COMPARISON OF TWO METHODS TO GENERATE A CONSUMER-LED EMOTIONAL LEXICON OF WINE

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INTRODUCTION

Different methods could be applied to develop emotional lexicons for sensory evaluation of food products. Consumer-led specific lexicons are the most common in bibliography, and two methodologies could be used to create this kind of lexicons. The sensory method is based on clustering emotions into categories from consumers' ratings of individual emotional terms evoked by products, whereas the semantic method is based on grouping terms guided by their meaning by experts or consumers. This study aimed to compare sensory or semantic methods, to study emotions evoked by wines.

RESULTS AND DISCUSSION

Sensory lexicon reported an effect of wine for 10 of 13 emotional categories, while semantic lexicon discriminated wines in all 15 categories (Table 1). Emotional map of sensory lexicon is shown in Figure 1, and emotional map of semantic lexicon is shown in Figure 2. Very slight differences have been found between both configurations. RV coefficient showed a high agreement (0,946) between both emotional maps.

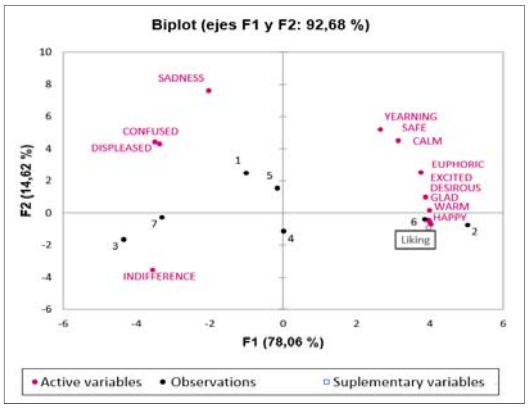

Figure 1. First factorial plot of the PCA based on the emotional response to wines from sensory lexicon

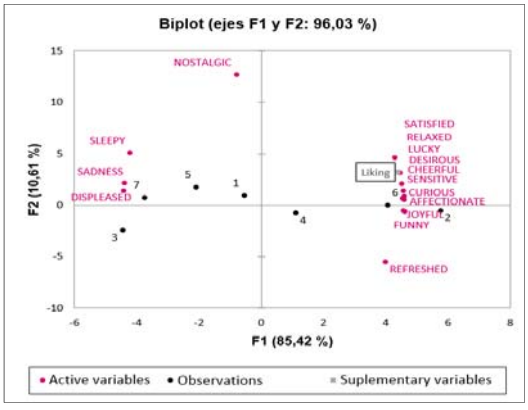

Figure 2. First factorial plot of the PCA based on the emotional response to wines from the semantic

EXPERIMENTAL

Both methods were validated by two different consumers' panels (n=185). Consumers tasted the same set of wines, showing a wide variety of sensory characteristics. Data were collected with Compusense and analyzed with XLSTAT.

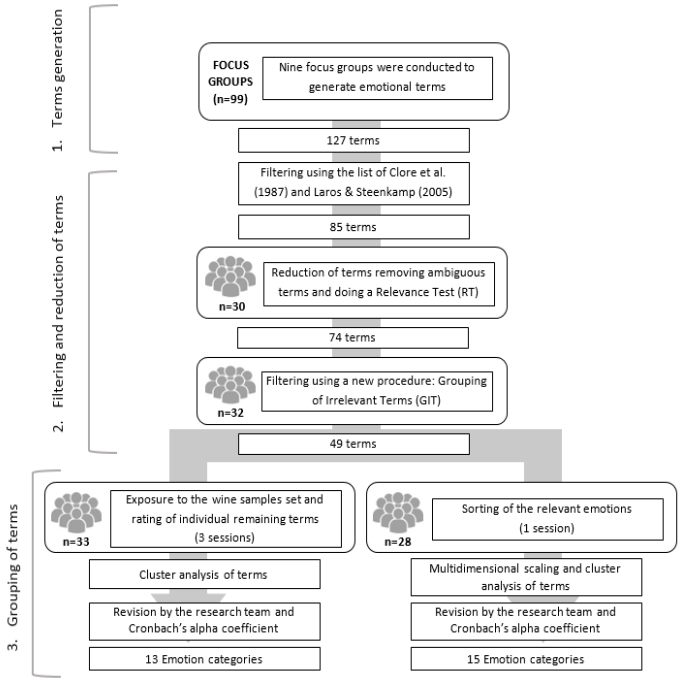

Table 1. P-values for the two lexicons' emotional categories and liking

	Categories	p-value
LEXICON I	*Liking*	**< 0.0001**
	YEARNING	**0.0009**
	CALM	0.1636
	WARM	**< 0.0001**
	CONFUSED	**0.0270**
	GLAD	**< 0.0001**
	DESIROUS	**0.0001**
	DISPLEASED	**0.0013**
	EXCITED	**< 0.0001**
	EUPHORIC	**0.0007**
	HAPPY	**< 0.0001**
	INDIFFERENCE	**0.0010**
	SAFE	**0.0392**
	SADNESS	0.1307

	Categories	p-value
LEXICON II	*Liking*	**< 0.0001**
	SLEEPY	**0.0192**
	AFFECTIONATE	**< 0.0001**
	LUCKY	**< 0.0001**
	JOYFUL	**< 0.0001**
	CHEERFUL	**< 0.0001**
	CURIOUS	**< 0.0001**
	DESIROUS	**< 0.0001**
	DISPLEASED	**0.0002**
	FUN	**< 0.0001**
	NOSTALGIC	**0.0415**
	REFRESHED	**< 0.0001**
	RELAXED	**< 0.0001**
	SATISFIED	**< 0.0001**
	SENSITIVE	**< 0.0001**
	SADNESS	**0.0005**

CONCLUSSION

Both methods were helpful to discriminate emotional response to wines. Semantic method was slightly more efficient in terms of time and resources invested during lexicon generation and discrimination among wines.

ACKNOWLEDGMENTS: This study was funded by project AGL2016-78936-R from the Spanish Ministry of Economy and Competitiveness (MINECO).