



Thesis title: Changes in Wine Preception induced by Foods

Student name:	Chrysi Manataki
Institution/company involved:	ISA – Universidade de Lisboa

Jury members (name/position):

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Names & emails of supervisors:

Manuel Malfeito Ferreira	mmalfeito@isa.ulisboa.pt
Mariana da Silva Gomes Mota	mariana@isa.utl.pt

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Abstract (max 300 words)

Topic position & objectives:

The present work assessed the effect of food on wine preference. Four commercial Greek and Portuguese wines, two reds and two whites, with different sensorial features were used. An additional objective was to evaluate the intensity and liking of acidity, astringency and moderate sweetness in white wine, using as tastants tartaric acid, tannic acid and sucrose.

Methods:

The tastings were performed by a trained panel of 28 individuals, segmented by gender, smoking habits, Vinotype, sensitivity to 6-n-propylthiouracil (PROP), saliva flow rate, sweet liking and wine “neophobia” responses. Secondary segments (such as smell sensitivity and tastant liking) were also created during the training process.

Results:

The sensitivity and appreciation of the tastants enabled to separate the tasters in two segments, one with high response to the stimulus and another with low. The variation of individual sensitivities followed a normal distribution for tartaric acid and sucrose, contrarily to tannic acid. Concerning the relation between sensitivity to the tastant and the respective hedonic evaluation, there were no correlations ( $|r| < 0.3$ ), indicating that hedonic appreciation was apparently not influenced by sensitivity to the tested tastants.

Concerning food pairing, there was a tendency to decreasing preference for white wines after food consumption, in comparison to that of reds, which tended to increase after pairing. However, when statistically analyzed, the wine ranking did not evidence significant differences and so, all wines performed equally well on pairing with food. This observation may be explained by the cancellation of the different individual preferences when the overall response of the panel was considered. The outcome from the segments sweet liking, smell sensitivity and “neophobia” showed that wine preference could only be related with “neophobia” and not with any physiological or liking factor.

Main conclusions:

In summary, hedonic appreciation seems to be more connected to our cultural and psychological background and these features should be taken into account to understand the individual wine choices.

Keywords (5): wine, wine and food matching, food pairing, segments, neophobia.