

*Assessing Old World wine consumers' perceptions towards terroir stimuli with New World wine bottles: A multi-country approach*

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Terroir is usually term associated with European food and wine production. It is often seen as a kind of philosophical concept, bearing mystical, environmental and marketing meanings (Charters, Spielmann and Babin, 2017). Consumers frequently consider terroir products as a kind of 'refuge' product, able to represent values, commitment and ethics, as well as to provide them with a guarantee of quality and authenticity (Guy, 2011; Batat, 2013). From the food firms' point of view, terroir becomes a strategy adopted by producers to be competitive in the market and sell their products at a premium price, thanks to their connection with a community's uniqueness, incorporating a sense of land and place (Elaydi and McLaughlin, 2012).

The word terroir has regularly been associated by scholars with wine in the Old World. Terroir is able to raise the scores and price of a wine when included in the note of a wine magazine (Spielmann et al., 2014). It is differently perceived by different stakeholders, depending on their level of involvement with the product (Spielmann and Gélinais-Chebat, 2012), and it is transmitted to consumers through different cues on a wine label (Capitello et al., 2016). From a marketing point of view, 'terroir is used across the world as a justification for and endorsement of the quality of wine' (Charters, 2010, p. 3) and place and *savoir-vivre* are focal concept in communication for wineries, especially from France, the country of origin of terroir (Guy, 2011).

An analysis of the literature highlights no research focusing on consumers' views of terroir wine from the New World (Batat, 2013; Charters, Spielmann and Babin, 2017; Moulard et al., 2015). This paper aims to analyse the appeal of different terroir stimuli conveyed through a bottle of wine from the New World for European consumers.

An ad-hoc questionnaire was built to meet the research aim, structured into three parts. The first part included a discrete choice experiment. Hypothetical labels of Cabernet Sauvignon bottles from the US were graphically designed, made up of five attributes, assuming different levels: I) the origin (expressed at a national, regional or local level); II) the private label (present or not) III) the collective label (present or not); IV) a story about terroir (concerning the history of the family of producers, the production territory, the production process and the *climat*), and; V) the price. Table 1 shows the particular attributes and levels adopted to build this choice experiment.

**Table 1 – Attributes and levels of the experimental design**

Attributes	Levels	Cabernet Sauvignon
Origin	Country	California
	Region	Sonoma
	Village	Healdsburg
Private label	No	None
	Yes	Carrefour/Tesco (depending by the country)
Collective brand	No	None
	Yes	AVA (American Viticultural Area)
Terroir stories	Family	Chateau Charmois winery was established in 1974 by Greg King, who left San Francisco to find a calmer life in the Alexander Valley. Today the winery is run by Greg's son, Mark and daughter Lisa – with help from their children. The family have seen the winery grow from being a hippy dream to one of the most recognised wine producers in the region.
	Territory	The area north of San Francisco, is renowned as one of the best places to make wine in the USA. Around the Russian River in the Alexander valley soft, voluptuous Cabernet Sauvignon wines can be made – and here, amongst the mountain foothills and sheltered from the cold Pacific Ocean winds, our vines nestle, surrounded by magnificent oak woods.
	Production process	Lisa King, who makes our wine, trained at the University of California and has applied the most appropriate techniques for our Cabernet Sauvignon. Our grapes are picked at optimum ripeness followed by fermentation between 25 and 30° c and ageing in French oak barrels (50% new each year), and minimal filtration guarantee a wine close to perfection.
	<i>Climat</i>	Our vineyards are situated where the floor of the Alexander Valley meets the lower ranges of Black

		Mountain giving a perfect exposure to the south-west to access the ripening sun, and cool evenings to preserve the freshness of the wines. Our stony, alluvial soils offer great drainage for the vines.
Price	1	12.99 euros/pounds
	2	16.99 euros/pounds
	3	20.99 euros/pounds
	4	24.99 euros/pounds

Attributes and levels were allocated to choice tasks by using a Bayesian efficient experimental design, which minimises the Db-error (Ferrini & Scarpa, 2007; Sándor & Wedel, 2001; Scarpa, Campbell, & Hutchinson, 2007) starting from parameter values drawn from a pilot study involving 200 respondents. The final design was composed of 12 hypothetical choice sets, divided into three groups thanks to the blocking procedure. Therefore, each respondent was required to choose the preferred bottle of US wine among two bottles for four times. The 'no choice option' was also included. Figure 1 shows an example of choice set.

**Figure 1 – Example of choice set**

\*Which wine would you choose?

<p>TESCO ALEXANDER VALLEY AMERICAN VITICULTURAL AREA <i>Cabernet Sauvignon</i> 2014 SONOMA COUNTY</p> <p>£ 20.99</p> <p>The area north of San Francisco, is renowned as one of the best places to make wine in the USA. Around the Russian River in the Alexander valley soft, voluptuous Cabernet Sauvignon wines can be made – and here, amongst the mountain foothills and sheltered from the cold Pacific Ocean winds, our vines nestle, surrounded by magnificent oak woods.</p>	<p>TESCO <i>Cabernet Sauvignon</i> 2014 CALIFORNIA</p> <p>£ 16.99</p> <p>Chateau Charmois winery was established in 1974 by Greg King, who left San Francisco to find a calmer life in the Alexander Valley. Today the winery is run by Greg's son, Mark and daughter Lisa – with help from their children. The family have seen the winery grow from being a hippy dream to one of the most recognised wine producers in the region.</p>	<p>None of them</p>
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The second part of the questionnaire was devoted to the collection of information about respondents' familiarity with and liking of Californian wine and AVA branding, attitude towards terroir products and perceived authenticity for the AVA brand (Morhart et al., 2014). Finally, the third part of the questionnaire collected socio-demographic information.

The research examines the role of terroir for European consumers with and without any traditional tie with a terroir. Therefore, the surveyed population comprises 500 consumers from France (the 'homeland' of the term terroir) and 500 consumers from UK - a European country less involved in the production of terroir products than France. Data were collected by a panel

provider society ensuring the same quota as the French and UK population in terms of age and gender.

Discrete Choice Models were applied to analyse the collected information. They are designed to analyse respondents' stated preferences for different hypothetical choice situations (Louviere et al., 2000), and they are useful to highlight the importance of different terroir stimuli conveyed in a wine bottle from the US. This is because they apply the theory of Lancaster (1966) according to which the utility of a good is not given by the good itself, but by the different attributes composing the good, which becomes a bundle of benefits in the consumer's eyes (Murphy and Enis, 1986). The process further overcomes the limitation of conjoint experiments, applying the random utility maximization theory outlined by Thurstone (1927). This theory postulates that the utility of an individual  $n$ , who assesses for  $t$  times  $j$  alternatives and chooses alternative  $i$  ( $U_{nit}$ ) is a stochastic function, composed by a deterministic part ( $V_{nit}$ ) - the function of the attributes of the good - and a stochastic part, or error term ( $\varepsilon_{nit}$ ), that includes the heterogeneity of consumer preferences and cannot be observed by the researcher (Train, 2009).

The results highlight consumers' utility and Willingness to Pay (WTP) for different terroir stimuli in the two countries and give deep insights into the terroir world, providing wine producers from the New World with suggestions about how to communicate their terroir to their different target markets.