

Fat in the Mouth: Separating Chemical Sensing, Texture and Lubrication

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

Official article information

Article author Ahmad Issam Maadarani	Article number 8348	 Scan to verify the article
Article code —	Protection number —	
Reference —		

By **Ahmad Issam Maadarani**

Ahmad Issam Maadarani unpacks “rich” into chemical sensation, resistance to movement, lubrication and lingering mouth coating. He proposes a more precise descriptive record and food comparisons that separate selected variables without declaring every fatty sensation an independent basic taste.

Evidence map

Published evidence: [FAT12]

Author proposal: Separate resistance, sliding and residual coating.

1. One word, several meanings

“Rich” may describe viscosity, easy sliding, residual coating, a familiar aroma or personal enjoyment. Combining these meanings makes formulation advice ambiguous. Record the sensation during movement and afterwards before adding a possible cause in another field. “Slides easily” is more reviewable than directly attributing the experience to oil quantity, especially when composition and structure have changed together. A descriptive vocabulary should identify the experience that a formulation change is intended to address.

2. Chemical evidence and limits

A human study in subjects with obesity associated CD36 variation with oral fat sensitivity and examined lingual lipase. Its population and experimental conditions were specific; it does not establish every fatty sensation as a universally accepted sixth taste. [\[FAT12\]](#) It also cannot establish an assessor’s competence from liking a rich product. Judging skill includes question selection, description and repeatability, which differ from sensitivity to one stimulus.

3. Four descriptive axes

Record resistance to pressure or movement, ease of sliding, perceived residual coating, and aroma or taste separately. A hypothetical thick cream might leave little coating, while a thinner sauce might leave a persistent film. These products should not be ranked on one undifferentiated richness scale. Residual coating is not automatically a defect: evaluate its role in the task and whether it obscures the following bite.

4. Product-based comparison

First compare two ordinary food emulsions with different oil fractions while keeping the remaining formulation and service conditions as stable as possible. Separately compare versions with different viscosity. Changing one recipe factor does not guarantee changing only one sensation. Measure viscosity where feasible and record visible and sensory differences. Training uses ordinary food products, without pharmaceutical agents or interventions targeting receptors.

5. Permissible inference

An assessor can describe easier sliding or a longer finish within the tested conditions. Those observations alone cannot identify fatty-acid concentration or enzyme activity. Preserve liking separately from lubrication judgments. The proposed success criterion is support for the dish's function throughout the bite, with an explicit reason for any penalty or reward, rather than conformity to an expectation about fat percentage.

6. Worksheet and scope

Retain product type, composition, portion size, temperature, resistance, sliding, coating and liking. Balance coded orders and repeat with independently prepared batches. Conclusions remain specific to the tested product and assessors; they provide neither dietary recommendations nor individual diagnosis. This article extends the food-matrix discussion from aroma release to mouthfeel construction, while keeping each causal interpretation within the measurements actually obtained.

Application worksheet

Field	What to retain
Product	Composition, size and temperature
Sensation	Resistance, sliding and coating
Decision	Liking, suitability and explanation

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

- [50 — Article 50](#)
- [53 — Article 53](#)

References and source scope

1. **[FAT12]**Pepino, M. Y., Love-Gregory, L., Klein, S., & Abumrad, N. A. (2012). The fatty

acid translocase gene CD36 and lingual lipase influence oral sensitivity to fat in obese subjects. Journal of Lipid Research, 53, 561–566. DOI: 10.1194/jlr.M021873.<https://pubmed.ncbi.nlm.nih.gov/22210925/>

Specific human population; not a test of judging competence.

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

Suggested citation: Maadarani, Ahmad Issam (2026). “Fat in the Mouth: Separating Chemical Sensing, Texture and Lubrication”. Sensory Science and Judging Ethics, article 57, version 1.0, 4 October 2026.

© 2026 Ahmad Issam Maadarani.



IUOAMC
International Union Of
Arab Master Chefs