



## Tonal expectations in nonmusician listeners

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Western listeners acquire knowledge about the regularities of the tonal system by mere exposure to musical pieces in everyday life. This implicitly acquired tonal knowledge allows nonmusician listeners to perceive structural relationships between musical events and to develop expectations for future events. Behavioral and neurophysiological data show that processing of an expected, structurally adequate musical event is faster and requires less neural resources than processing of an unexpected event. Functional imaging data reveal activation patterns similar to those involved in structural processing of language, with a particular role attributed to inferior frontal regions. Data of patients with various lesion patterns underline the necessity to investigate networks rather than to focus on localization.

