

A COMPARISON OF TWO METHODS FOR GENERATING DESCRIPTIVE ATTRIBUTES WITH TRAINED ASSESSORS: CHECK-ALL-THAT-APPLY (CATA) VS. FREE CHOICE PROFILING (FCP)

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Accepted for Publication January 11, 2016

doi:10.1111/joss.12202

ABSTRACT

The quality and reliability of descriptive profiles are closely linked to an accurate selection of the attributes included therein. Descriptive profiles with trained assessors often face challenges stemming from consensual procedures and the risk of forgetting some relevant descriptors. To overcome these problems, the suitability of two nonconsensual methods performed by trained assessors, namely free choice profiling (FCP) and check-all-that-apply (CATA), are examined and compared when building a sensory profile for fish.

Eighteen trained panelists having similar training were randomly split into two groups of nine assessors each. One group evaluated different fish species using CATA and the other using FCP, with both groups adopting the same experimental design.

Although both methodologies generated an important number of sensory descriptors for the tested products, noticeable differences among methods were observed. CATA performed better than FCP in terms of the descriptive ability and slightly better regarding the discriminant capacity. Both methods provided similar product location in the multidimensional space. The RV coefficient was significantly different from zero for all the sensory modalities except for odor and texture. However, noticeable differences were observed in product description. The main limitations of the study were also discussed.

PRACTICAL APPLICATIONS

Sensory descriptive analysis is normally the first step in the characterization of a food product, thus providing valuable information for food companies when designing and/or improving a product. This study shows and compares the usefulness of two methods, namely CATA and FCP, to obtain descriptive profiles, thus avoiding some of the bias linked to consensual procedures. Both methods are suitable for product discrimination, although they provide different sensory characterization for the different samples. The use of trained assessors, both with CATA and FCP, might increase the quality of a descriptive profile by avoiding useless terms and, especially in the case of CATA, ensuring that the most relevant descriptors are included.