

Improved interpretation of TDS and TCATA curves using reference lines

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VP Innovation, Research & Development
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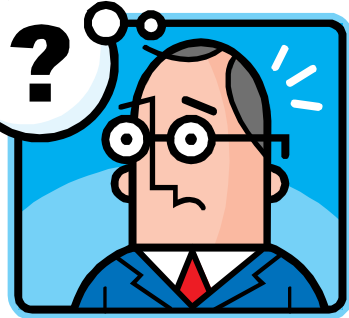
Real products often have a meaningful
temporal aspect...

This ice cream is:
Icy. Artificial Vanilla. Sweet.

I find an **Milk flavour** and **Hard**.
It's melting, no longer **Icy** or **Hard**.
It's **Soft**, and **Buttery**.



How do flavours
evolve in this product



This ice cream is:
Icy. Artificial Vanilla. Sweet.

I find an **Milk flavour** and **Hard**.
It's melting, no longer **Icy** or **Hard**.
It's **Soft**, and **Buttery**.



Temporal Dominance of Sensations (TDS)

Temporal Dominance of Sensations (TDS)

Select the sensation that you are noticing right now.

Buttery flavour

Smooth texture

Natural vanilla flavour

Milk flavour

Icy

Artificial vanilla flavour

Soft

Sweet

Eggy flavour

Hard

Temporal Dominance of Sensations (TDS)

Select the sensation that you are noticing right now.

Buttery flavour

Smooth texture

Natural vanilla flavour

Milk flavour

Icy

Artificial vanilla flavour

Soft

Sweet

Eggy flavour

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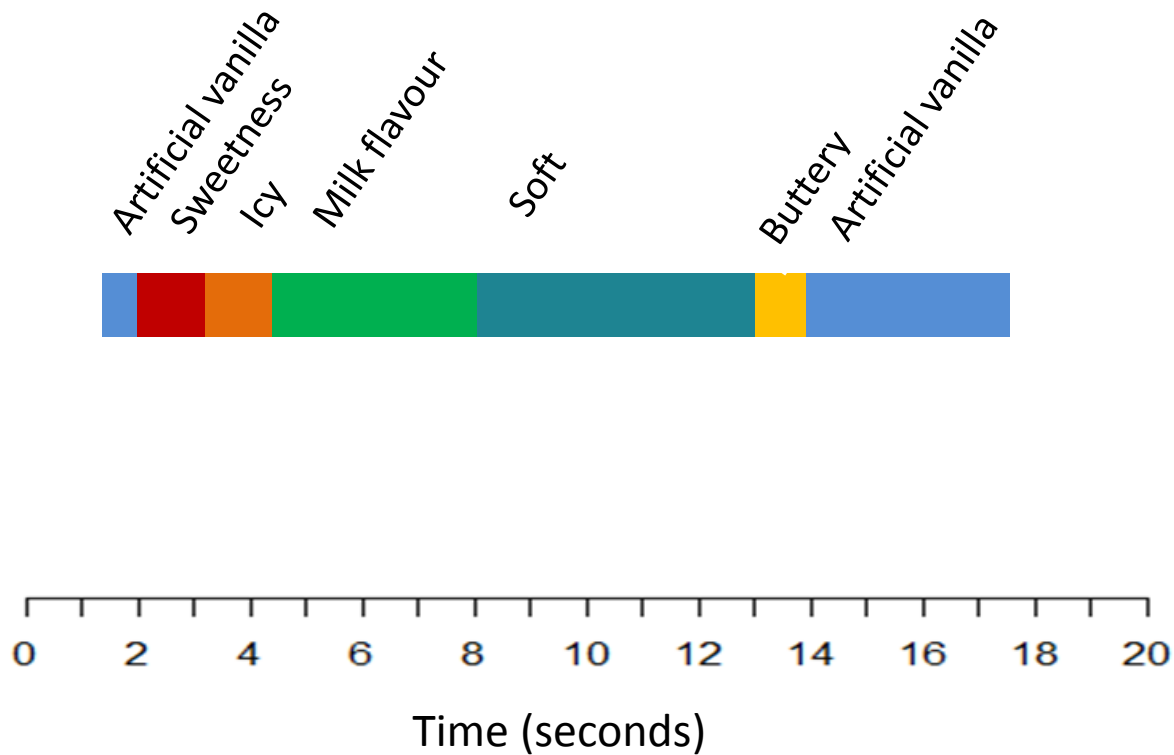
Soft

Sweet

Eggy flavour

Hard

TDS raw data



Temporal
Check All That Apply (TCATA)

Temporal Check-All-That-Apply (TCATA)

Check and uncheck words to track changes in the ice cream.
(Check *all* that apply. Uncheck all that *do not* apply.)

Buttery flavour

Smooth texture

Natural vanilla flavour

Milk flavour

Icy

Artificial vanilla flavour

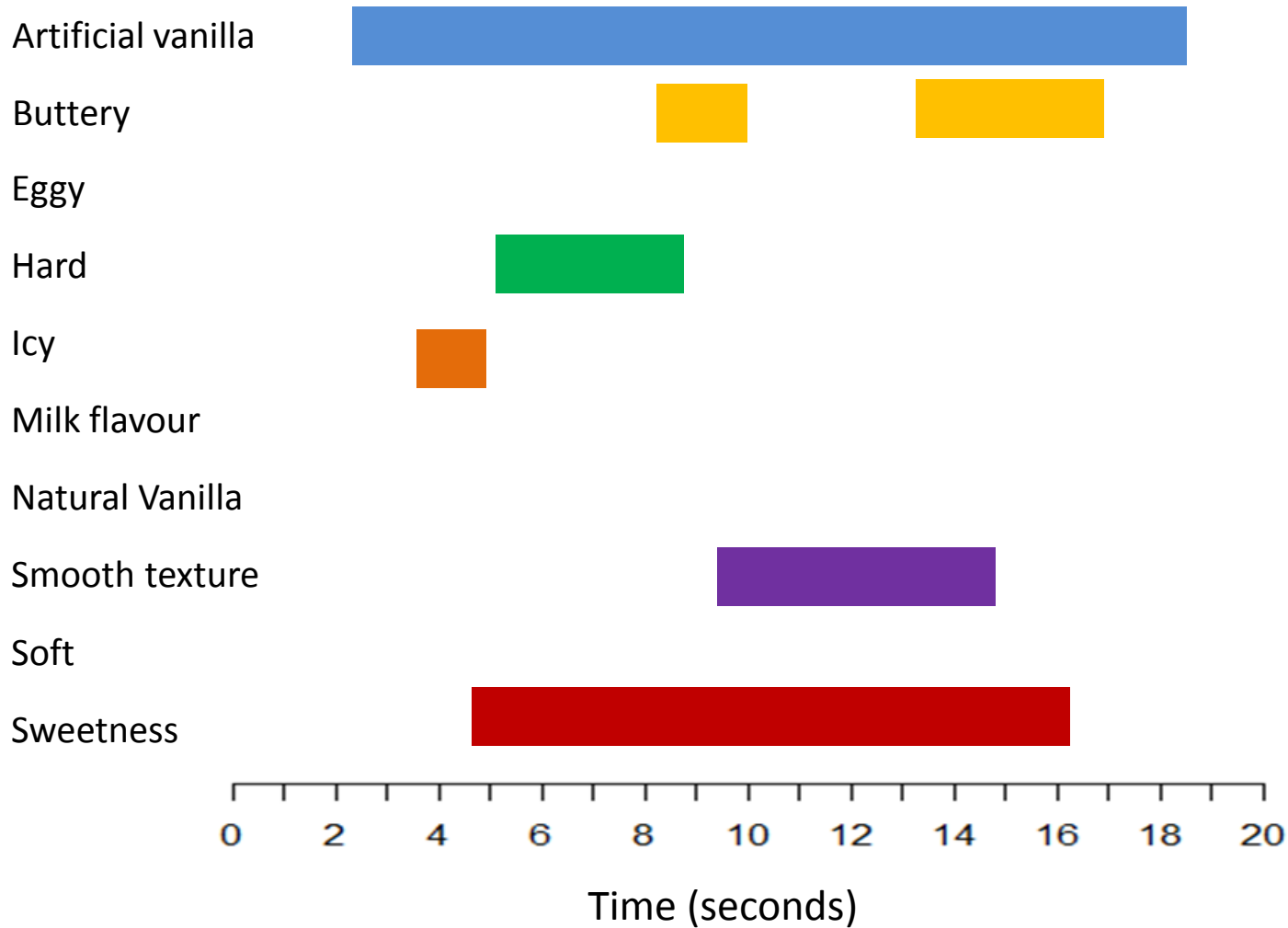
Soft

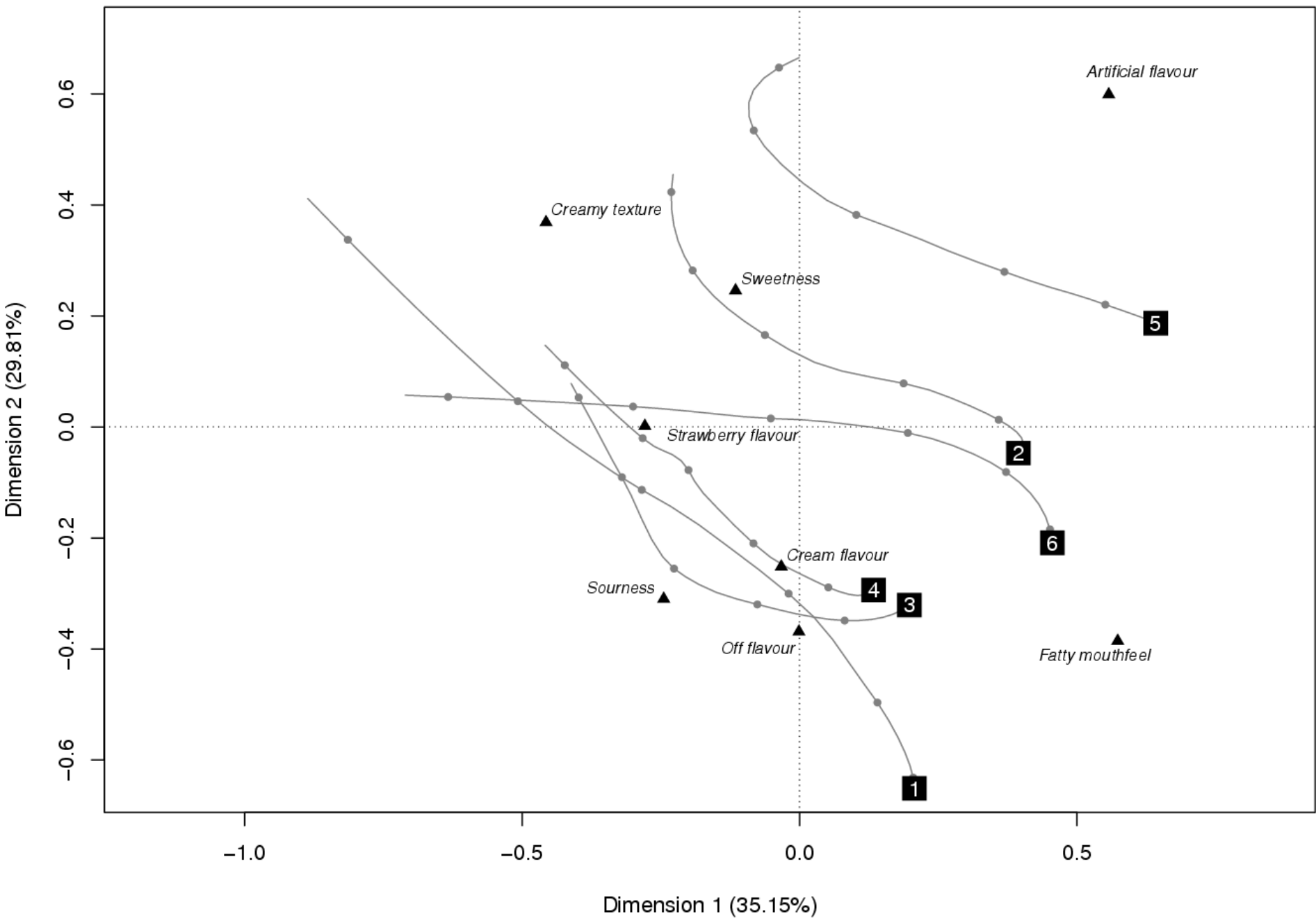
Sweet

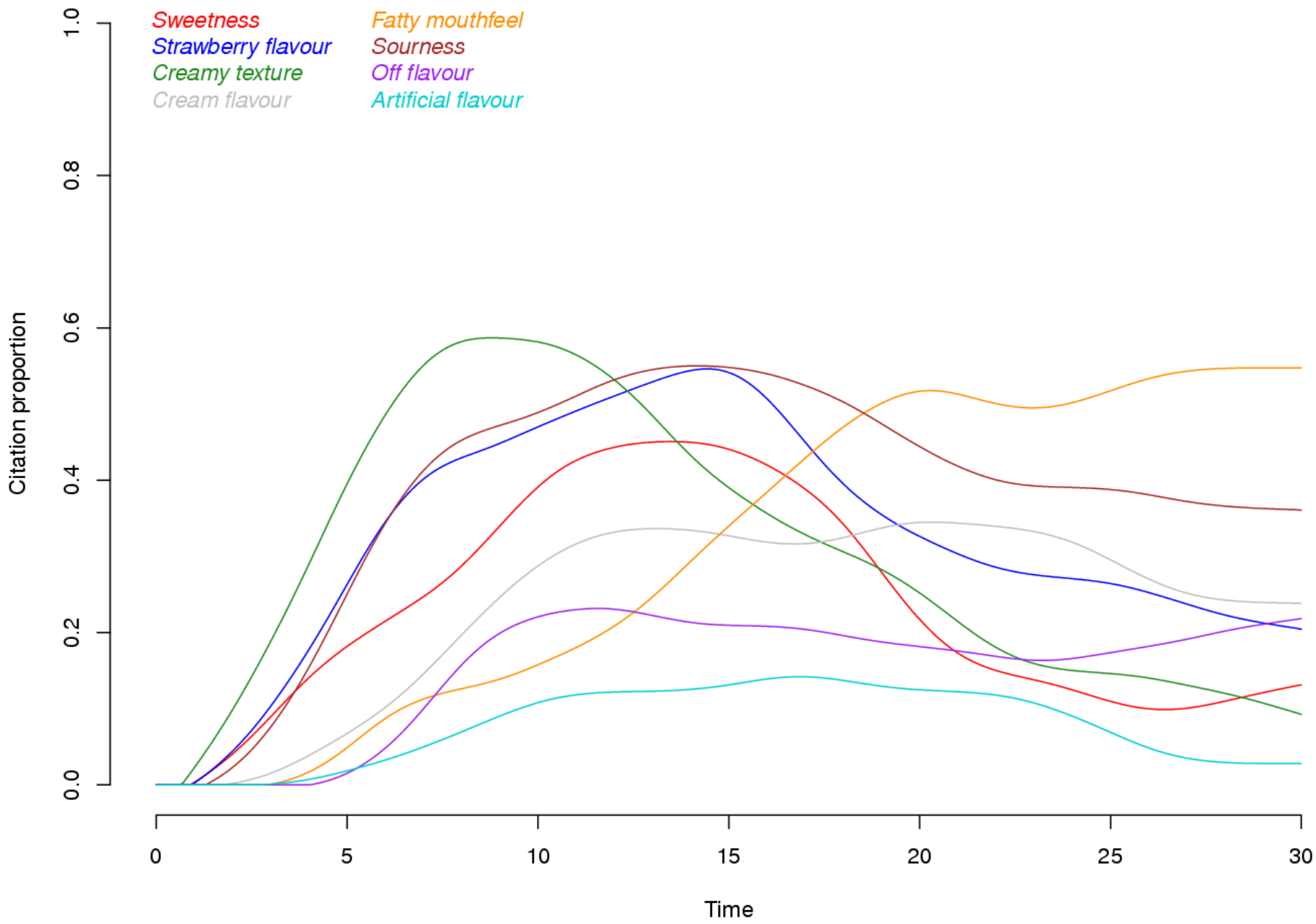
Eggy flavour

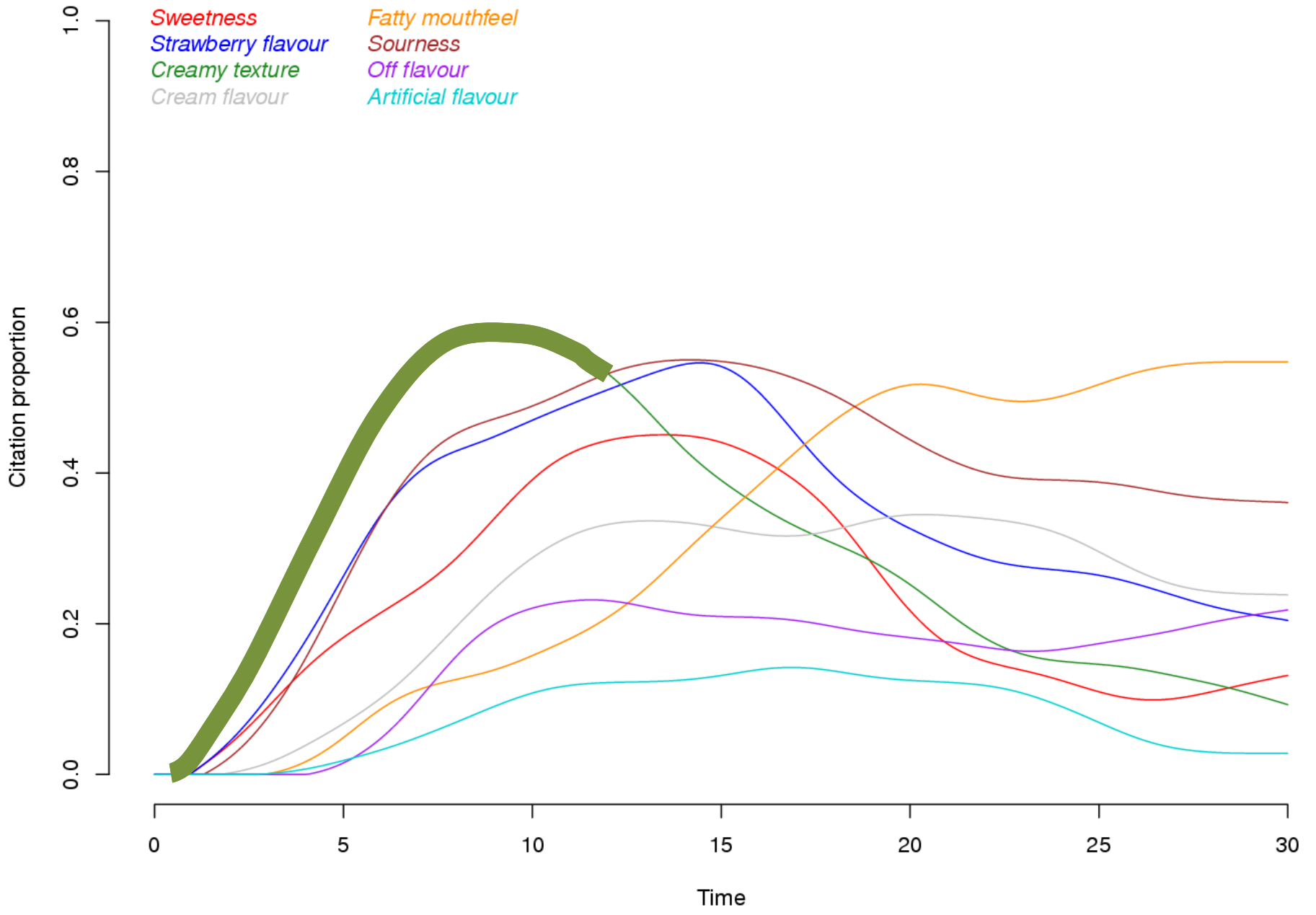
Hard

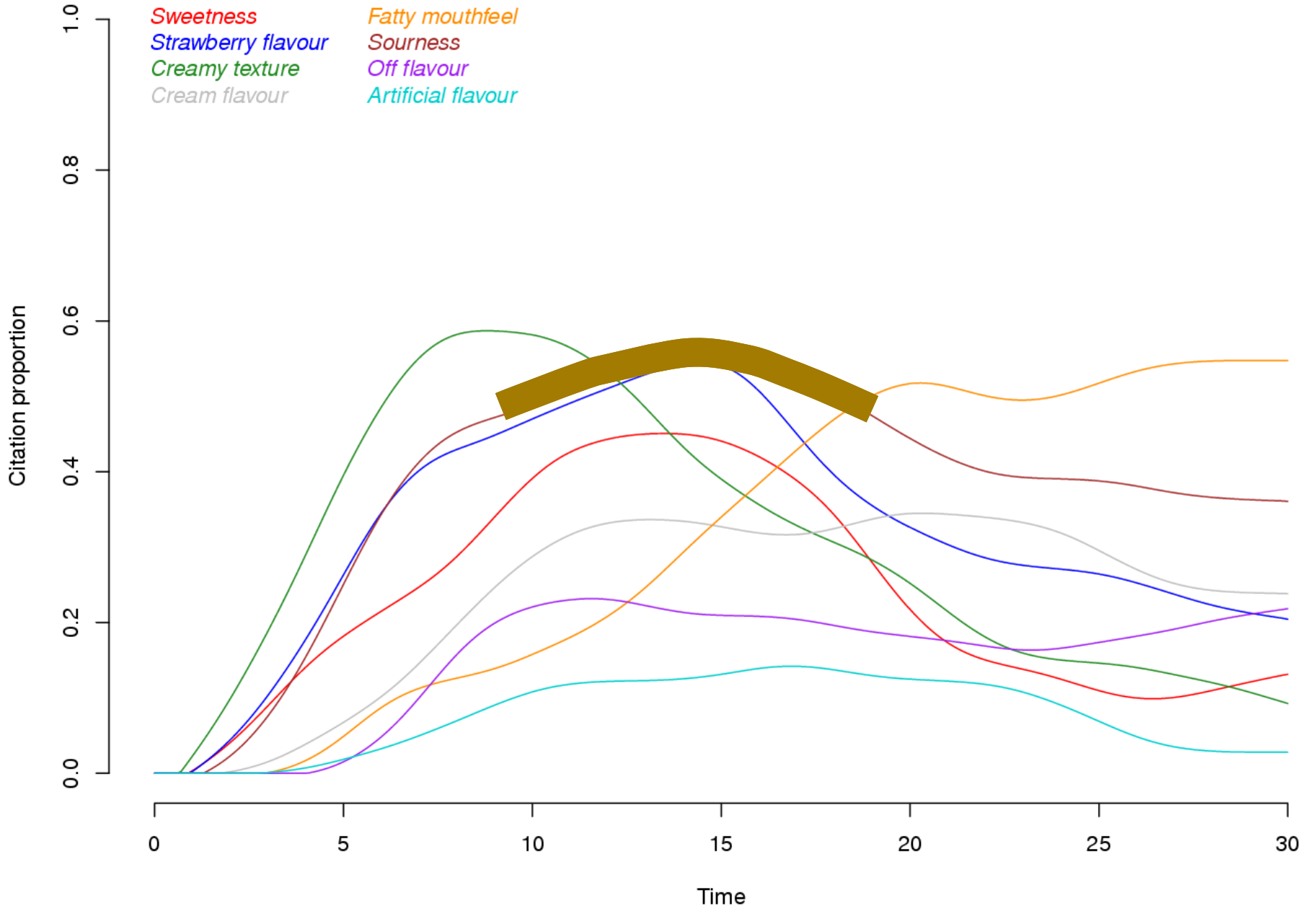
TCATA raw data

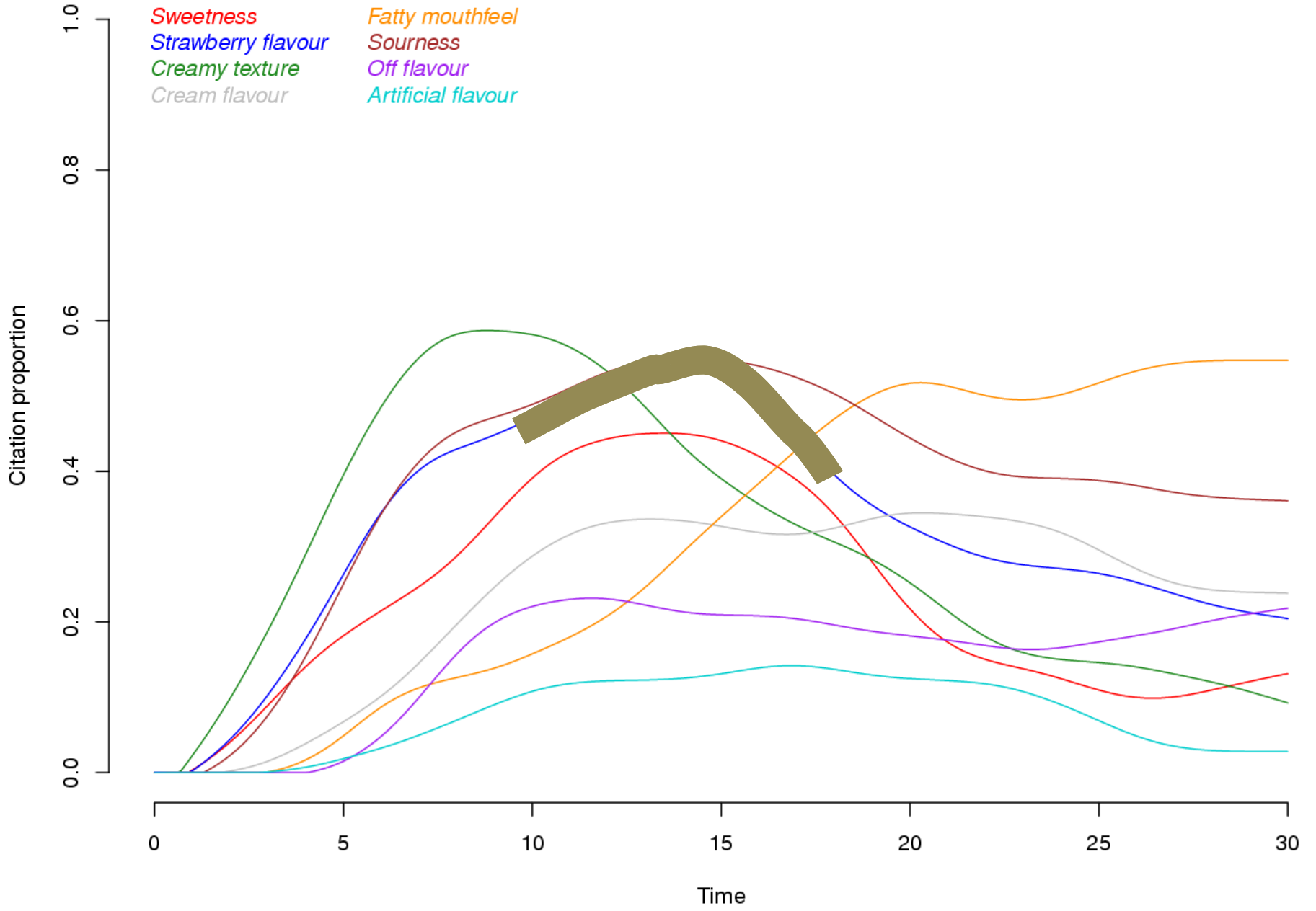


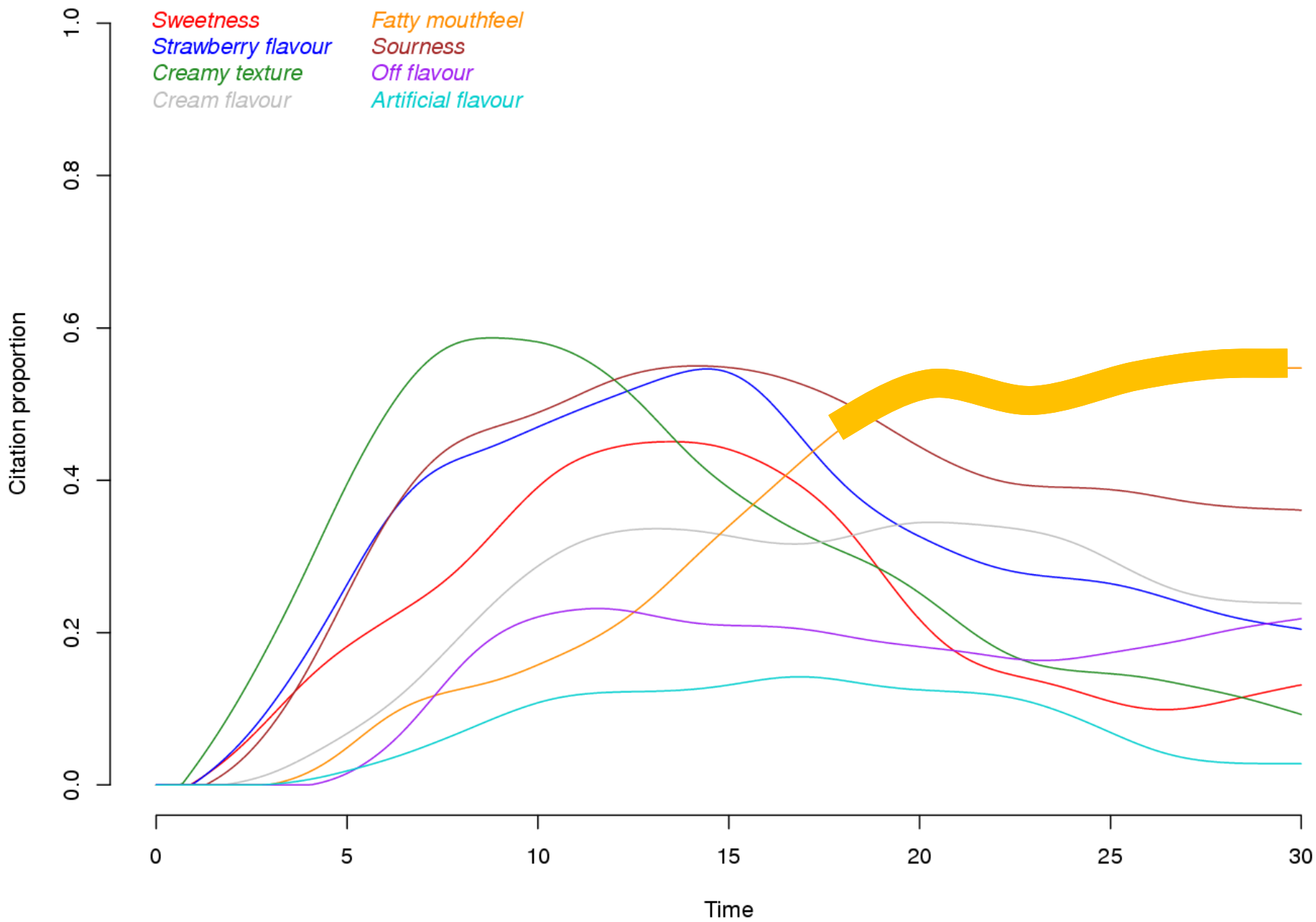


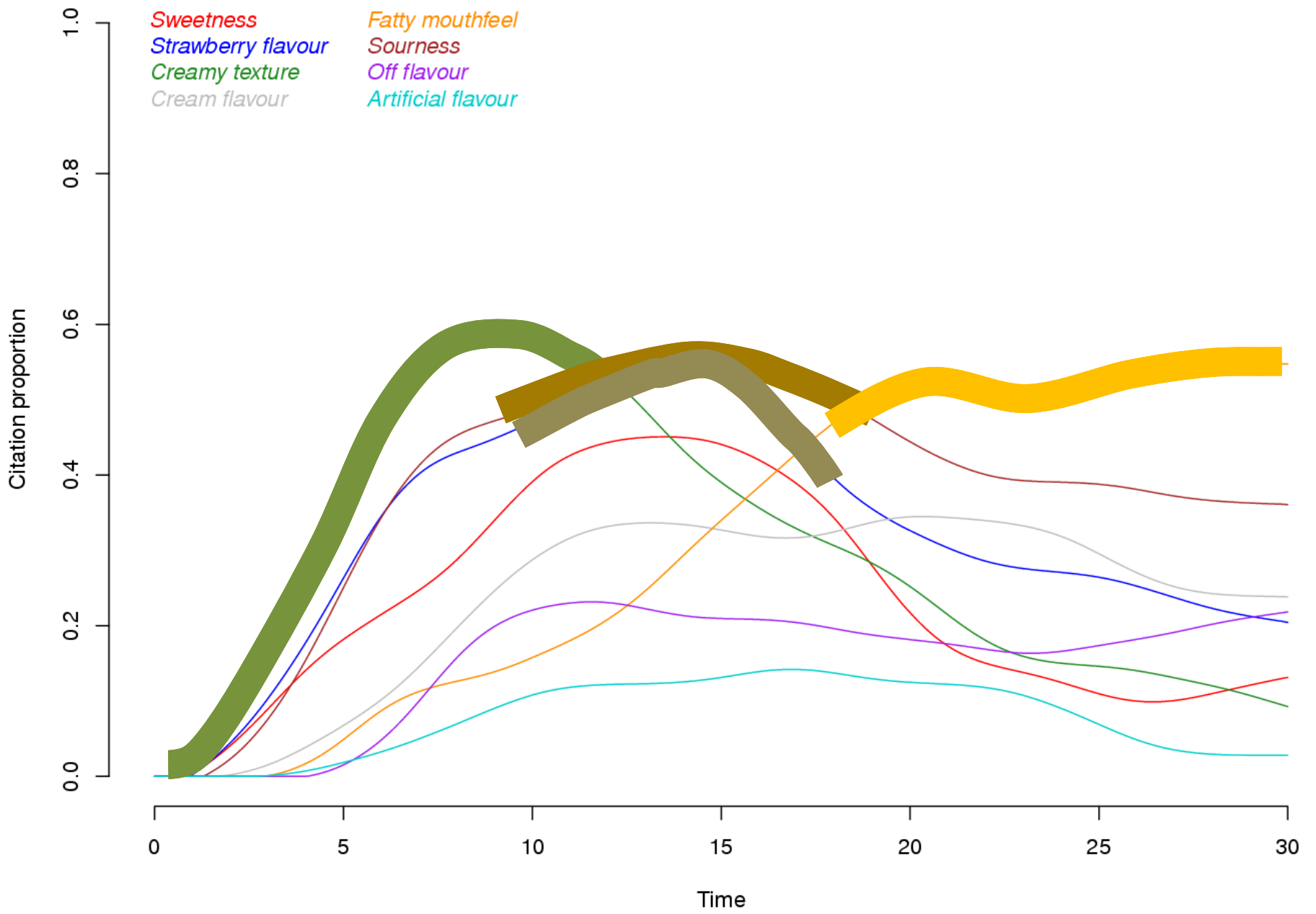






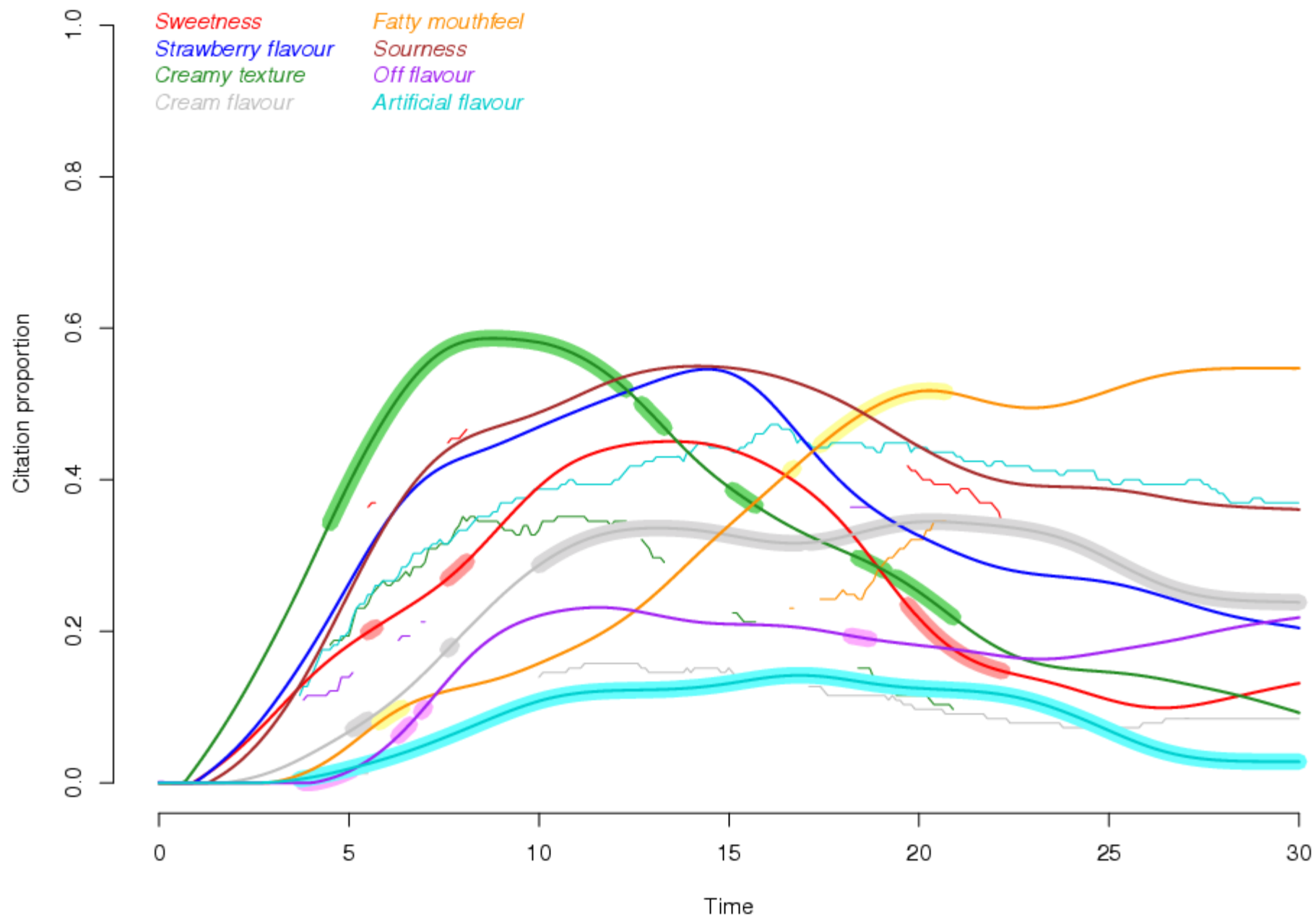


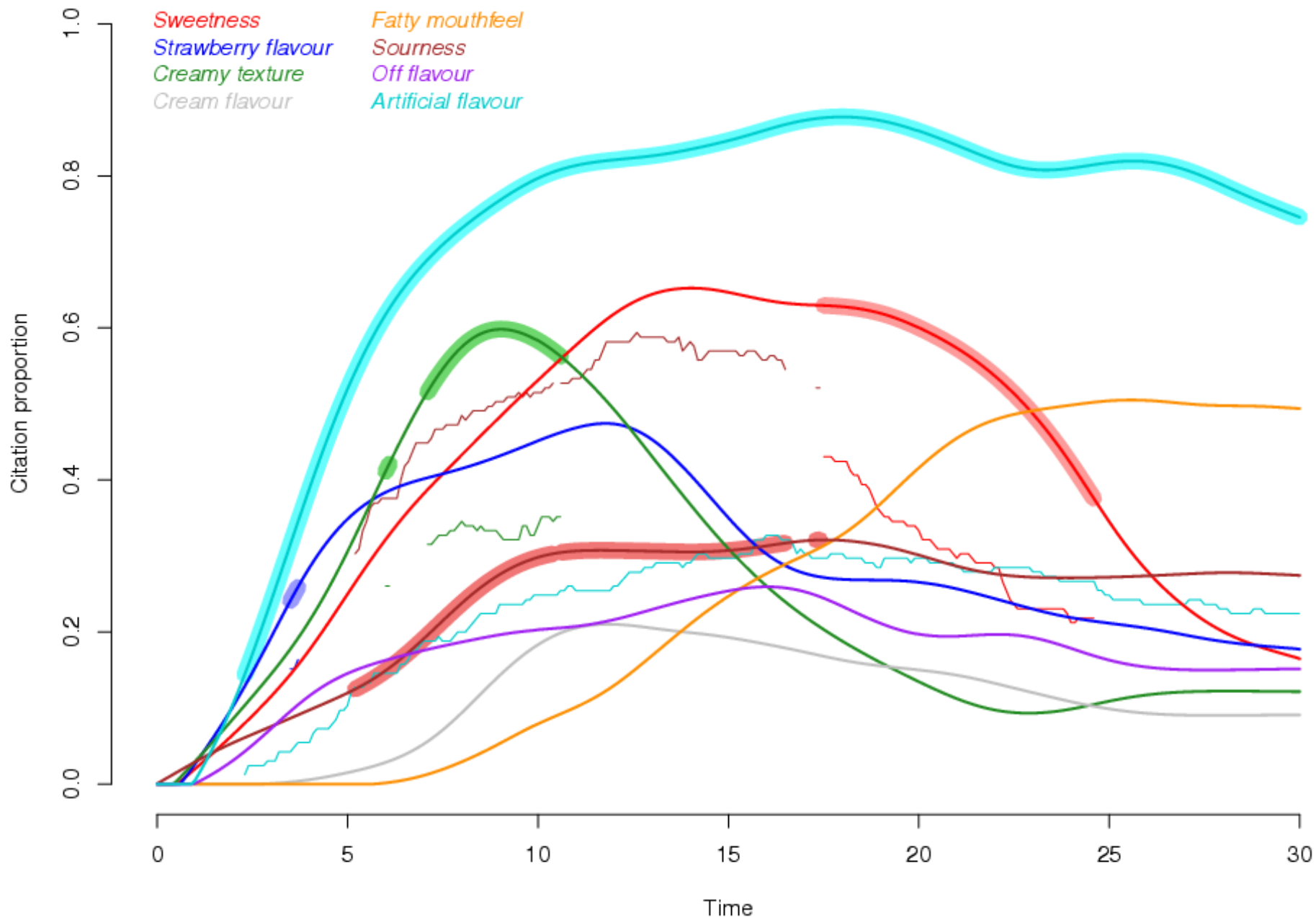




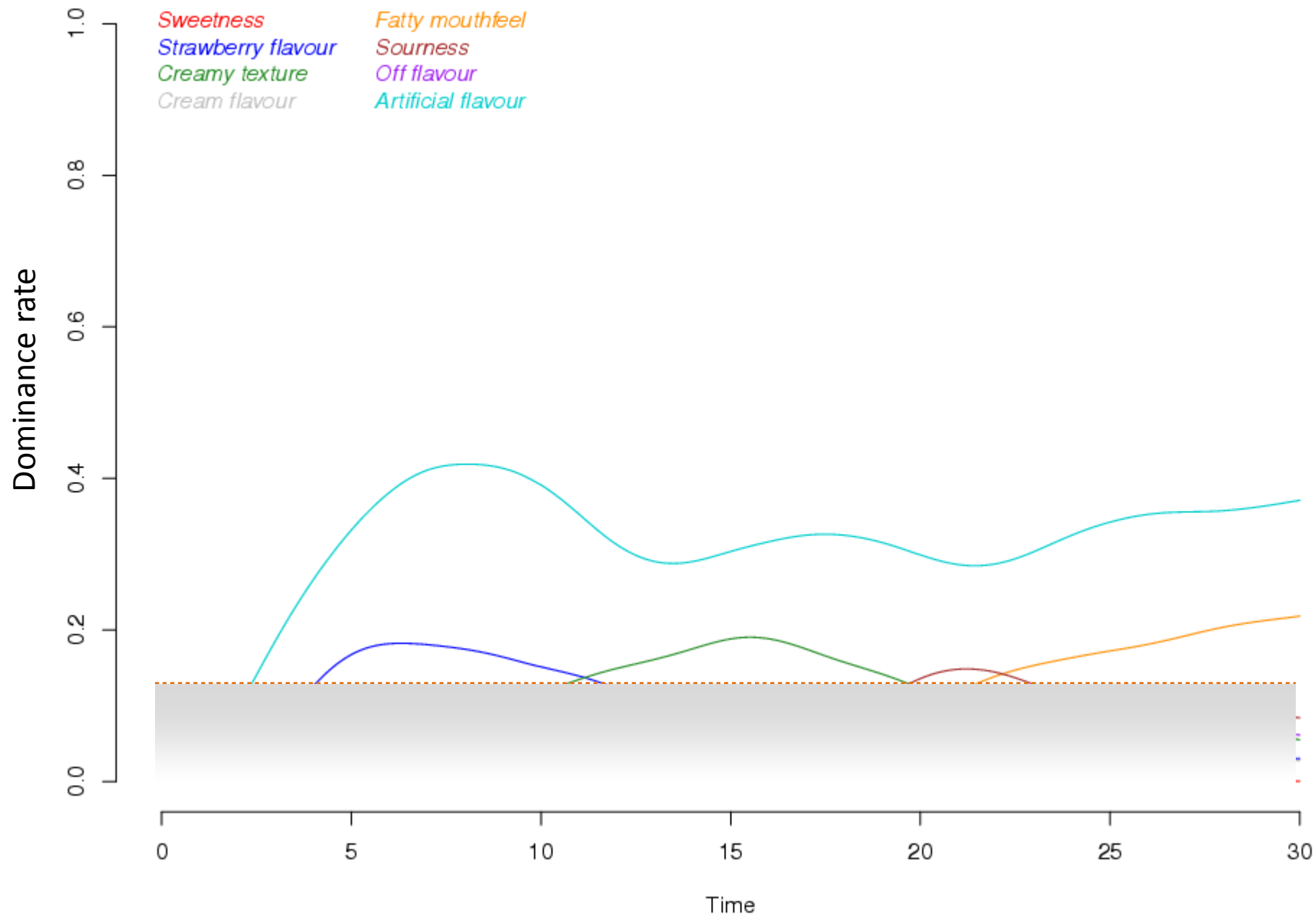
New idea:

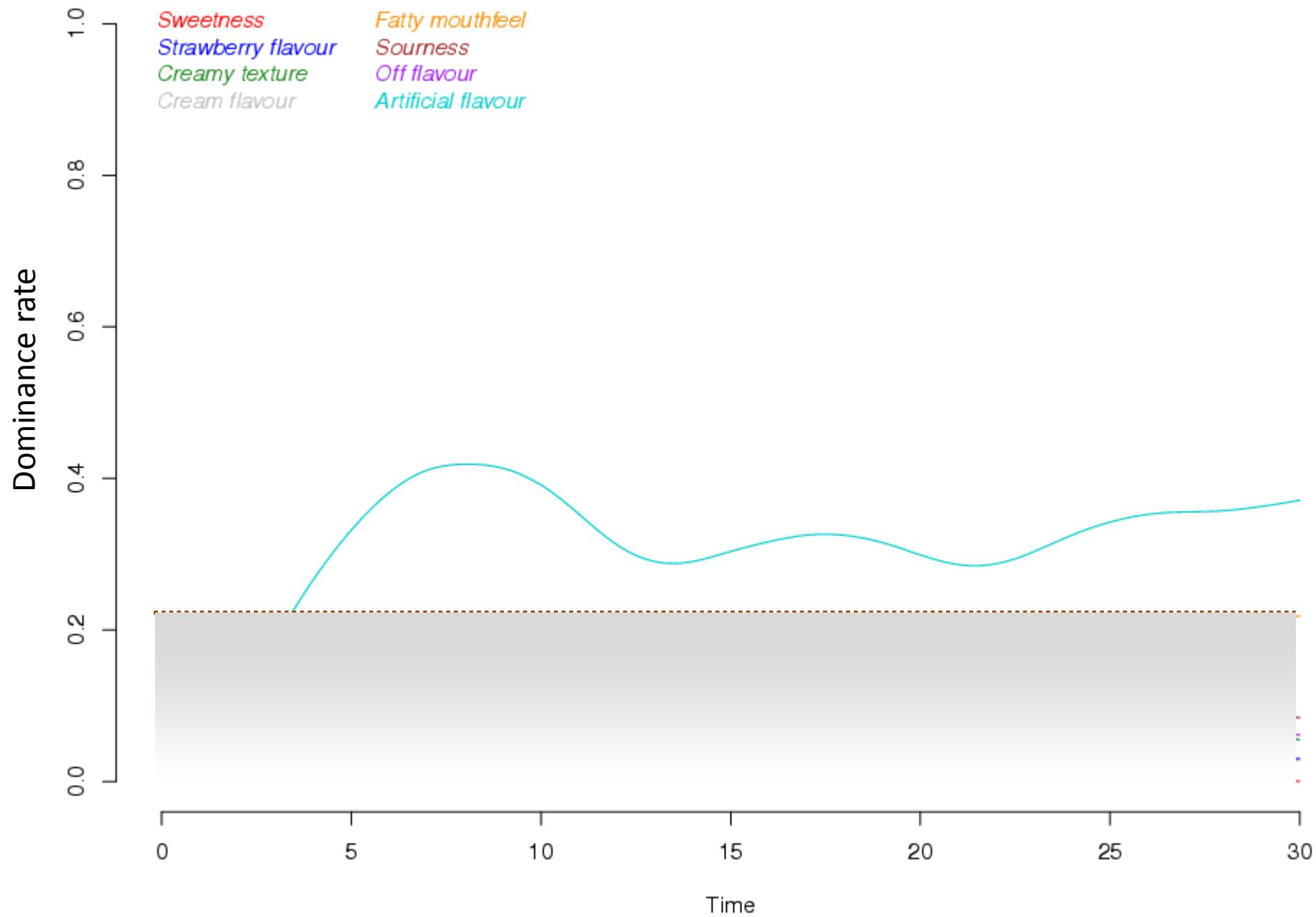
TCATA reference lines

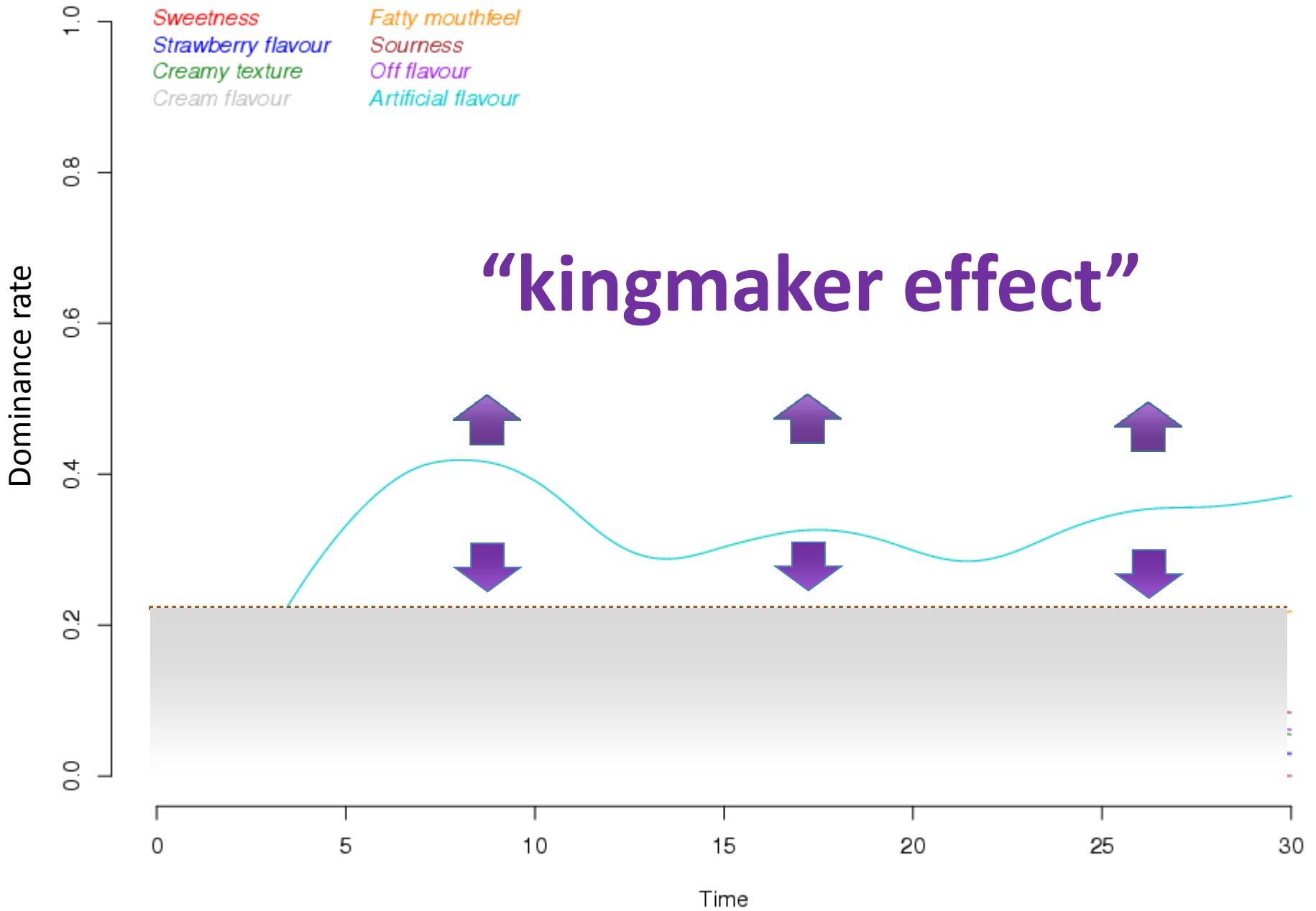




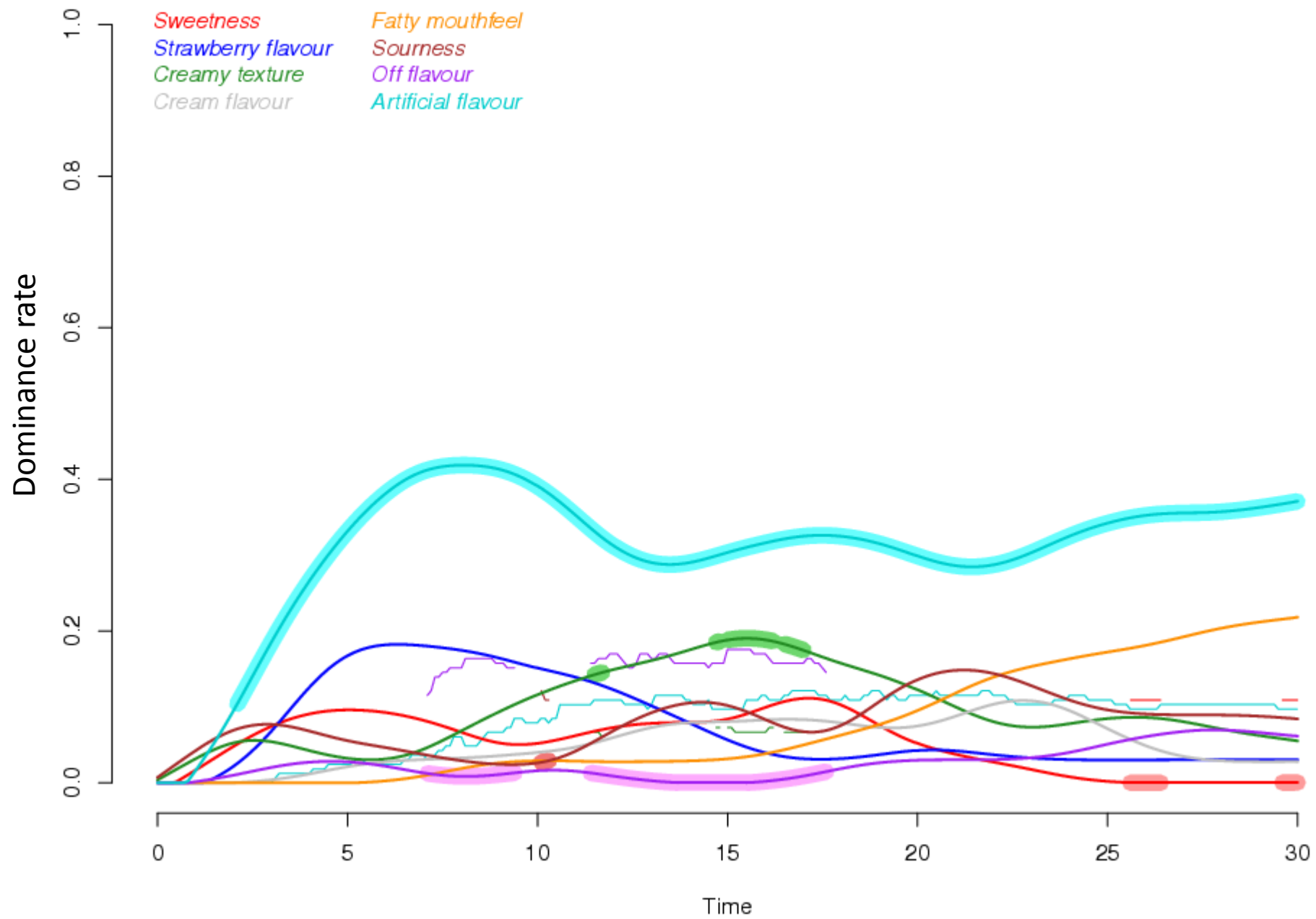
TDS Curves







**Can the reference curves approach help
with interpretation of TDS data?**



Thank you for your attention!

John C. Castura

Florencia Alcaire

Shari Zorn

Leticia Vidal

Lucía Antúnez

Ana Giménez

Gastón Ares



Castura, Antúnez, Giménez, & Ares. Temporal Check-all-that-apply (TCATA): A novel dynamic method for characterizing products. *Food Quality & Preference*. (Submitted).

4th E3S Symposium & 16th Nordic Sensory Workshop
Oslo, Clarion Hotel Royal Christiania, 11-12 May 2015