

## Accepted Manuscript

Sensory complexity and its influence on hedonic responses: a systematic review of applications in food and beverages

Julie Palczak, David Blumenthal, Michel Rogeaux, Julien Delarue

PII: S0950-3293(17)30336-1

DOI: <https://doi.org/10.1016/j.foodqual.2018.06.002>

Reference: FQAP 3522

To appear in: *Food Quality and Preference*

Received Date: 29 December 2017

Revised Date: 7 June 2018

Accepted Date: 8 June 2018

Please cite this article as: Palczak, J., Blumenthal, D., Rogeaux, M., Delarue, J., Sensory complexity and its influence on hedonic responses: a systematic review of applications in food and beverages, *Food Quality and Preference* (2018), doi: <https://doi.org/10.1016/j.foodqual.2018.06.002>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



## Sensory complexity and its influence on hedonic responses: a systematic review of applications in food and beverages

Julie Palczak <sup>a,b</sup>, David Blumenthal <sup>a</sup>, Michel Rogeaux <sup>b</sup>, Julien Delarue <sup>a</sup>

<sup>a</sup> UMR GENIAL Ingénierie Procédés Aliments, AgroParisTech, INRA, Université Paris-Saclay, 91300 Massy, France

<sup>b</sup> Sensory and Behavior Science Department, Danone Nutricia Research, France

### Highlights

- Review of 55 publications on sensory complexity of food and beverages
- No consensus on the way to define and to measure sensory complexity
- Perceived complexity must be seen as a collative property
- Only one paper found an inverted U-curve relationship between complexity and preferences
- Very little attention is paid to the temporal dimension of sensory complexity

---

### Abstract

Understanding the determinants of consumers' preferences is crucial for successful product development. Although it is rarely considered, perceived complexity is believed to be one important intrinsic product factor that may influence preference development (Lévy, MacRae, & Köster, 2006). Studies on perceived complexity are mostly based on the Theory of Arousal (Berlyne, 1971) that asserts that the influence of complexity on consumers' preferences can be represented as an inverted U-curve.

This article reviews the scientific literature on complexity in the field of food and beverages. A literature search was carried out on online catalogues using the search terms 'complexity' and 'preference' or 'hedonic' or 'liking'. Fifty five relevant articles have been selected and analysed for the ways authors define, manage and measure complexity. Fourteen of these articles addressed the link between complexity and hedonic response. One major result is that there is no consensus regarding the definition of complexity. In addition to physical complexity of products, definitions of perceived complexity can be divided into three categories: sensory, cognitive and emotional. A direct consequence of the diversity of the definitions is that there are many different ways to measure complexity, including sensory or instrumental methods. In order to generate different levels of complexity, authors play with the number of food components (ingredients, chunks, flavour notes). Besides, complexity is always studied for one sensory modality only (e.g. either aspect or texture or smell or taste). Overall, very little attention is paid to the temporal dimension of sensory complexity. Eventually, only one paper out of 14 found an inverted U-curve relationship between complexity and hedonic response as suggested by Berlyne's theory.

### Keywords

Systematic review ; Complexity ; Preference ; Berlyne Theory ; Food Beverages and Cosmetics

---

Download English Version:

<https://daneshyari.com/en/article/8838352>

Download Persian Version:

<https://daneshyari.com/article/8838352>

[Daneshyari.com](https://daneshyari.com)