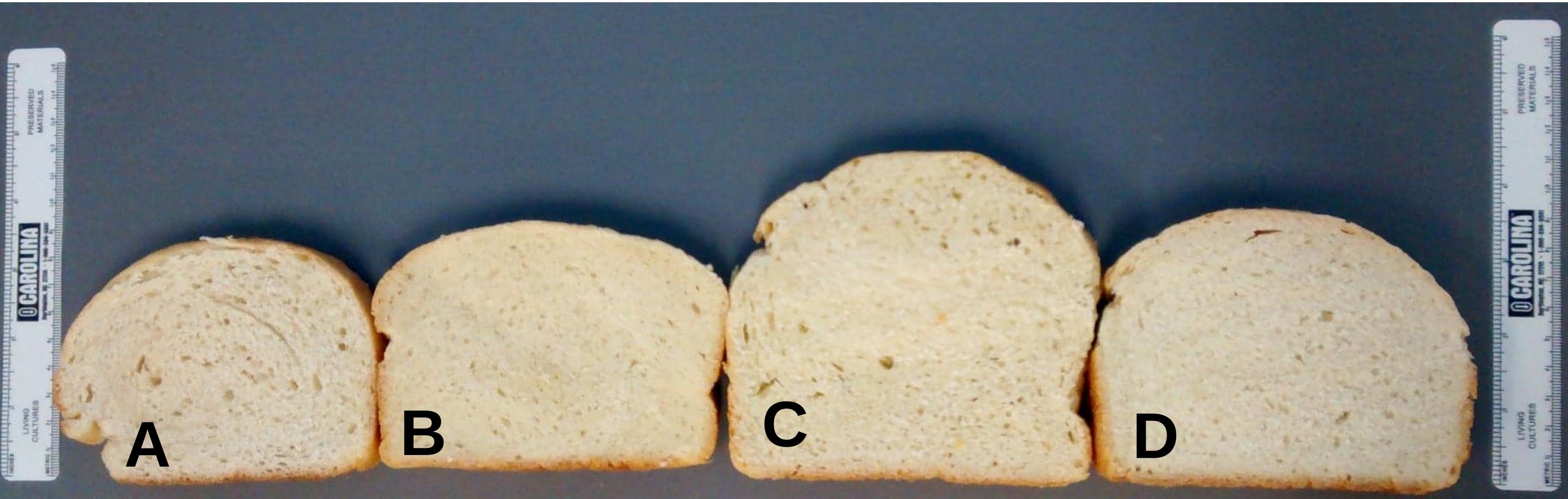


Making Better Bread: Effects of Yeast Strains on Bread Quality

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Abstract and Introduction

For thousands of years yeasts have been fermented in a variety of culinary delights. In bread, yeast forms pockets of gas and thereby the fluffy texture of bread that everyone loves, yet they also contribute to flavor. The goal of this research is to find if a certain yeast strain produces a “better” tasting bread than other strains.



Materials and Methods

Four yeast strains:

A store-bought yeast (*Saccharomyces cerevisiae*, strain EC1118), Lalvin D4 , used for wine making (also *Saccharomyces cerevisiae*, strain Y169), a strain found in a dead wasp (*Rhodotorda glutinous*, strain IFM55305), and Montrachet, also used in winemaking (*Saccharomyces cerevisiae* strain IFM 55305).

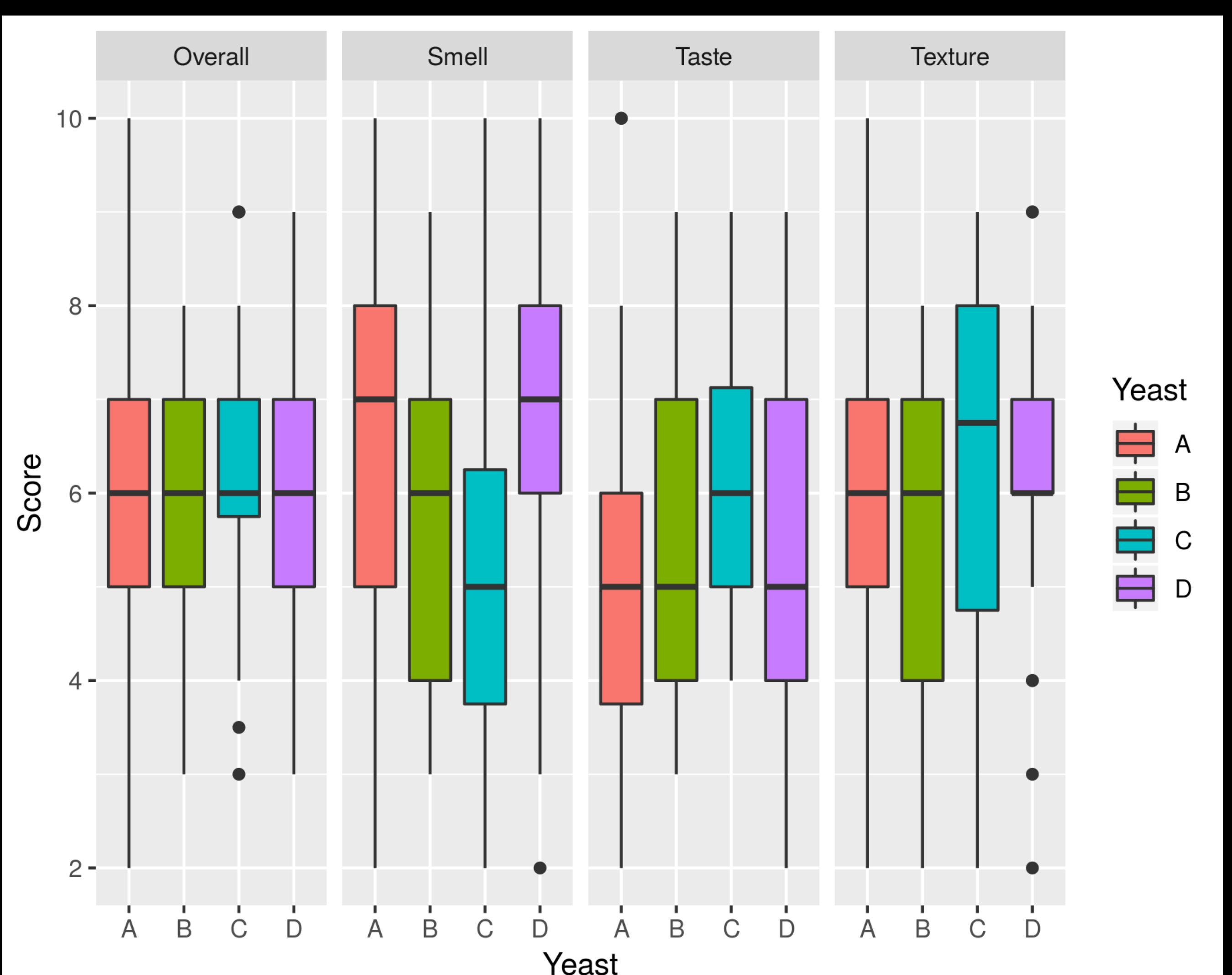
Baking:

We made dough, first mixing all dry ingredients needed for all loaves of bread, then divided the mixture evenly and added liquid ingredients (including yeast treatments) individually to 12 separate loaves. These were allowed to rise and baked under identical conditions.

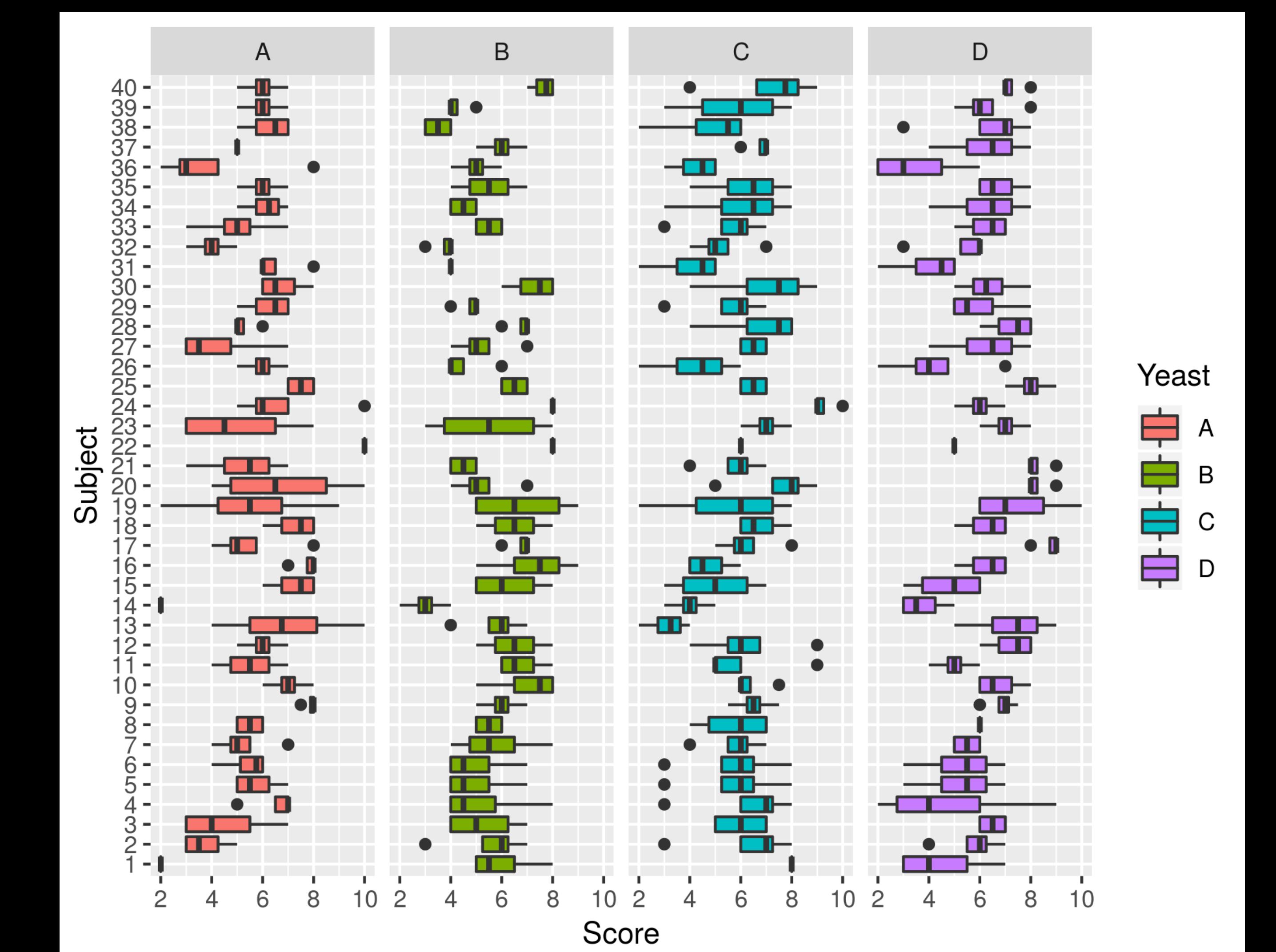
Testing:

Bread from each treatment was labeled A-D to prevent sampler bias, and 40 individuals were asked to rate a sample of each anonymous bread on a scale of 1-10 for four categories: Smell, Taste, Texture, and Overall.

Results



A is the store-bought, B is Lalvin D4, C is the dead wasp yeast, and D is the Montrachet.



Observation and discussion

Flavor appeared to be the most important factor of individual scores, with smell being the next important.

The yeast's role in texture was insignificant compared to smell and taste when determining the overall score of the bread.

Conclusion

It is difficult to determine if any bread could be considered “better” than another. But based on individual data, Bread the wasp yeast could be considered the most controversial. If they rated bread C similarly on all scores, their scores for the other bread varied greatly. Essentially the scores of breads A, B, and D was based on subject opinion of C.