

A study to explore adherence to the EAT-Lancet planetary health diet in 27 European countries

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INTRODUCTION and AIM: Plant-based diets should be promoted because they are healthier and more environmentally sustainable. The EAT-Lancet planetary health diet (ELPD) introduced in 2019 (Willett et al., 2019), promotes such a dietary pattern. This study aimed to obtain a broad picture of the distribution of the adherence to the ELPD in Europe.

METHODS: The European dataset of the FEAST project was used (n=25803 observations, 50% females) involving 27 European countries representing five food regions (Southern, Central, Scandinavian, Eastern, Anglosaxon). The EAT-Lancet Consumption Frequency Index (ELFI) index was computed for each respondent (Miranda et al., 2025) and respondents were categorized into three groups based on adherence to the ELPD: low (L < 23), medium (23 ≤ M ≤ 25) and high (H > 25) ELFI. Variables collected included: frequency of consumption of different food categories (FFQ), facilitators and barriers to adopting ELPD, contextual elements affecting food choice, and perceived sustainability of the diet.

RESULTS

Southern regions showed the highest mean ELFI index (25.5±0.1) while Anglosaxon the lowest (23.3±0.1).

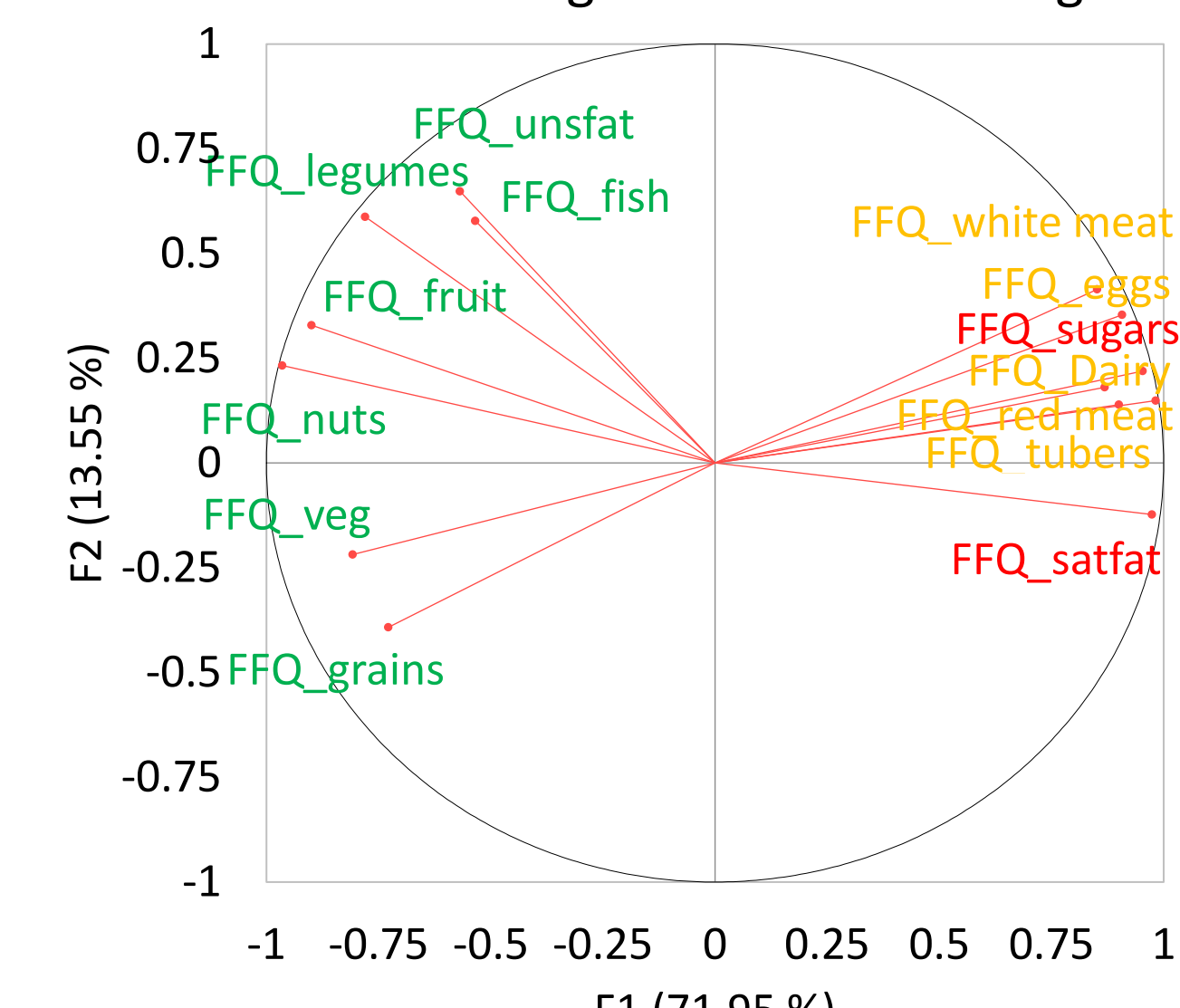


Fig. 1a NOTE: green = foods to encourage; yellow = foods to balance; red = foods to limit

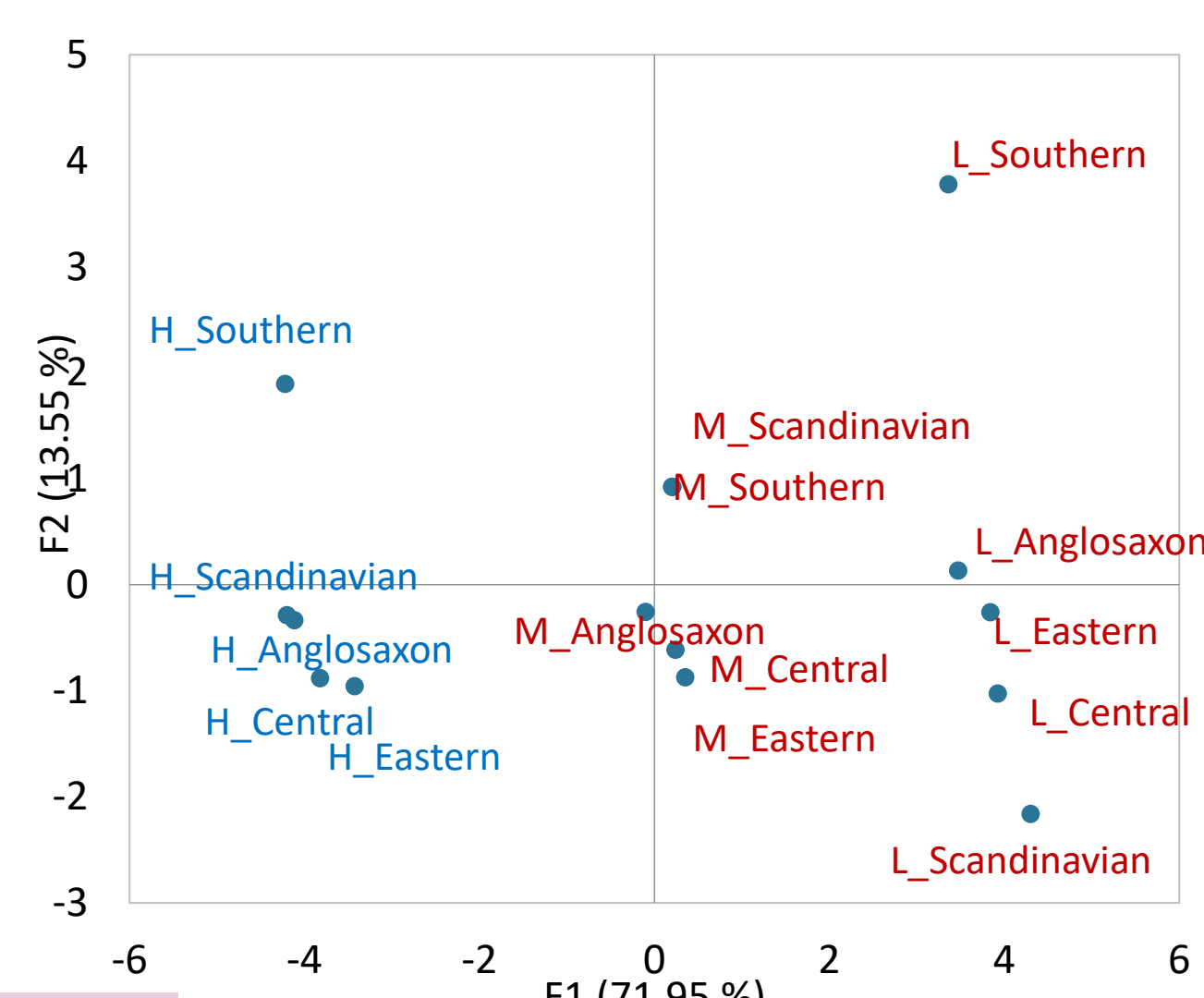


Fig. 1b NOTE: red = Cluster 1 from Fig. 1c; blue = Cluster 2 from Fig. 1c.

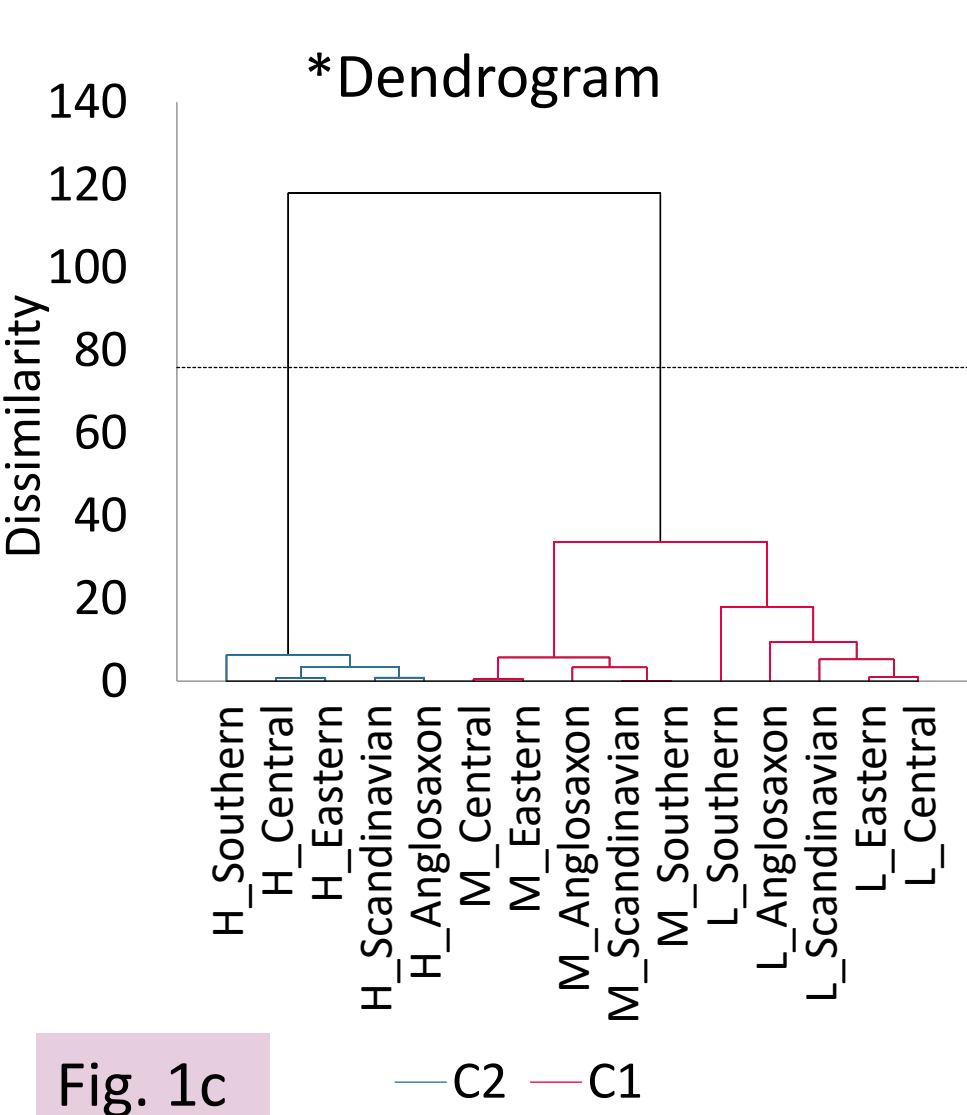


Fig. 1c

Diets (fig. 1)

- Overall, H had greater adherence to the ELPD. Conversely, L groups tended to consume more animal derived foods and fewer plant-based foods.
- Southern and Scandinavian regions generally exhibit higher intake of fruits, vegetables, and fish compared with Anglo-Saxon countries, where meat and dairy consumption were higher.
- L_Scandinavians consumed significantly lower amounts of legumes and unsaturated fats while L_Southerns had the highest sugar consumption.

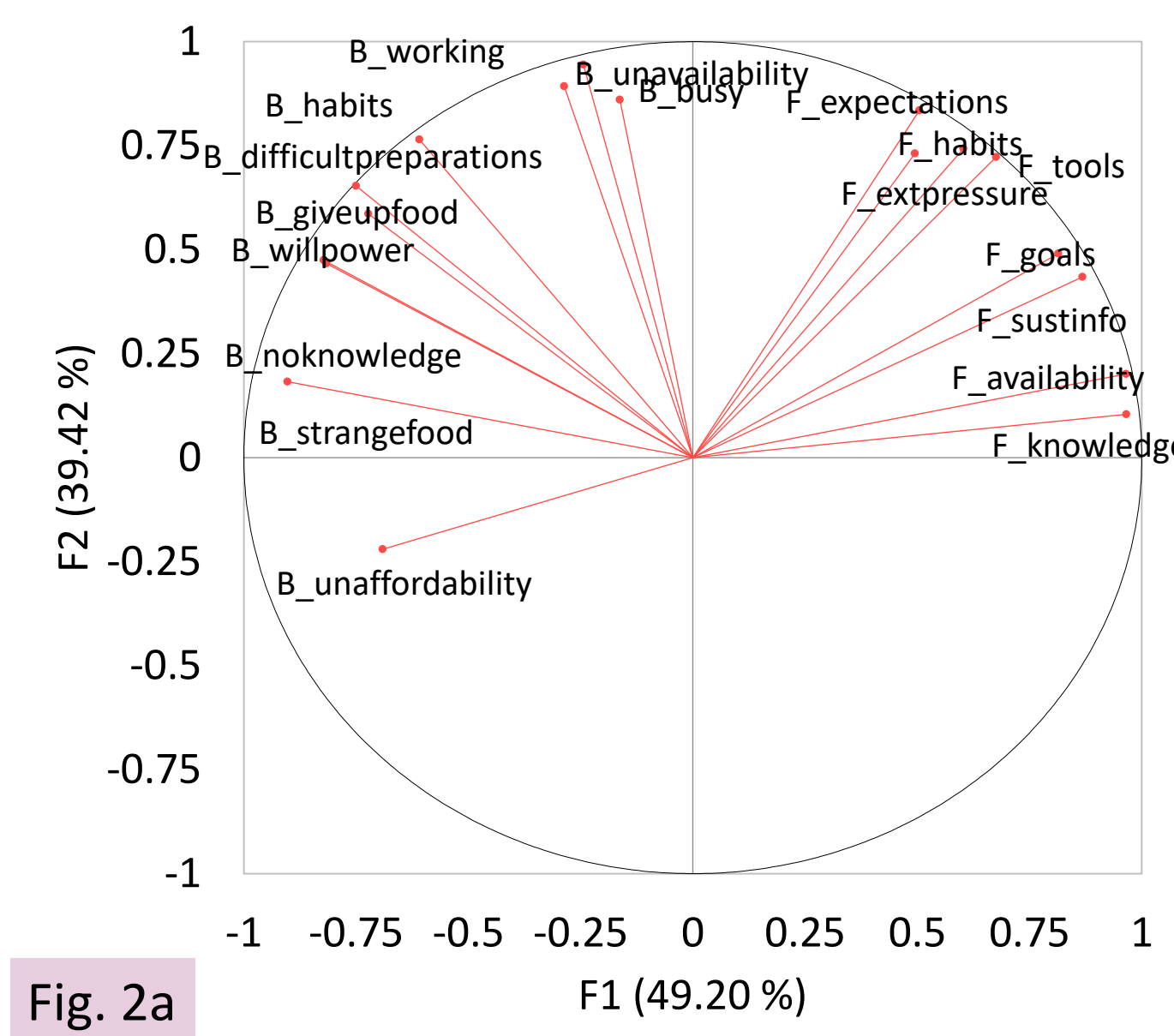


Fig. 2a B = barriers, F = facilitators

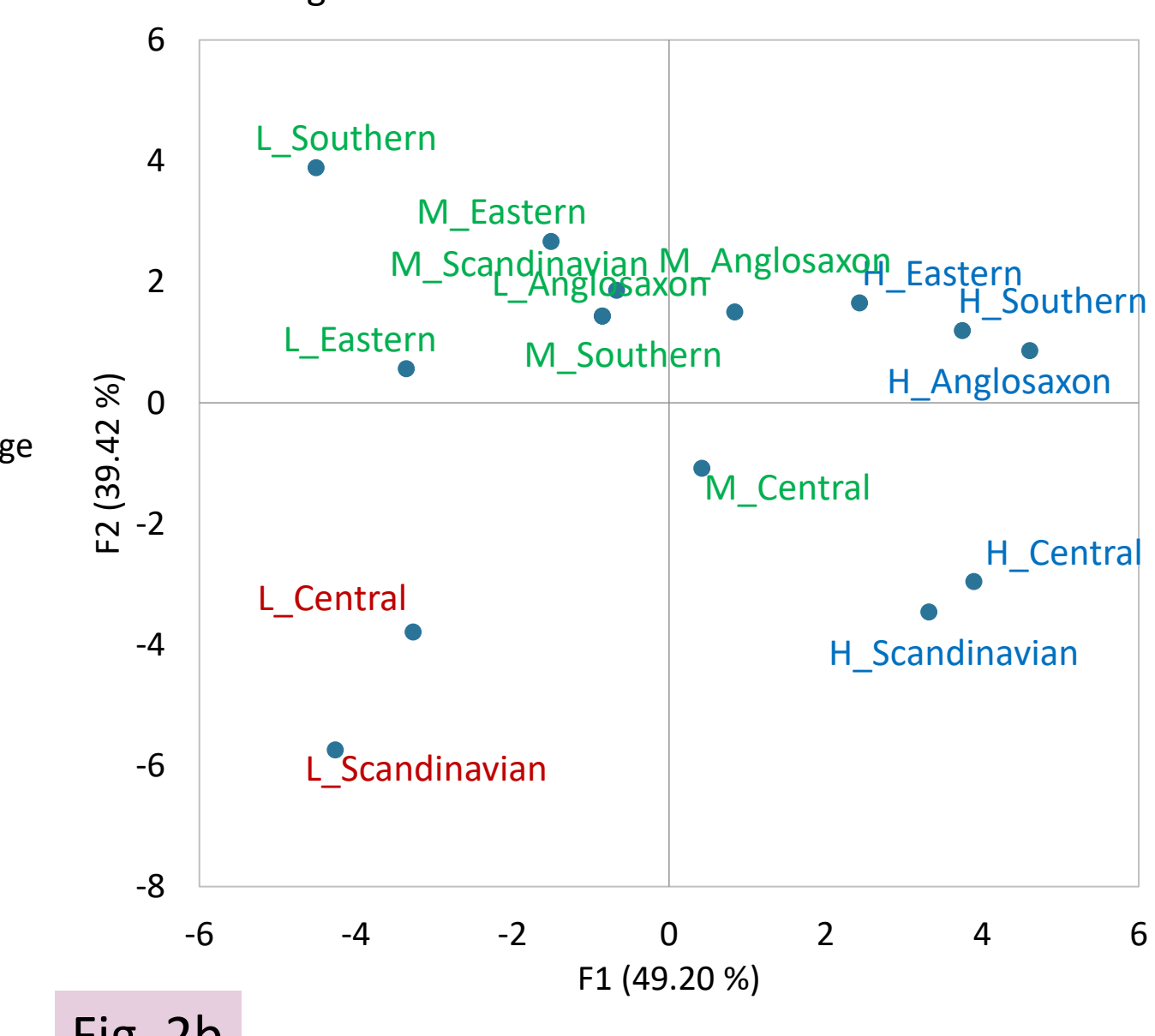


Fig. 2b NOTE: red = Cluster 3, blue = Cluster 2, green = Cluster 1 from Fig. 2c.

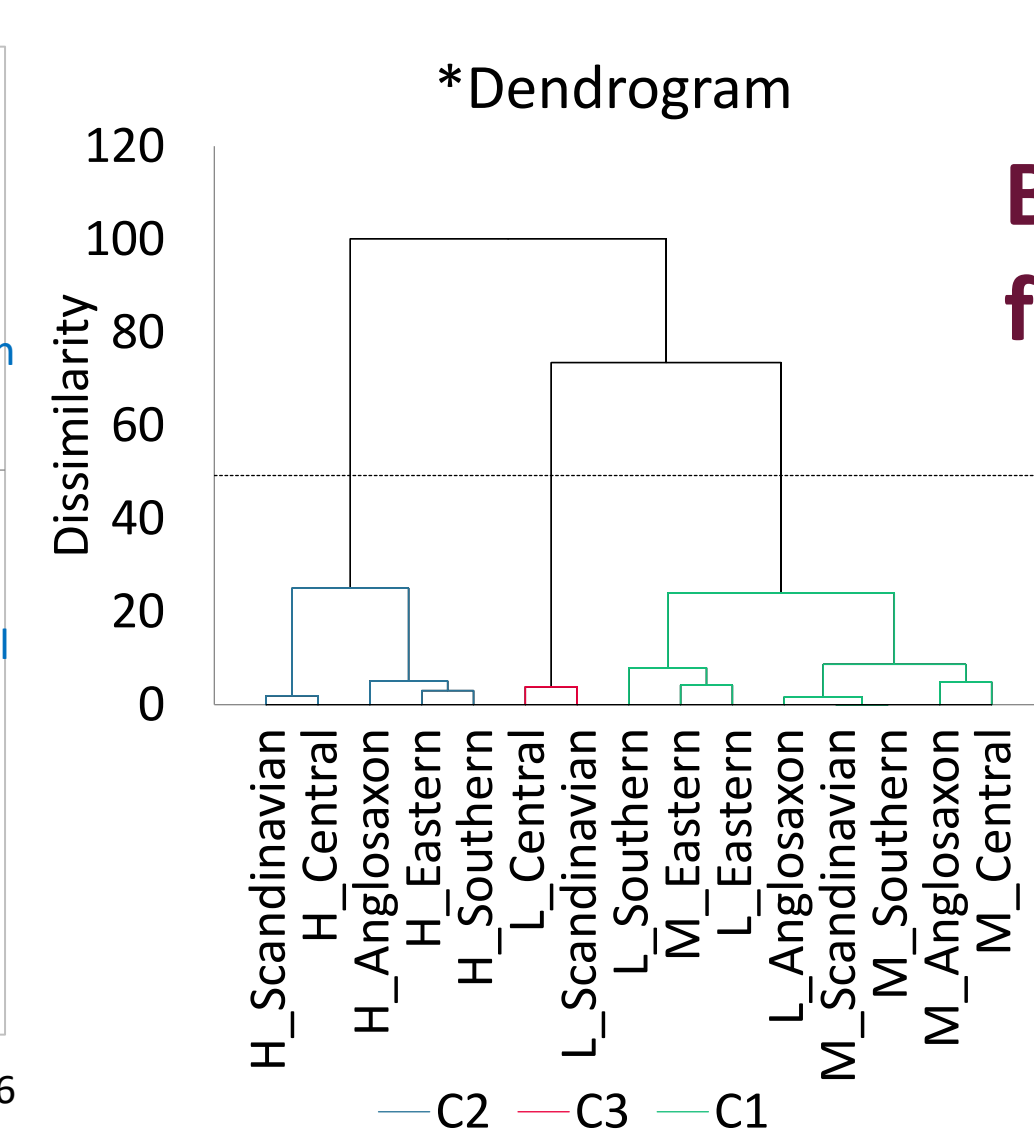


Fig. 2c

Barriers and facilitators (fig. 2)

- Low ELFI across Europe experience higher barriers towards HSDs.
- L_Central and L_Scandinavian are more sensitive to unfamiliar food and unaffordability.

NOTE TO FIGURES: Plots from Principal Component Analyses done respectively on FFQ (fig. 1) and barriers and motivations (fig. 2). L- low, M- medium, H= high ELFI index

CONCLUSIONS

- The Southern food region has a higher density of HSDs.
- Specific dietary patterns, barriers and facilitators were highlighted across food regions for different ELFI groups.
- The development of specific policies and field interventions based on dietary profiles in different European regions is recommended.

REFERENCES

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