Effect of personality in the emotional response evoked by wine samples

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INTRODUCTION

Emotions elicited by food products play an important role in the decision-making process. The expression of the emotions could be affected by a wide variety of individual factors such as age, education, culture, socio-economic status and personality. Therefore, the emotions elicited by a food product and the personality of the consumer could be related. The aim of this work is to find out the relationship between personality traits and emotional response elicited by different wines.

EXPERIMENTAL

Hedonic and emotional response evoked by six wine products were assessed by 175 consumers. A Spanish version of the EsSense25 questionnaire (Nestrud, Meiselman, King, Lesher, & Cardello, 2016) was used to analyze the emotional response. To establish a relationship between emotions and personality, consumers were segmented using the Big Five Inventory questionnaire (BFI) (John & Srivastava, 1999). Participants were asked to rate 44 statements of the BFI on a 5-point scale (1 = strongly disagree to 5 = strongly agree). Individual consumer ratings on the aggregated BFI dimensions were input to Hierarchical Cluster Analysis (HCA), based on the Euclidean distance and Ward agglomerative algorithm to determine personality consumers segments. To compare the effect of personality on the evoked emotions, 2-way ANOVAs were used.

RESULTS AND DISCUSSION

BFI results indicated that consumers could be segmented into 4 clusters: 1 (n=20), 2 (n=70), 3 (n=46), and 4 (n=37). The main differences on personality were found in two segments: 1, with higher scores in the neuroticism dimension and lower on extraversion and agreeableness, and 4, with higher scores on the extraversion, agreeableness, and consciousness dimensions (Figure 1).

When studying the relationship between personality and emotions elicited by wine, a strong effect was found on 14 emotions: *active, adventurous, bored, disgusted, enthusiastic, free, happy, joyful, loving, pleasant, satisfied, tame, warm* and *worried*.

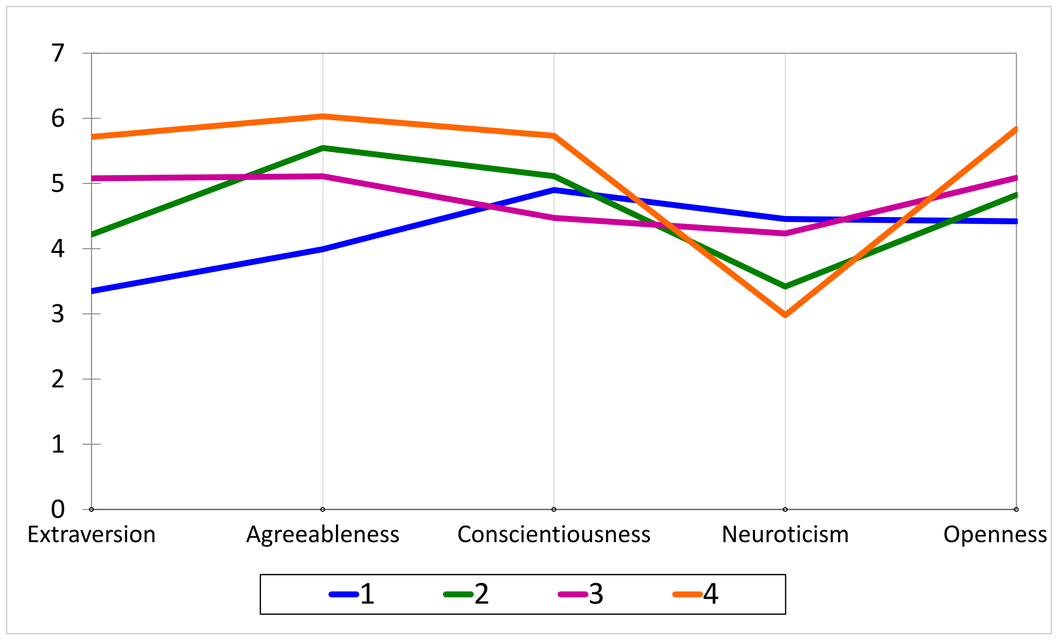

Figure 1. Profile plot of consumer personality segments

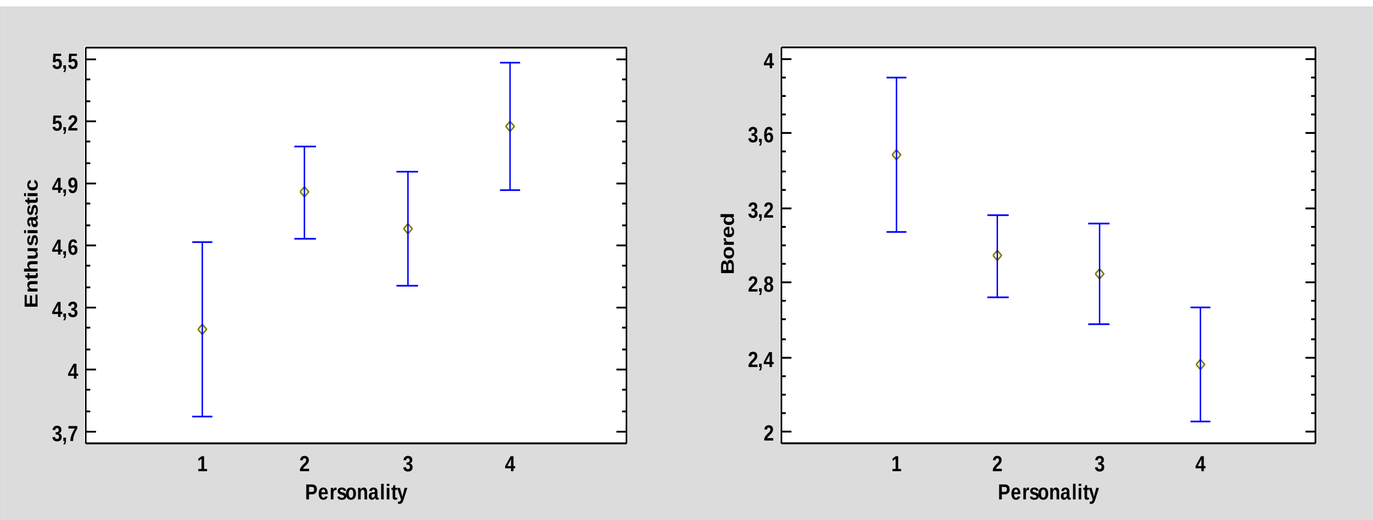

Figure 2. Effect of the personality group on the emotions enthusiastic and bored elicited by the different wine samples

Personality groups 1 and 4 showed opposite behavior: positive emotions received higher scores by cluster 4 (e.g.: *enthusiastic*), whereas cluster 1 gave higher scores to negative emotions (e.g: *bored*) (Figure 2).

No statistically significant interactions between wine and personality segments were found. However, if compared with a previous work (Mora, Urdaneta, & Chaya, 2018) results from the present study provided a more detailed description of the emotional response elicited by wine.

CONCLUSSION

Personality traits have an additive effect on the emotional response and provide supplementary information. Clustering consumers with the proposed procedure improved discrimination power on the analysis of the emotional response evoked by wines. The personality effect should be considered in future studies to get a more accurate overview of the emotional response elicited by wine.

John, O. P., & Srivastava, S. (1999). The big five trait taxonomy: History, measurement, and theoretical perspectives. Handbook of Personality: Theory and Research, 2(1999), 102-138.
Mora, M., Urdaneta, E., & Chaya, C. (2018). Emotional response to wine: Sensory properties, age and gender as drivers of consumers' preferences. Food Quality and Preference, 66, 19-28.
Nestrud, M. A., Meiselman, H. L., King, S. C., Lesher, L. L., & Cardello, A. V. (2016). Development of EsSense25, a shorter version of the EsSense profile®. Food Quality and Preference, 48, Part A, 107-117.

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Abstract: (Your abstract must use **Normal style** and must fit in this box. Your abstract should be no longer than 300 words. The box will 'expand' over 2 pages as you add text/diagrams into it.)

Preparation of Your Abstract

1. The title should be as brief as possible but long enough to indicate clearly the nature of the study. Capitalise the first letter of the first word ONLY (place names excluded). No full stop at the end.
2. Abstracts should state briefly and clearly the purpose, methods, results and conclusions of the work.

Introduction: Clearly state the purpose of the abstract
Methods: Describe your selection of observations or experimental subjects clearly
Results: Present your results in a logical sequence in text, tables and illustrations
Discussion: Emphasize new and important aspects of the study and conclusions that are drawn from them

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Emotional response studies deserve nowadays much research attention. However, few works have reported the influence of individual differences. The purpose of this research is to find out the relationship between personality traits and the emotional response of consumers.

Six wines were assessed in terms of hedonic and emotional response (modified EsSense25 (1)) by 175 consumers. Consumers were clustered into four consumers' segments according to their personality traits measured by Big Five Inventory method (2).

A strong effect of personality on emotional response elicited by the wine samples was found on 14 emotions. In addition, a significant effect of wine was found for six emotions. The main differences on personality were due to two consumers' segments: Group 4, with higher scores on dimensions of extraversion, agreeableness and consciousness and Group 1 being higher in the neuroticism dimension and lower on extraversion and agreeableness. In terms of emotional response both groups showed opposite behaviour: Positive emotions such as active, adventurous, enthusiastic, happy, joyful, loving, satisfied and warm received higher scores by Group 4 as compared to Group 1. The opposite happened with negative emotions such as bored, worried and disgusted, which were significantly higher in consumers Group 1, biased on the neuroticism dimension (Figure 1). No significant interactions (wine x personality) were found. However, as compared to a previous work (3) a better description of emotional response differences by wine was found. Splitting the consumers' panel by their personality profile provided more evidence on the differences among wine evoked emotions (Figure 2).

To conclude, personality traits have an additive effect on the emotional response. This effect should be taken into account in future studies in order to get a more realistic overview of the differences among products in terms of emotional response.

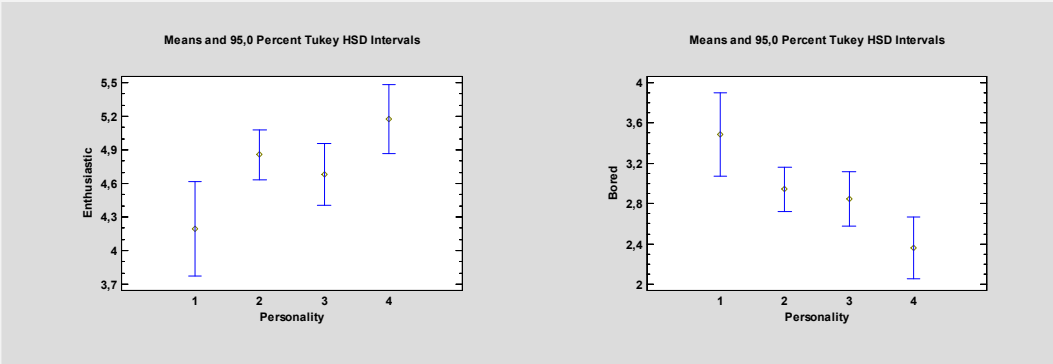

Figure 1. Effect of personality group on emotions "enthusiastic" and "bored"

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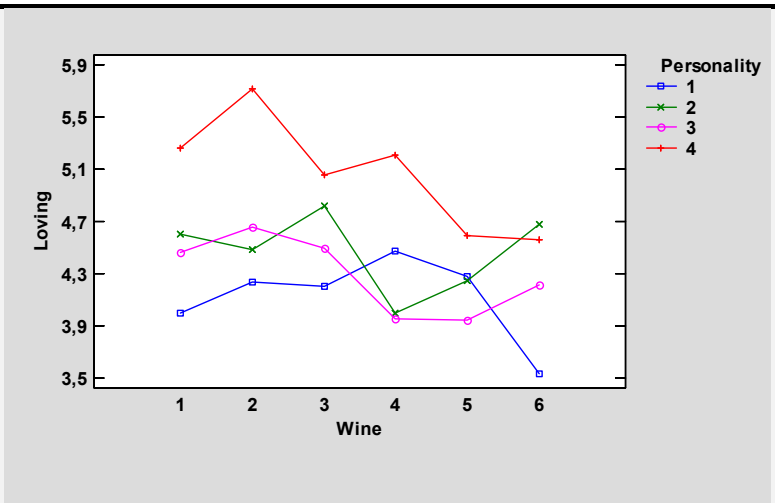

Figure 2. Effect of personality group on "loving" emotion evoked by the different wines

(1) Nestrud MA, Meiselman HL, King SC, Lesher LL, Cardello AV. Development of EsSense25, a shorter version of the EsSense Profile®. Food Quality and Preference 2016 3;48, Part A:107-117.

(2) John OP, Srivastava S. The Big Five trait taxonomy: History, measurement, and theoretical perspectives. Handbook of personality: Theory and research 1999;2:102-138.

(3) Mora M, Urdaneta E, Chaya C. Emotional response to wine: sensory properties, age and gender as drivers of consumers' preferences. Food Quality and Preference 2018;66:19-28.