

Sound Within the Bite: What Do We Hear When Judging Crispness?

Sensory Science and Judging Ethics — Ahmad Issam Maadarani's Series

Official article information

Article author Ahmad Issam Maadarani	Article number 8350	 Scan to verify the article
Article code —	Protection number —	
Reference —		

By Ahmad Issam Maadarani

Ahmad Issam Maadarani examines crispness as an experience involving fracture, sound and oral sensation. He separates product sound, background noise and test instructions, proposing comparisons that investigate listening conditions without reducing texture quality to loudness.

Evidence map

Published evidence: [SOUND04]

Author proposal: Record listening conditions and fracture action.

1. Observation and interpretation

Calling an element crisp may reflect resistance followed by fracture, accompanying sound, or their combination. The short descriptor does not reveal each cue's contribution. Retain two accounts: what happened during biting and what was heard. This analytical separation does not claim that people spontaneously separate their senses. It clarifies the experimental question and identifies the observations used to justify a judging score.

2. Published experiment, proposed application

In a potato-chip experiment, manipulated auditory feedback changed perceived crispness and freshness. The result concerns the tested samples and setup, not a universal loudness-based quality rule. [\[SOUND04\]](#) The author's application asks how a panel should document listening conditions to avoid attributing environmental differences to food. The proposed procedure requires testing; the published experiment does not validate it.

3. Three sound sources

Distinguish sounds arising from the eater's interaction with food, serving utensils and the surrounding environment. Record noticeable noise and interruptions. In a hypothetical example, an unchanged crisp could seem less crisp in a noisy room. This does not establish causation. It motivates a comparison that also considers product changes and biting strategy as competing explanations.

4. A limited training comparison

Serve samples from one batch under a quiet listening condition and another predefined condition. Balance order and standardize piece size and serving delay. Record fracture action, sound, crispness and liking separately. Isolating an auditory effect requires a setup controlling feedback without changing jaw movement. A simple comparison between rooms tests their combined conditions rather than one isolated mechanism.

5. Quality beyond loudness

Declare the intended role: brief contrast, light fracture or crispness maintained with sauce. Loud sound may accompany either laborious or appropriate eating; assess suitability

against the task. When sound agrees but ease of fracture differs, preserve both findings. Sound alone cannot establish moisture content or product age. Those compositional or historical claims require measurement or production records.

6. Record and next step

Retain sample code, size, age, temperature, listening condition, fracture description, sound description and crispness suitability. Repeat independent batches and show individual responses alongside averages. The proposed training succeeds if descriptive consistency improves while genuine distinctions remain visible. This article extends sensory mapping to hearing, keeping mechanism and product-quality claims within their testable boundaries.

Application worksheet

Field	What to retain
Environment	Listening condition and incidents
Product	Size, age and temperature
Assessment	Fracture, sound, crispness and liking

The author's analysis and proposals; examples are hypothetical and proposed procedures have not been tested here. No new experimental data are presented. Research-attributed claims remain within their source scope.

Related articles

- [44 — Article 44](#)

References and source scope

1. **[SOUND04]**Zampini, M., & Spence, C. (2004). The role of auditory cues in modulating the perceived crispness and staleness of potato chips. *Journal of Sensory Studies*, 19, 347–363. DOI: 10.1111/j.1745-459x.2004.080403.x.<https://onlinelibrary.wiley.com/doi/10.1111/j.1745-459x.2004.080403.x>

A specified potato-chip experiment.

Publication metadata and available abstracts were used; complete original texts were not fully reviewed for this edition.

Suggested citation: Maadarani, Ahmad Issam (2026). "Sound Within the Bite: What Do We Hear When Judging Crispness?". *Sensory Science and Judging Ethics*, article 59, version 1.0, 4 October 2026.

© 2026 Ahmad Issam Maadarani.



IUOAMC
International Union Of
Arab Master Chefs