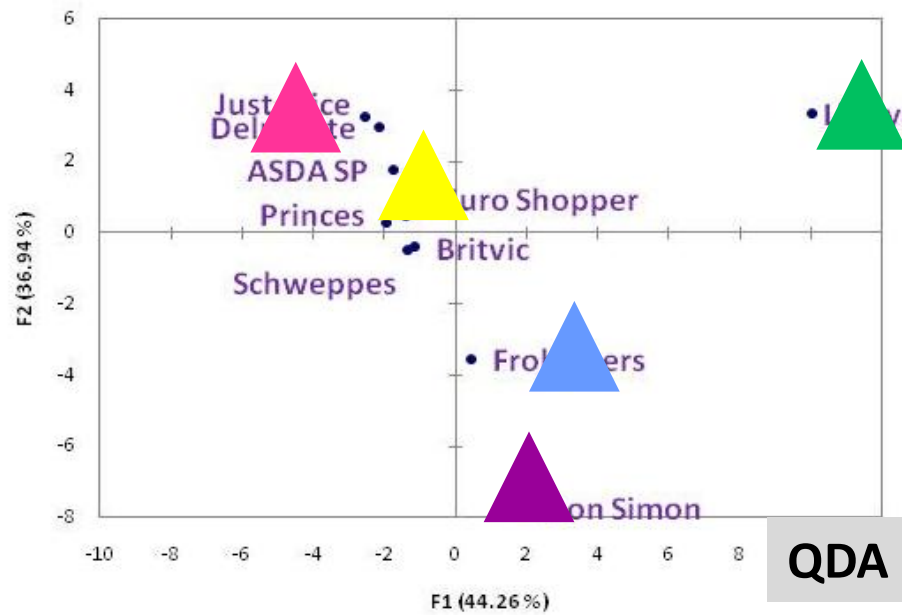
Flash Profiling Trained & Naïve Panels



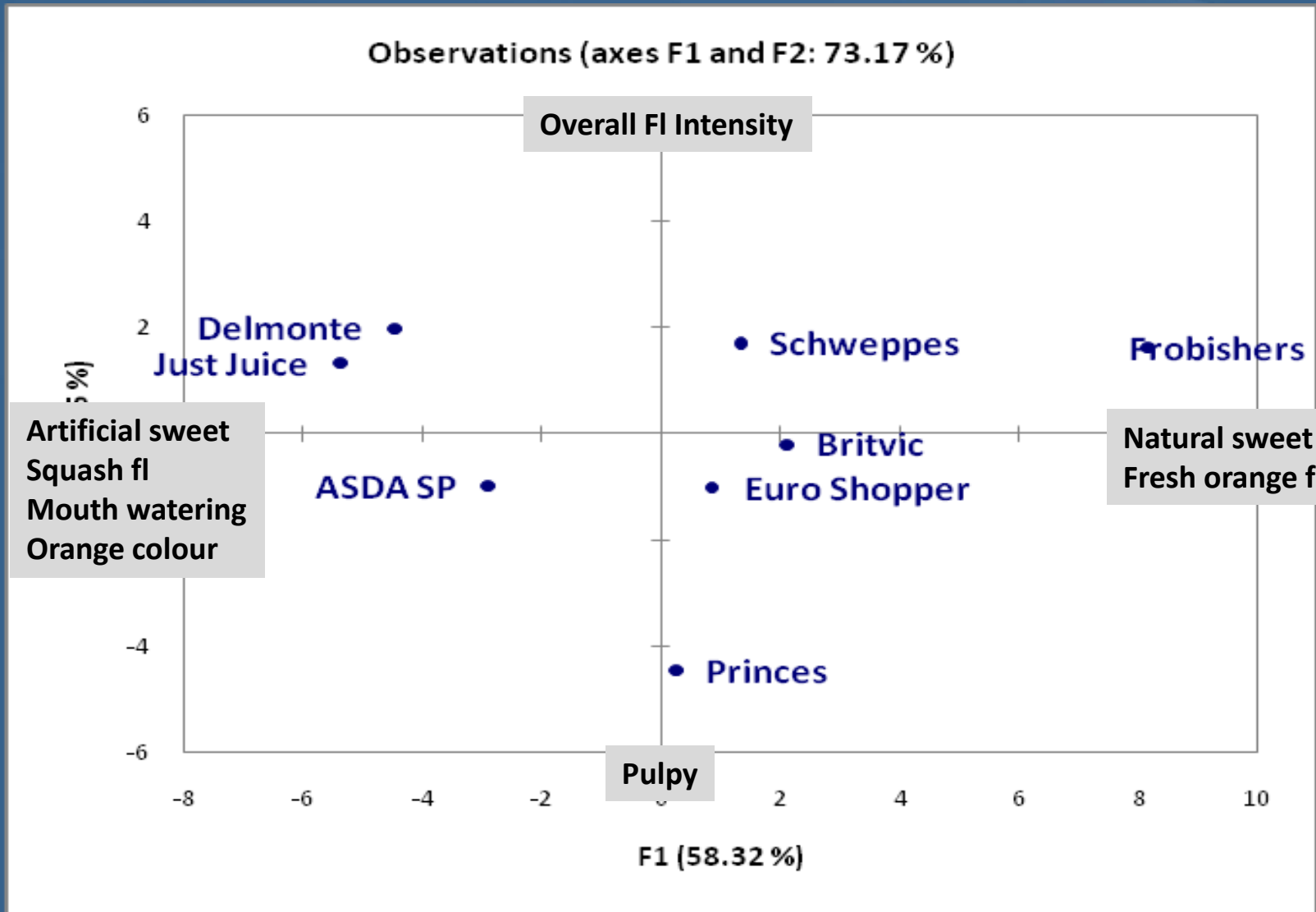
Napping Trained and Naïve Panels



QDA Trained Panel



# Extreme samples removed



# Reproducible?

Method	RV Coefficient (all samples)	RV Coefficient (- outliers)
Trained Flash (R1)	0.89	0.59
Trained Flash (R2)	0.92	0.52
Trained FCP (R1)	0.88	0.67
Trained FCP (R2)	0.89	0.55
Naive Flash (R1)	0.80	0.58
Naive Flash (R2)	0.84	0.78
Naive FCP (R1)	0.87	0.70
Naive FCP (R2)	0.84	0.35

- Extreme samples create contrast and convergence leading to high RV scores.
- Trained more consistent than naïve.

# Trained vs. Naive

Method	RV Coefficient (all samples)	RV Coefficient (- outliers)
Trained Napping	0.69	0.48*
Naive Napping	0.73	0.32*
Trained Flash	0.92	0.72
Naive Flash	0.85	0.70
Trained FCP	0.89	0.74
Naive FCP	0.86	0.63

- Less representative of QDA when extreme samples removed
- Napping does not pick up subtle differences between samples
- Trained better than naïve Napping and FCP; naïve equivalent for Flash
- \* all samples fundamental to relative positions – removing data may not be representative

# So what?

- Napping is a great screening tool

- Flash and FCP are suitable alternatives for trained panels; Flash suitable for naïve panels

- Trained are more reproducible; flash is the most reproducible for naïve

- QDA provides more detail and discrimination; discussion is very powerful

- Take great care when selecting samples....it makes all the difference

# More Information

- Free copies of white papers and easy to follow 'How to Guides'
- Details of training workshops



- Contact me: [tracey@sensorydimensions.com](mailto:tracey@sensorydimensions.com)

# With Special Thanks To:



**Sarah Gough**



**Ian Wakeling**

