

# Review of: "The Influence of Perceived Spiciness on Actual Taste Experience: An Experimental Study"

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**Potential competing interests:** No potential competing interests to declare.

Interesting paper, focusing on investigating the correlation between the informed (objective) and the perceived (subjective) spiciness of food samples and the role of personal expectations on the sensory perception.

I'd have few comments to the study and to the manuscript:

- would be good to show socio-demographic data of the participants pool. Also please explain how the sample size of 10 was selected and is it sufficient to draw conclusions on the strength of the effect?
- were the participants asked about their personal experience, habituation to and preferences about spiciness of food and if yes, was there any correlation between the habits of consuming spicy food and the reported perceived spiciness
- formally - was there any ethic approval or informed consent from the participants? Must be mentioned in such type of research publications.
- could you please visualize in a separate figure the test protocol for each participant. How were the food samples provided to the participant, was there an intermediate step of recovery between two samples, was there any consumption of water or mouth wash with water between the samples? How many samples were the participants asked to eat? What was the duration of the test? Were repetitions conducted for statistical evaluation of each person response?
- what food samples selected to be were given to the participants - was this food which was expected to be spicy by e.g. its visual or olfactory appearance, or were these shape, smell, color neutral samples?
- how was habituation to spicy samples prevented for each participant - e.g. if a participant started by random with a food sample of high spiciness, their perception to the spiciness of the following sample could have been affected by saturation of the perception? Please explain in the results section.
- Referring to the formulas for calculating average, min & max change in perceived vs. objective spiciness - how was the perceived spiciness mathematically converted to be comparable to a capsaicin concentration in the food sample?

I'd recommend major revisions of the manuscript before publishing.