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Tracing interactions between crosslinguistic differences and flavour perception

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Abstract

This study examined if crosslinguistic labelling differences affect categorization and similarity ratings of food samples. In Experiment 1, we tested if linguistic encoding warps gustatory perception exhibited as language-induced biases in food similarity ratings. To illustrate, in Mandarin, ‘cherry’ (桃/ literally ‘baby peach’) and ‘peach’ (桃) share the character 桃 whereas ‘cherry’ and ‘peach’ are lexically distinct in English. We predicted biases in Mandarin speakers to judge flavours with character overlaps as relatively more similar. In Experiment 2, Mandarin and English native speakers (N=20/group), were given 16 triplets of food samples (e.g., apple/pear/pineapple) to perform ABX categorizations. If label overlaps affect perceptual categorization, we expected more frequent apple-pineapple-like categories in English than in Mandarin speakers. Contrary to predictions, language-specific overlap types did not significantly affect either similarity ratings or categorization patterns. We interpret these findings as absence of top-down linguistic modulation of chemosensory signal processing.