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## **Informational masking and pitch memory: Perceiving a change in a non-perceived tone**

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Listeners were presented with 300-ms 'chords' of five synchronous pure tones, followed after a silence (0.5 - 8 s) by a single pure tone. The frequencies of each chord's components were selected randomly, but were constrained to be spaced by intervals of at least 6 and at most 10 semitones. In one experimental condition ('up/down'), the single tone following a chord was 1 semitone higher or lower than one of the chord's three intermediate components; on each trial, the corresponding component was selected randomly and the task was to indicate the direction in which its pitch was changed. In another condition ('present/absent'), the single tone following a chord was either identical to one of the three intermediate components or halfway in frequency between two components; the task was to indicate if the single tone was present in the chord or not. Performance was much better in the 'up/down' condition than in the 'present/absent' condition. Yet, an opposite trend would be expected if it was possible to hear out the individual components of the chords. The listeners typically reported that, in the 'up/down' condition, they could perceive pitch changes without perceiving the pitches which had changed. The 'up-down' task was not markedly more difficult when the chord and the following tone were presented to opposite ears than when both stimuli were presented to the same ear. These results provide strong evidence for the existence of pitch (or spectral) change detectors at a central level of the auditory system.

*The complete document was not available at the publication time. It has been replaced by the submitted abstract.*