A Relational Network Approach to Rock Music Syntax

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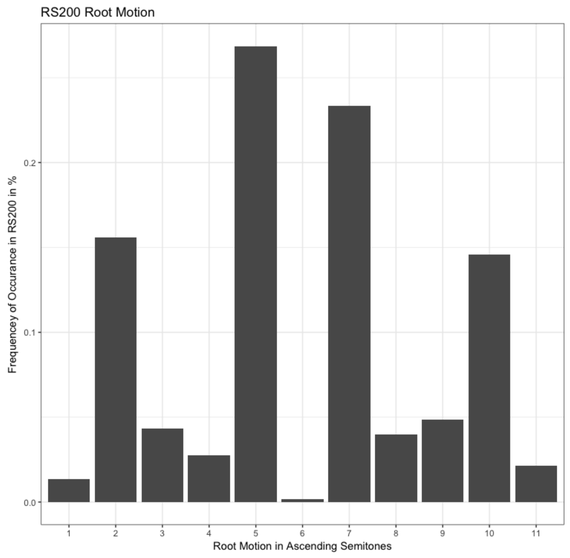
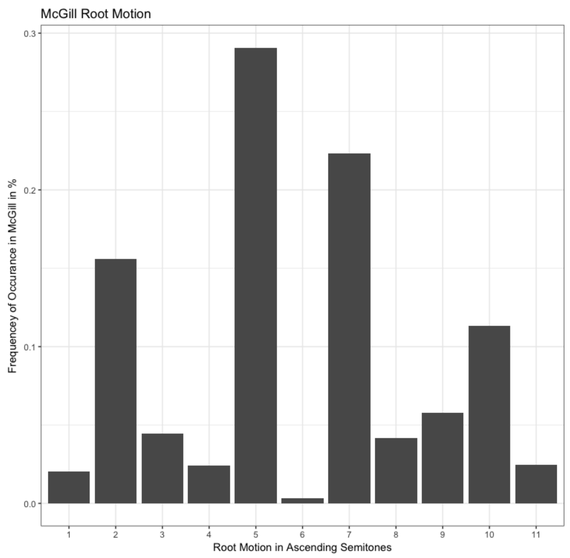
Root Motion Syntax Advantages

- Does not need to distinguish between modal interpretations.
- Rock music's frequent mode mixture and harmonic/melodic divorce mean that chord quality does not necessarily cue expectations for chord syntax (Temperley, 2007).
- The guitar affords easy transpositions of stock chord progressions, which can be measured by chord root intervals without respect to a diatonic frame of reference. (Yim, 2012)



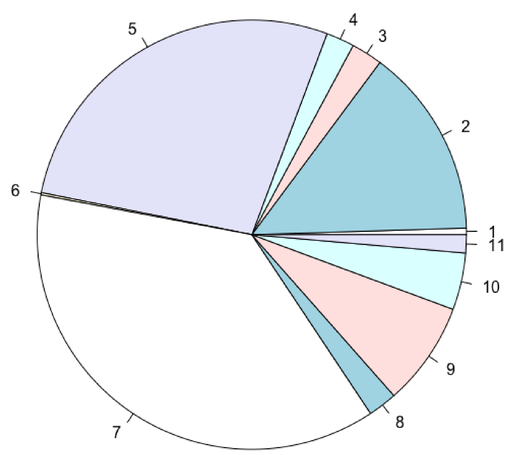


Methodology

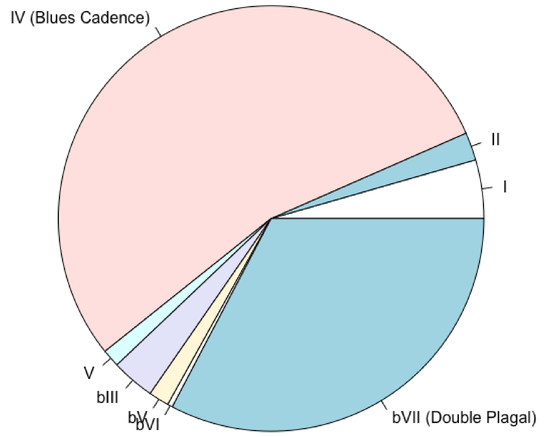
Use smaller corpus to find root motion schemas:

- Used the Temperley and de Clereq RS200 (V2.1), N = 194
- Convert text files to **kern (Huron, 1994)
- Extract root motion in ascending half steps
- Direction of root motion does not matter, only movement in pitch class space
- Find cumulative sum of two note interval patterns –> three note chord sequences
- Extract schemas based on distributional properties within the corpus
- Expand to McGill Billboard Corpus, N = 710

Given 5, Subsequent Intervals

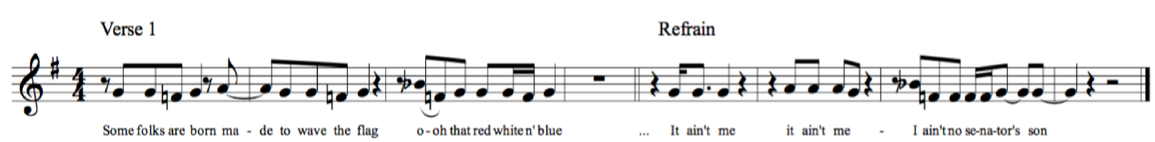


10-7 Roman Numeral Breakdown

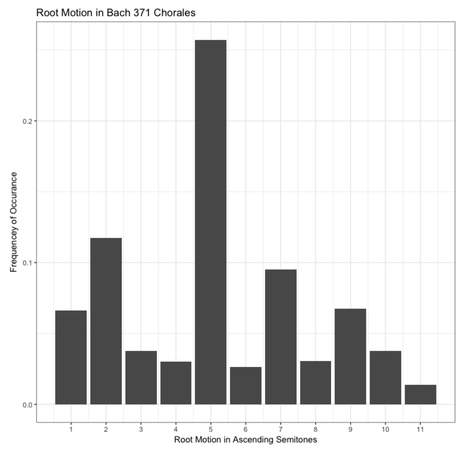


Sample Analysis

Fortunate Son - Creedence Clearwater Revival (1969)



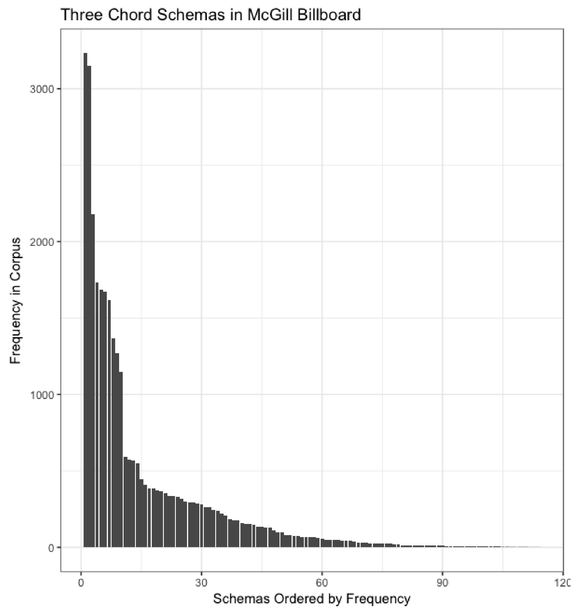
Chords:	G maj	F maj	C maj	G maj	...	G maj	D maj	C maj	G maj
Roman Numerals:	I	♭VII	IV	I	...	I	V	IV	I
Root Interval: (in ascending semitones)	10	7	7			7	10	7	



Analysis Discrepancies

Sweet Home Alabama - Lynyrd Skynyrd (1974)

Chords:	D maj	C maj	G maj	G maj
G Ionian?:	V	IV	I	I
D Mixolydian?:	I	VII	IV	IV
Root Interval:	10	7	-	

Get Lucky - Daft Punk (2013)

Chords:	B min	D maj	F# min	E maj
F# Aeolian?:	iv	VI	i	VII
A Ionian?:	ii	IV	vi	V
B Dorian?:	i	III	v	IV
Root Interval:	3	4	10