“This wine makes me feel…” An investigation on consumers’ emotional reaction to sustainable wines

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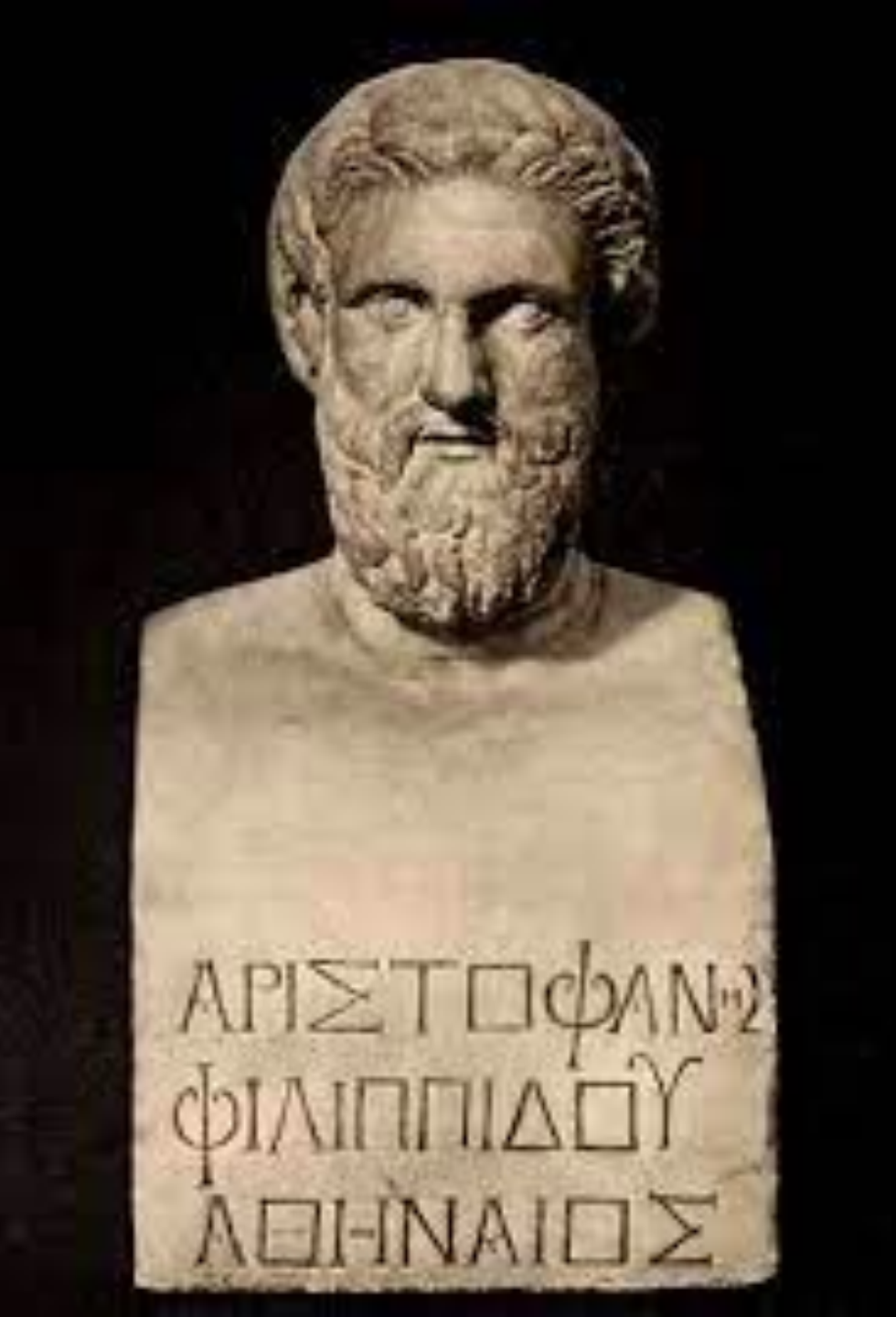
EST. 1926
PLUMPTON COLLEGE



- “When men drink wine, they grow rich, and successful, and win lawsuits and are happy and help their friends. Quickly, bring me some wine so I may wet my mind and say something clever”

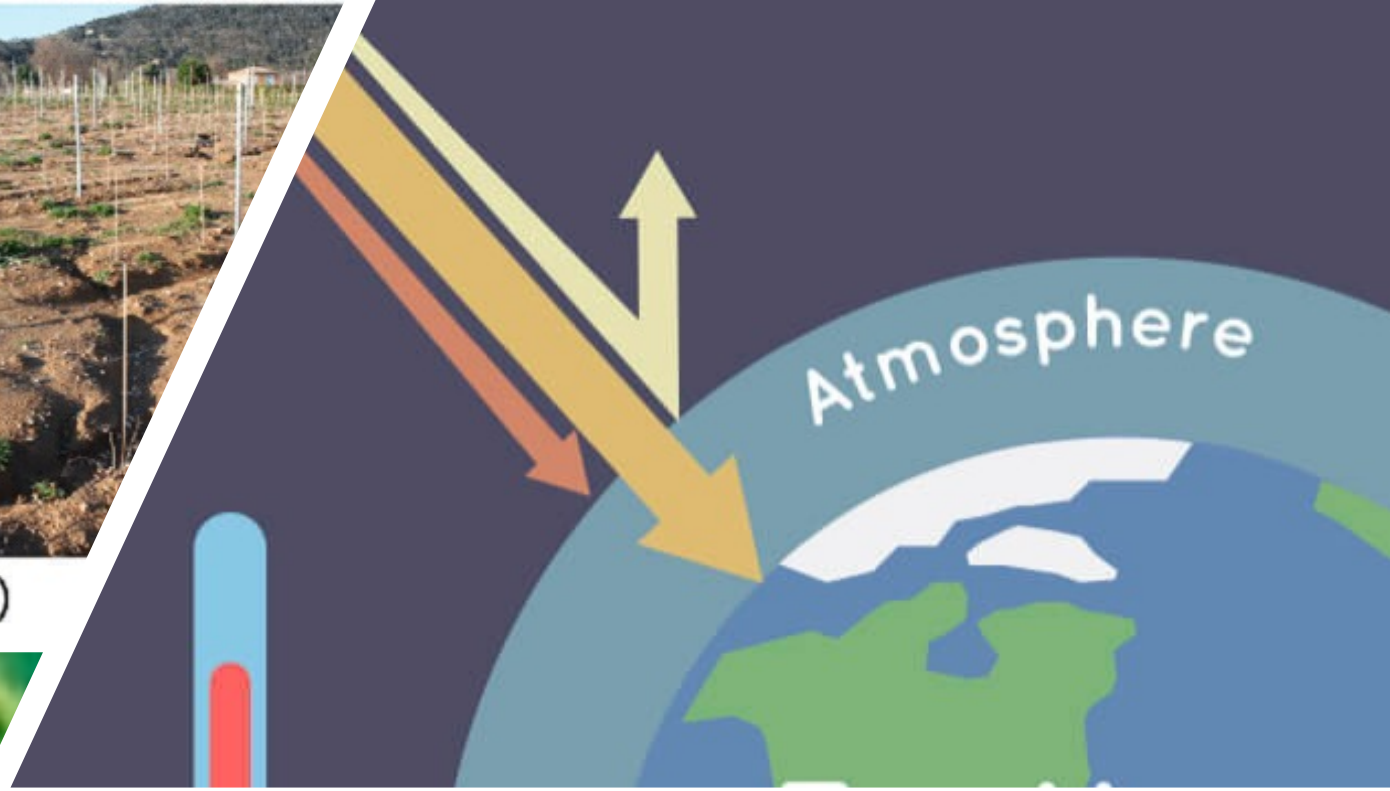

CORAVIN
BV

The Climate Doom and Gloom

- Average surface temperature has risen by between 0.8 and 1.2 Celsius (IPCC, 2018)
- Sea levels have risen by a yearly average of 3.4mm (Rahmstorf, 2010)
- More extreme weather patterns and events (Stott, 2016)
- Destruction of soils and soil fertility/health (Doran, 2002, and Pimentel, 2006)

(a)

(b)



Sustainability in the Wine Industry

- Biodynamic, Organic and Sustainability certification schemes
- Research has shown that individuals are **more willing to buy** these sustainable wines (Pomarici and Vecchio, 2014), and **more willing to pay more** (Sellers-Rubio and Nicolau-Gonzalbez, 2016)
- Yet, these choices only occupy ≈ 5% of the global market! (BNP Paribas Wealth Management, 2020)

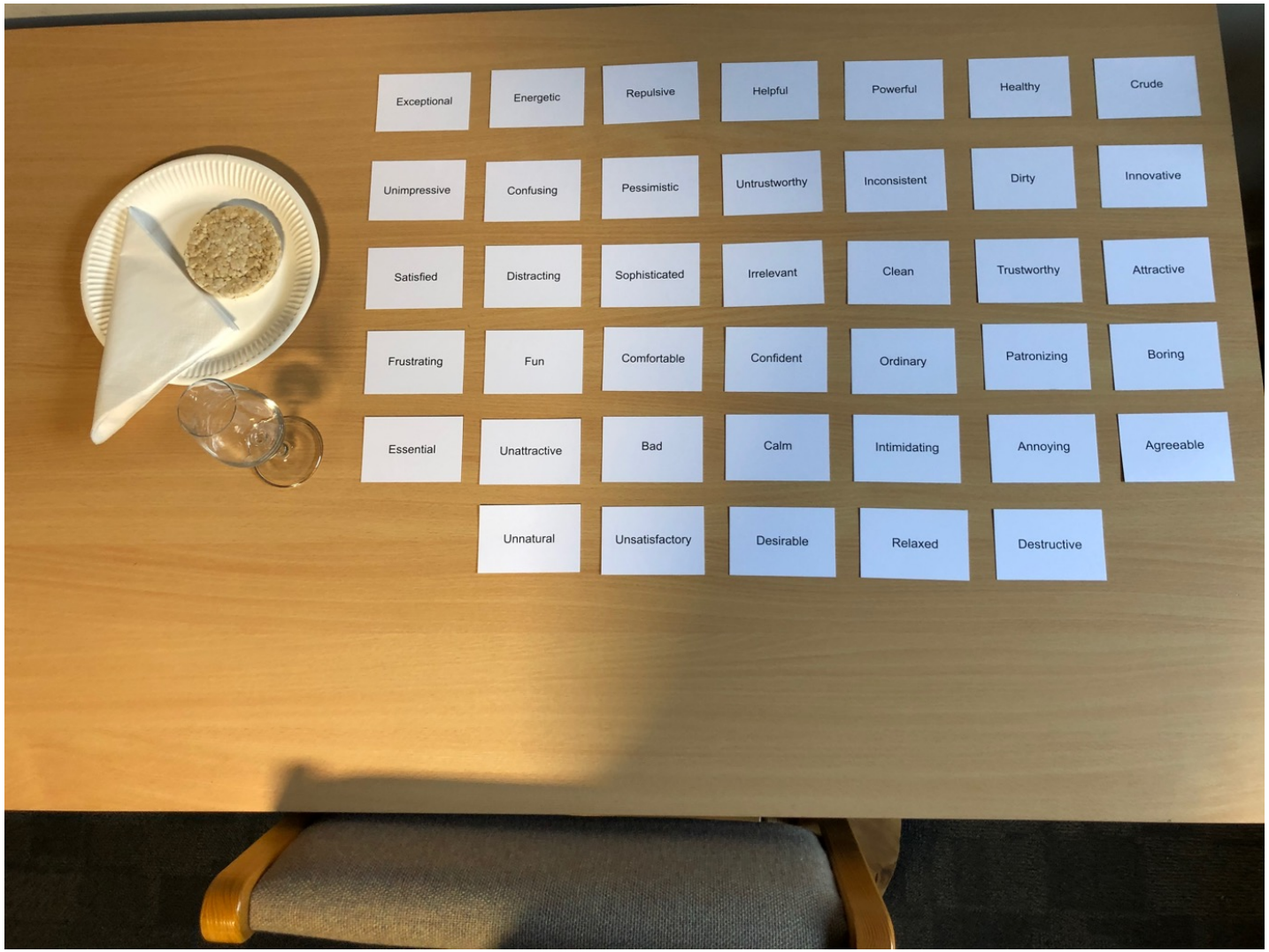

Wine
Appreciation

Have we neglected a significant reason why people drink wine? This being how the wine makes them feel at the point of consumption.

Research Questions

- *Q1 – Will the knowledge that a wine is a conventional wine, biodynamic wine, organic wine or has a WineGB sustainability certification, change that individual's emotional response?*
- *Q2 - Will the more "sustainable" wines be able to elicit a more positive emotional response when individuals are informed of their production method?*
- *Q3 – Will there be an association between a more positive emotional response and liking/wanting to purchase a wine more*?

Methodology



Participants arrive, sign consent forms and have the task explained to them.

Participants begin tasting by receiving their first glass to taste.

Participants select the reaction cards that best describe how that wine made them feel

Experimenters take the Participant to a private area to record their selection of reaction cards, and their reasoning for selecting these cards, and the scores they rated this wine for Likeability and Liklihood to Purchase.

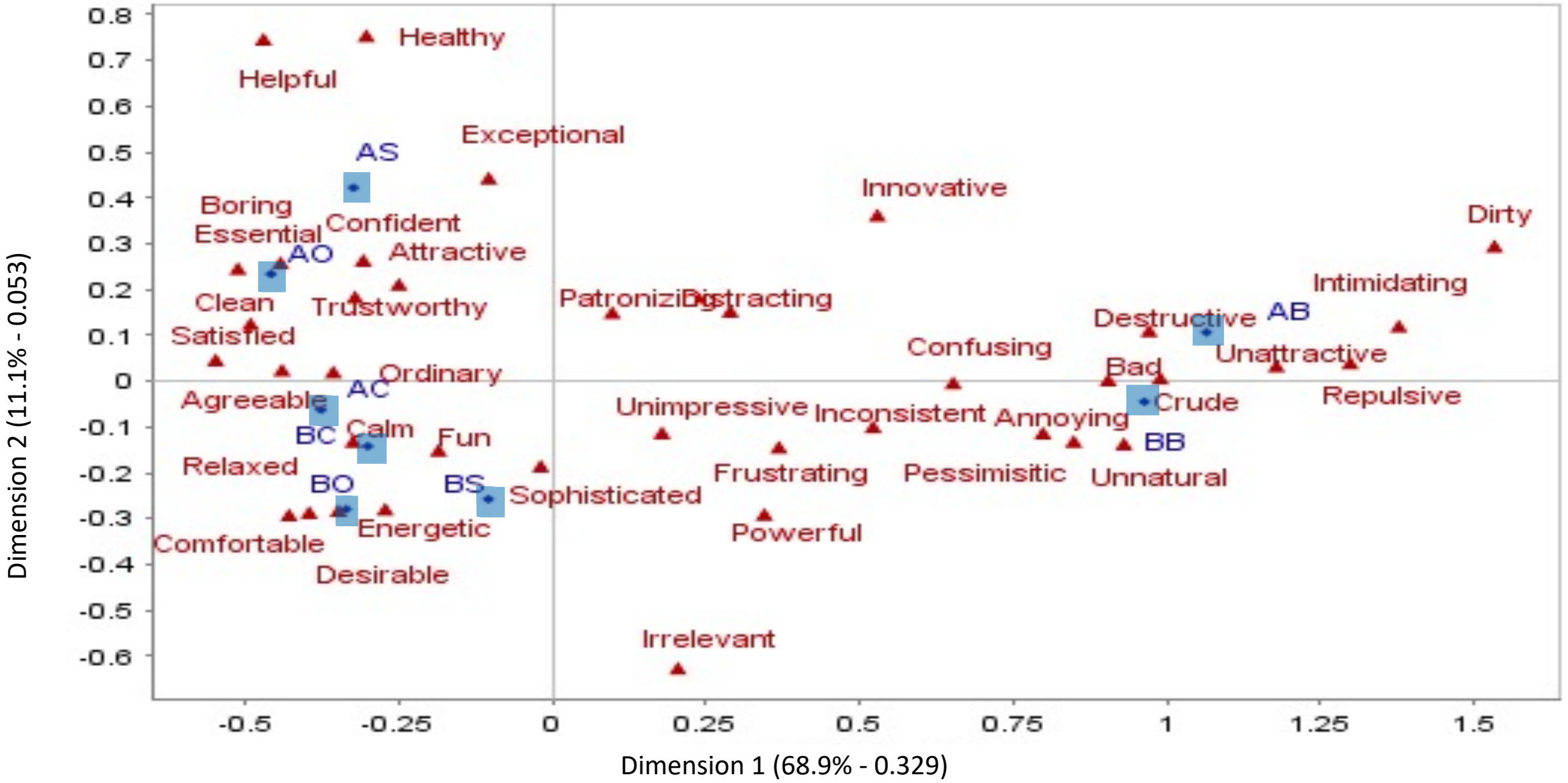
Having completed the task for their first wine, Participants are given their next wine to repeat the task. This continues until the participant has completed the task with each wine.

Once the participant had tasted and reacted to each of the wines, they were asked to take a 25 minute break. The participants at this point had completed the "blind" portion of the experiment.

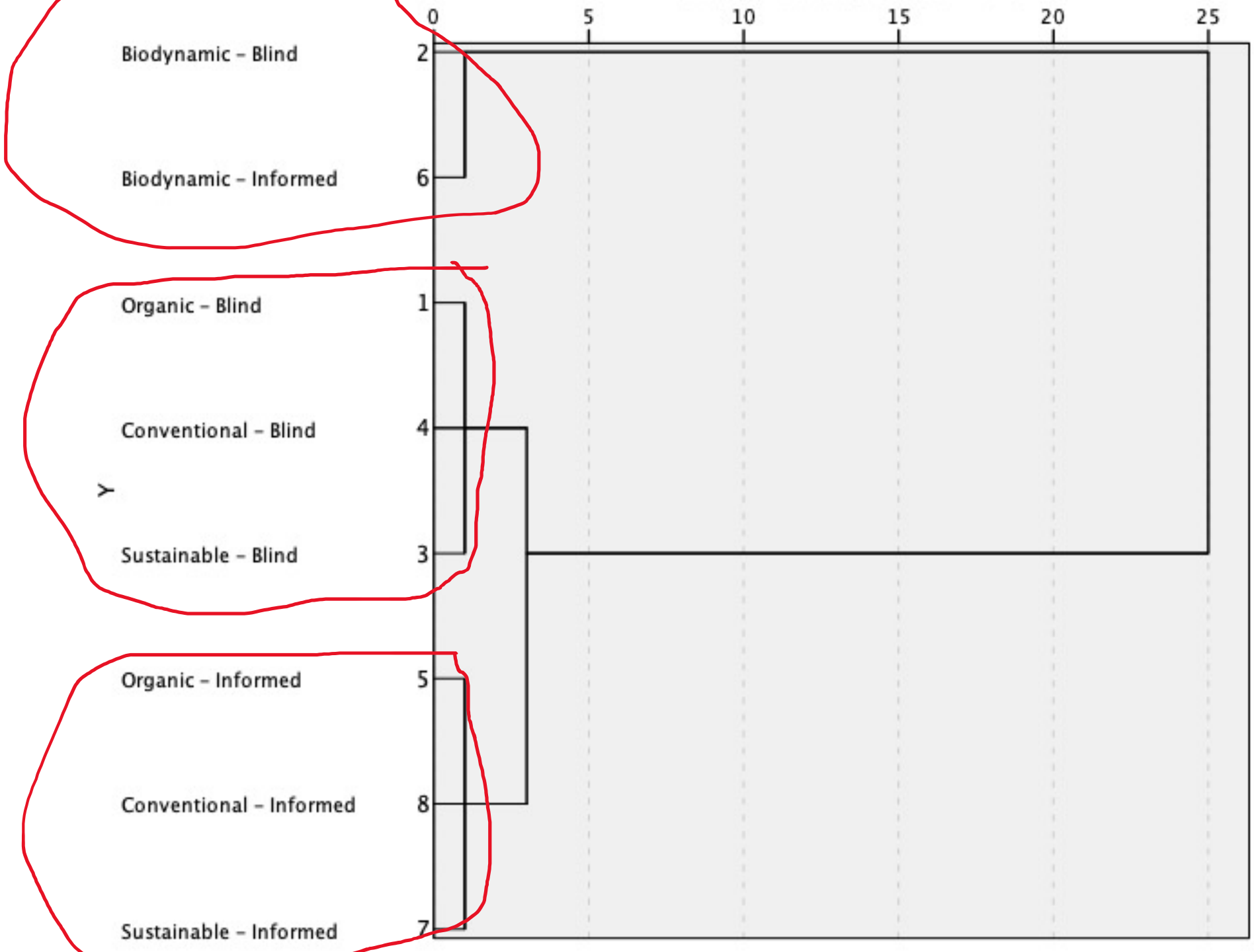
Upon returning to the tasting room, participants are informed that they will be repeating the previous task with four more wines from another experimenter. However, this time participants are made aware of the production method of each wine, prior to their first taste of the wine. This represents the "informed" portion of the experiment.

Once the participants had completed the "informed" portion of the experiment, they were asked to complete a short demographic and wine habits questionnaire.

- *Q1 – Will the knowledge that a wine is a conventional wine, biodynamic wine, organic wine or has a WineGB sustainability certification, change individual's emotional response to it?*



Representation of emotional reaction for each Wine (Organic, Biodynamic, Sustainable, Conventional) in both the Blind and Informed tastings. Derived from the first two dimensions of the Correspondence Analysis performed on the frequency of participants reaction card selections. BC: Conventional - Blind, BO: Organic – Blind, BB: Biodynamic – Blind, BS: Sustainable – Blind, AC: Conventional – Informed, AO: Organic – Informed, AB: Biodynamic – Informed, AS: Sustainable – Informed.



Dendrogram showing the three main clusters of emotional responses to the Wines, derived from hierarchical cluster analysis calculated on all dimensions of the Correspondence Analysis performed on the frequency table of participants reaction card selections for each of the wine tastings.

Cluster	Wine	Response	*P*
1	*Organic - Informed*	*Clean*	***
	Sustainable- - Informed	*Agreeable*	***
	Conventional - Informed	*Essential*	***
		Ordinary	**
		Satisfied	**
		Boring	**
		Healthy	**
		Attractive	*
2	*Biodynamic - Blind*	*Repulsive*	***
	Biodynamic - Informed	*Unsatisfactory*	***
		Crude	***
		Dirty	***
		Bad	***
		Intimidating	***
		Unattractive	***
		Annoying	***
		Unnatural	***
		Inconsistent	**
		Destructive	**
		Confusing	**
3	*Organic - Blind*	*Relaxed*	***
	Sustainable - Blind	*Fun*	**
	Conventional - Blind	*Energetic*	**
		Calm	**
		Desirable	*
		Comfortable	*

Significant Clusters derived from CA – HCA, test – values and significance. * signifies significance at p < 0.01 level, ** signifies significance at p < 0.05 level, and * signifies significance at. p < 0.1 level**

Q2 - Will the more “sustainable” wines be able to elicit a more positive emotional response when individuals are informed of their production method?

	Organic	Biodynamic	Sustainable	Blind Evaluation
Reaction Score	0.194	-0.644***	0.255**	0.205***
Likeability Score	0.279	-0.786***	0.261	0.294***
Likelihood to Purchase Score	0.017	-0.81***	0.226	0.234***

Coefficients Produced by Model. ** signifies that coefficients are significantly different from 0 at p < 0.05 level, * signifies that coefficients are significantly different from 0 at p < 0.01 level. Note: Conventional wine was used as a reference.**

Q3 – Will there be an association between a more positive emotional response and liking/wanting to purchase a wine more?

	Reaction Score	Likeability Score	Likelihood to Purchase Score
Organic			
Blind	0.416 ± 0.094	3.1 ± 0.119	2.77 ± 0.134
Informed	0.452 ± 0.085	3.23 ± 0.129	2.87 ± 0.146
Biodynamic			
Blind	-0.511 ± 0.087	1.88 ± 0.128	1.62 ± 0.127
Informed	-0.597 ± 0.081	1.91 ± 0.130	1.78 ± 0.140
Sustainable			
Blind	0.261 ± 0.099	3.09 ± 0.147	2.69 ± 0.164 *
Informed	0.481 ± 0.089	3.31 ± 0.134	3.06 ± 0.147 *
Conventional			
Blind	0.335 ± 0.096	3.05 ± 0.124	2.77 ± 0.142
Informed	0.241 ± 0.100	3.04 ± 0.120	2.86 ± 0.140

Means and Standard Errors (n=77) of the Reaction, Likeability, and Likelihood to Purchase Scores for Each Wine in both the Blind and Informed Tastings. * signifies that scores are significantly different at the $p < 0.05$ level.

Conclusion

- A difference in the emotional response between the blind and informed tastings for Conventional, Organic and Sustainable was demonstrated
- A more positive emotional response was observed for Sustainable wines
- Few clear links between emotional and other responses
- The reaction card method provides a quick, cost-effective tool to help inform strategic decisions

Perspectives for our Industry

- As I alluded to earlier this research provides some validation to the potential economic benefit to obtaining the Sustainable Wines of Great Britain Mark
- Cross-cultural comparative study of countries to identify markets that may be primed for English Wine export

Hazel Murphy Sustainability Scholarship

Thank you for your time!