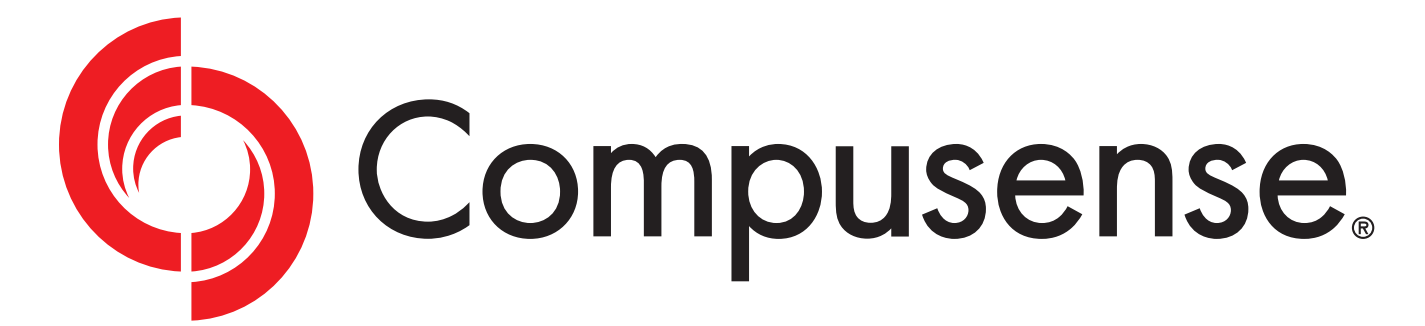


Investigating preference and discrimination via tetradic preference testing: a comparison with placebo preference testing and triadic preference testing



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Method

Consumers (n=90) evaluated two Chip samples and two Fruity Drink samples using 3 preference testing methods.

- a **placebo preference test** (cf. Alfaro-Rodriguez et al., 2007), consisting of back-to-back preference tests with one different pair and one same pair.
- a variant of the **triadic preference test** with two of three samples the same (cf. Calderón et al., 2015), modified such that the consumer first tasted samples and indicated whether there was a preference, and if so, the consumer answered a preference question, otherwise, a discrimination question.

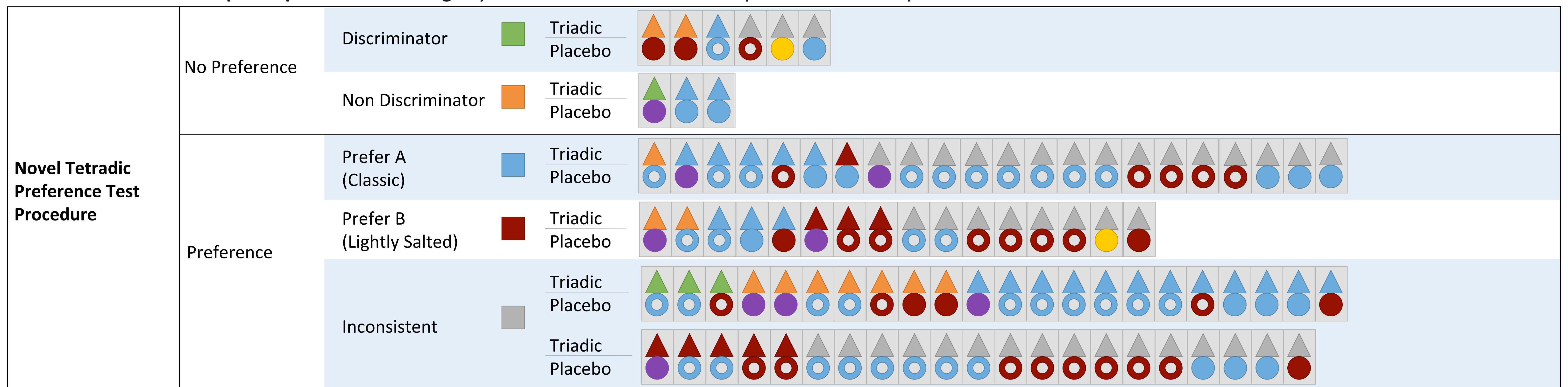
Placebo Preference Test Procedure	No Placebo Preference	No Preference	●
		Prefer A	●
		Prefer B	●
	Placebo Preference	No Preference	●
		Prefer A	●
		Prefer B	●

Triadic Preference Test Procedure	No Preference	Discriminator	▲
		Non Discriminator	▲
		Preference	▲
	Preference	Prefer A	▲
		Prefer B	▲
		Inconsistent	▲

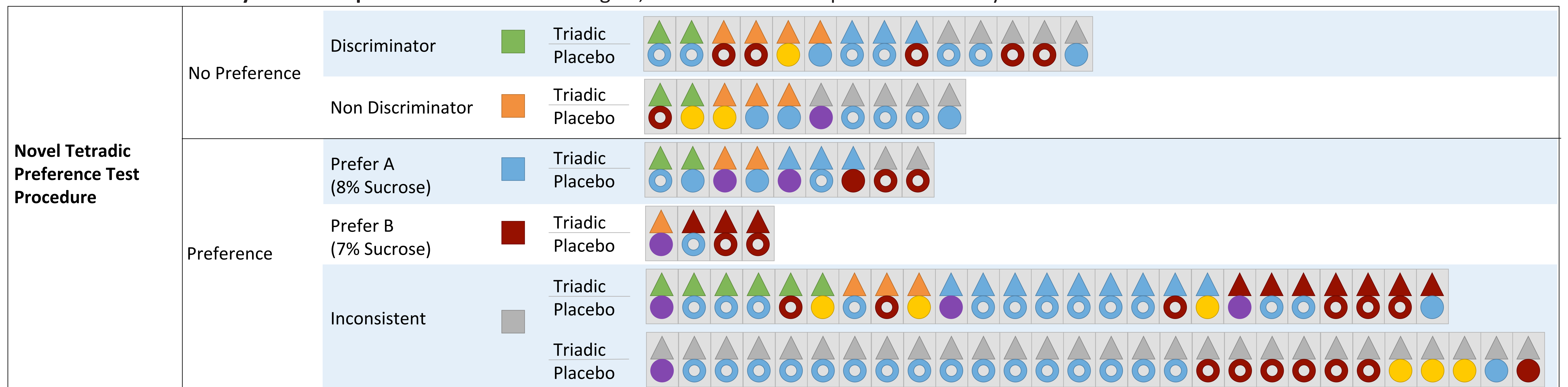
- a novel **tetradic preference test** with two same pairs, following an analogous procedure.

Results

Panelist Results for Chip Samples: classic vs. lightly salted. Note the lack of response consistency across methods.



Panelist Results for Fruity Drink Samples: 8% vs. 7% sucrose. Again, note the lack of response consistency across methods.



Conclusions

- The sweeter beverage and saltier chips were preferred across all test types
...but the lack of pattern in response indicates that the consumers are inconsistent in their expressed preferences.
- In all test types, No Preference is selected by <30% of consumers.
- Both discriminators and non-discriminators express no preference.
- Preference stability cannot be investigated in the placebo preference test, but even consumers who had preference consistency within the tetradic preference test or within the triad preference test had preference inconsistency across methods.

Results suggest the importance of aggregating results to assess products with relatively small sensory differences.