The starting point of the methodology that we propose consists in coding the description given by every panelist into a cavas×words frequency table. The words associated to a cluster are considered as describing all the cavas included in it. Then, the nine frequency tables are juxtaposed row-wise into a multiple frequency table. This table is analyzed through multiple factor analysis for contingency tables (MFACT; Bécue-Bertaut and Pagès, 2004), now available in MFACT function of FactoMineR package (Lê et al., 2008).

The first dimension opposes the oldest cavas (2006, 2007) to the youngest (2008), while the second axis puts the oldest cavas and toasted with the youngest. However, acid is associated to very different cavas: half of the panelists use acid to refer to the youngest while the others use it to label the oldest ones. We can conclude that aging, toasted, fruit and floral have a consensual meaning among the panelists which is not the case for the word acid.

References

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A tool for detecting words with consensual meaning in labeled categorized napping
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Verbalization tasks are increasingly used in sensometrics in the recent years, mainly as a complement to holistic methods such as napping or categorization tasks. One of the main problems is that panelists can give different meanings to a same word, that is, associate it to different sensorial perceptions. In this work, we propose a tool to tackle this problem. As an issue, we deduce which words have (or not) the same (different) meaning for most of the panelists.

As an example, we use data collected during a hall test session in June 2011. 8 different cavas (catalan sparkling wine) were tasted by nine expert panelists who performed a labeled categorized napping. One of the main differences among these wines was barrel-aging: the production year varies from 2006 to 2008. In a first step (napping), the panelists had to place the cavas on a "tablecloth" (40cm x 60cm size), so that two cavas are always closer as they are perceived as similar (depending on the own criteria of each taster). Then, in a categorization step, the panelists are asked to make clusters of cavas directly on the tablecloth. In this case, they should make at least two and not more than seven clusters. Finally, they are invited to describe each cluster with some words.

The starting point of the methodology that we propose consists in coding the description given by every panelist into a cavas×words frequency table. The words associated to a cluster are considered as describing all the cavas included in it. Then, the nine frequency tables are juxtaposed row-wise into a multiple frequency table. This table is analyzed through multiple factor analysis for contingency tables (MFACT; Bécue-Bertaut and Pagès, 2004), now available in MFACT function of FactoMineR package (Lê et al., 2008).

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