Computational Modelling of Expectancy-Based Music Cognition from Timbral Structures

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2022

Stimulus (event) — contains... — Timbre — perceived; compared to... — Expectation — updates... — (Statistical) representation — captured by... — Modelling

recontextualises the next...
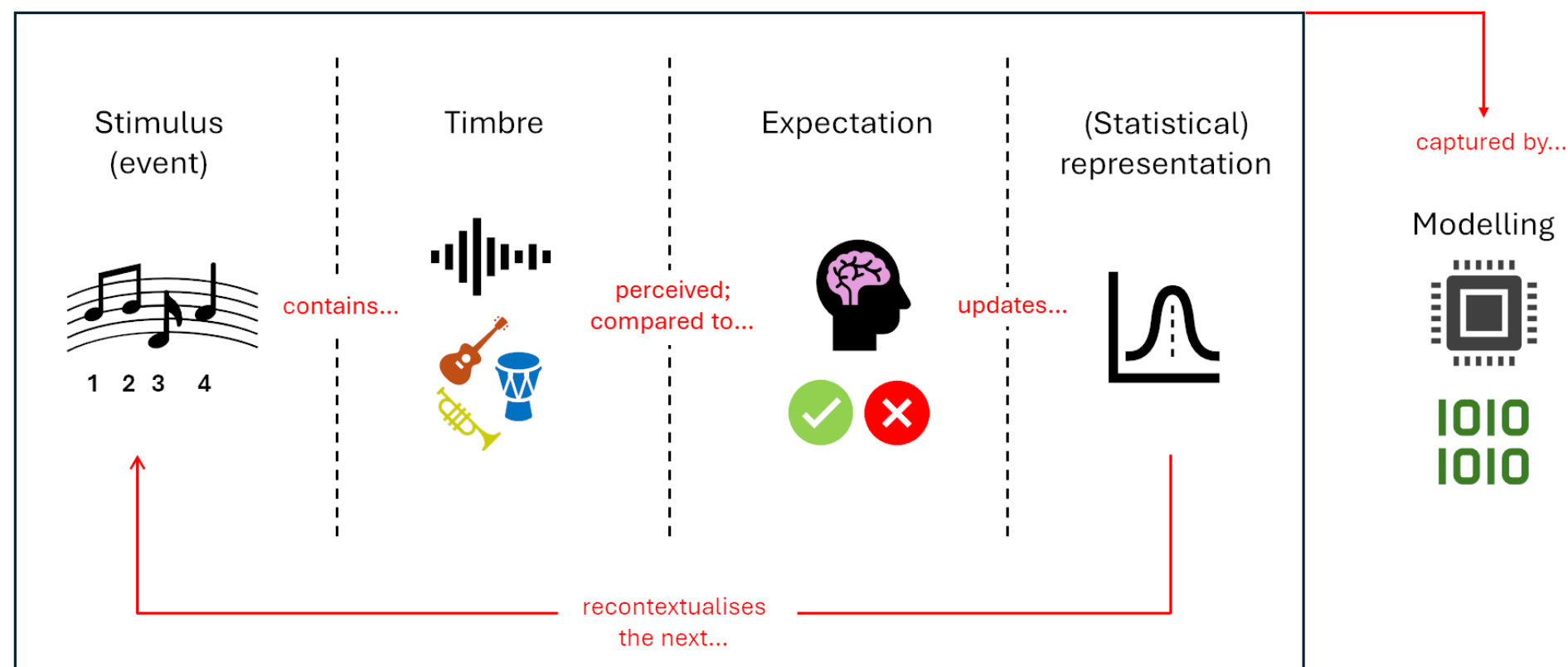
Finding

A literature review revealed four domains in which timbral patterns significantly inform a listener's musical expectancy: Direct timbral prediction, instrument-level timbral attributes for predicting non-timbral material, low-level timbral attributes for predicting non-timbral material, and timbre-cued style recognition for predicting musical material.

Question

Does the spectral envelope of musical tones interact with the implicit learning of statistical regularities in melodies composed from specific musical scales?

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