

Introduction

- In our previous works we found systematic lighting effects on perceived material qualities using a canonical modes approach.
- In still life painting conventions and perception it is noted that strong highlights will render fruits and vegetables more “appetizing” (Beurs, 1692).
- In the current study, we wanted to test whether more directed light will make fresh produces look more “appetizing”.
- We selected ten attributes from previous work (Schifferstein et al., 2017) and asked observers to rate, namely “appetizing”, “healthy”, “fresh”, “natural”, “beautiful”, “tasty”, “attractive”, “soft”, “smooth”, “glossy”.
- We expected the lighting effects to be stronger for glossier objects (more peaked BRDFs) than for the more matte objects.



diffused lighting setup

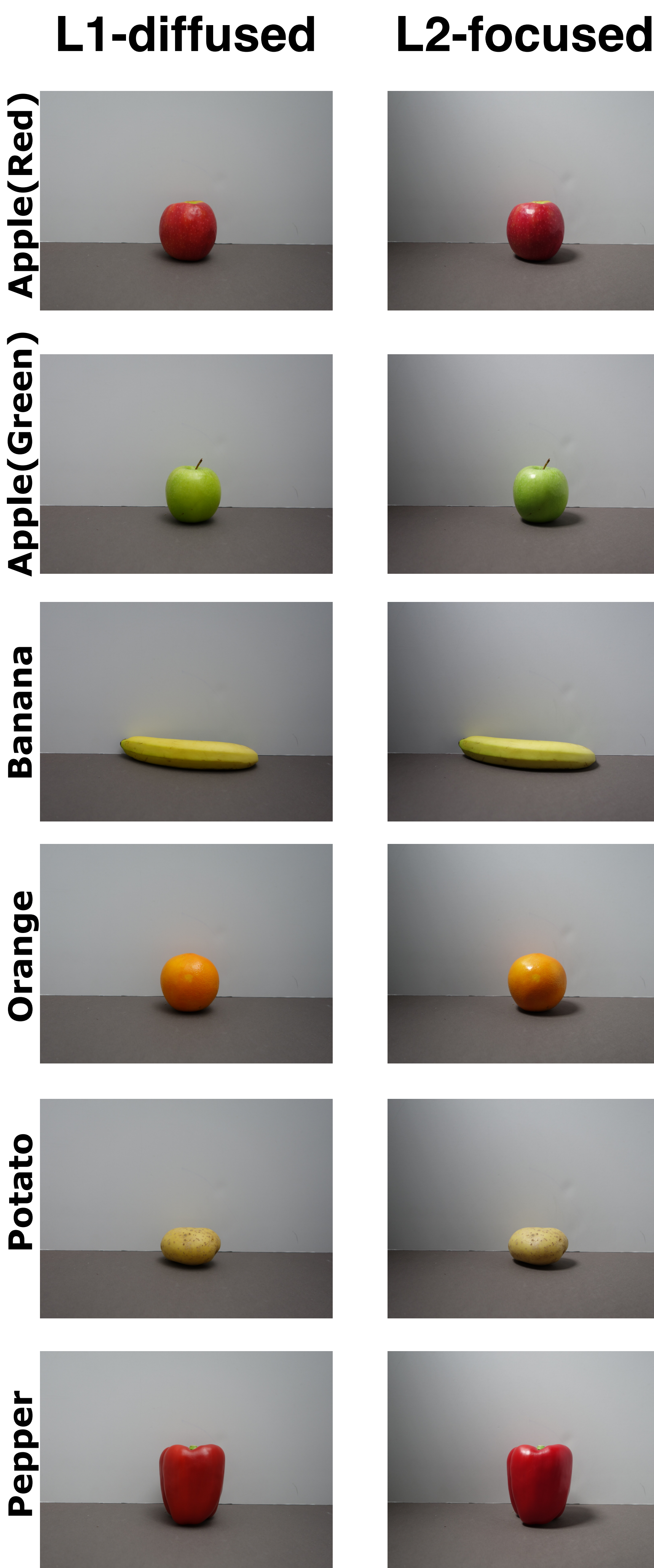


focused lighting setup

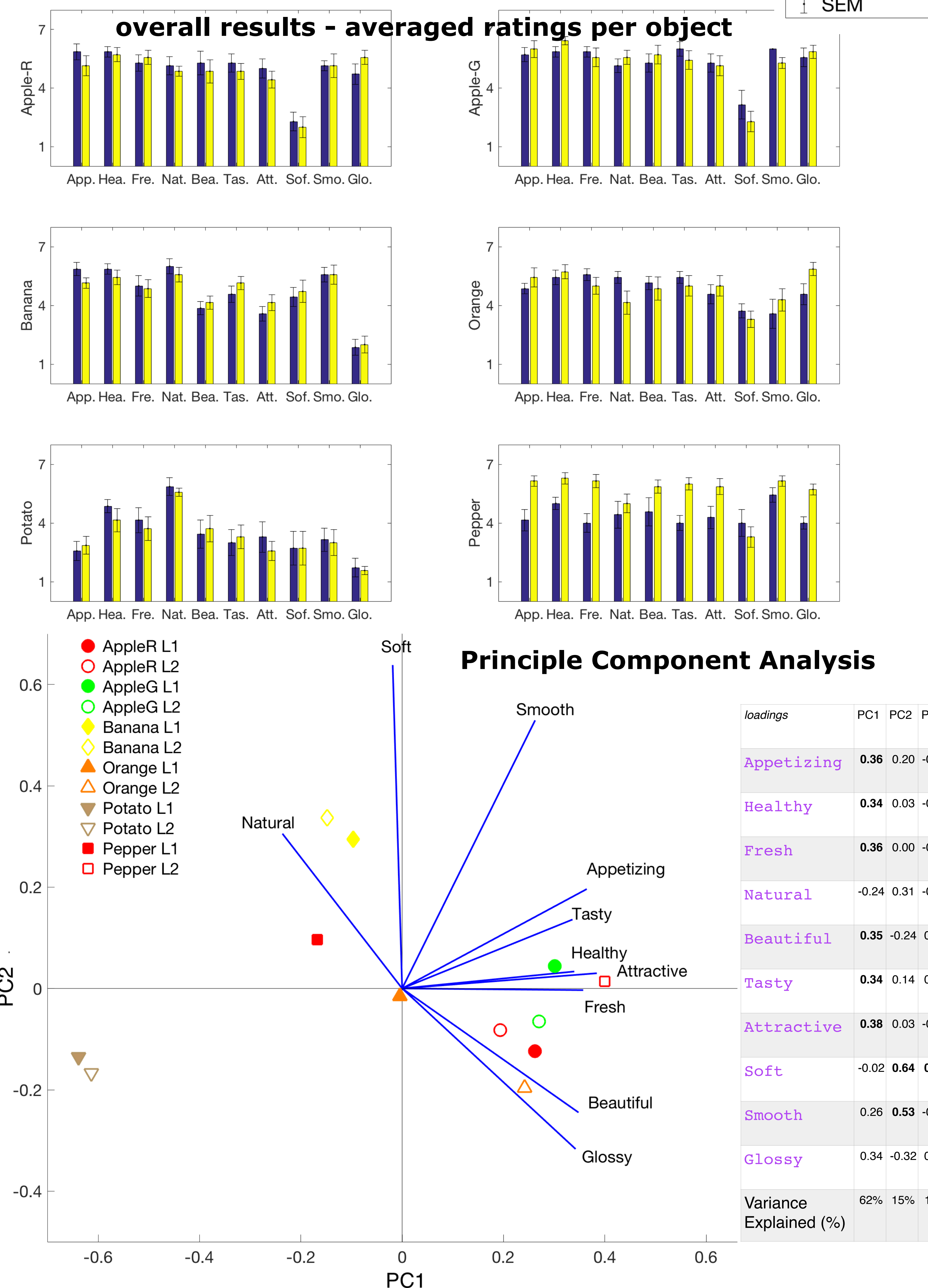
Method

- Two lighting setups were calibrated such that the illuminance on the object was about 550 lux, for both the diffused and focused light (color temperature 6300K).
- Six vegetables and fruits were selected as the test objects, including a potato, a banana, a red apple, a green apple, an orange, and a red pepper, varying from matte to glossy.
- Seven observers participated in a rating experiment and rated the ten attributes on a scale of 1-7.
- The objects were placed in a box on a neutral grey floor with white walls.

Stimuli



Results



Acknowledgements

DyViTo (Dynamics in Vision and Touch - the looks and feel of stuff) has received funding from the EU's Horizon 2020 research and innovation programme under grant agreement No. 765121

Reference

- [1] Beurs W. (1962), De groote wereld in 't klein geschildert, Amsterdam: Johannes and Gillis Janssonius van Waesberge.
[2] Schifferstein, R., Howell, B. F., & Pont, S. (2017). Colored backgrounds affect the attractiveness of fresh produce, but not it's perceived color. Food Quality and Preference, 56, 173-180.

Conclusion

- 1) Only the separate data for the pepper were confirming the hypothesis that focused light makes perceived “appetizing”.
- 2) For pepper the ratings were higher for focused than for diffused lighting, except for natural, beautiful, attractive, and soft.