The Role of Continuous and Ambiguous Tempo Changes in Doom Metal's Heavy Grooves

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Doom metal

Duncan 1984, Garza 2020, Piper 2013

- Its speed: trudging.
- Its timbres: dark and dirty.
- Its lyrics: despairing.

Doom metal

Gradual changes in tempo.

Pallbearer, “Devoid of Redemption,” performance at 2013 South by Southwest Festival (Austin, TX)

What we mean by *groove*:

- The combined features of a track that create a pleasurable desire to move.
- A general orientation toward the present moment created by musical repetition.
- The emotional affect and subjective experience that these types of motion and musical texture elicit

Schmidt Câmara and Danielson (2018), Witek (2016)

What creates groove:

- Explicit beat.
- Subdivision of beat.
- Syncopation
- Gaps in percussion layer on strong beats.
- Polyrhythmic layers.

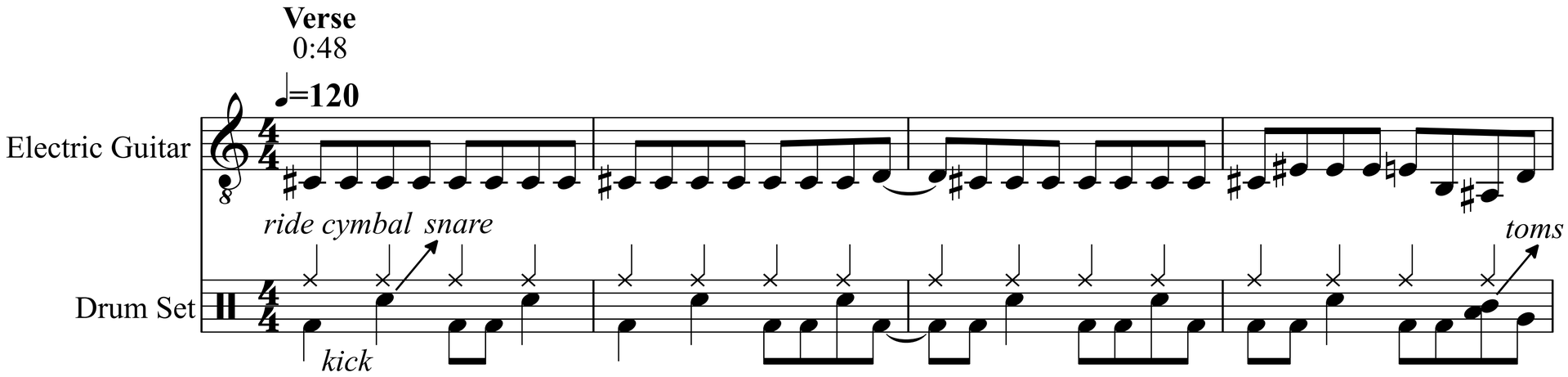
Schmidt Câmara and Danielson (2018), Witek (2016)

Groove and tempo change.

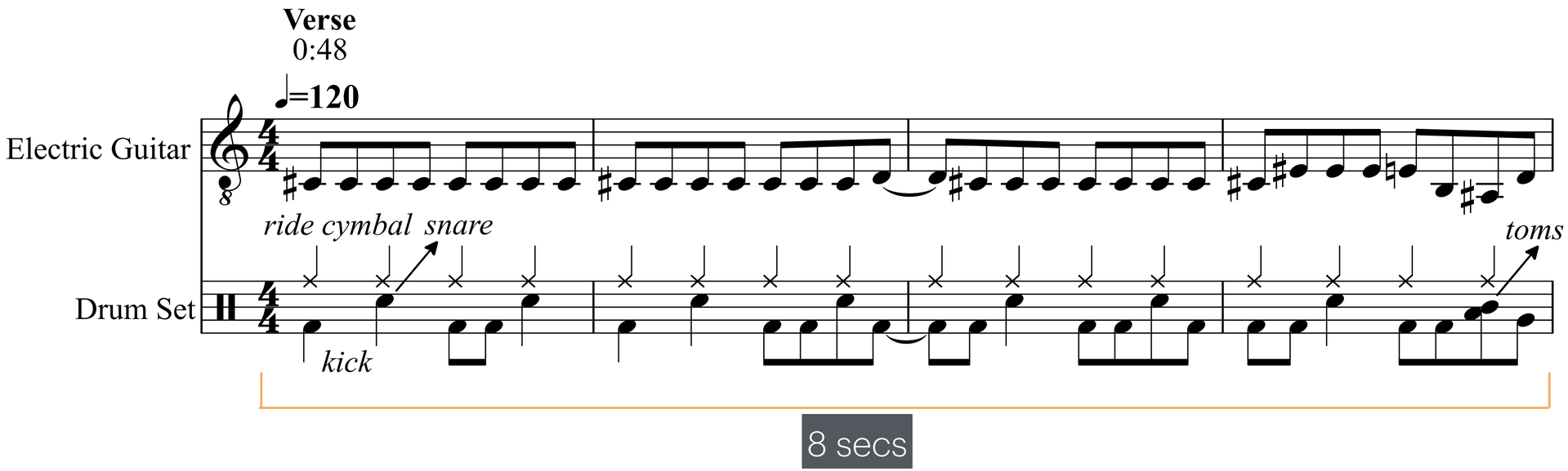
Tempo change creates *perceptual complexity* through

- ambiguous change in tempo, and
- beats of ambiguous virtual duration.

Ambiguous tempo change: Bismarck, “The Seer”



Ambiguous tempo change: Bismarck, “The Seer”



Ambiguous tempo change: Bismarck, “The Seer”

Verse
0:48
♩=120
Electric Guitar
ride cymbal snare
toms
Drum Set
kick
8 secs
Chorus
0:57
rit.
♩=95
El. Guit.
rit.
Dr.

Ambiguous tempo change: Bismarck, “The Seer”

Verse
0:48

♩=120

Electric Guitar

Drum Set

ride cymbal *snare*

toms

kick

8 secs

Chorus
0:57

rit.

♩=95

El. Guit.

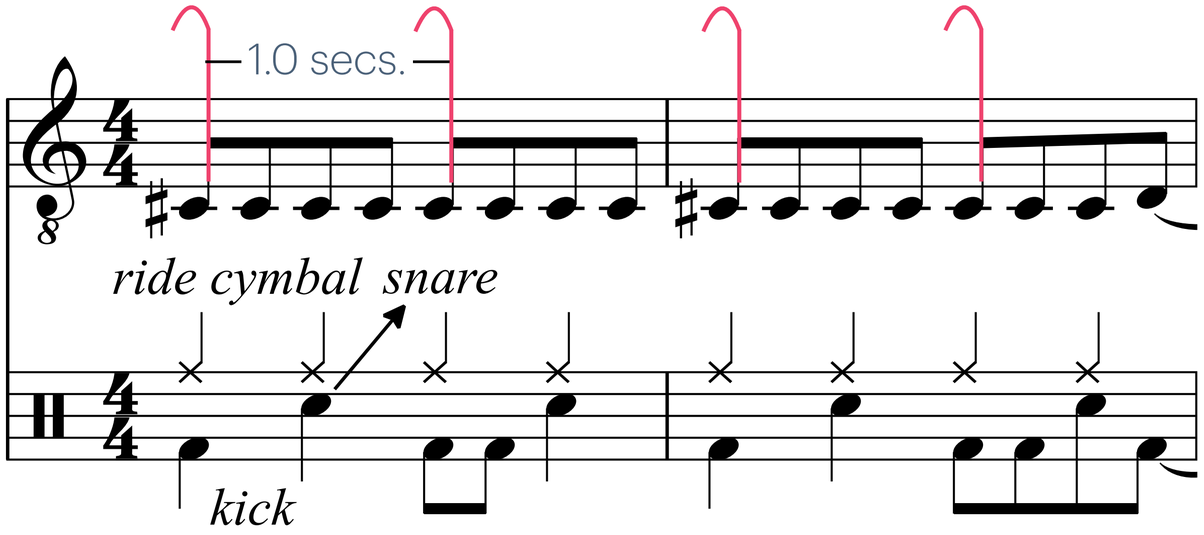
rit.

Dr.

5.0526 secs.

Perceived and felt tempo, created through head banging:

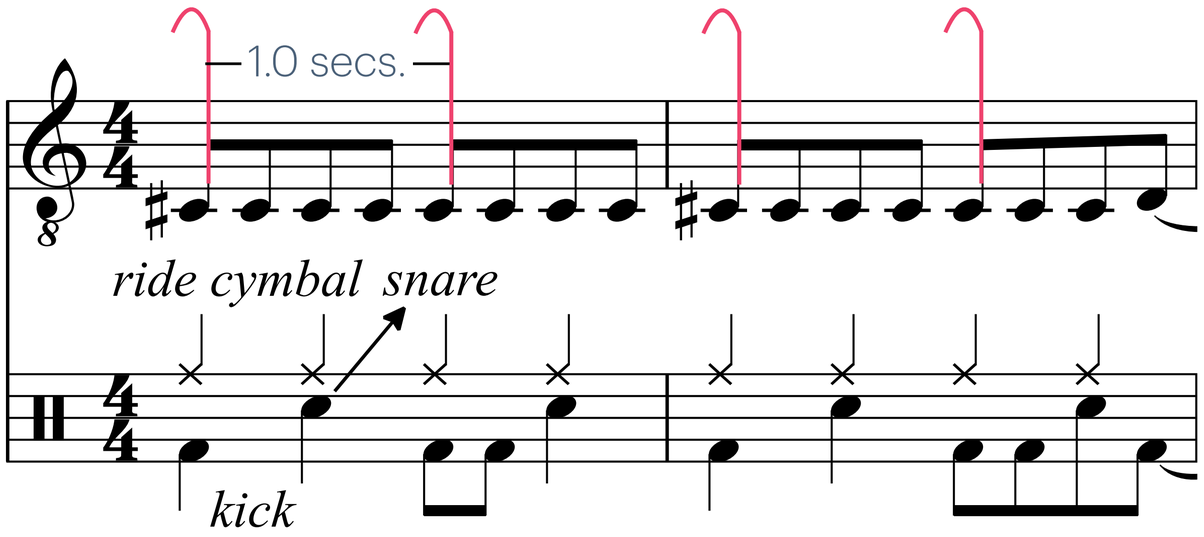
Verse



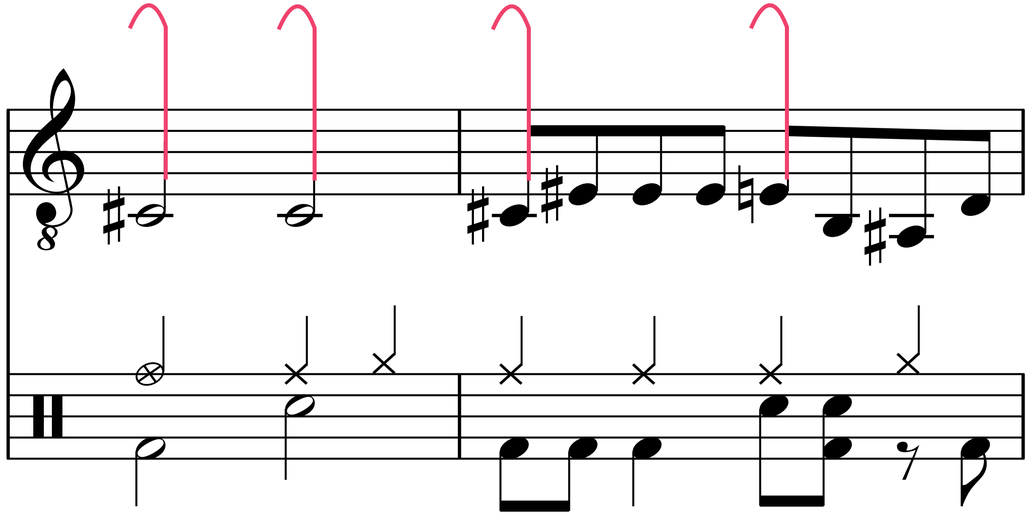
Perceived and felt tempo, created through head banging:

Option 1

Verse



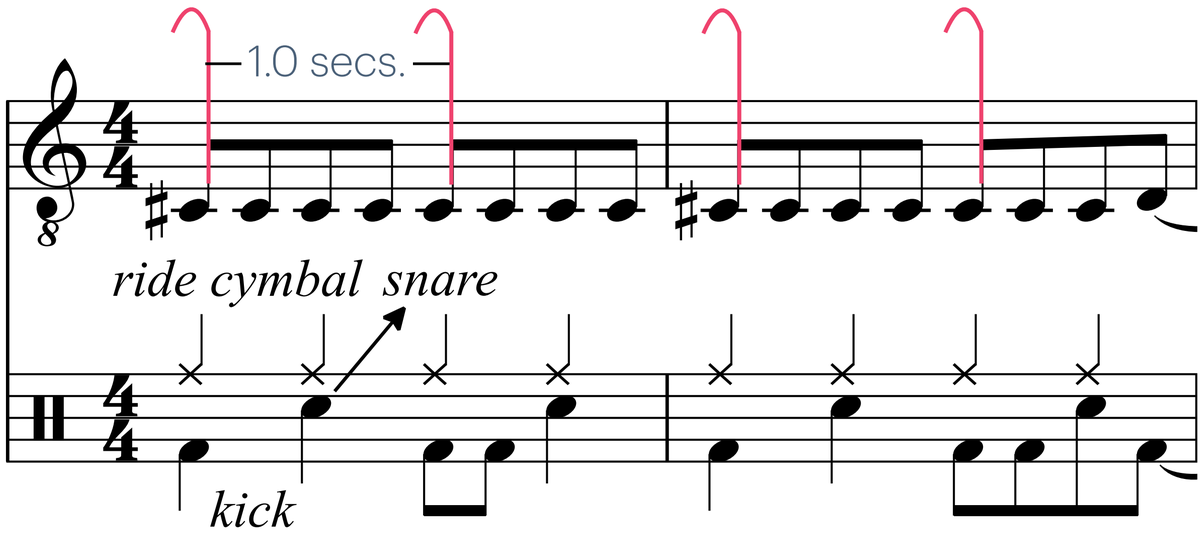
Chorus



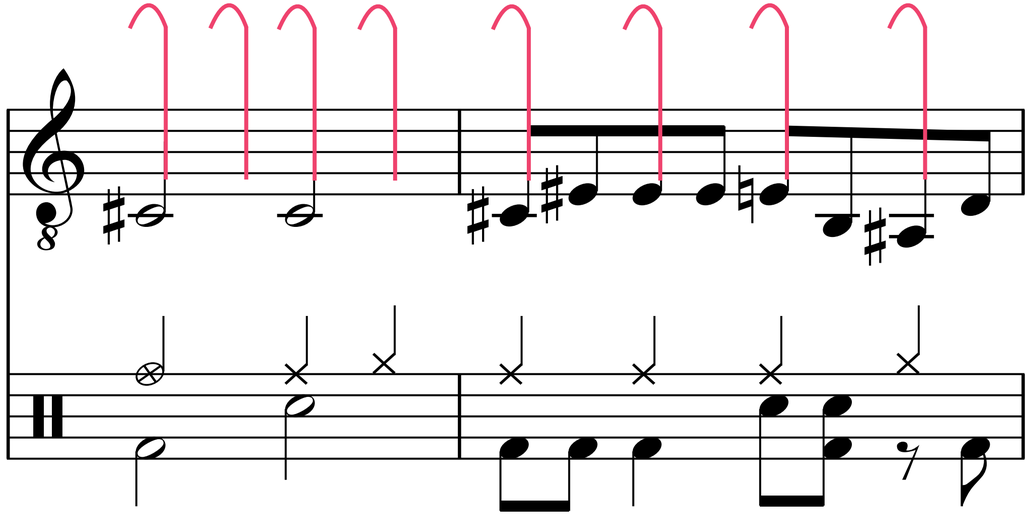
Perceived and felt tempo, created through head banging:

Option 2

Verse

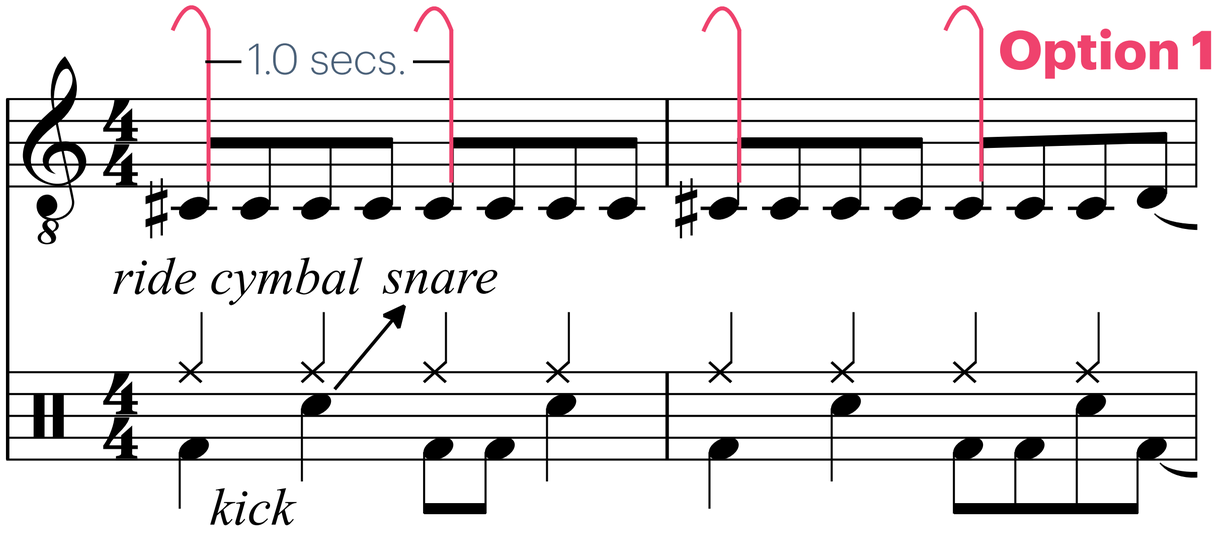


Chorus



Perceived and felt tempo, created through head banging:

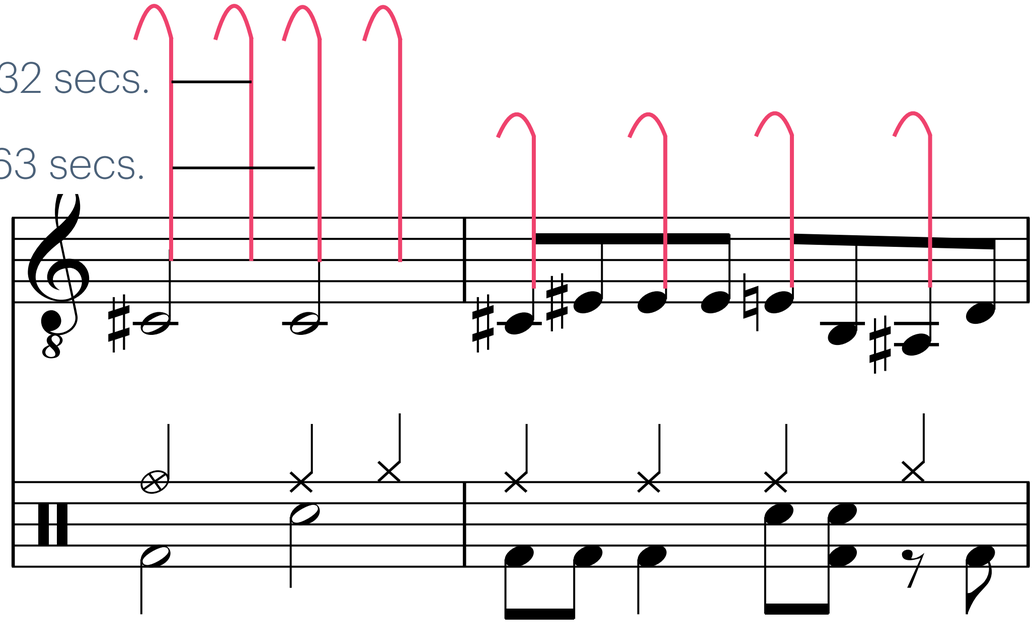
Verse



Chorus

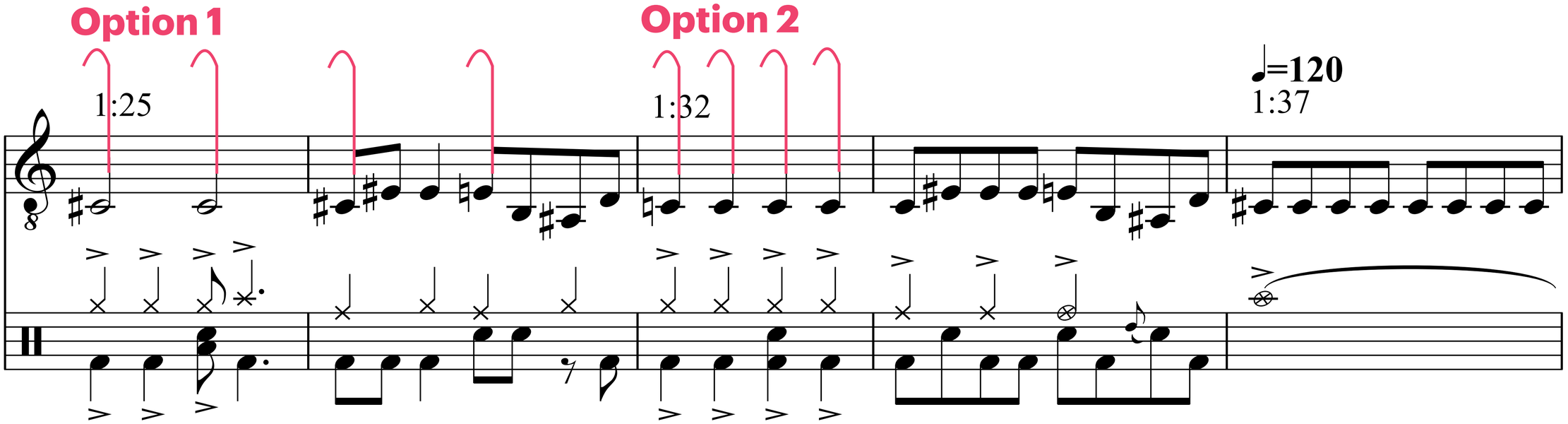
Option 2 0.632 secs.

Option 1 1.263 secs.



Perceived and felt tempo, created through head banging.

Headbanging performed in live performance, June 2020.



End of chorus

YOB, “The Illusion of Motion” (2004)

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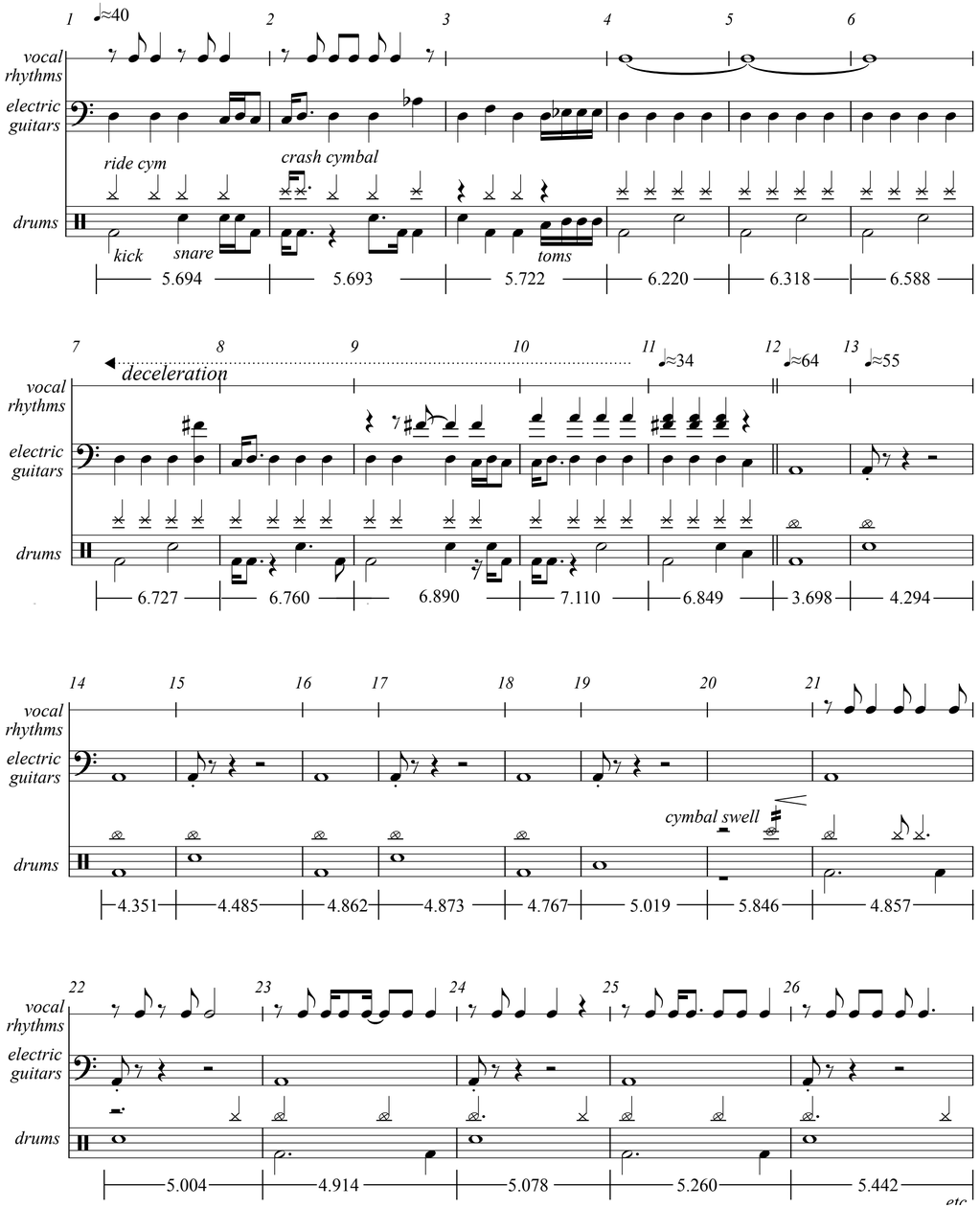
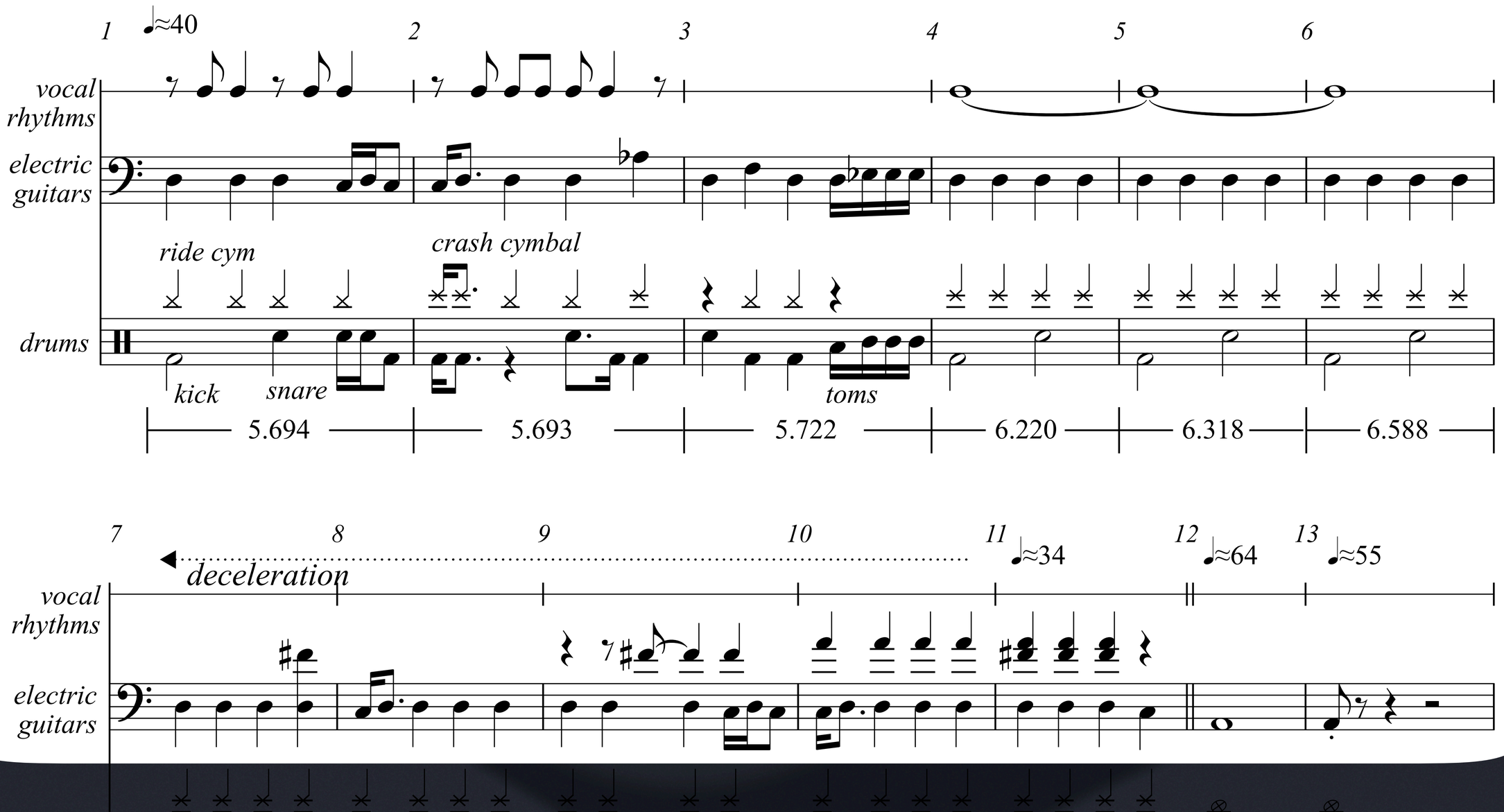
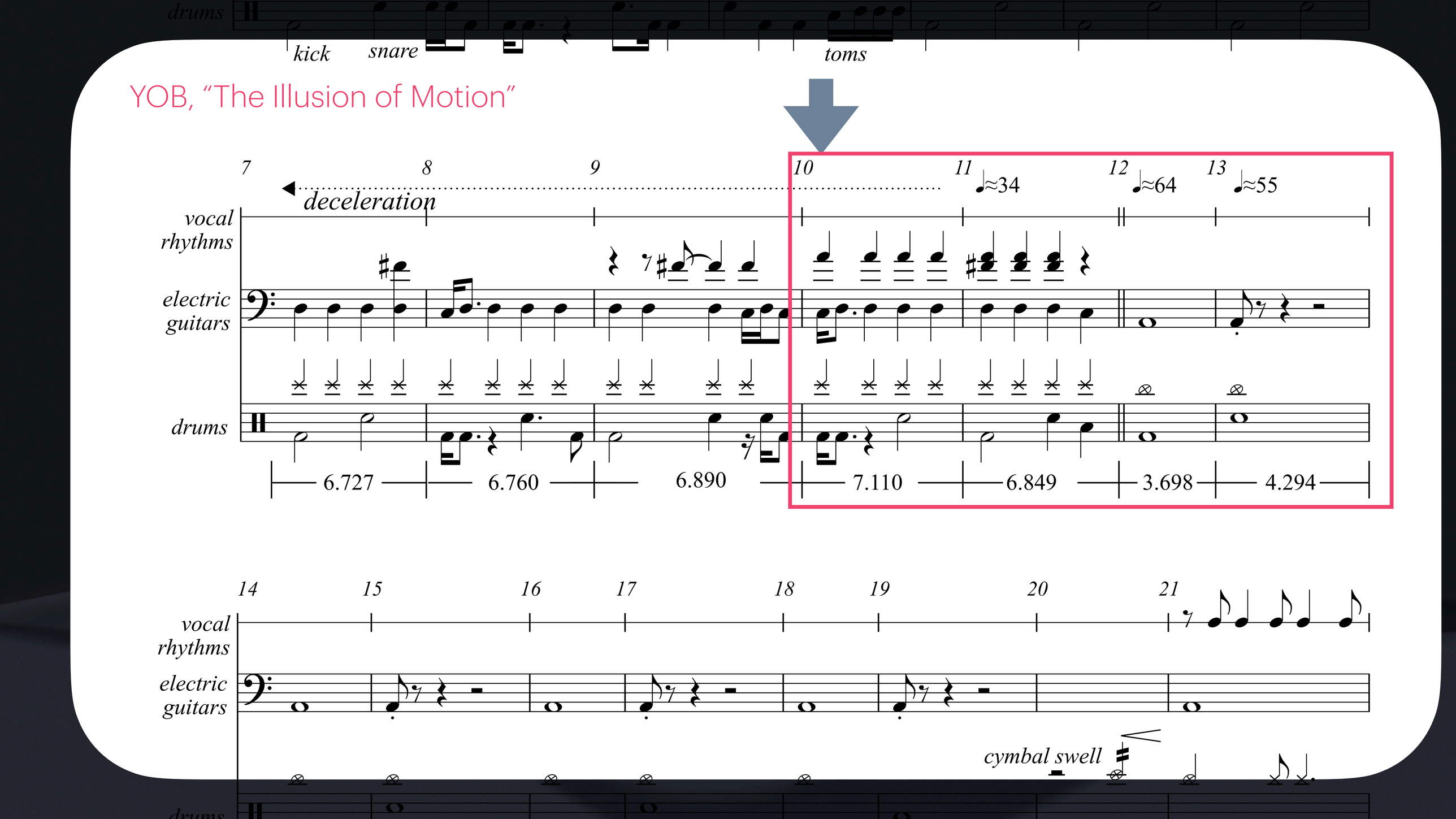


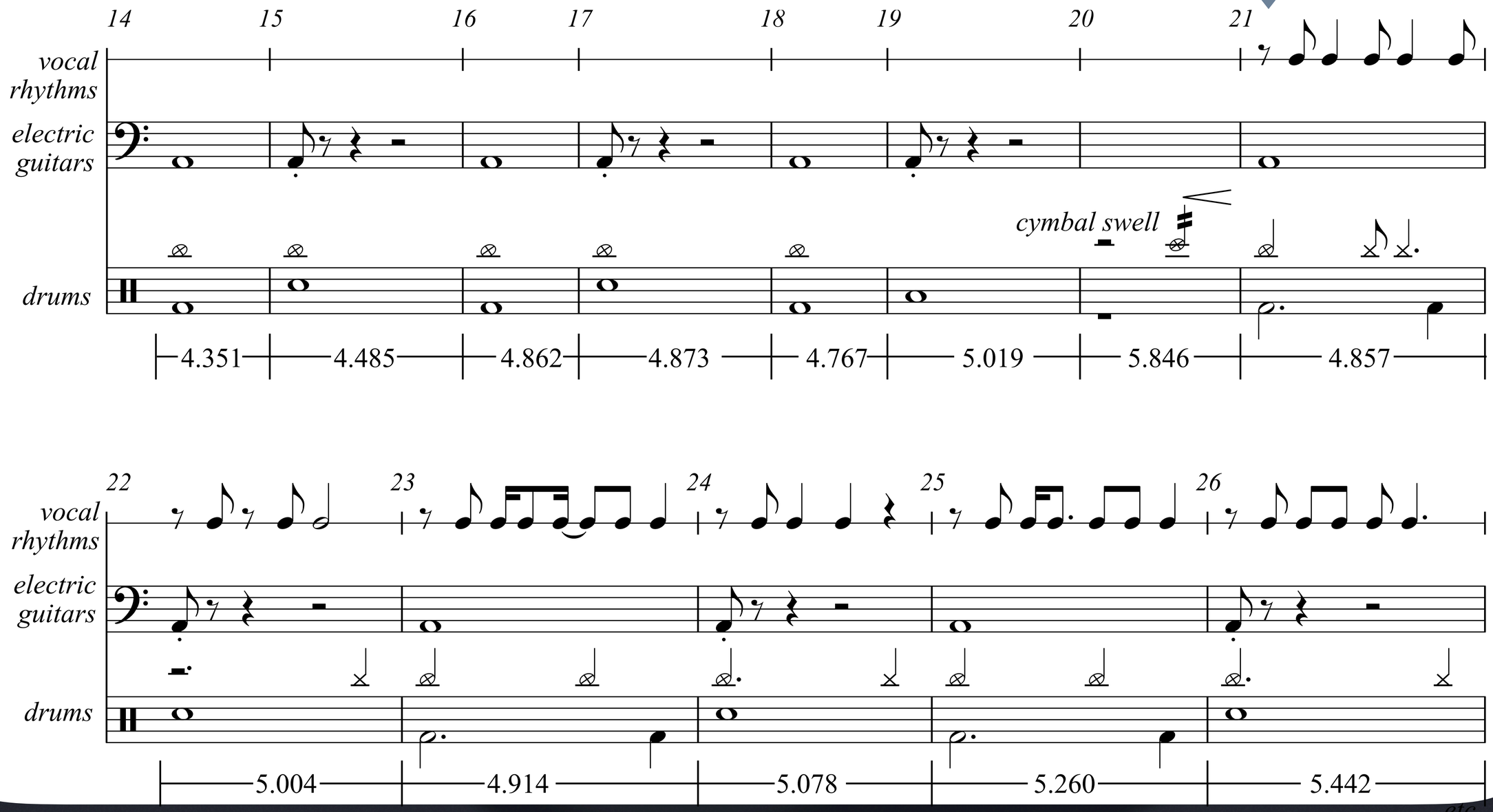
YOB, “The Illusion of Motion”




drums
kick
snare
toms
YOB, “The Illusion of Motion”
7
8
9
10
11
12
13
deceleration
≈34
≈64
≈55
vocal rhythms
electric guitars
drums
6.727
6.760
6.890
7.110
6.849
3.698
4.294
14
15
16
17
18
19
20
21
vocal rhythms
electric guitars
cymbal swell
drums

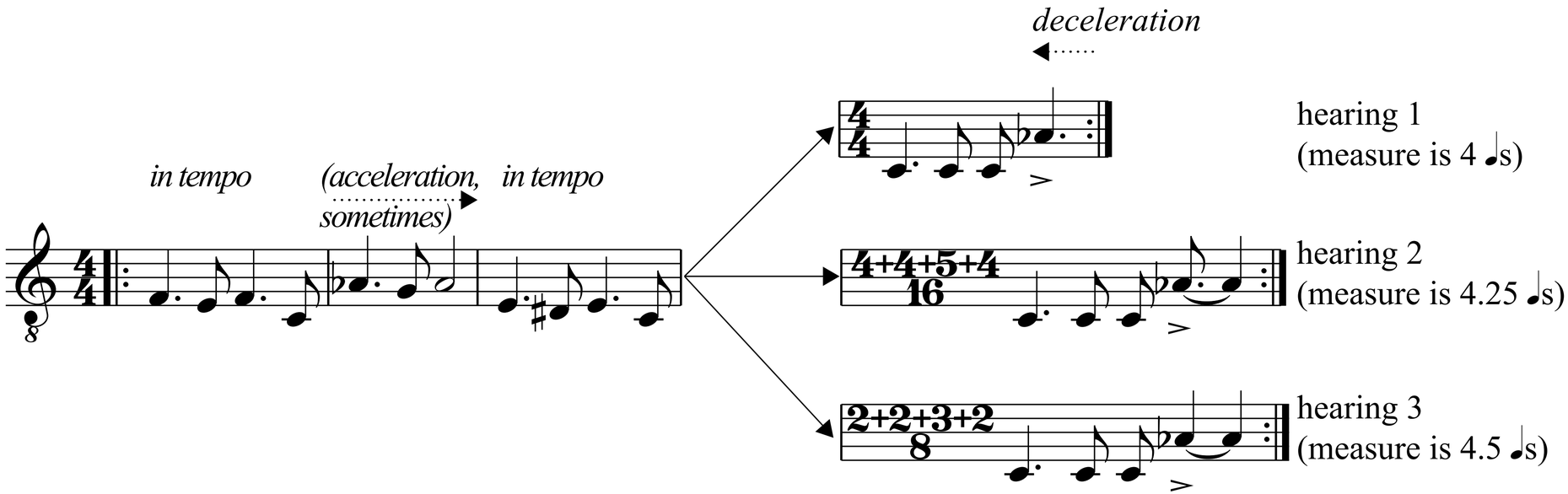
6.727 6.760 6.890 7.110 6.849 3.698 4.294

YOB, “The Illusion of Motion”

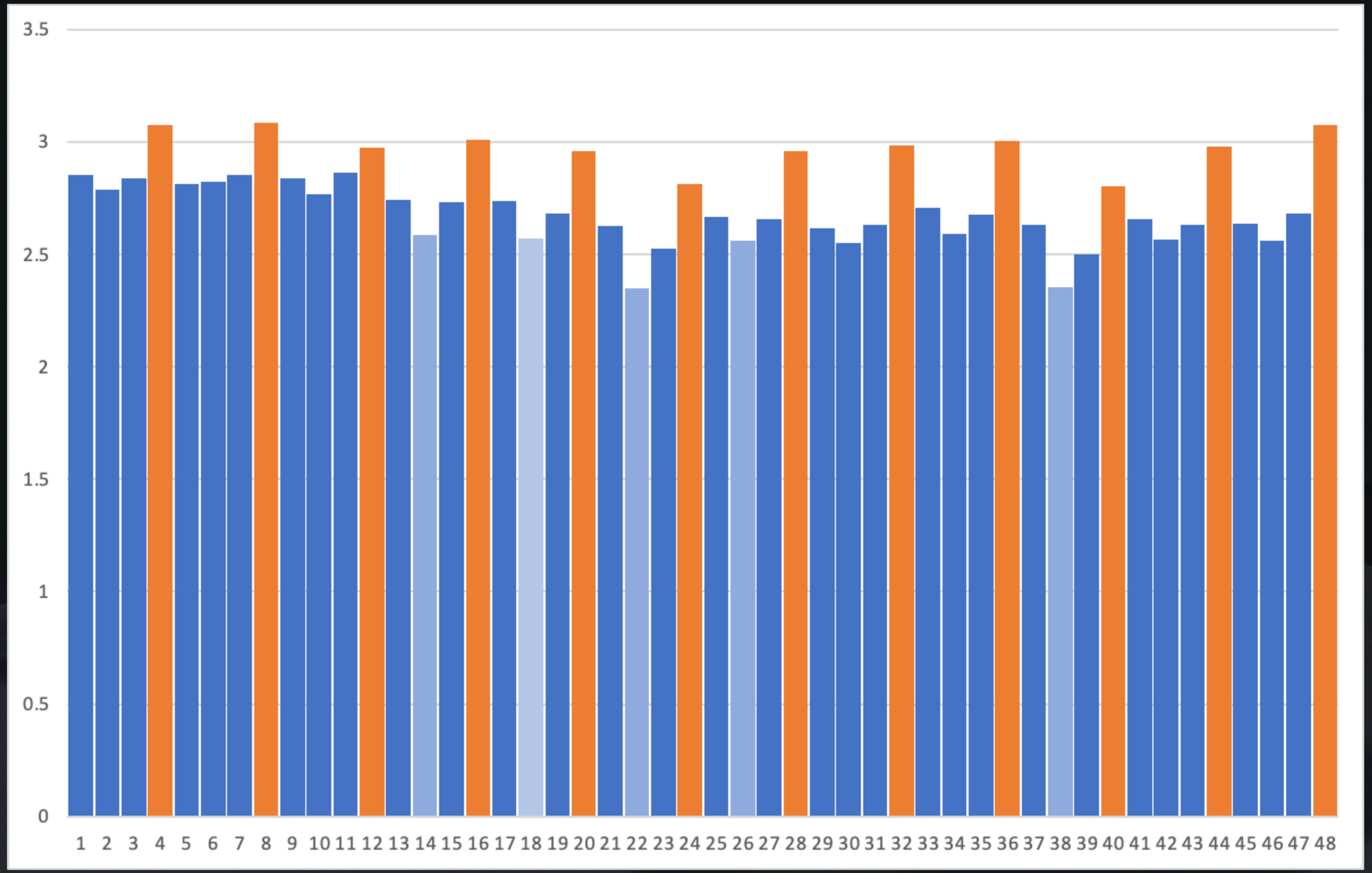


Beats of ambiguous virtual duration
Windhand, “Two Urns” (2015)

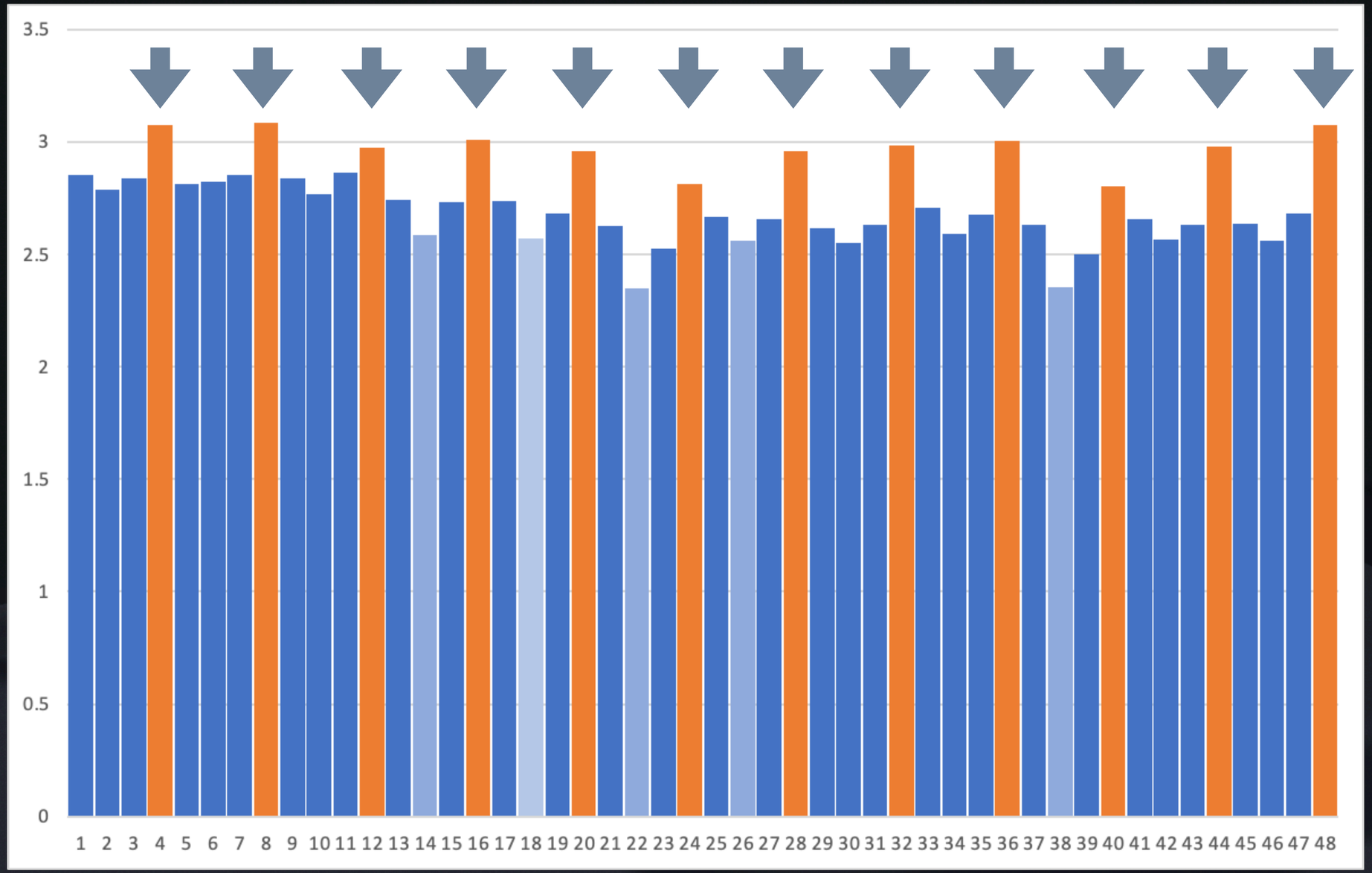
Windhand, “Two Urns”



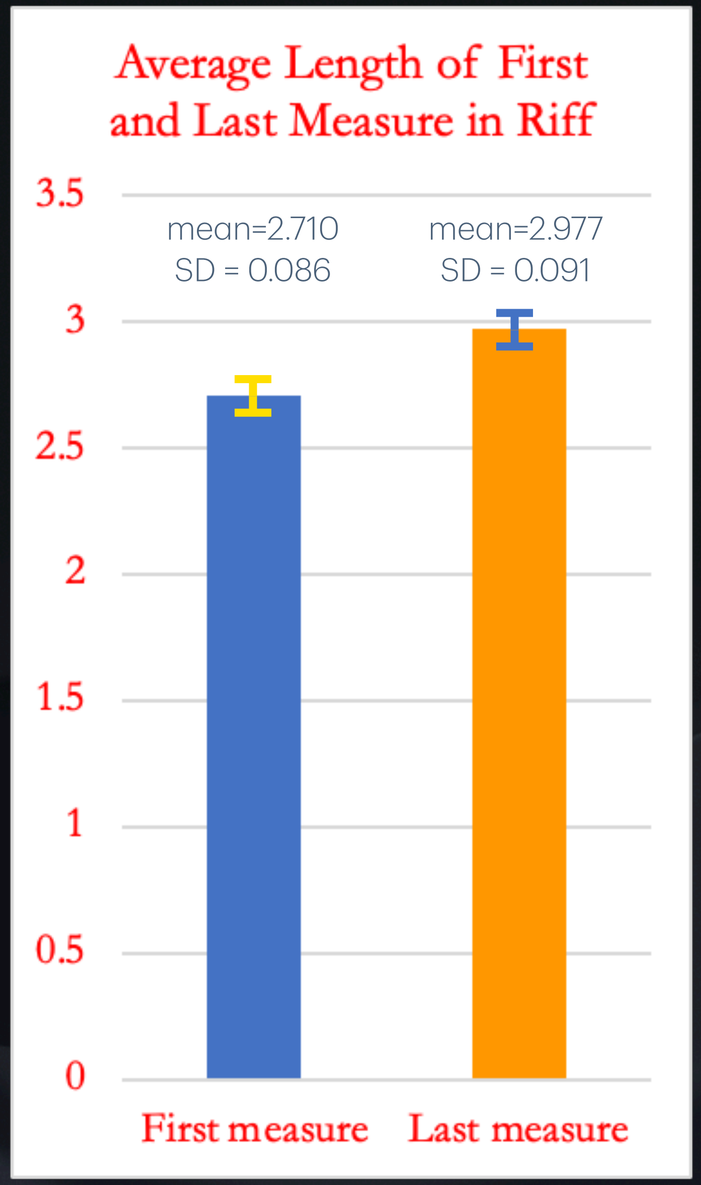
Windhand, “Two Urns,” length of each measure



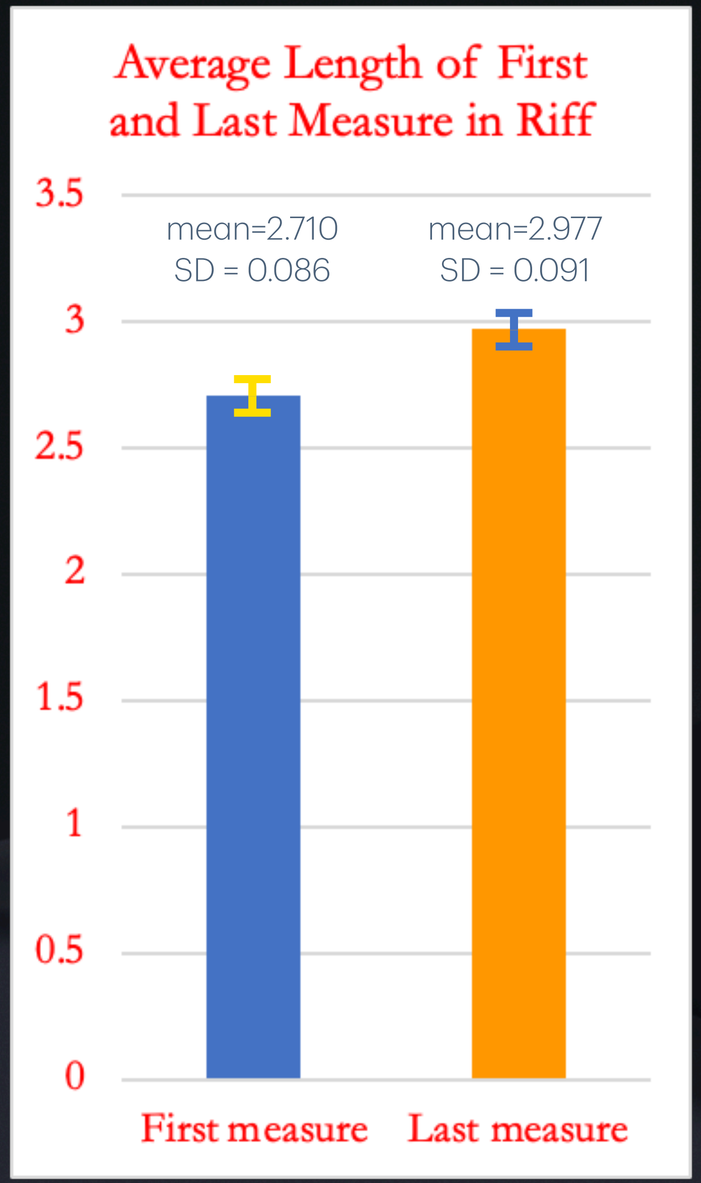
Windhand, “Two Urns,” length of each measure



Windhand, “Two Urns,” length of each measure

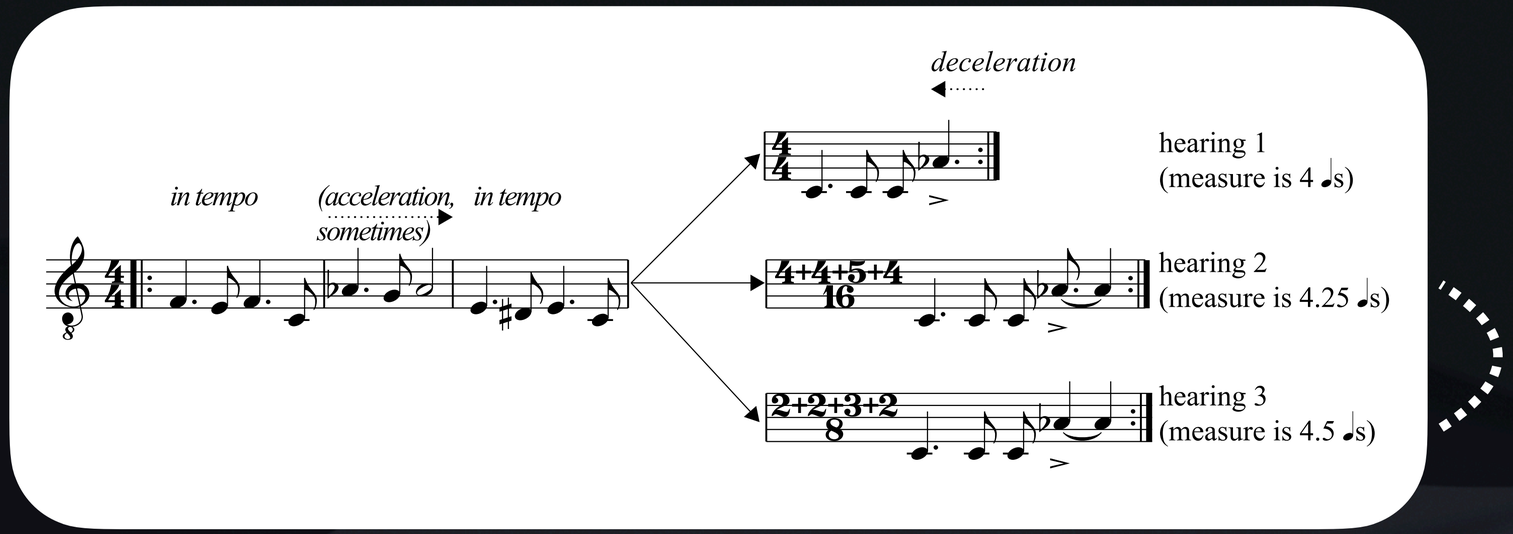


Windhand, “Two Urns,” length of each measure

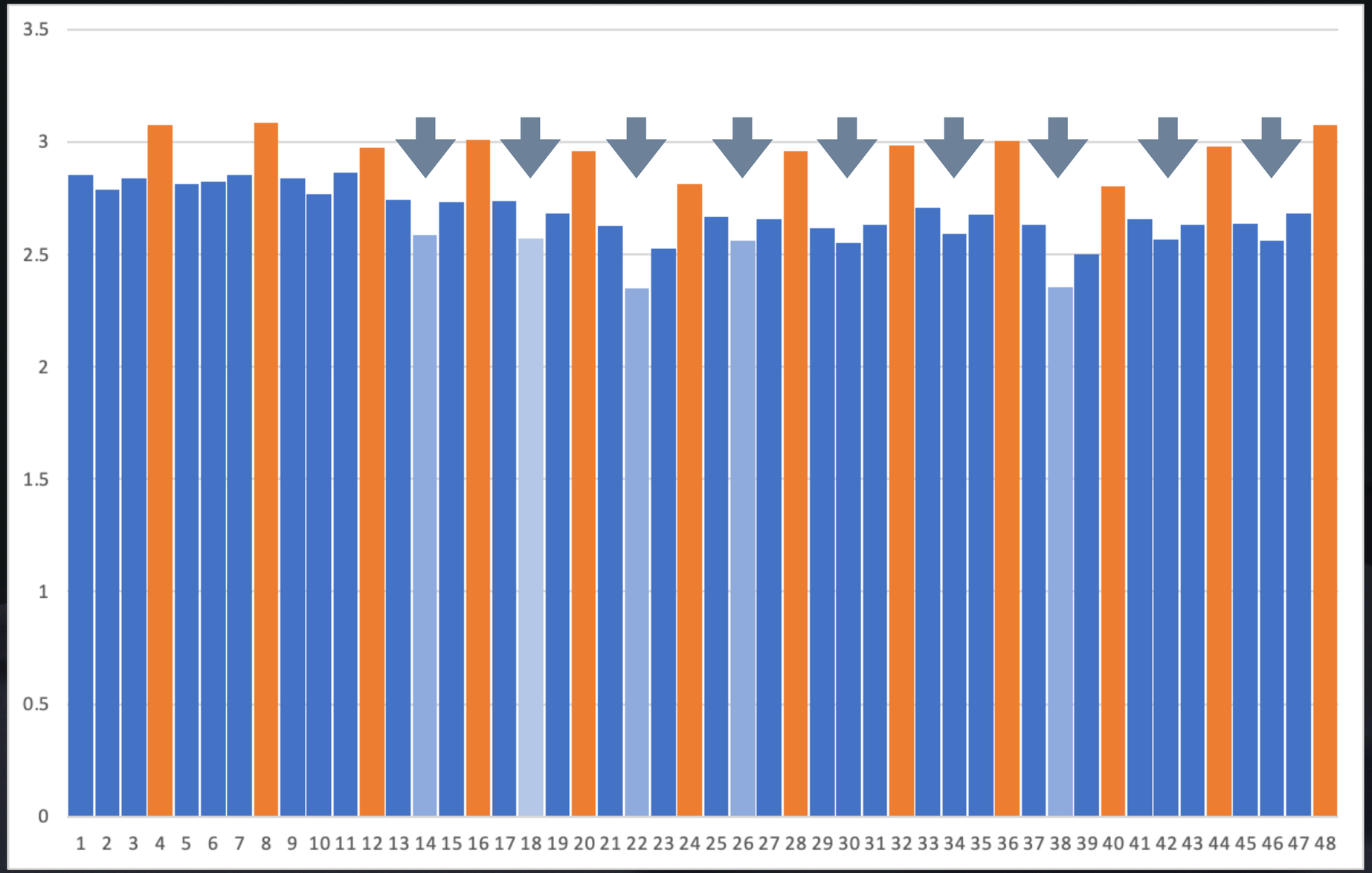


ratio of means: **4 : 4.394**

Halfway between hearing 2 and 3



Windhand, “Two Urns,” length of each measure



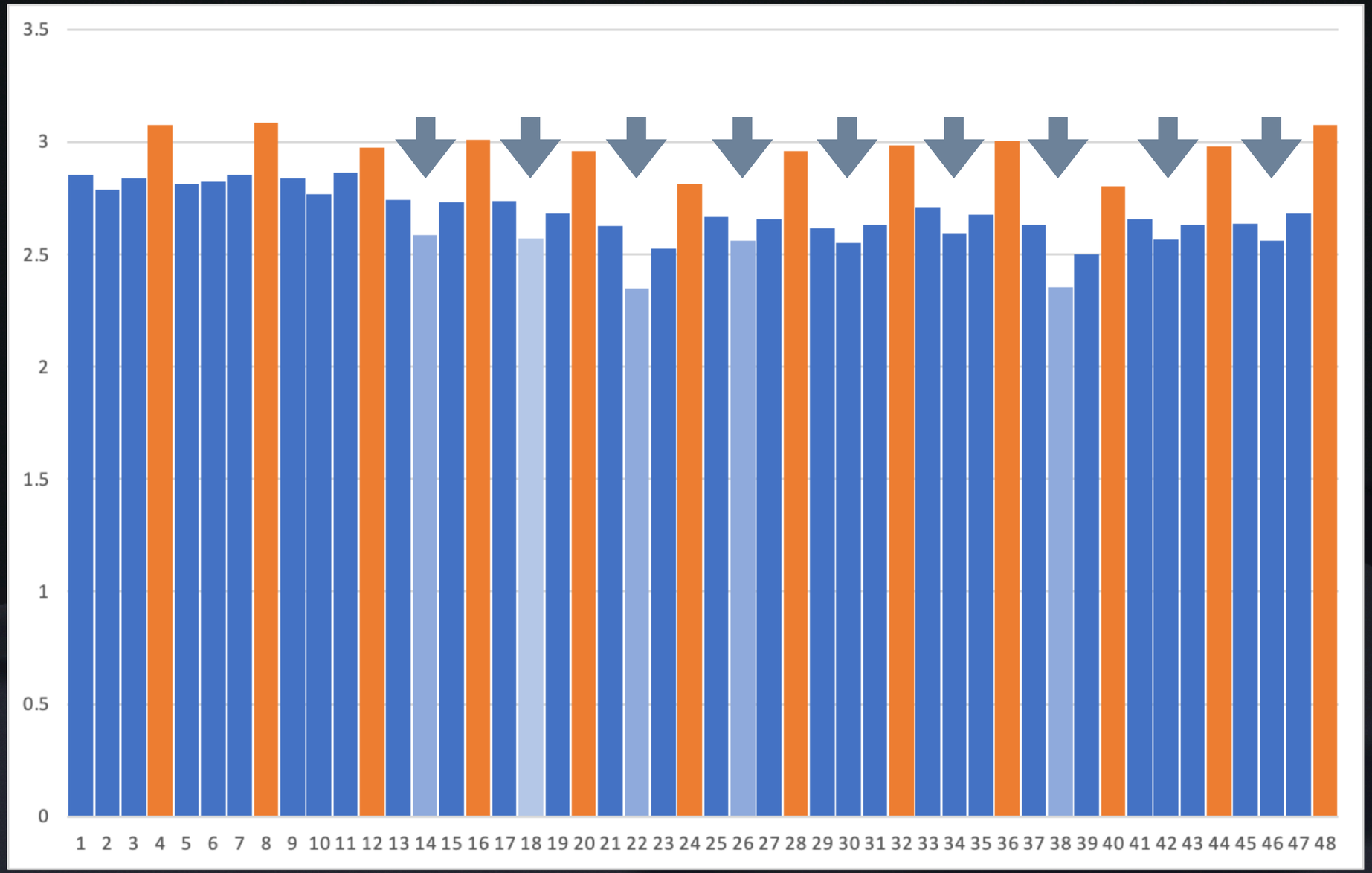
Windhand

Beat Bin Theory of Groove

- Beat bin: “The internal pulse reference we use to structure and understand beat-based musical rhythms is not a series of points in time but has temporal extension and a particular shape.” (Danielsen, 2023)
- Perceptual affordance for slight temporal fluctuations between downbeats without losing pre-existing underlying metric interpretation,

Danielsen (2023)

Windhand, “Two Urns,” length of each measure



Groove And Affect in Doom

- “Groove in doom functions in an affective capacity and contributes directly to [this] sense of heaviness. Doom metal simply would not be as heavy, as crushing, as enveloping without groove.” (Piper, 2013)

Piper (2013)

Conclusion

- Doom differentiates itself as a metal subgenre through sonic ambiguity (Piper, 2013)
- Two ways that doom metal creates groove:
  - Ambiguous tempo changes
  - Elongated beats

Piper (2013)

Conclusion

- Further topics of research:
  - Examining how instrumentation, effects, and studio production affect rhythmic ambiguity
  - Ethnography of live shows and audience embodiment of ambiguous tempo changes

- Dance rhythms are an assemblage of stock figures that are designed to stretch and distort.
- The temporal distortion provides long-range form.

Thank you for listening!

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