



DEVELOPMENT OF AN EMOJI POLARITY SCALE FOR FOOD-EVOKED EMOTIONS EVALUATION

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INTRODUCTION

Emojis have been introduced in consumer science, revealing a huge potential to measure consumers’ emotional associations with food products. However, one of the biggest challenges when evaluating food-evoked emotions is how to measure them in an expedite way, while having a sense of the intensity of the response, when working with both children and adult consumers. For this purpose, this work aimed the development of two ballots with sets of emoji scales based on a differential semantic approach, using pairs of emojis with opposing polarity.

METHODOLOGY & RESULTS

DEVELOPMENT

1st
EMOJI PAIRING

- Free pairing of **antagonistic** pairs of emojis;
- Identify, for each built pair, the emoji with the positive connotation.

2nd
DATA ANALYSIS

- Calculation of co-occurrence values;
- Calculation of Euclidean distances between emojis (based on **valence** and **arousal** values^[1]).

All work stages were done with two panels of participants (100 children: 6-17 years; 100 adults: 18-40 years).

- Correlation between emojis as a function of co-occurrence values and distance between emojis. The correlations between pairs were validated with **cluster analysis**.

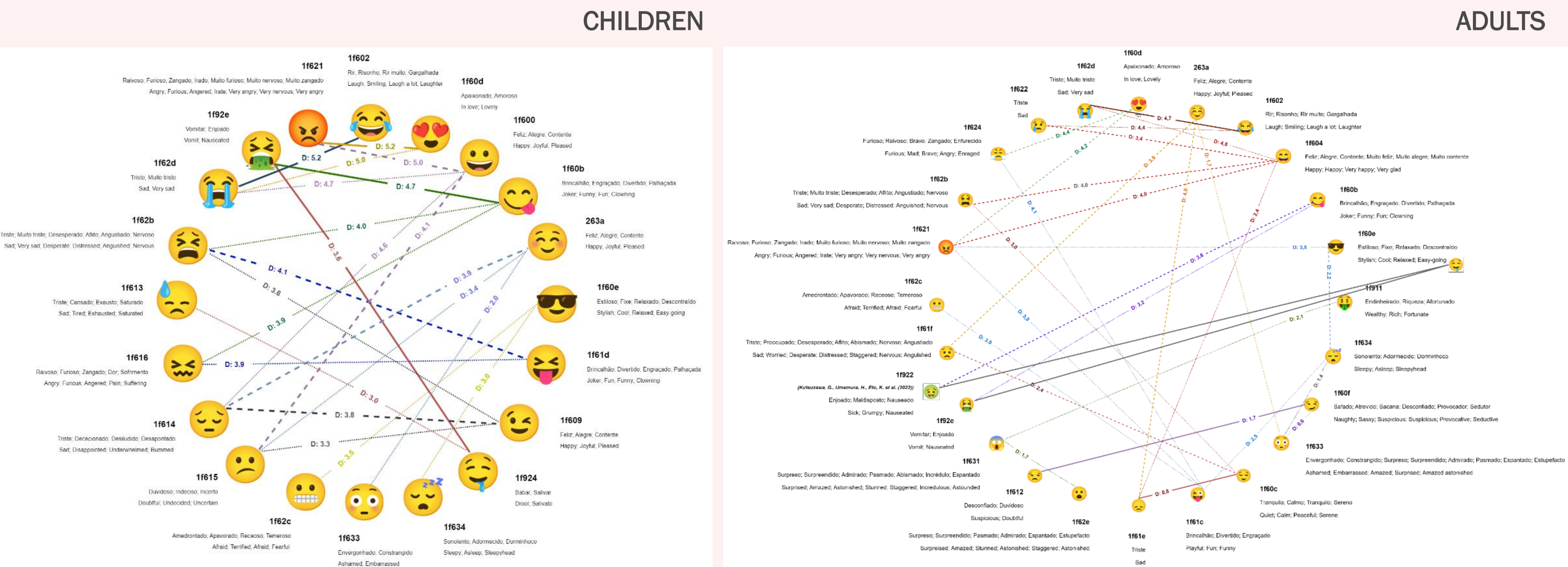
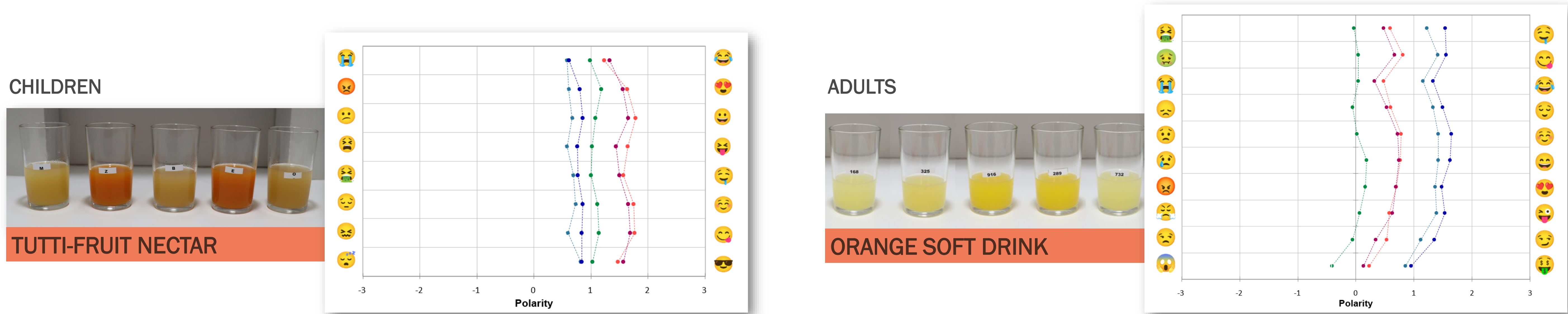


Figure 1: Correlation diagrams between emojis for children and adults, respectively.

VALIDATION

The **developed scales** were applied in sensory tests with children and adults, along with the evaluation of **overall liking**, in order to compare the discriminative capacity.



In the evaluation carried out by children, **there were significant differences** in the evaluation of the samples, regardless of the scale used.

Overall Liking 7 point-smiley face scale				
P ₁	P ₂	P ₃	M ₁	M ₂
4.6 ± 1.8 ^c	4.8 ± 1.7 ^c	5.3 ± 1.4 ^b	5.7 ± 1.4 ^a	5.8 ± 1.2 ^a

Figure 2: Emotional polarity and overall liking results by children.
P: Private label brand and M: Manufacturer brand

In the evaluation carried out by adults, **there were significant differences** in the evaluation of the samples, regardless of the scale used.

Overall Liking 9 point-hedonic scale				
P ₁	M ₁	M ₂	P ₂	M ₂
5.6 ± 2.1 ^c	6.6 ± 1.8 ^b	6.7 ± 1.6 ^b	7.3 ± 1.6 ^a	7.6 ± 1.4 ^a

Figure 3: Emotional polarity and overall liking results by adults.
P: Private label brand and M: Manufacturer brand

CONCLUSION

Both ballots yield a good degree of discrimination, as shown in the results above, with the samples with higher overall liking scores being more associated with the higher polarity emoji. Future studies will focus on application of these tools on different food categories and on comparing these results with scales presenting the semantic concept associated with each figure.



REFERENCES

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ACKNOWLEDGEMENTS

B. Barbosa acknowledges Non-Academic Doctoral grant No. 2023.03467.BDANA, funded by the Foundation for Science and Technology (FCT) and supported by Sense Test, Lda. Authors thank the project "cLabel+: Alimentos inovadores "clean label" naturais, nutritivos e orientados para o consumidor" (POCI-01-0247-FEDER-046080), funded by COMPETE2020, Portugal2020, Lisboa2020 e FEDER. Authors B. Barbosa, C. Rocha and L. M. Cunha are thankful to GreenUPorto's Strategic Projects funded by national funds via FCT through the Strategic Projects UIDB/05748/2020 and UIDP/05748/2020, DOI <https://doi.org/10.54499/UIDP/05748/2020> and <https://doi.org/10.54499/UIDB/05748/2020>.

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