

Report: 'The Two Senses of Smell' Workshop
Rethinking the Senses, Institution of Philosophy, 14 March 2014
Ophelia Deroy

The topic of the meeting - the two senses of smell – was inspired by the recent proposal that olfaction actually divides into two distinct senses: orthonasal olfaction, which conveys many kinds of information on our surrounding environment; and retronasal olfaction, which contributes to our appreciation of food and beverages. Interestingly, olfaction, both orthonasal and retronasal, often lead to integrated experiences, noticeably because of the contribution of the trigeminal and taste components. Should we think about the sense of smell as a single sense, with two routes, or as two senses? Should we even think of the sense of smell, or one of these two senses of smells, in isolation, or always embedded in a larger multisensory context?

The meeting was organised by Ophelia Deroy. Each session began with a talk, which was followed by a commentary and discussion.

In the first session, Jay Gottfried and John Silas stressed the importance of the sense of smell and discussed whether the function of the sense of smell was to detect changes or warn us of subjectively important (pleasurable vs. painful) properties.

In the second session, Juyun Lim and Barry Smith discussed the phenomenon known as oral referral, in which orthonasal smells are localised in the mouth. Although this is apparently a mere form of 'ventriloquism' of smells by touch, taste and congruency between taste and smell are essential to it.

In the third session, Sylvain Delplanque and Alisa Mandrigin discussed the nature of emotions in olfaction, as well as the new perspectives opened by virtual reality (CAVE) systems to study olfaction.

In the fourth session, Ron Kupers and Ophelia Deroy reviewed recent studies regarding the hyper-acuity of orthonasal smell in blind individuals, which contrasts with their gustatory hypo-acuity. The hypothesis of a lack of exposure was discussed, along with the importance of measuring crossmodal plasticity in the blind brain.

In the fifth session, Ilona Croy and Matt Nudds discussed negative smells and whether a smell is intrinsically unpleasant or unpleasant because of its association with a negative source.

In the final session, Marta Tafalla and Keith Wilson discussed congenital anosmia and what the absence of a sense can mean developmentally, perceptually and aesthetically.