EFFECT OF FAT AND OIL COATING ON DRY CAT FOOD AROMA PROPERTIES

Huizi Yu, Kadri Koppel, Sajid Alavi

Center for Sensory Analysis & Consumer Behavior

Kansas State University

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Center for Sensory Analysis and Consumer Behavior

Study objective

To understand the sensory aroma characteristics of dry cat food coated with fats and oils:







Four sources of main grain ingredients:

- Rice
- Corn
- Red sorghum (RS)
- White sorghum (WS)

Seven types of fats & oil:

- Chicken fat with antioxidants
- Chicken fat without antioxidants
- Sunflower oil
- Salmon oil
- Fish oil
- Butter
- Lard

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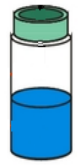
Study design

Part I:
Descriptive sensory analysis



Part II:
Instrumental analysis: GC/MS







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Fish & Salmon oil distinguished the samples in aroma profile

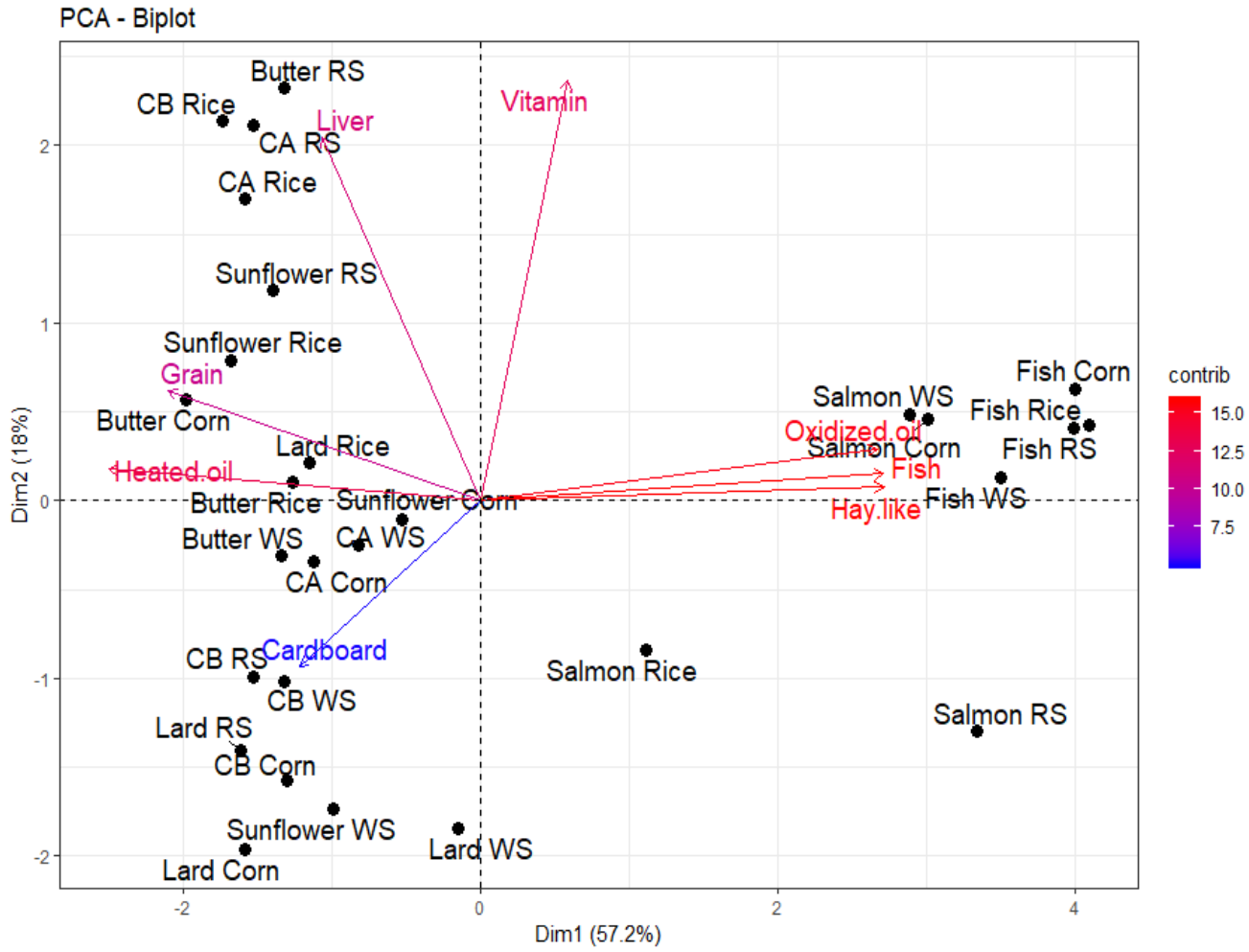

Fig. 1 PCA Biplot of variables and individuals

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Specific volatiles identified explaining the aroma properties

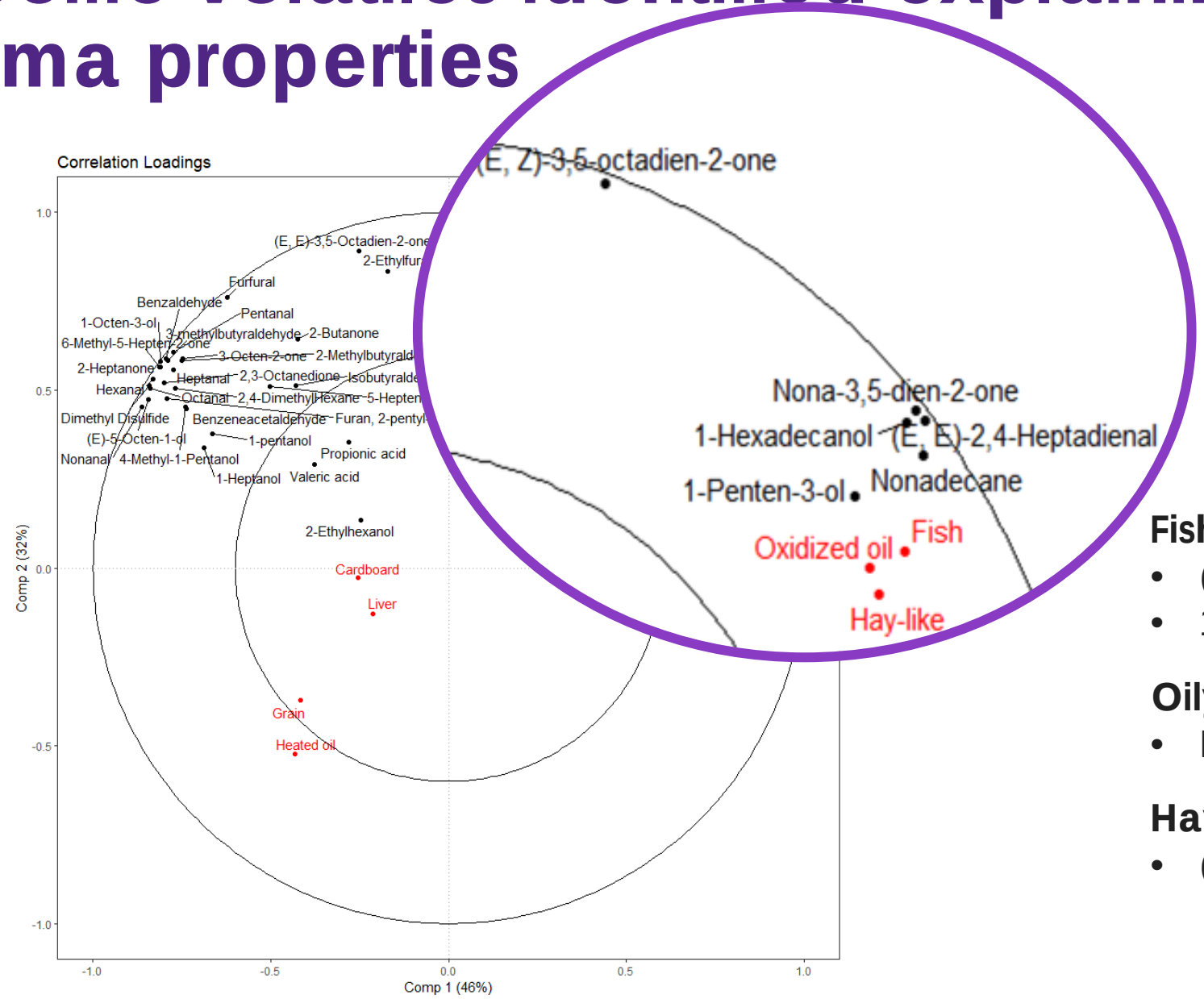

Fig. 2 PLS-R Correlation circle for instrumental & sensory

Fish:
- (E,E)-2,4-Heptadienal
- 1-Penten-3-ol

Oily:
- Nonadecane

Hay:
- (E,Z)-3,5-Octadien-2-one

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Thank you!

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