Temporal methods add to innovation

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22nd Biennial International Congress & Exhibition
South African Association for Food Science & Technology
Cape Town, South Africa

Compusense®

My goal for this talk...

Novel Food +
Commercialization +
Success

=

INNOVATIVE FOOD

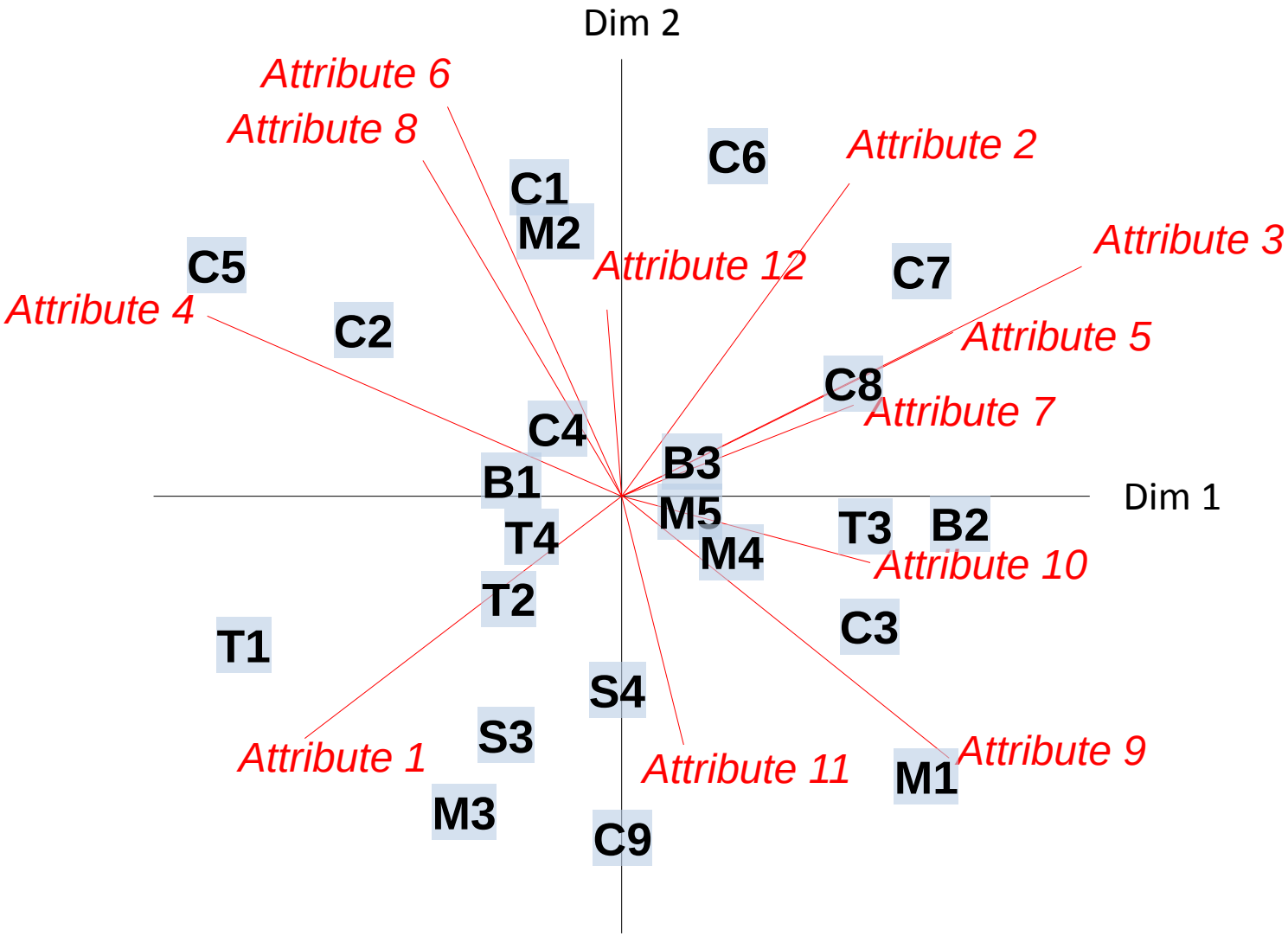
Guerrero et al., 2016

So… what's new?

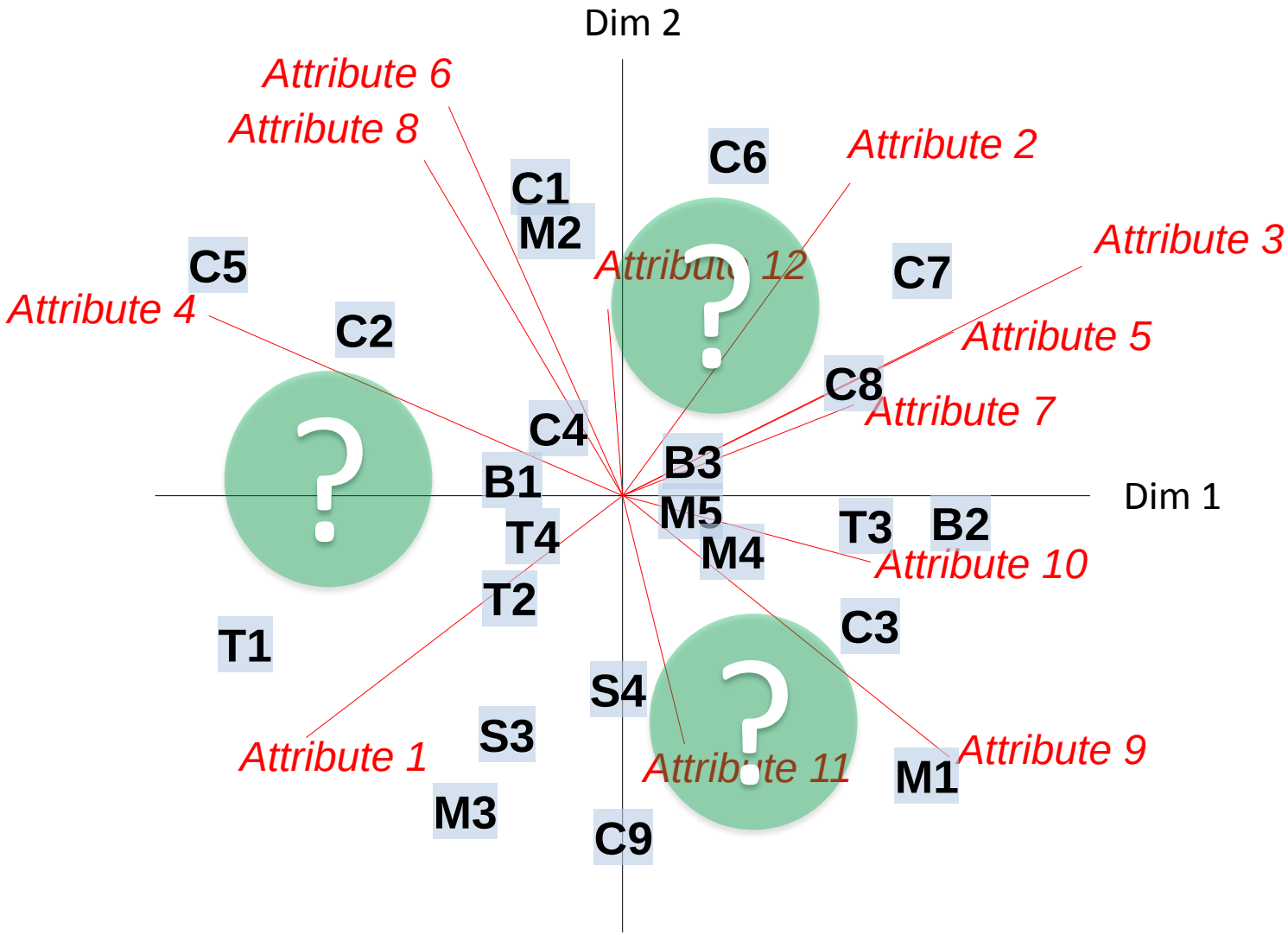
Brand	new branding
Label	fewer ingredient, clean label, clear label
Nutrition	↓ sugar/salt/fat
	↑ vitamins/fiber/omega 3/probiotics
Dietary Niches	allergies, sensitivities, religious
Convenience	easy to buy/store, ready-to-eat, easy to prepare
Accessibility	easy to open packages, easy to read
Shelf life	processing and packaging for maintaining sensory quality
Environment	sustainability, ↓ CO_2/packaging/pesticides
Ethics	concern for labourers/animals/environment, fair trade
Authenticity	protected designation of origin, proof of product integrity
Sensory	new flavours, textures, appearance

Guerrero et al., 2016

Product category review

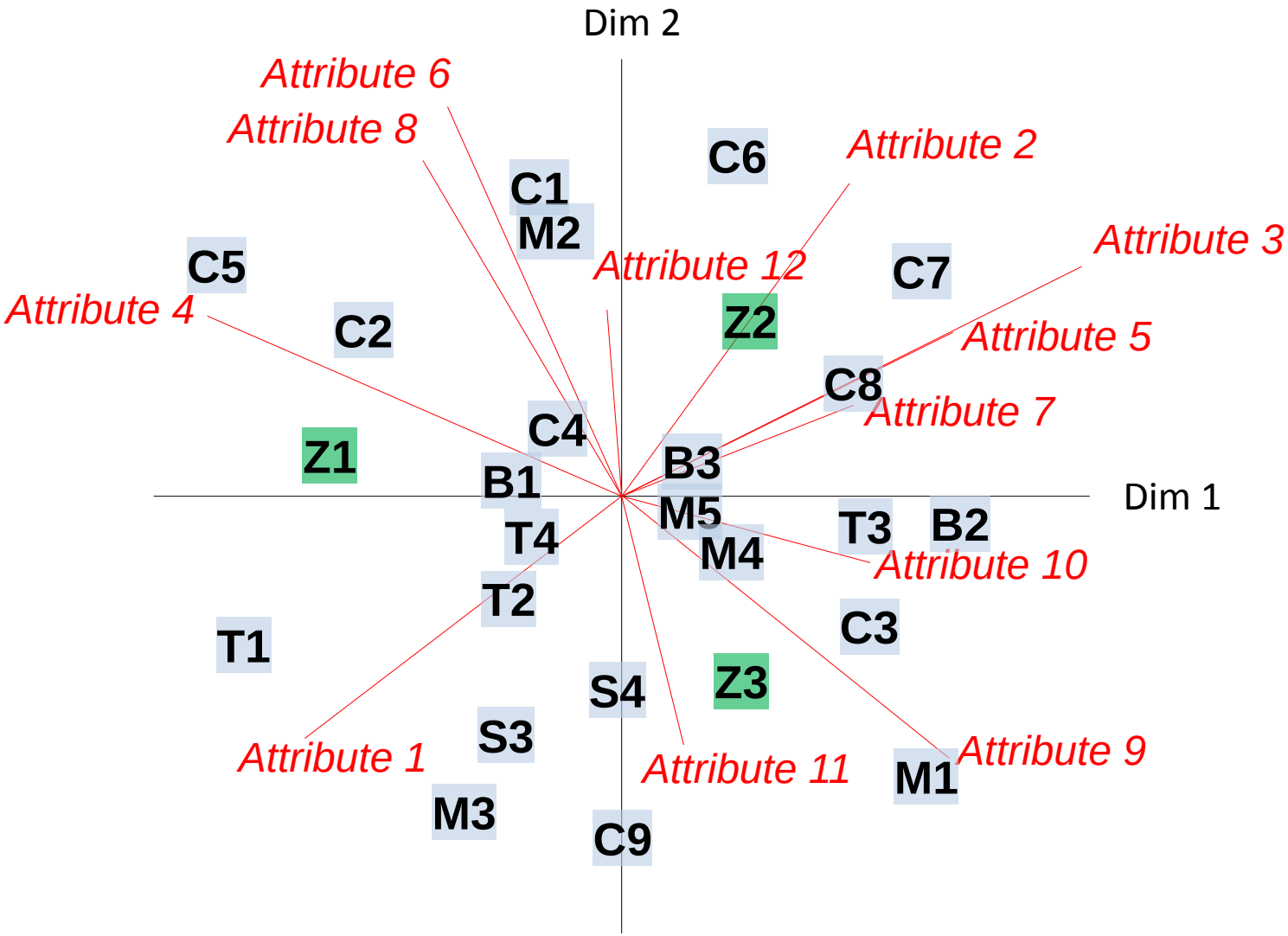


“Holes” in the sensory space

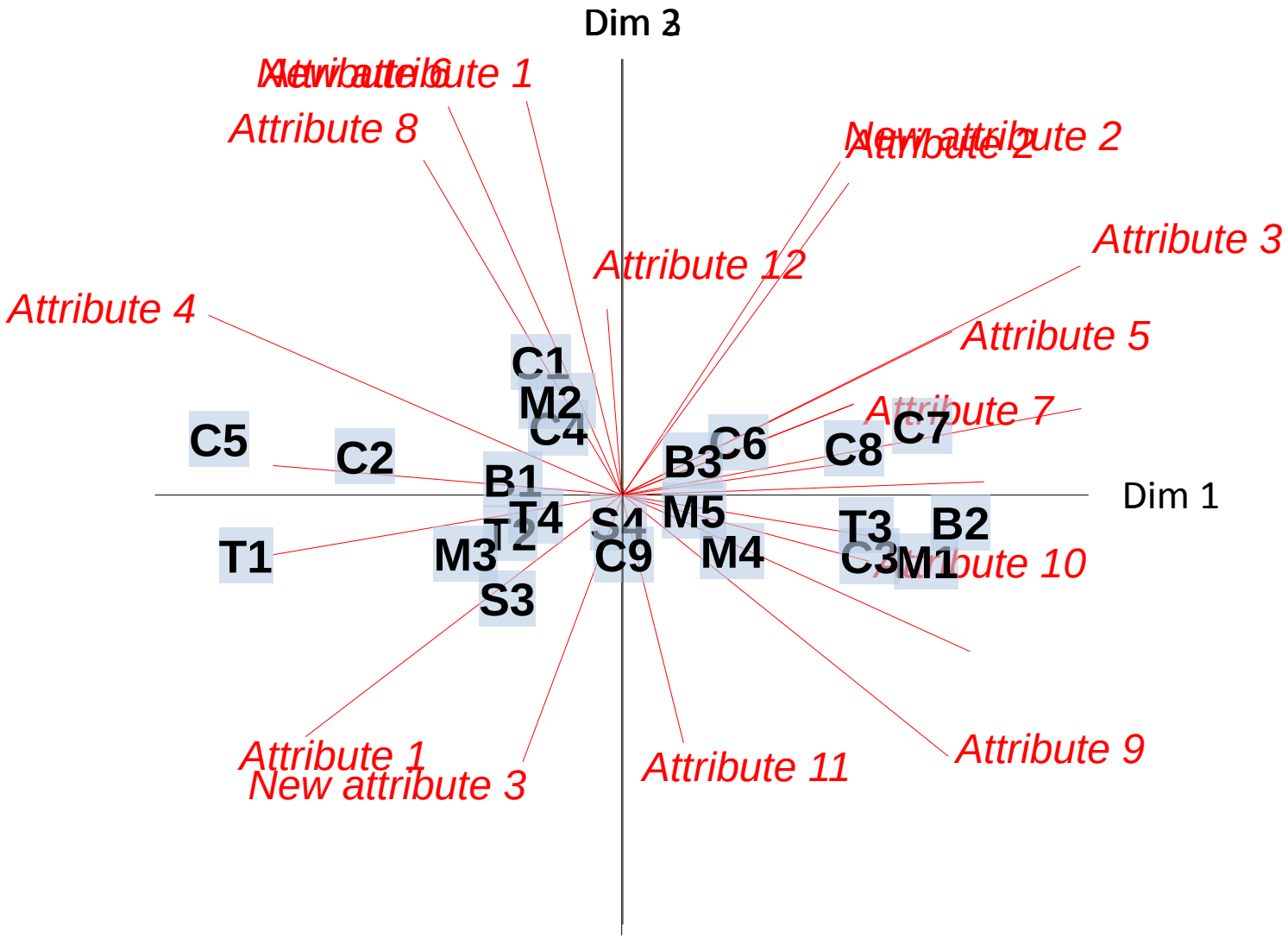


e.g., see Moskowitz et al., 2016

Prototypes deliver novel combinations



A new space to accommodate novelty



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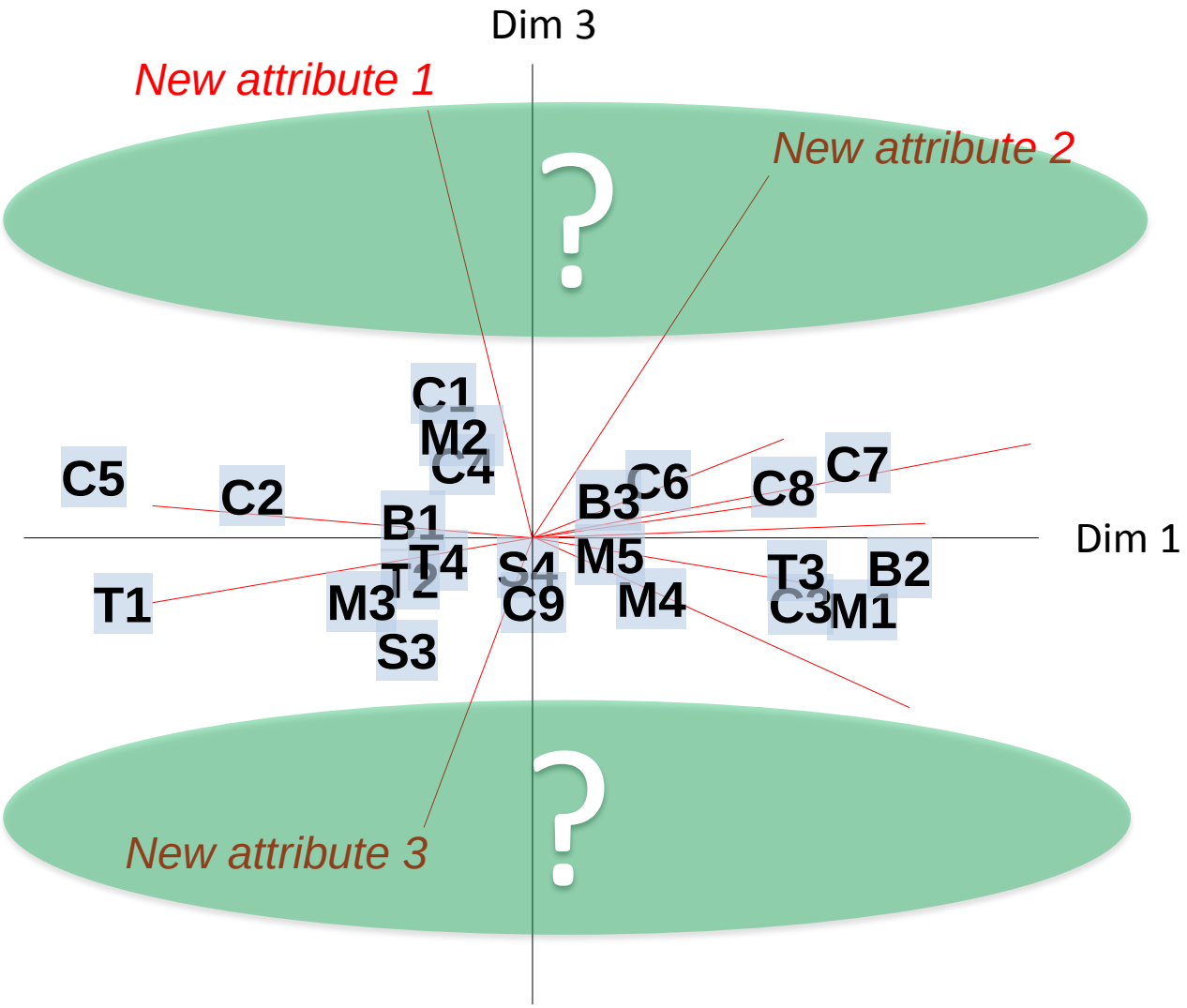

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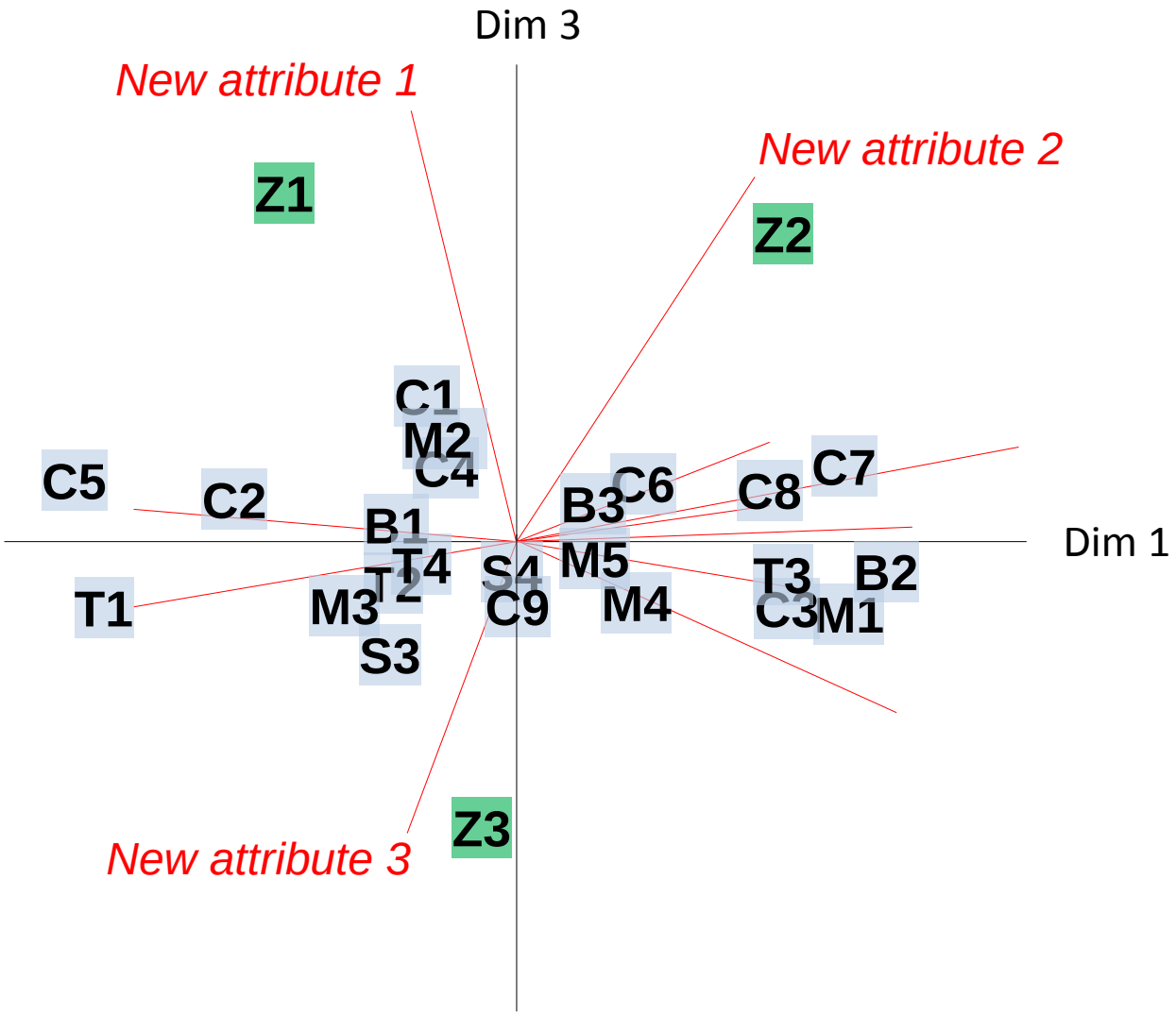
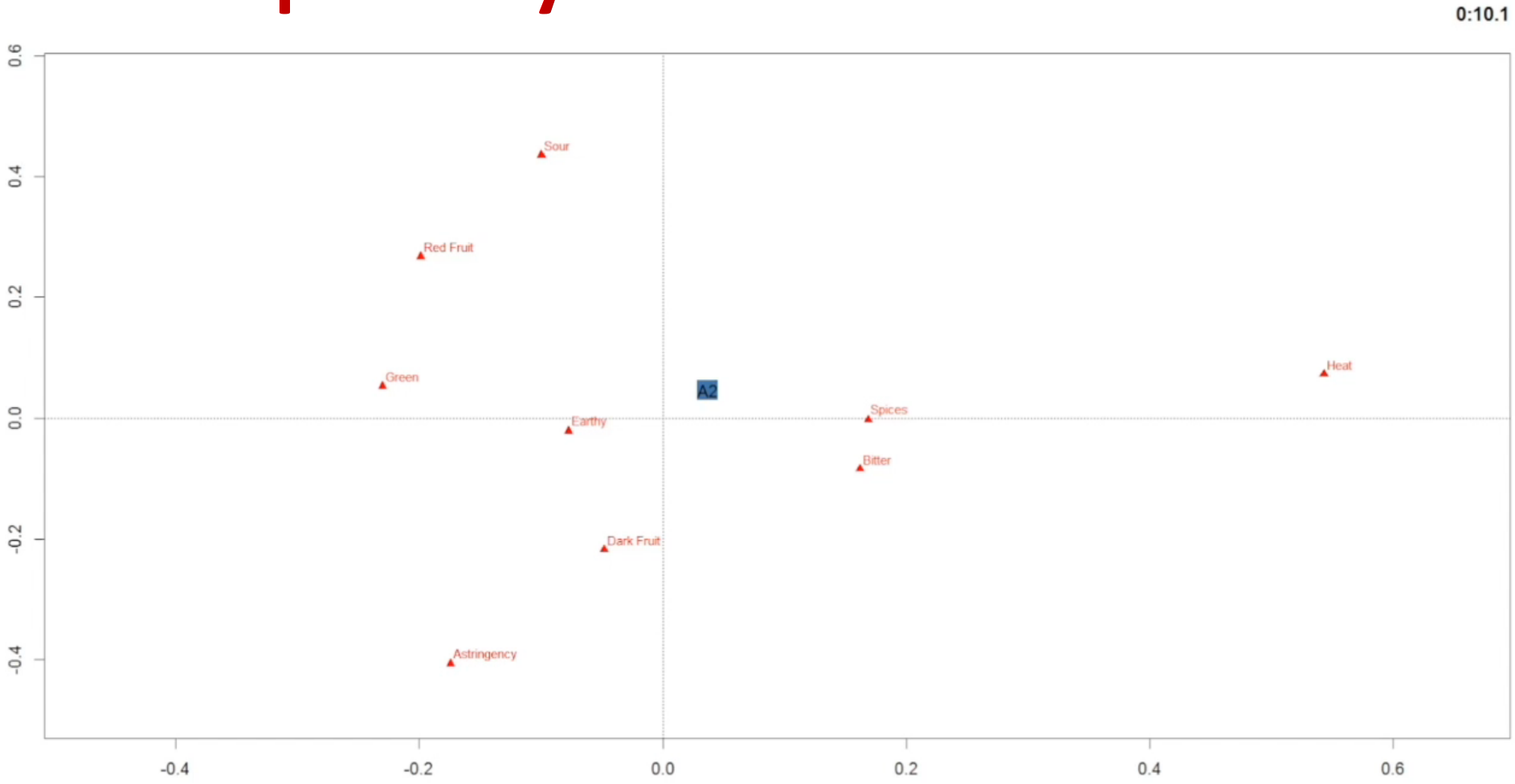
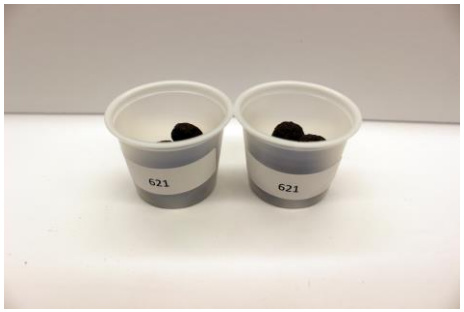


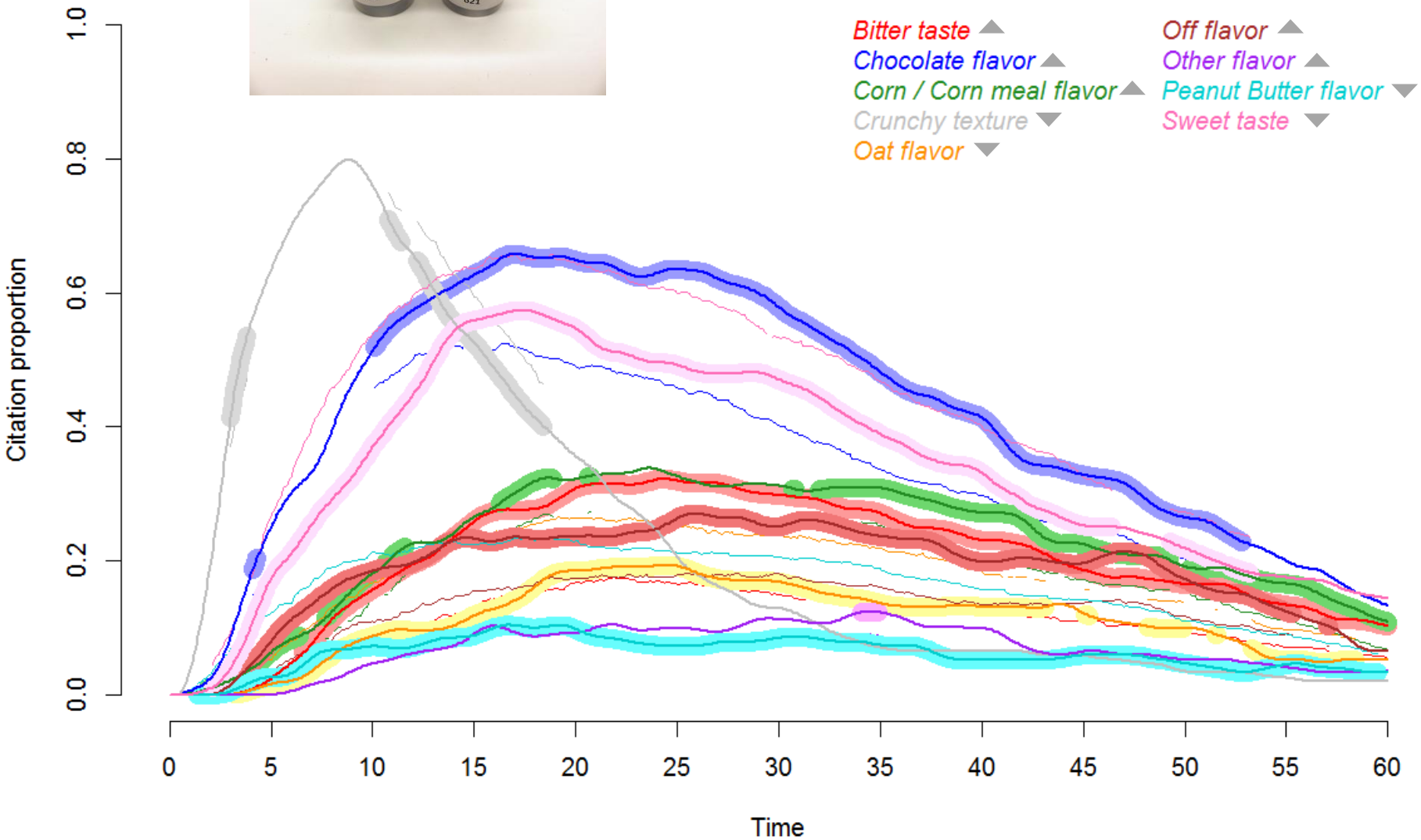
Perception dynamics



adapted from Castura, Baker, & Ross (2016, Video 1)


621
621

Product 3

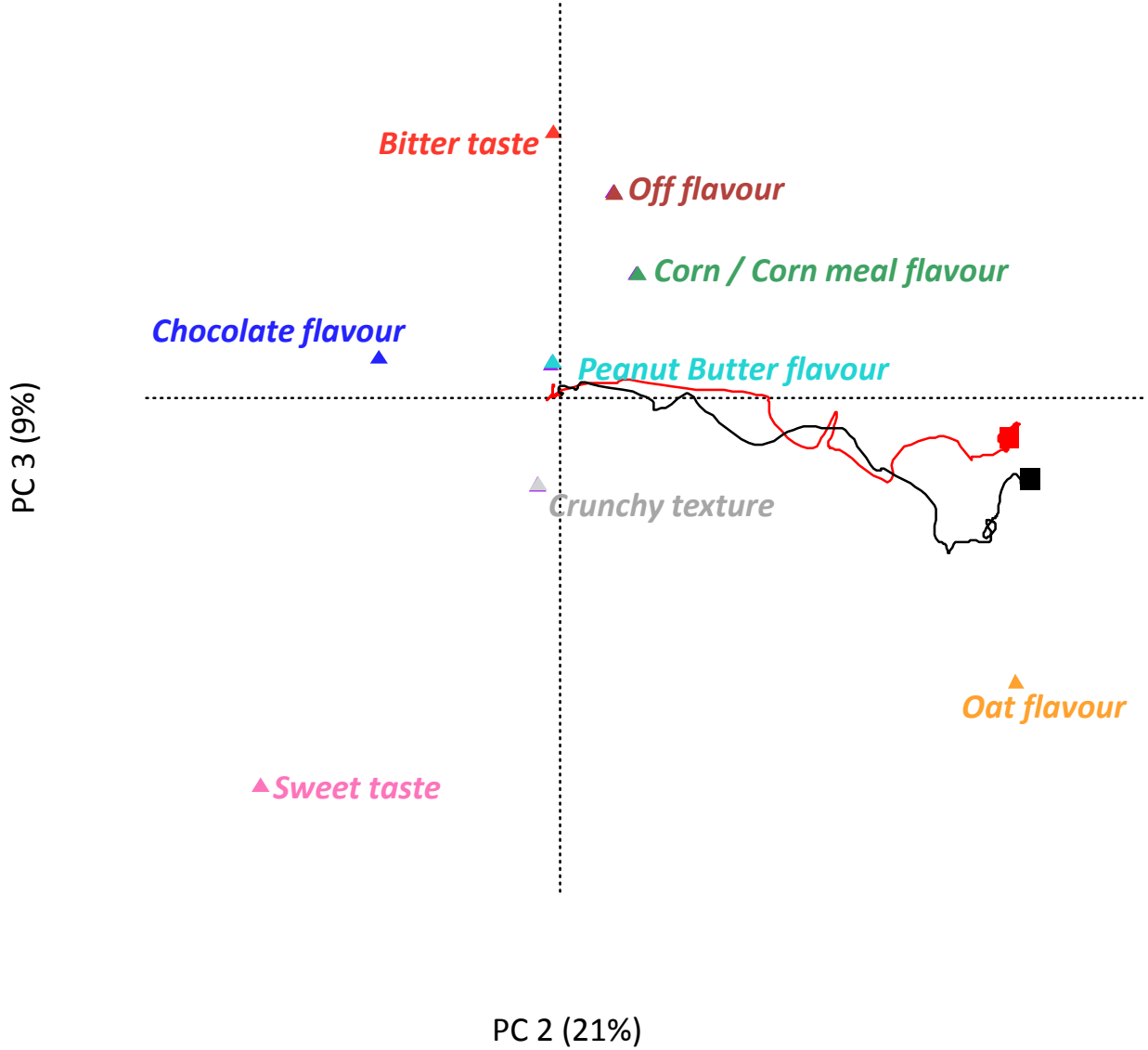

Bitter taste
Chocolate flavor
Corn / Corn meal flavor
Crunchy texture
Oat flavor
Off flavor
Other flavor
Peanut Butter flavor
Sweet taste
Citation proportion
0.0
0.2
0.4
0.6
0.8
1.0
0
5
10
15
20
25
30
35
40
45
50
55
60
Time

Hedonic drivers

Positive drivers	Negative drivers
Crunchy + Sweet	Bitter
Peanut butter + Sweet	Off flavor
Sweet	Corn/Corn meal
Peanut Butter	

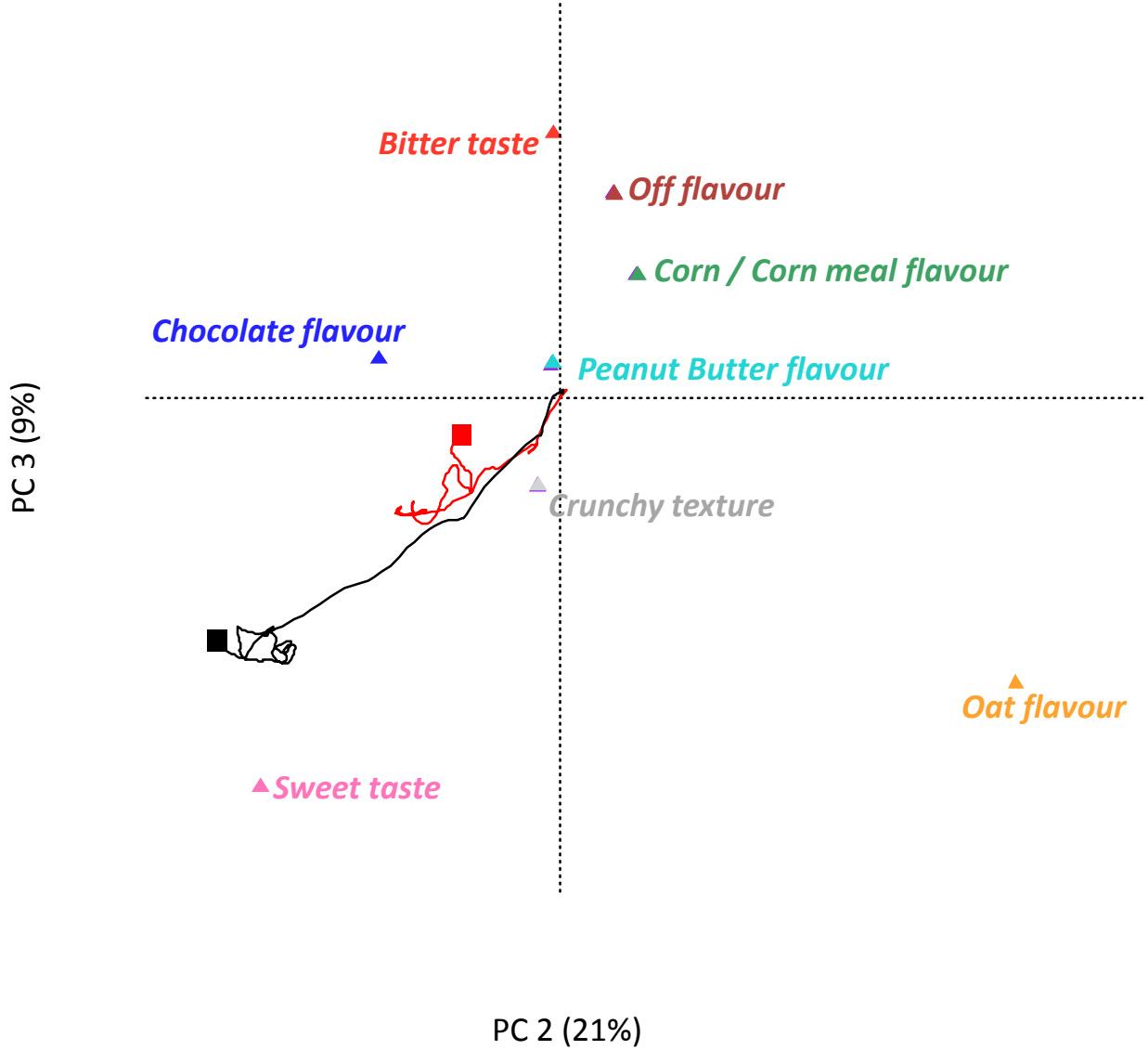
Product 1

5.5 ≈ 5.7



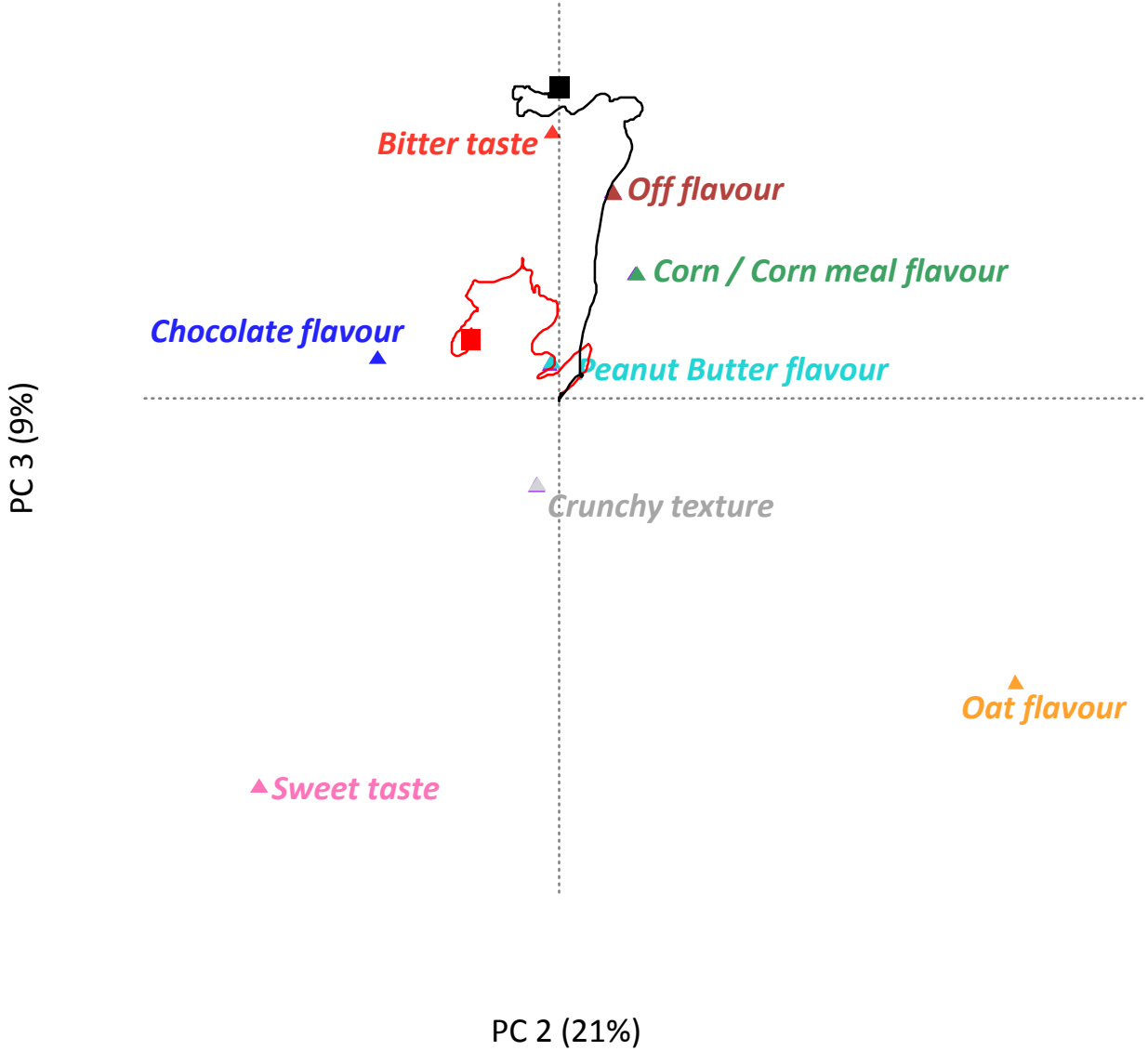
Product 2

7.3 > 6.1



Product 3

5.0 < 7.1



Concept

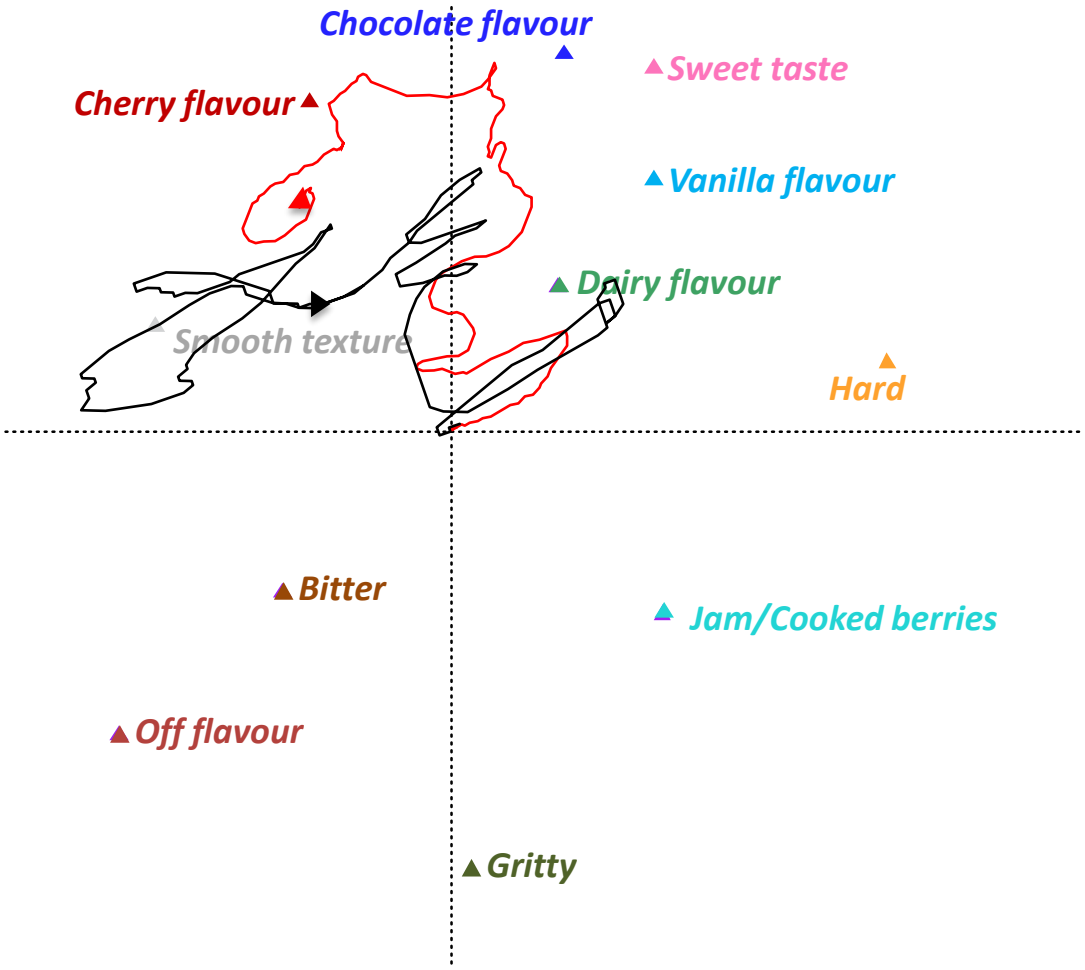
Product

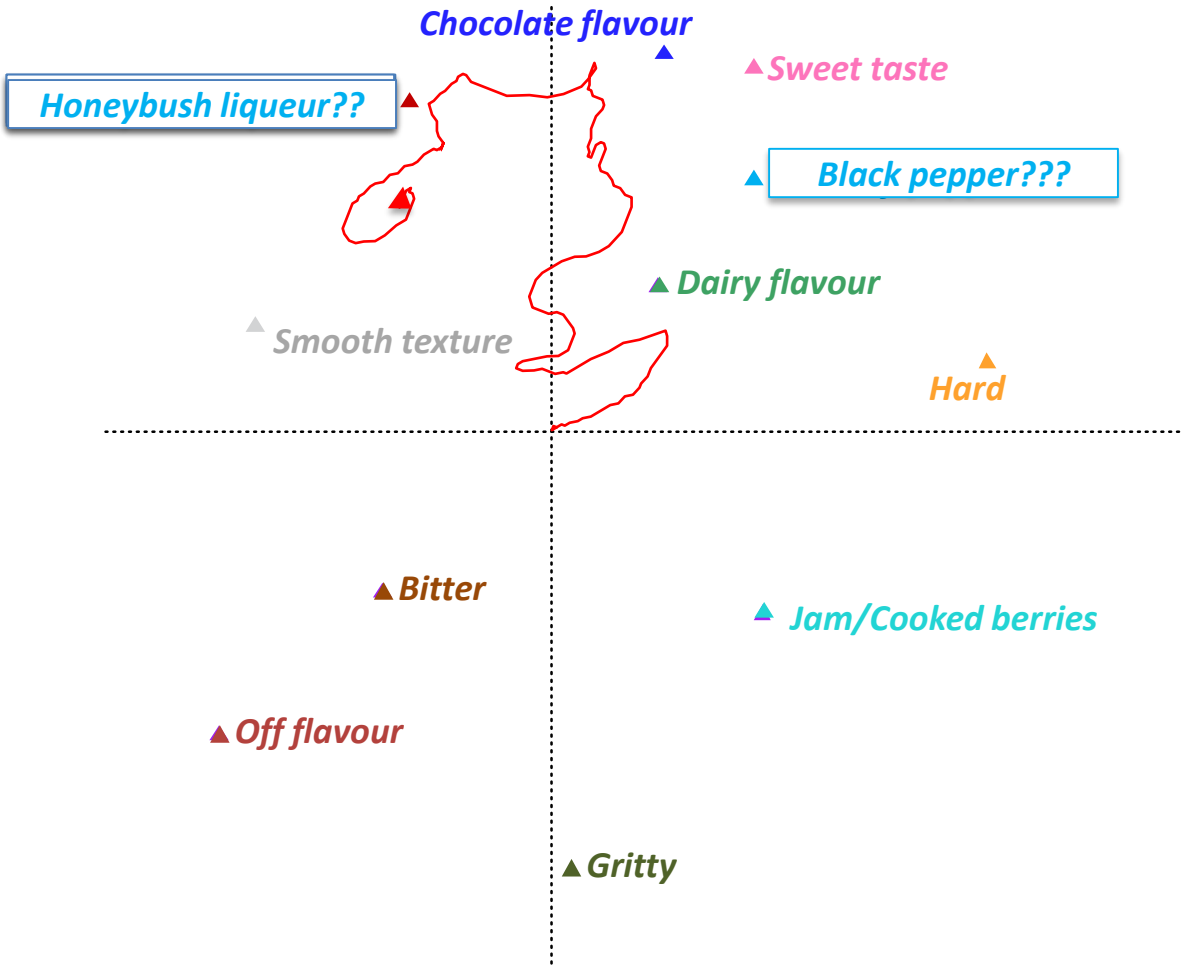
Sensory

Emotions

Goal: establish a target sensory profile that aligns with the concept and brand and results in consumer acceptance and repurchase.

Temporal methods
in an innovation toolbox


Chocolate flavour
Sweet taste
Cherry flavour
Vanilla flavour
Dairy flavour
Smooth texture
Hard
Bitter
Jam/Cooked berries
Off flavour
Gritty


Chocolate flavour
Sweet taste
Honeybush liqueur??
Black pepper???
Dairy flavour
Smooth texture
Hard
Bitter
Jam/Cooked berries
Off flavour
Gritty

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