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A SENSE OF TASTE

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**Title:**

**Translating perceptions into preferences: the role of learning**

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Although some genetic contributions to flavour and food preferences have been identified, the majority of such preferences are thought to be formed through exposure and learning. This process begins *in utero*, where simple exposure to the maternal diet can be shown to produce lasting flavour preferences. Throughout life, associative learning processes pair flavours with valenced tastes or experiences and with post-ingestive consequences, either positive or negative, to shape food preferences. While these are universal mechanisms, innate variations in physiology (e.g., bitter genetics) and individual characteristics of unknown aetiology (e.g., degree of sweetness preference) also determine the extent to which learning operates or even whether likes or dislikes are formed. Increasingly, personality variables are being shown to influence food preferences and intake. Current models of personality also posit that learning is a strong determinant of the variation in personality traits by acting through the balance of reward and punishment mechanisms. Two main examples of this process will be used to illustrate this mechanism. One of these is the role of personality in pungency perception and preference, where sensitivity to rewards and punishment play a major explanatory role. The second example is that of food neophobia that, in adults, may result from repeated pairing of food with anxiety to produce a generalized reduction in food reward.