HOLISTIC ASSESSMENT OF THE EATING EXPERIENCE: GOING BEYOND TRADITIONAL DESCRIPTIVE FLAVOR ANALYSIS

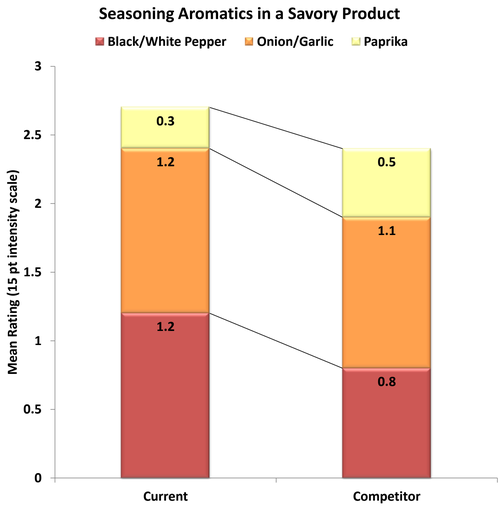
Traditional Descriptive Analysis

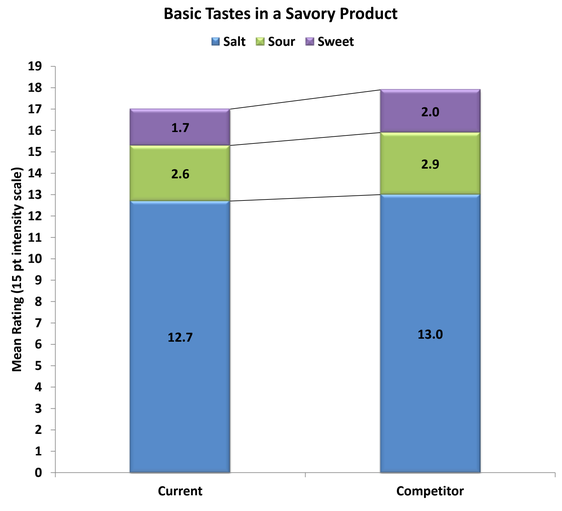
- Describes all perceived sensory attributes
- Quantifies maximal intensity of those attributes
- Represents intensity at point(s) in time

Capturing the Entire Eating Experience

- Understanding the relationship among attributes
- Assessing the order of occurrence of attributes
- Integrating the experience (*the new Amplitude?)*

Visual Representation of Attribute Relationships





- Traditional Descriptive Flavor Analysis showed no meaningful individual attribute differences between these two products
- Consumers preferred the current for overall flavor, citing it was closer to ideal for saltiness and balance of saltiness
- These plots illustrate the balance of intensities among related attributes
- This illustration helped the business team understand that the consumer was likely responding to the collective seasoning attributes trending weaker and combined basic tastes trending stronger

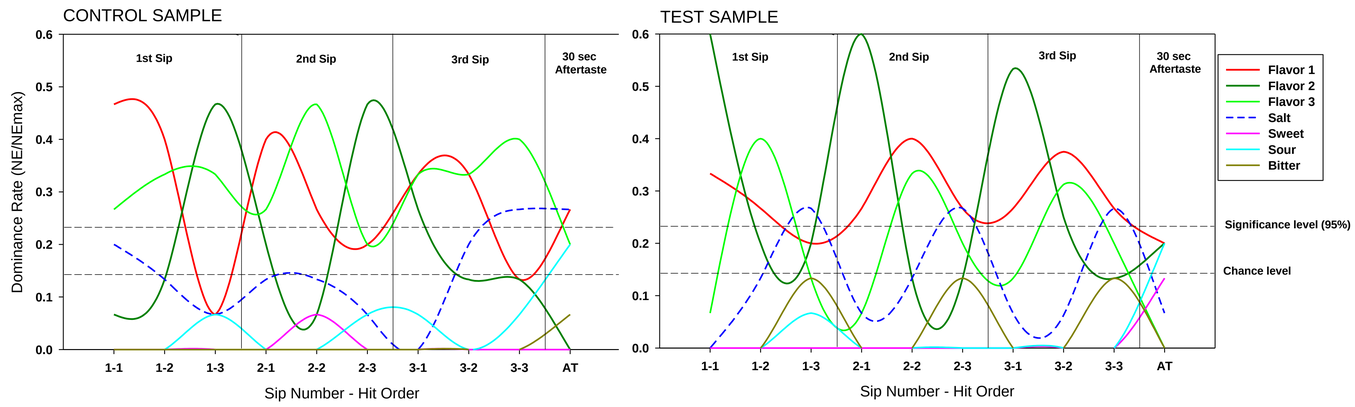
Temporal Order of Sensations (TOS)

- Using simple checklist ballot, panelists are able to quickly record order of key attributes

Take a sip of the product and quickly check which attributes hit 1st - 2nd - 3rd in the order they are perceived.
Do not give intensity ratings.

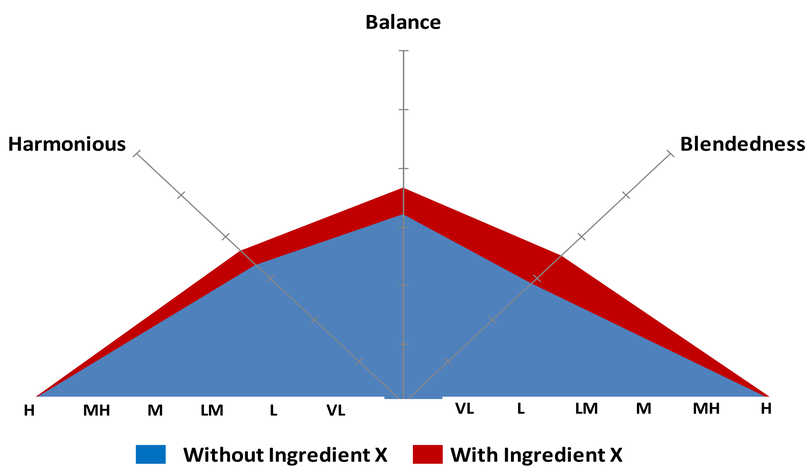
	Order Perceived		
	Hits 1st	Hits 2nd	Hits 3rd
Flavor 1			
Flavor 2			
Flavor 3			
Other? Identify			
Salt			
Sweet			
Sour			
Bitter			

- Multiple samplings can capture changes in perceived attributes throughout eating experience
- TOS provides key attribute order, not intensity information



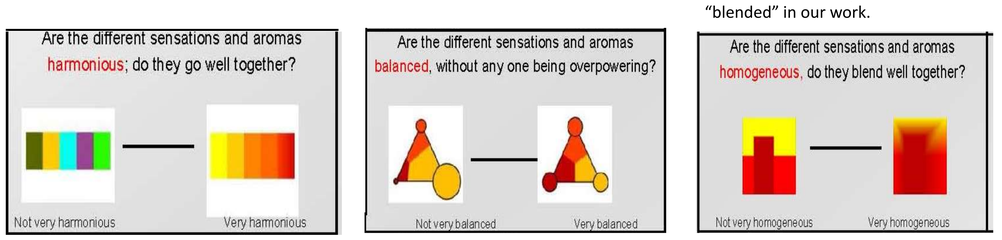
Analysis adapted from Pineau, et al. (FQP20 (2009) 450-455)

Modified Complexity Measures



- Panelists were trained in three of the complexity terms identified by Medel, et al. at the 8th Pangborn Sensory Science Symposium using their visual references

This attribute descriptor was renamed "blended" in our work.



- These terms proved useful in understanding the subtle differences in a savory system when umami ingredients are manipulated

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