Title:

Individual differences in sensory perception create unique experience worlds

Authors & affiliations:

Mari Sandell University of Turku, Functional Foods Forum, FI-20014 Turku Finland mari.sandell@utu.fi

Our life is full of very different kind of stimuli such as food and surroundings that are activating our senses. When enjoying food in an eating situation, people combine all senses for perception of food if their senses are working somewhat normally. However, the differences between individuals' sensory perception may be large. Thus, differences in human sensitivity and sensory perception of food may be associated with food preferences and choices. For example consumption of vegetables and berries may be limited due to their flavour characteristics such as bitterness, sourness and irritation. Experiences are individual and unique, and we should also accept this fact. We may taste, smell, hear, see and touch in different ways. The sensitivity to bitterness, sourness, sweetness, saltiness and umami may vary among the individuals. Some may be anosmic, colour blind, blind or deaf. Without going to these extreme cases, from sensory point of view we are individuals in our daily life practices including eating and food perception.

This presentation focuses on associations between individual differences in sensory perception and food perception among adults and children. There are several recently published results showing the effect of genetic variation on tasting and smelling. Individual differences in taste sensitivity and human phenotyping among Europeans have been studied e.g. in Italy, UK, Finland and Norway. Why are we so different? At the moment it is not possible to explain the behaviour by a single gene and biological background only. For sure, it is also known that cultural and learned factors alone do not explain our food choices and eating behaviour. Results are still fragmented, and the overall picture is under construction. However, both the scientific community and society needs the expertise of the sensory scientists to solve the multidisciplinary tasks explaining the fascinating questions about our life.