Faculti Summary
https://faculti.net/listeners-perceive-complex-pitch-temporal-structure-in-melodies/

This video video discusses the concept of tonality in music, which refers to the hierarchical importance of different pitches within a musical scale, specifically how some notes are more prominent in a melody. This video video hierarchy establishes a sense of musical key, making music sound structured; violating it can lead to disjointed sounds. Tonality works alongside the metric hierarchy (the organization of musical pulse or beat) to create the tonal metric hierarchy, a framework suggesting that important notes align with rhythmic beats.

The author conducted a study to investigate the psychological reality of the tonal metric hierarchy, questioning whether listeners would notice disruptions in this alignment. The study comprised three experiments. The first involved generating random melodies that either aligned with or did not follow the tonal metric hierarchy; however, results showed no significant differences in listener ratings.

In the second experiment, the author used scrambled natural melodies, finding that melodies aligned with the tonal metric hierarchy received higher ratings for both melodic goodness and beat clarity. The third experiment replicated these findings while utilizing "phase shifting" to manipulate the alignment of pitches and rhythms without changing their sequences. Results confirmed that participants preferred aligned melodies.

Overall, the findings suggest that the tonal metric hierarchy significantly influences listeners' perceptions of music, even if they are unable to articulate why. Future research aims to further explore this relationship, including testing beat clarity with tapping tasks and using metronomes to assess participants' abilities to detect alignment between melodies and beats.