

Drivers of Sustainable Food Choices in Adolescents: The Role of Eco-Anxiety, Knowledge, and Sensory Perception

AUTHORS

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INTRODUCTION

Eco-anxiety is increasingly recognized as a significant emotional response to the environmental crisis, particularly among young people. This response can influence pro-environmental behaviors and dietary choices [1,2].

AIM

This study examined whether eco-anxiety predicts sustainable behaviors and identified key psychological and behavioral factors influencing food choices among high school students.

KEY CHALLENGES FACED BY ADOLESCENTS

Social and Cultural Influences



Future Uncertainty and Pressure



Eating Habits



AI generated images (Ideogram)

METHODOLOGY

Italian adolescents (n=81, 67.9% female, mean age: 17.5 years)

The experimental plan was divided into two phases:



Questionnaires assessing:

- Eco-anxiety
- Pro-environmental behavior
- Food neophobia
- Connectedness to nature
- Sustainability knowledge
- Food frequency consumption
- Dietary habits



Sensory test to assess students' food preferences on four plant-based and four animal-based spreadable cheeses were conducted analyzing:

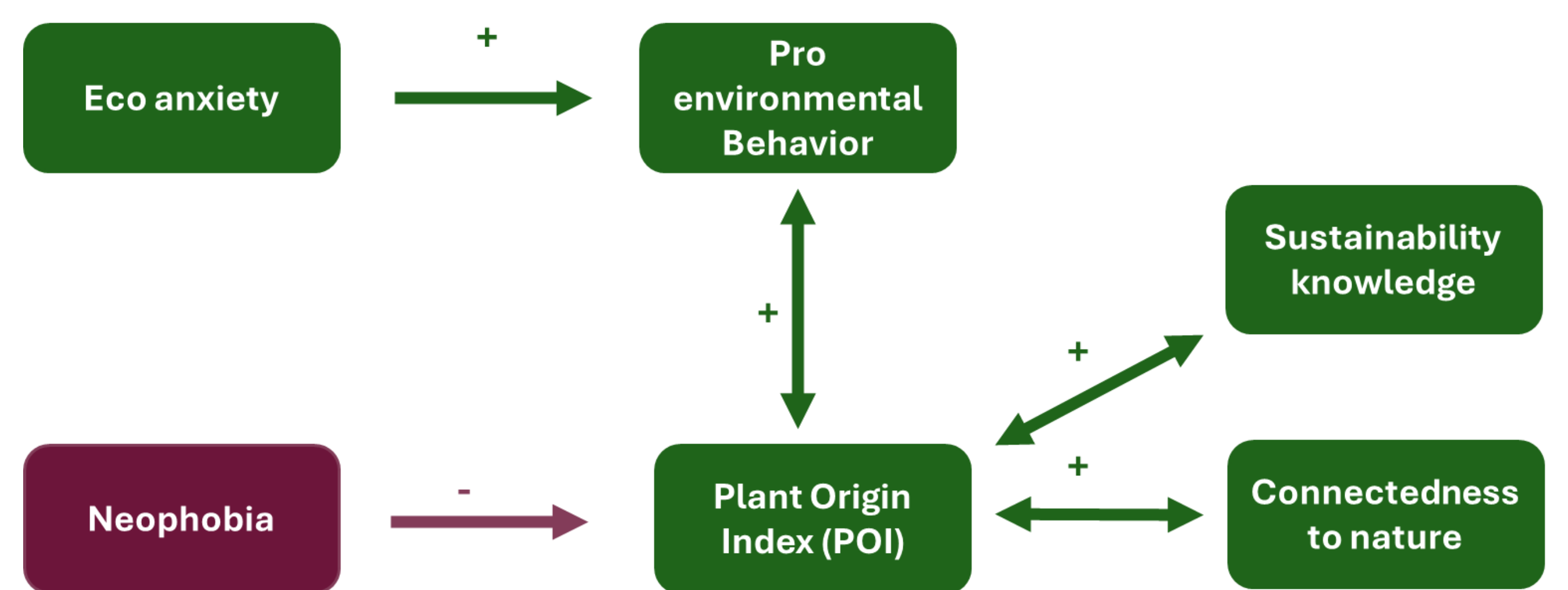
- Overall Liking and liking for all the sensory modalities
- Check-All-That-Apply test (25 sensory attributes and 25 emotions)
- Willingness to eat again, buy and consume regularly

RESULTS

Results showed that **higher eco-anxiety levels were associated with increased pro-environmental behavior** but did not significantly predict dietary patterns.

Two dietary indices were identified based on consumption frequency of plant-origin products (**Plant-Origin Index, POI**) and animal-origin products (**Animal-Origin Index, AOI**).

POI was significantly and positively associated with pro-environmental behavior, sustainability knowledge, and connectedness to nature, while food neophobia negatively impacted the POI.



Sensory analyses revealed that **animal-based cheeses were rated higher in overall liking and texture, while plant-based products exhibited different sensory profiles** (Fig.1).

Emotional responses differed, with **plant-based products eliciting more neutral or negative emotions** (Fig. 2).

When considering aggregate categories, **females showed greater willingness to consume regularly animal-based cheeses; no significant gender differences emerged for plant-based products.**

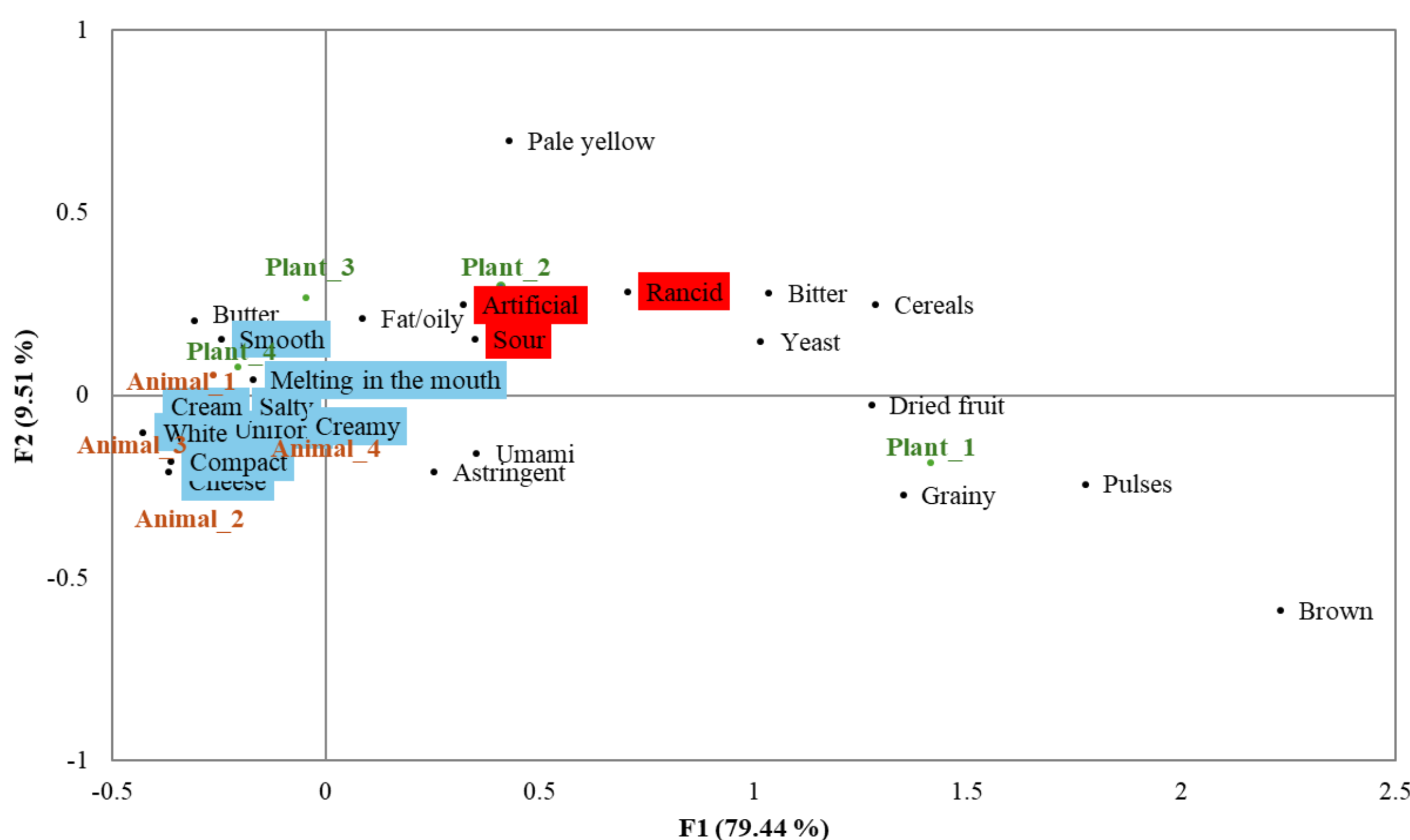


Figure 1. Correspondence analysis ordination diagram showing the associations among the significant sensory attributes and eight samples.

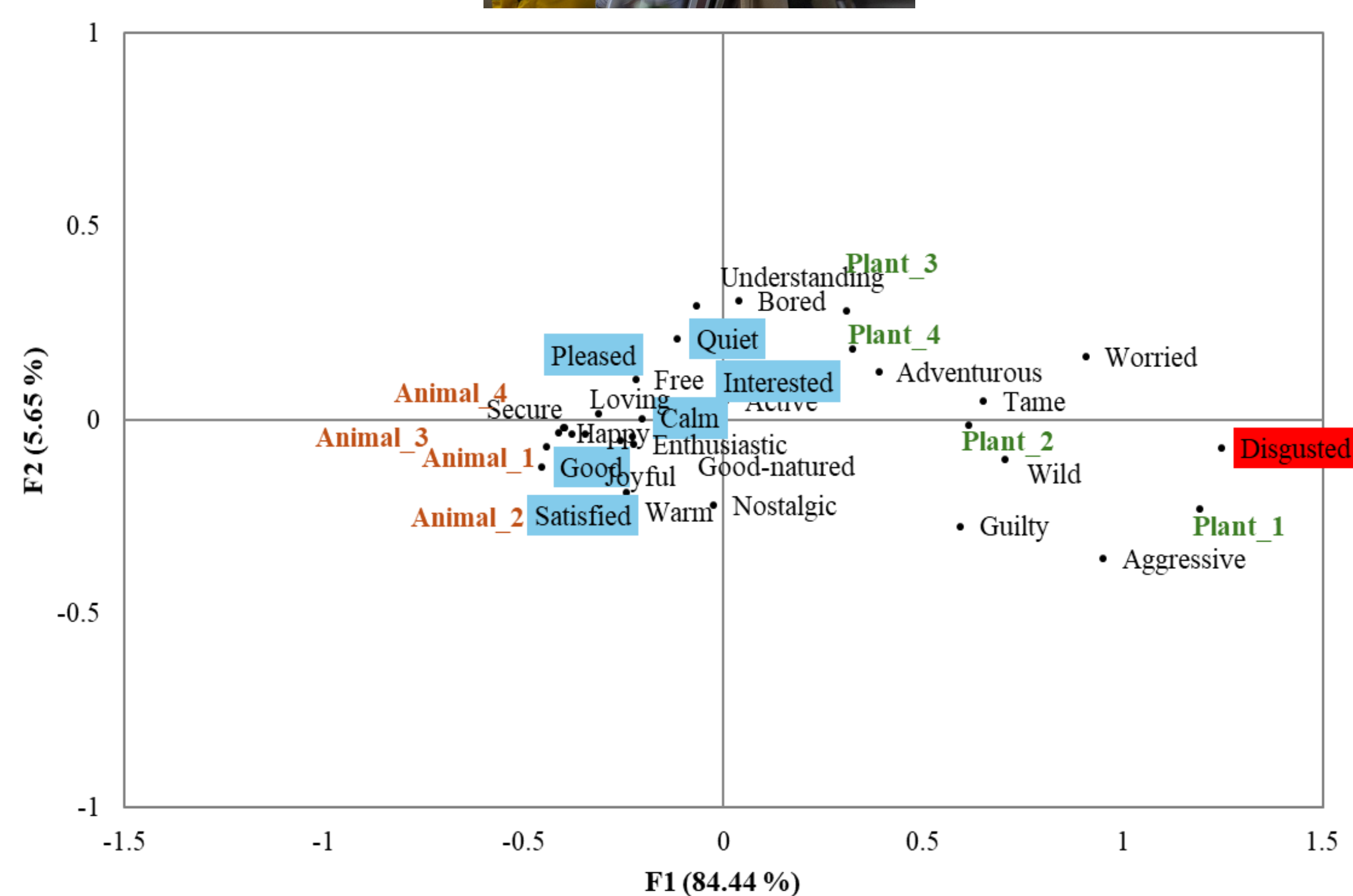


Figure 2. Correspondence analysis ordination diagram showing the associations among the emotions and eight samples.



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Conclusion

These findings highlight the interplay between psychological traits and sensory perceptions in shaping adolescent food choices. Raising awareness of sustainability issues could promote more informed and healthy dietary behaviors among young people.

References

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