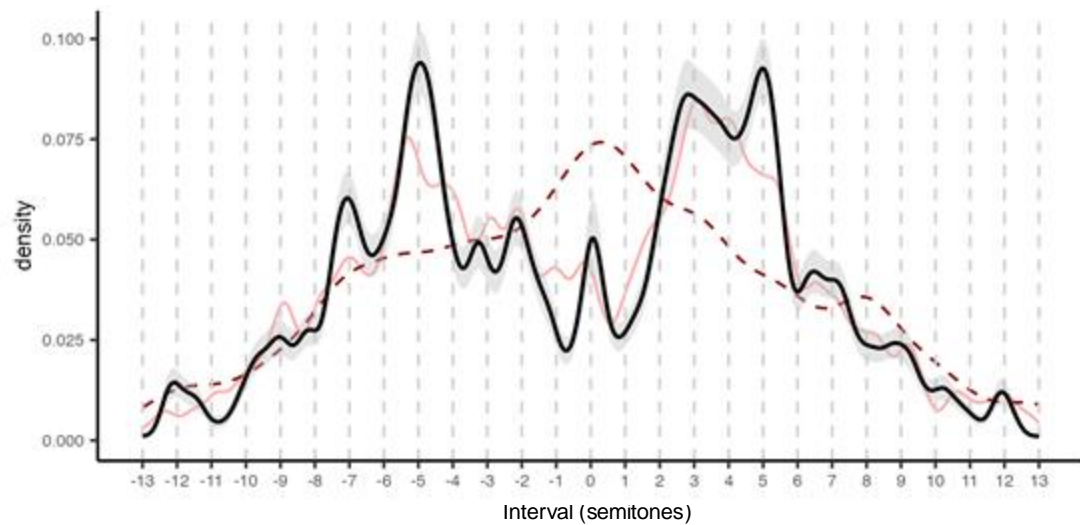


Figures

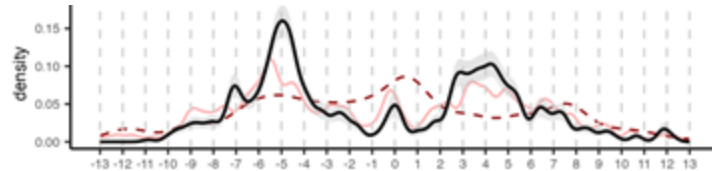
January 2025

A

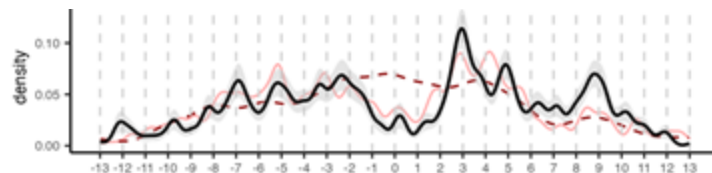
Distribution of pitch intervals

**B**

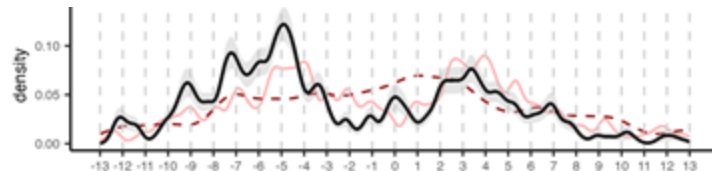
Interval 1



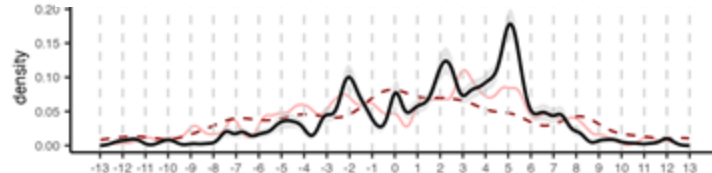
Interval 2



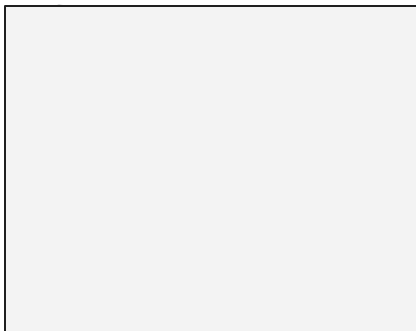
Interval 3



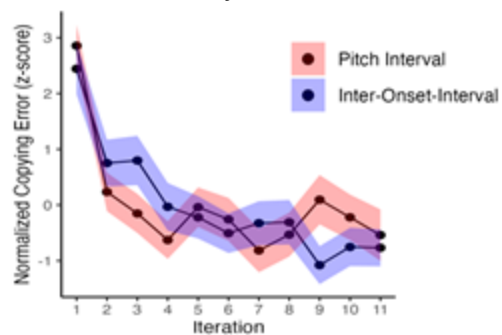
Interval 4

**C**

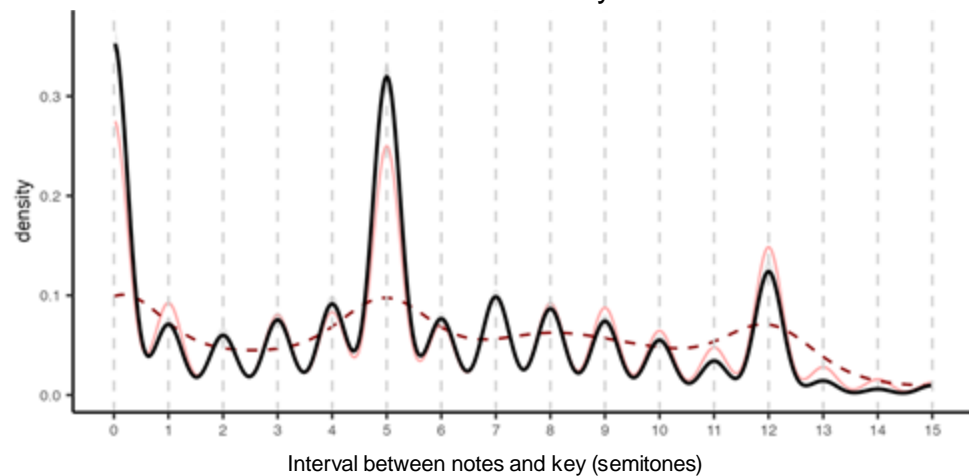
Entropy

**D**

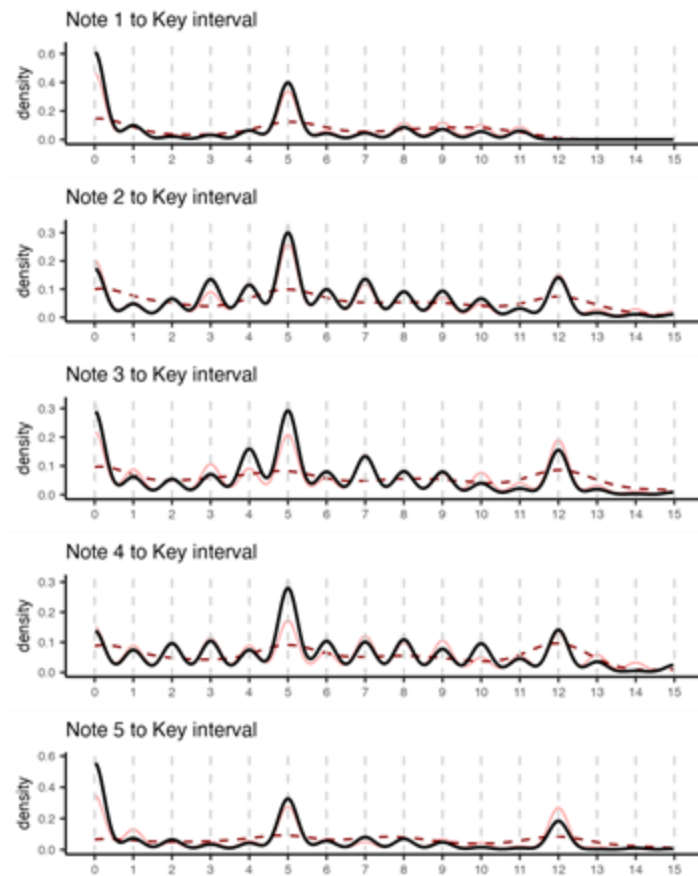
Learnability



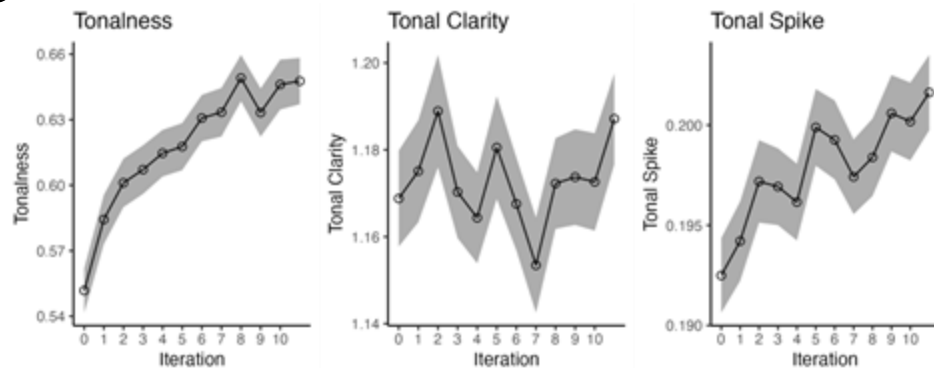
A Distribution of intervals relative to key



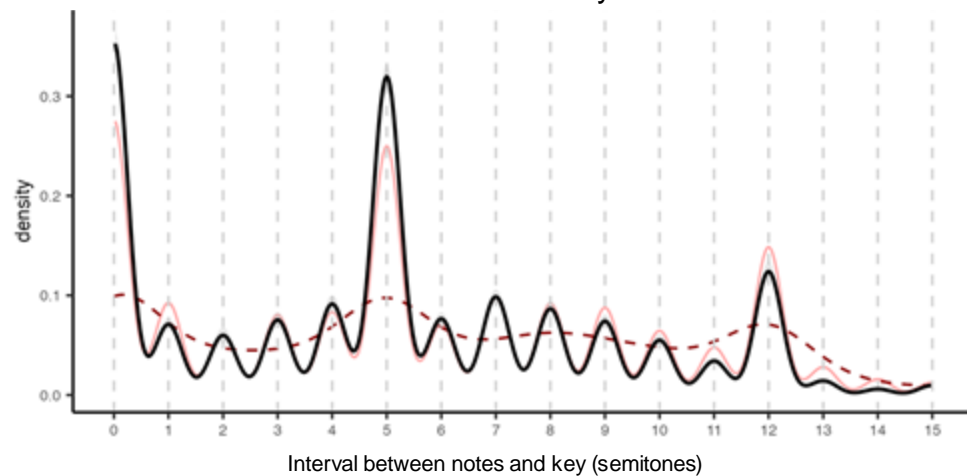
B



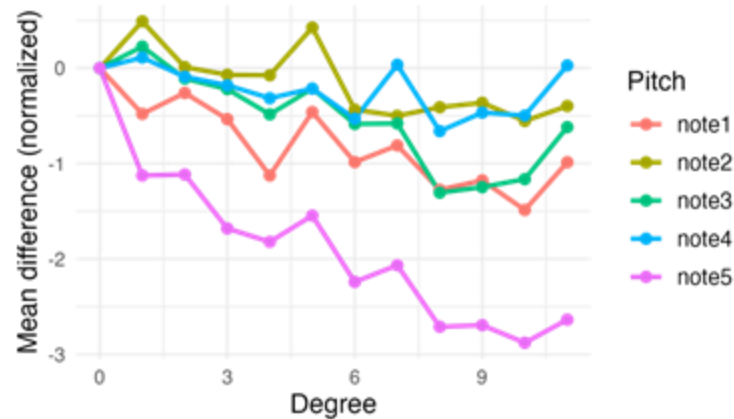
C



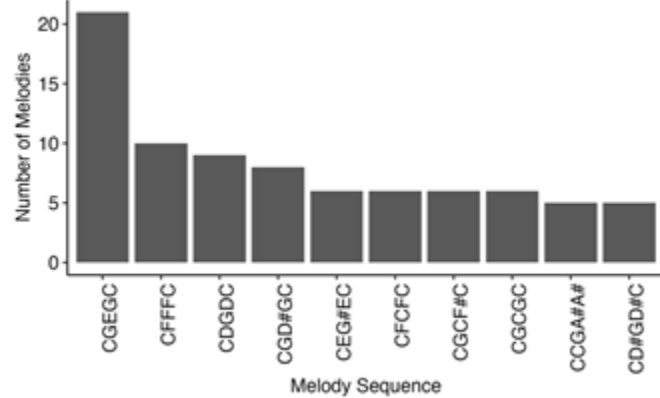
A Distribution of intervals relative to key



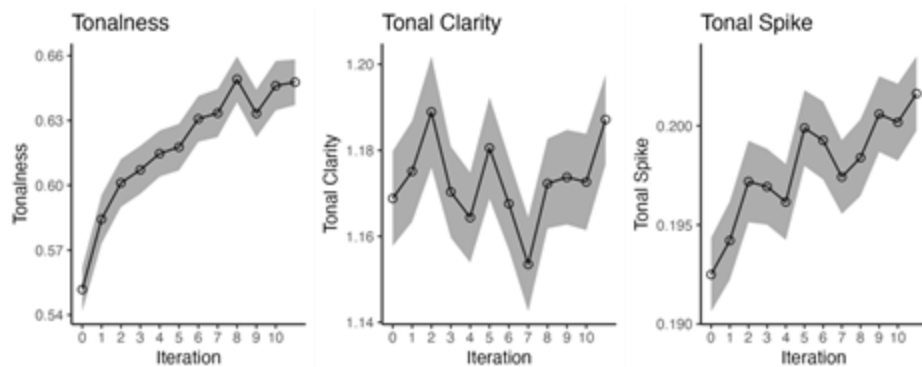
B



C Histogram of Melody Sequences



D

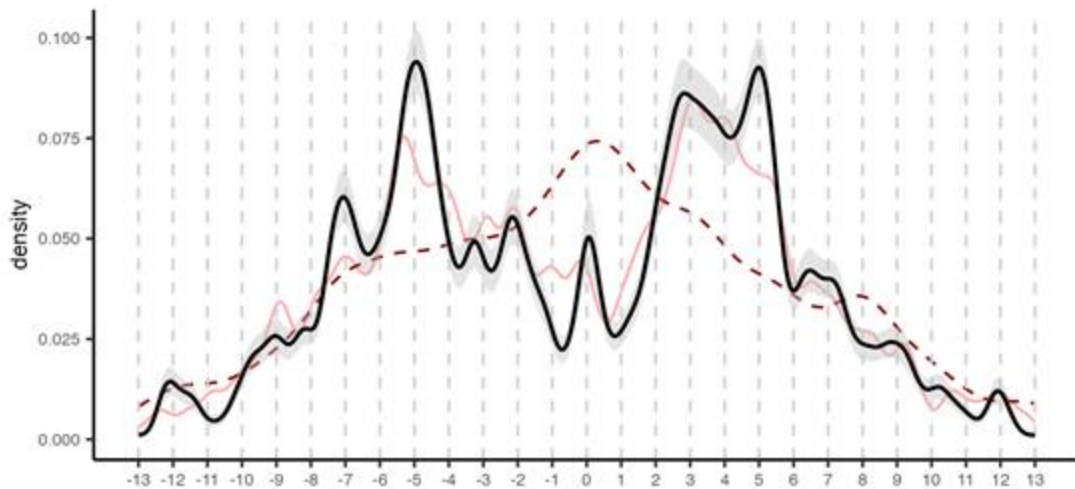


Results 2

December 2024

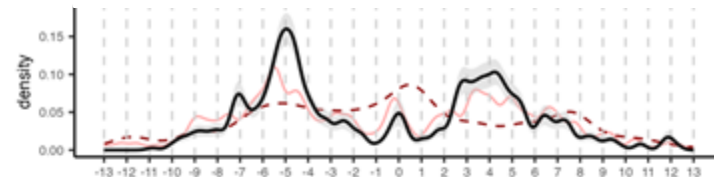
Finding 1: emerge of musical structures

Distribution of pitch intervals in the last 3 generations

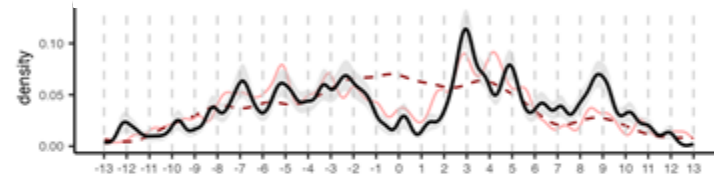


Evolution marginals: we could show the same marginals over iterations

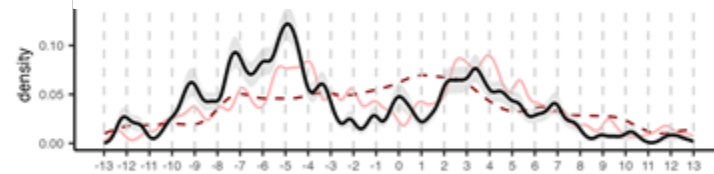
Interval 1



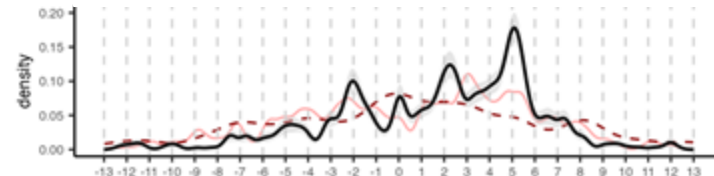
Interval 2



Interval 3

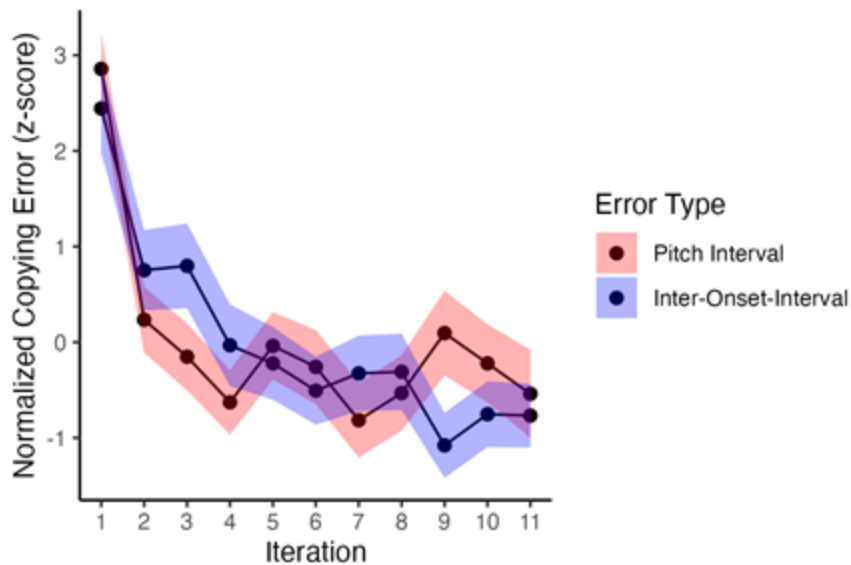


Interval 4



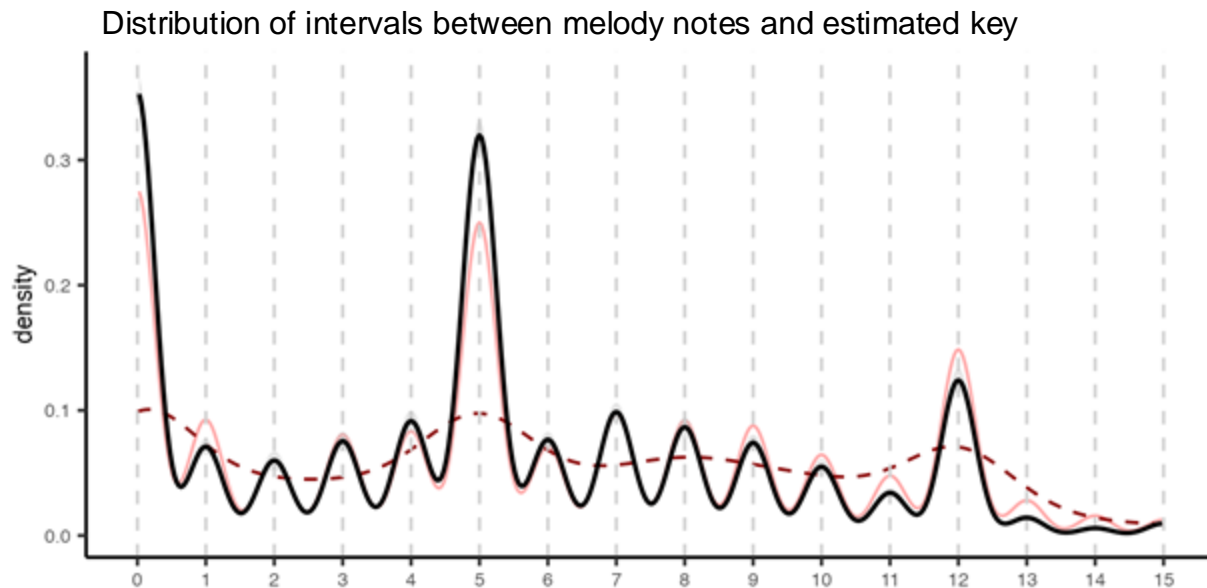
Finding 1: emerge of musical structures

Melodies become easier to learn and transmit



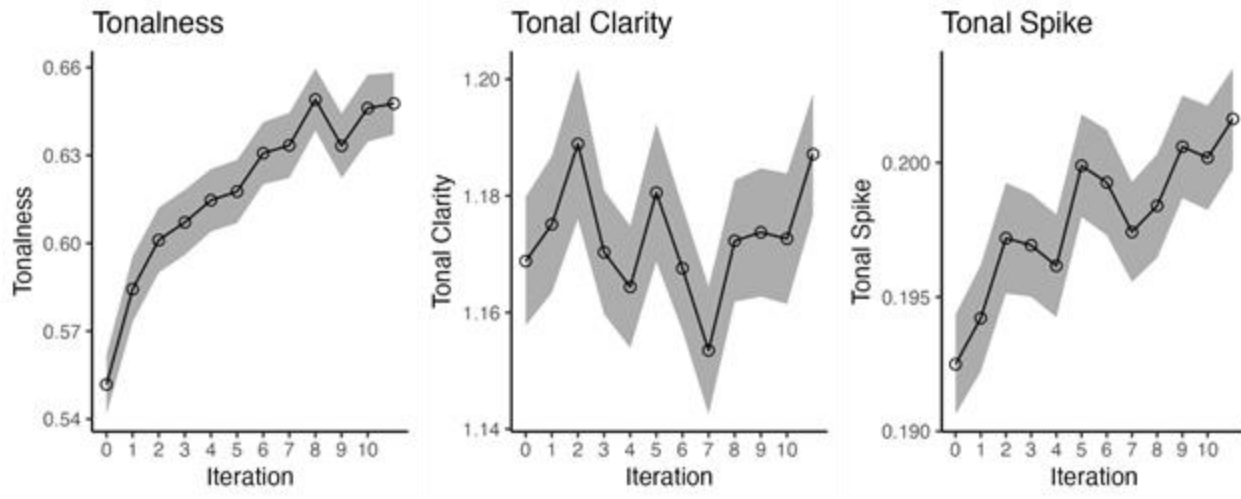
Emergence of structure: add plot showing the how the entropy of intervals and IOIs decreases over time (structure emerges)

Finding 2: emerge of tonal structures



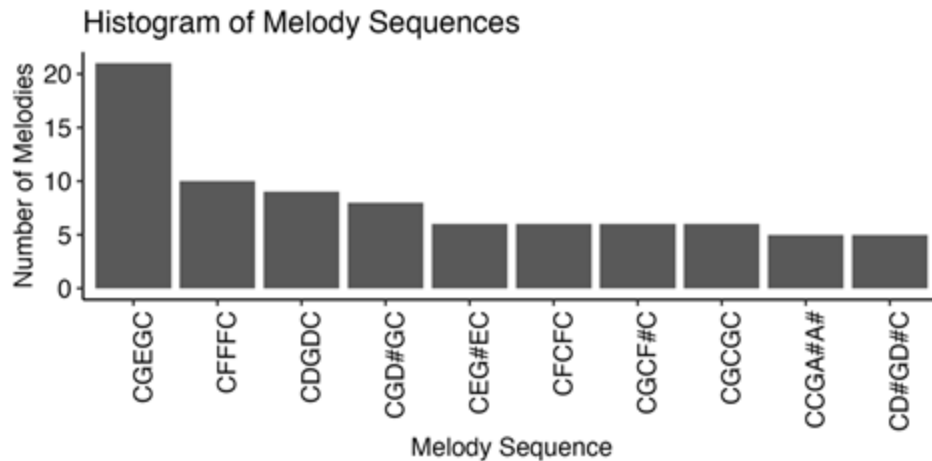
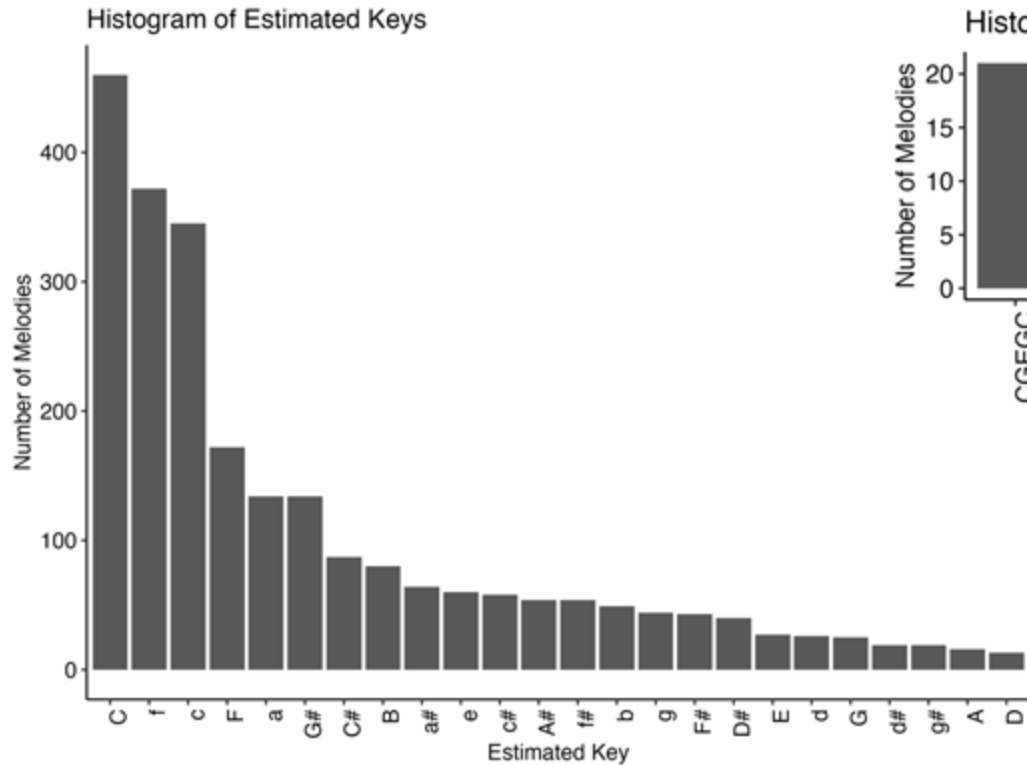
Finding 2: emerge of tonal structures

Emergence of tonality and tonal features

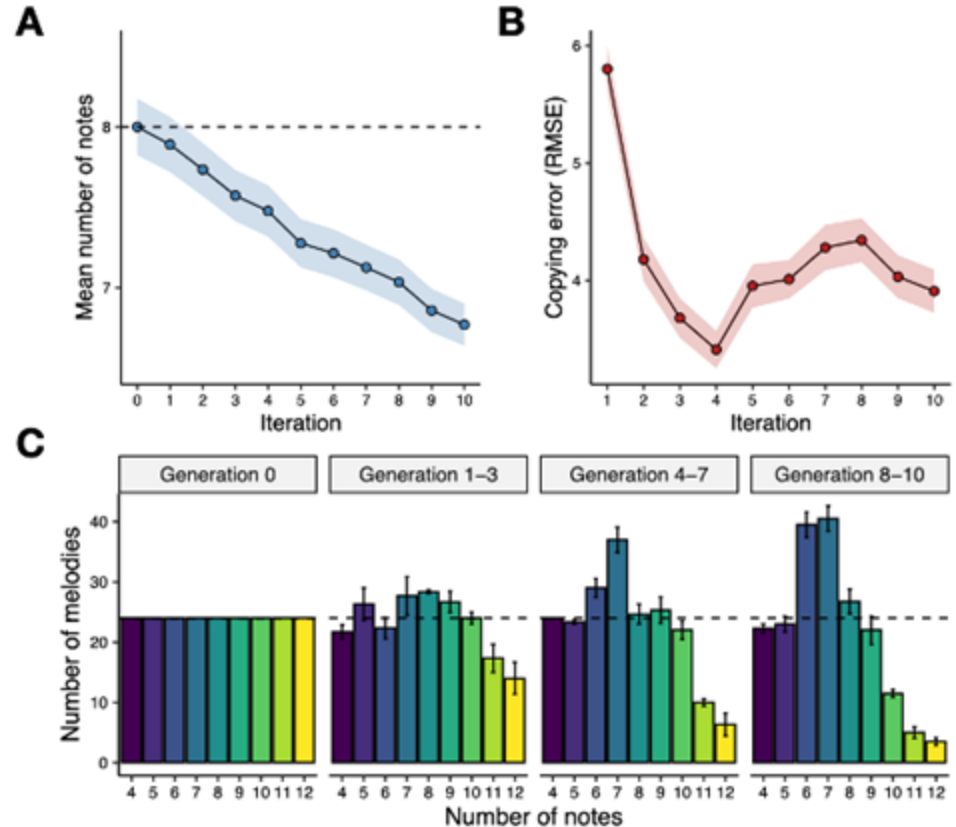


Finding 2: emerge of tonal structures

Optional

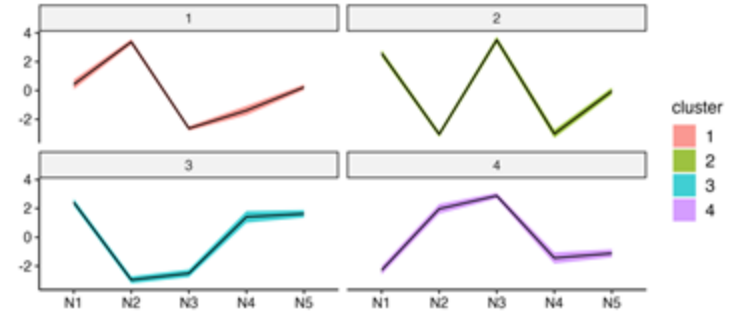
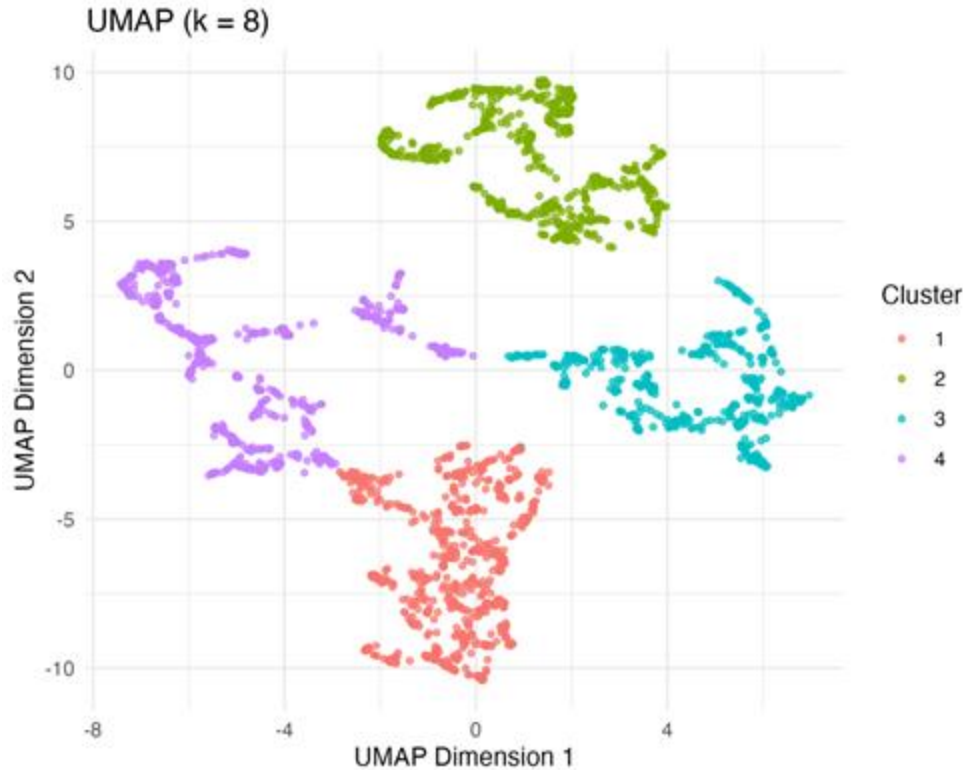


Finding 3: emerge of musical scales with a few notes



I could repeat this experiment using our current pipeline and then we could study tonal features of the melodies that emerge too (like most common scales)

Finding 4: emerge of melodic contours



One option would be to introduce the emergence of these contours and study differences in tonal structures on these contour types