

Brain and Mind – from Concrete to Abstract

»TASTE AND THE BRAIN« OCTOBER 17TH 2023

AN INTERDISCIPLINARY WORKSHOP BETWEEN MSH AND
ST HILDA'S COLLEGE OXFORD UNIVERSITY

Prof Dr Maike Glitsch

»Taste and the Brain«

Taste is a sensory modality that enables us to seek out foods that are nutritionally valuable to us and avoid foods that are spoiled or poisonous. Specific receptors on our tongues enable us to distinguish five basic taste qualities (sweet, sour, salty, bitter and umami), but once this taste information reaches the brain, it is integrated with olfactory and visual information to produce a taste experience, the flavour. Temperature and food texture also influence taste and flavour, and whether we like or dislike particular foods is in part dependent on our social and cultural experiences. This talk will address how we process taste information and what makes us (want to) eat what we eat.

Maike has a long-standing interest in neurophysiology that originated from her time at the Max Planck Institute for biophysical chemistry in Göttingen, where she did her Diploma and PhD. Following a postdoc period in Oxford, she accepted a position as associate professor at the Department of Physiology, Anatomy and Genetics in Oxford in affiliation with St Hilda's where she was the lead medical tutor. She moved to Hamburg, Germany, in 2021 where she is Professor in Physiology at the Medical School Hamburg.

TIMETABLE

18:00 Uhr

Introduction

18:10 Uhr

»Taste and the Brain«

Prof. Dr. Maike Glitsch,
MSH Medical School Hamburg

18:30 Uhr

»Multisensory Flavour Perception:
Insights for/from the Spatial Senses«

Dr. Charles Spence,
University of Oxford

18:50 Uhr

Discussion and break

19:30 Uhr

»Tasting Flavours«

Dr. Barry Smith,
University of London

19:45 Uhr

Discussion

20:00 Uhr

End of Workshop

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Dr Charles Spence

»Multisensory Flavour Perception:
Insights for/from the Spatial Senses«

Food is both fundamental to our survival and fun to study. Furthermore, there is nothing that gets your brain going quite like the sight/smell of one's favourite food when hungry. And, as the eminent British biologist J. Z. Young once noted, it is perhaps no coincidence that the mouth and the brain lie so close together in most species. No wonder then that the brain rapidly estimates the energy density of potential food sources in the environment and devotes our limited attentional resources accordingly. There are challenging philosophical questions here around the very definition of flavour itself, and which senses are constitutive versus 'merely' modulatory of this most multisensory of our everyday experiences. In this short talk, Dr Charles Spence will take a closer look at the multisensory influences on the perception of taste.

Professor Charles Spence is a world-famous experimental psychologist with a specialization in neuroscience-inspired multisensory design. He has worked with many of the world's largest companies across the globe since establishing the Crossmodal Research Laboratory (CRL) at the Department of Experimental Psychology, Oxford University in 1997. Prof. Spence has published over 1,100 academic articles and edited or authored, 16 books including, in 2014, the Prose prize-winning "The perfect meal", and the international bestseller "Gastrophysics: The new science of eating" (2017; Penguin Viking) – winner of the 2019 Le Grand Prix de la Culture Gastronomique from Académie Internationale de la Gastronomie.

Dr Barry Smith

»Tasting Flavours«

Recent findings from neurobiology reveal that what we call tasting is in fact a complex, multisensory experience produced by the brain's integration of sensory inputs from taste, smell and touch, modulated by other inputs from vision and hearing. This complexity in our multisensory perceptions of flavour leads most neuroscientists and psychologists to conclude that flavours are constructs in the brain. Dr Barry Smith will argue that flavours are in the world not the brain and that we can make room for them when we distinguish between flavours and flavour perceptions.

Professor Barry Smith is director of the Centre for the Study of the Senses at the University of London's School of Advanced Study where he works with philosophers, psychologists and neuroscientists to understand how taste, smell and touch combine with other senses to create our multisensory experiences of flavour. He has written theoretical and experimental papers for Nature, Food Quality and Preference, Flavour and Chemical Senses, as well as writing regularly for The World of Fine Wine. He collaborates with chefs and artists, and with clinicians and patient groups on smell loss. A frequent broadcaster, he has appeared on BBC's Masterchef, and is a contributor to BBC Radio 4's The Kitchen Cabinet. Last year he wrote and presented a 5-part BBC Radio series on, The Art and Science of Blending.

Future Brain & Mind events:

»Sound and the Brain« on Tuesday, 6th February 2024 |

»Touch and the Brain« on Tuesday, 7th May 2024

