EUROSENSE 2018
Eighth European Conference on Sensory and Consumer Research
A Sense of Taste
2-5 September 2018 Verona, Italy

Title:

Make the healthy choice the happy choice - the role of taste in satiation

Authors & affiliations:

Kees (C) de Graaf, Sensory Science and Eating Behavior group, Division of Human Nutrition and Health, Wageningen University, e-mail: kees.degraaf@wur.nl

Sensory science has an essential role in the nutrition, health and well-being arena. There is an enormous societal pressure to reduce salt, sugar and fat levels in foods. These issues can only be solved with the help of sensory scientists, as consumer are unlikely to make offers with respect to palatability. Sensory science made a large contribution to the understanding how babies and toddlers can learn to like healthy eating habits. On the other side of the age spectrum, sensory scientists support the design of food product for particular segments of patients, such as cancer patients who are treated with chemotherapy, or people who are in need of special diets. It has recently also become clear that sensory signals not only have a role in food choice, but also in the amount eaten, that is satiation.

In recent years, it was also shown that the sense of taste and the sense of smell have a differential role in satiation and the regulation of food intake. Whereas ambient odor signals generate sensory specific appetites, taste exposure contributes to satiation. Studies across representative food supplies across the US, Asia, Australia and Europe showed that perceived intensities of sweetness, saltiness, umami taste and fat sensation relate to the sugar, salt, protein and fat content of foods. This means that taste intensity signals the level/concentration of a nutrient in a food. The oro-sensory exposure to the taste of food and drinks is to a large extent dependent on the eating rate of foods, and the eating rate is largely determined by the texture of foods. Harder foods lead to lower eating rates and longer taste exposure times; softer foods and liquids are consumed much quicker and lead to lower sensory exposure times. In a number in studies it was shown that the duration of taste exposure has a strong effect on satiation, meal termination; longer taste exposures lead to earlier satiation and lower food intakes. So, designing palatable foods that are consumed slowly lead to lower energy intakes, and may therefore contribute towards healthier body weights. In conclusion, sensory science may have a large contribution to a healthier society.