

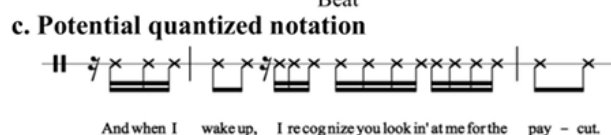
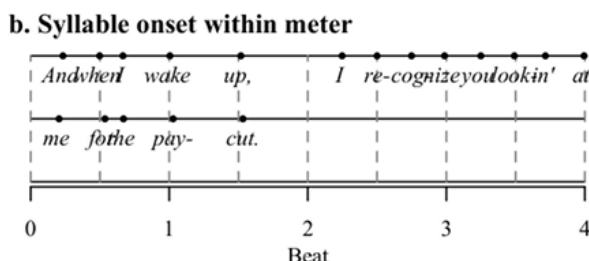
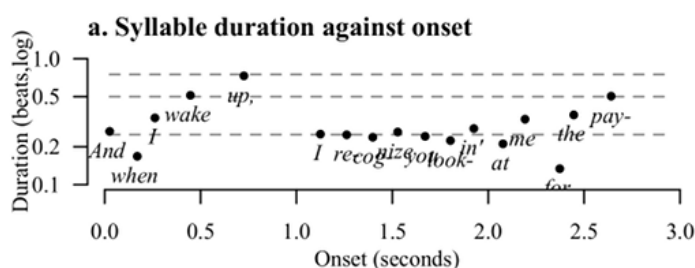


MTO 25.1 Examples: Ohriner, Lyric, rhythm, and non-alignment in the second verse of Kendrick Lamar's "Momma"

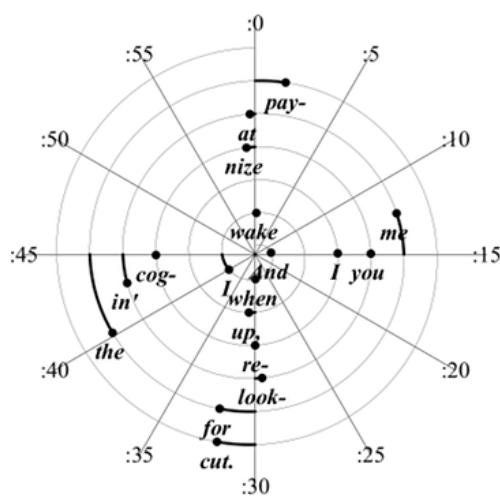
(Note: audio, video, and other interactive examples are only available online)

<http://mtosmt.org/issues/mto.19.25.1/mto.19.25.1.ohriner.html>

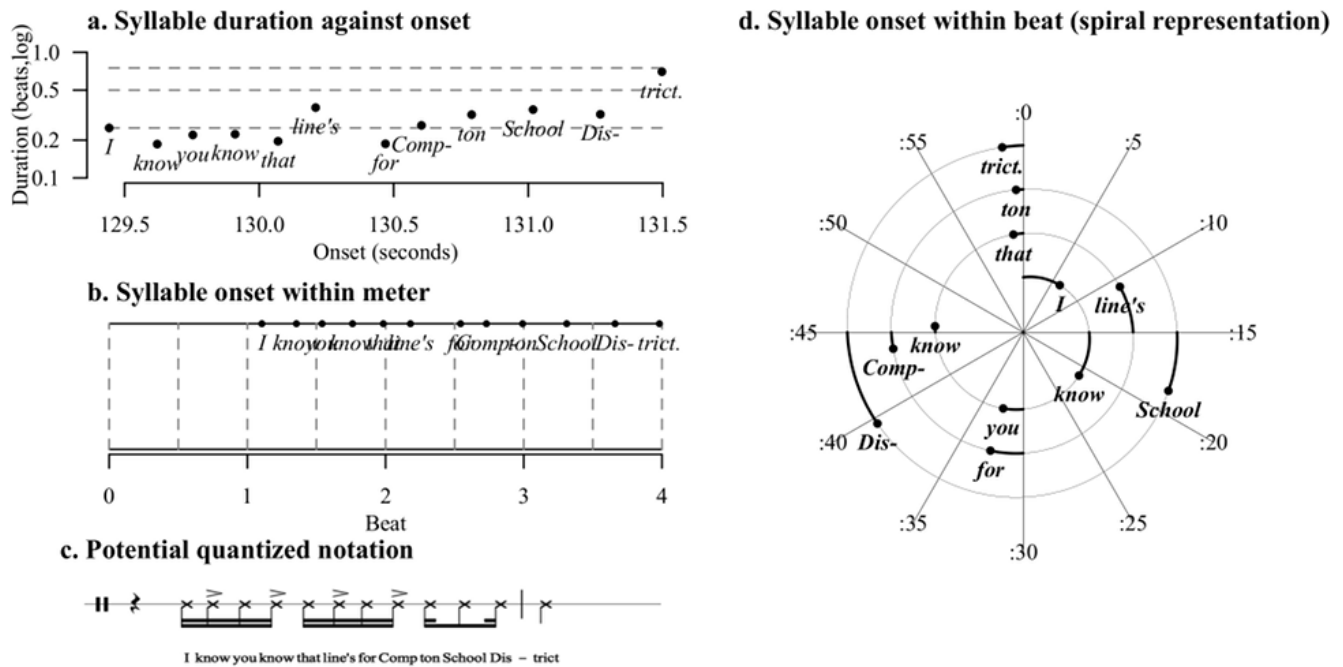
Example 1. Rhythmic delivery in the first line of the first verse of "Alright" (a) (upper left): Syllable duration in beats (logarithmic axis) versus syllable onset in seconds. Dashed lines indicate musical durations of a sixteenth note (.25 beats), eighth note (.5 beats), and dotted eighth note (.75 beats). (b) (center left): Syllable onsets against meter. The four beats of the measure are indexed from 0, dashed lines indicate each half beat. (c) (lower left): A plausible quantization of the rhythm into a cardinality-16 metric space. (d) (right): Syllable onsets within beat. A transformation of the previous "linear" plot, each clockwise rotation around the spiral represents one beat; "minute" positions provided for orientation. Positions within the cardinality-16 metric space are thus located at 0:00, 0:15, 0:30, and 0:45. Darker lines show the distance between syllables and their nearest cardinality-16 position.



d. Syllable onset within beat (spiral representation)



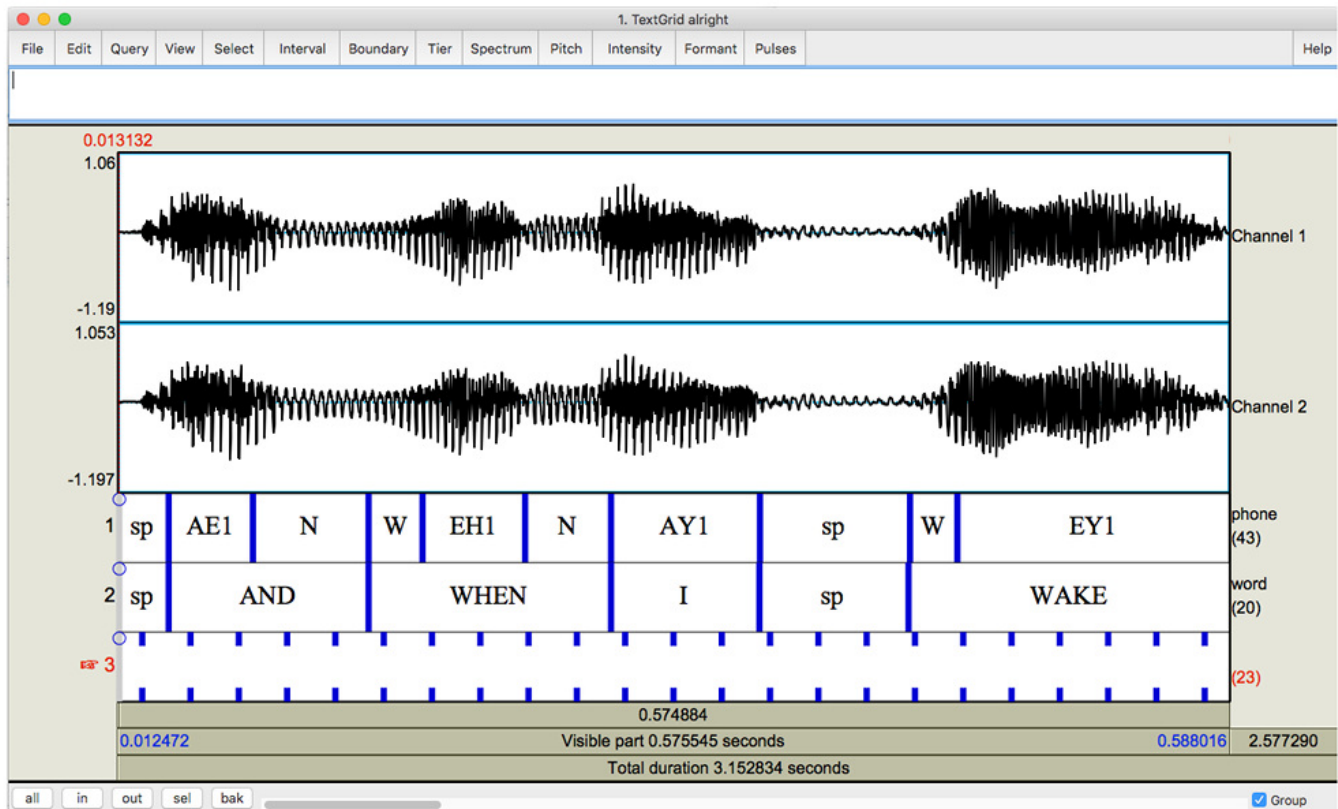
Example 2. Rhythmic delivery of an interior line from the second verse of “Momma” (cf. Example 1)



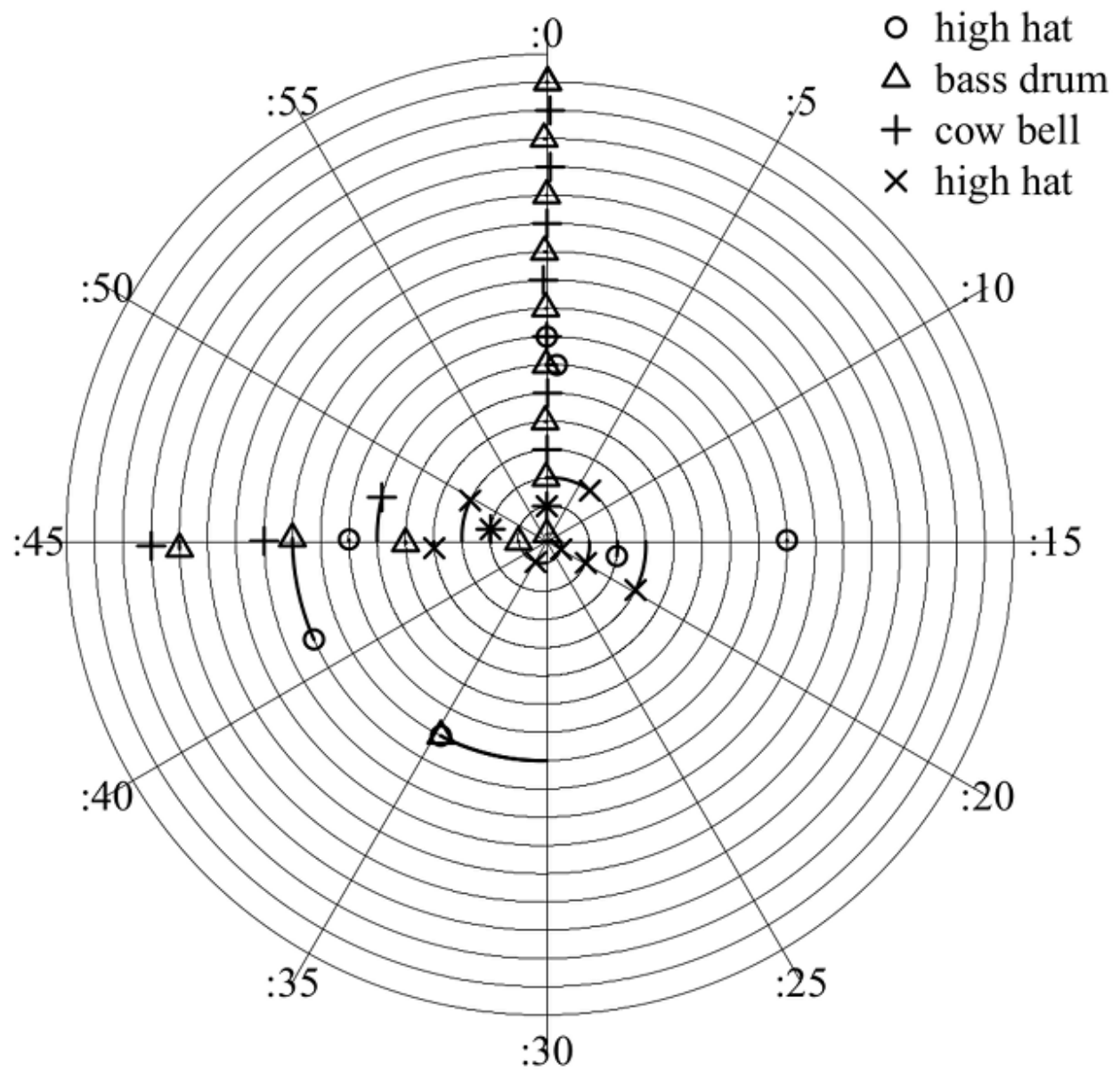
Example 3. Transcription of MF DOOM, “Vomitspit,” m. 3, transcribed by Martin Connor



Example 4. Syllable onsets in “And when I wake,” visualized in Praat. Top two levels are the stereo signal from the release Next two levels are phonetic features—phones above labeled in the arpabet phonetic language and words below. These are entered manually such that vowel onsets (i.e., “AE1,” “EH1,” “AY1,” and “EY1”) are annotated at the midpoint of the initial increase of the vowel’s amplitude. The lowest level is a ruler in which hash marks are 25ms, roughly the resolution of the just noticeable duration.



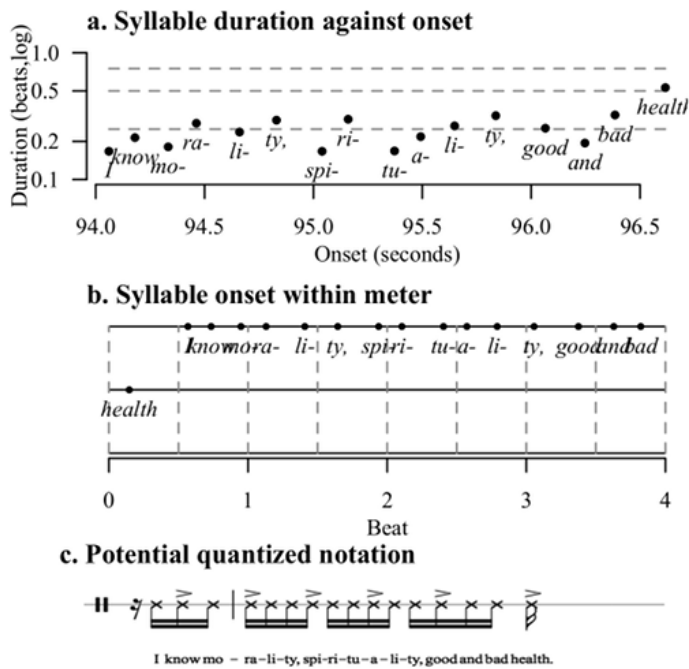
Example 5. Events in the instrumental streams of “Momma,” plotted around the clock-face



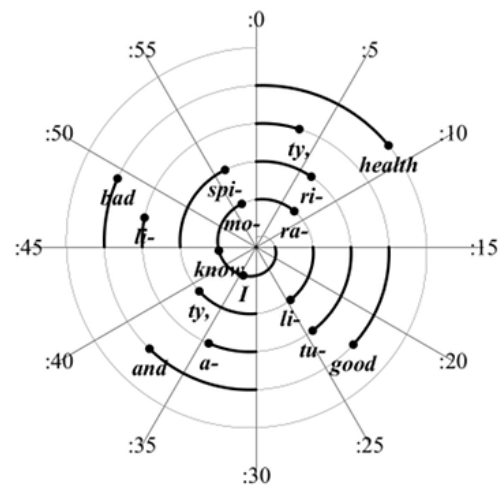
Example 6. “Momma,” verse two, lyrics. Each line roughly corresponds to one measure

1. I know everything. I know everything, know myself.
2. I know morality, spirituality, good and bad health.
3. I know fatality might haunt you. I know everything. I know Compton,
4. I know street shit, I know shit that’s conscious.
5. I know everything. I know lawyers, advertisement and sponsors.
6. I know wisdom, I know bad religion, I know good karma.
7. I know everything. I know history. I know the universe works mentally.
8. I know the perks of bullshit isn’t meant for me.
9. I know everything. I know cars, clothes, hoes and money.
10. I know loyalty, I know respect, I know those that’s hungry.
11. I know everything, the highs the lows the groupies the junkies.
12. I know if I’m generous at heart, I don’t need recognition.
13. The way I’m rewarded, well, that’s God’s decision.
14. I know you know that line’s from Compton School District.
15. Just give it to the kids, don’t gossip about how it’s distributed.
16. I know how people work.
17. I know the price of life, I’m knowing how much it’s worth.
18. I know what I know and I know it well not to ever forget,
19. Until I realized I didn’t know shit the day I came home.

Example 7. Rhythmic delivery of m. 2, “I know morality, spirituality, good and bad health”



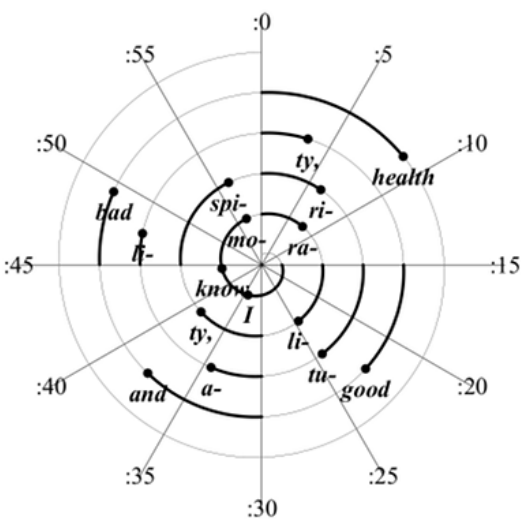
d. Syllable onset within beat (spiral representation)



Mean asynchrony = 8.5 minutes

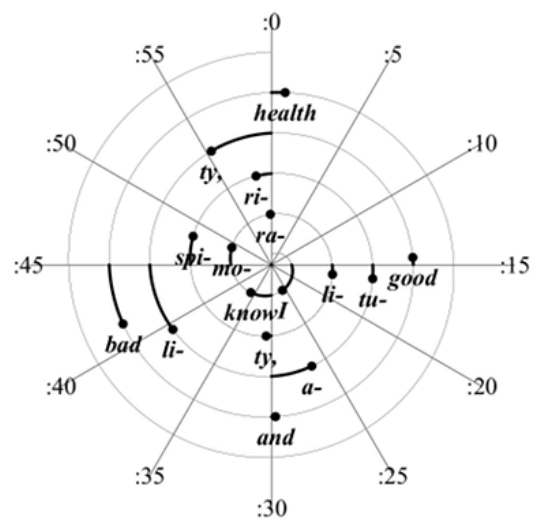
Example 8. Rhythmic delivery of “I know morality. . .,” as performed (left), and with a phase adjustment of -8 minutes, optimizing the alignment of syllables to the imputed quantization (right)

Syllable onset within beat



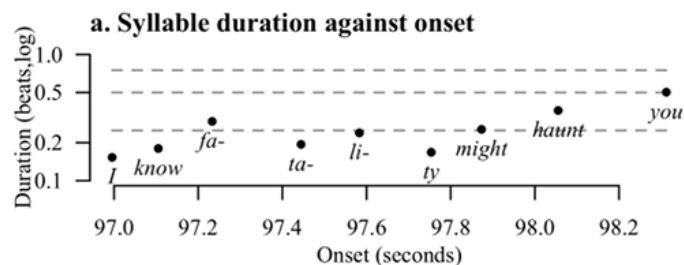
Mean asynchrony = 8.5 minutes

Syllable onset within beat, phase adjusted

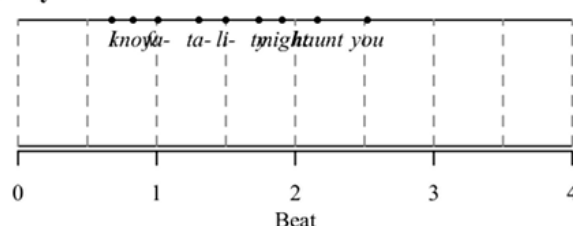


Phase of -8 minutes
Mean asynchrony = 3 minutes

Example 9. Rhythmic delivery of m. 3, "I know fatality might haunt you," with spiral representation rotated to optimize alignment



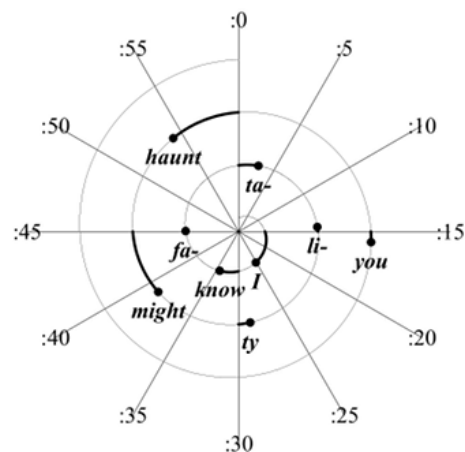
b. Syllable onset within meter



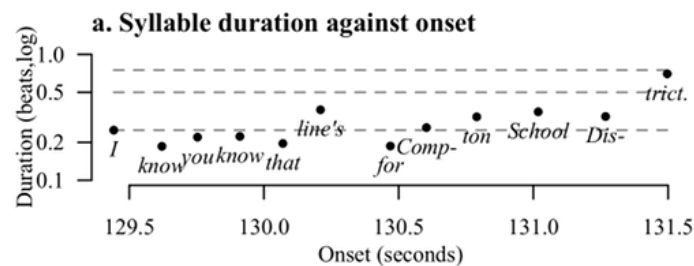
c. Potential quantized notation



d. Syllable onset within beat (spiral representation)



Example 10. Rhythmic delivery of "I know you know that line's for Compton School District"



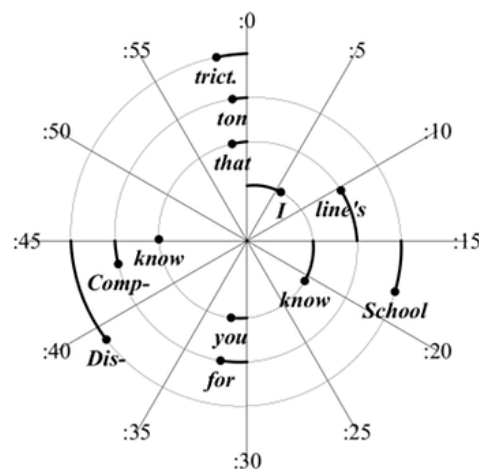
b. Syllable onset within meter



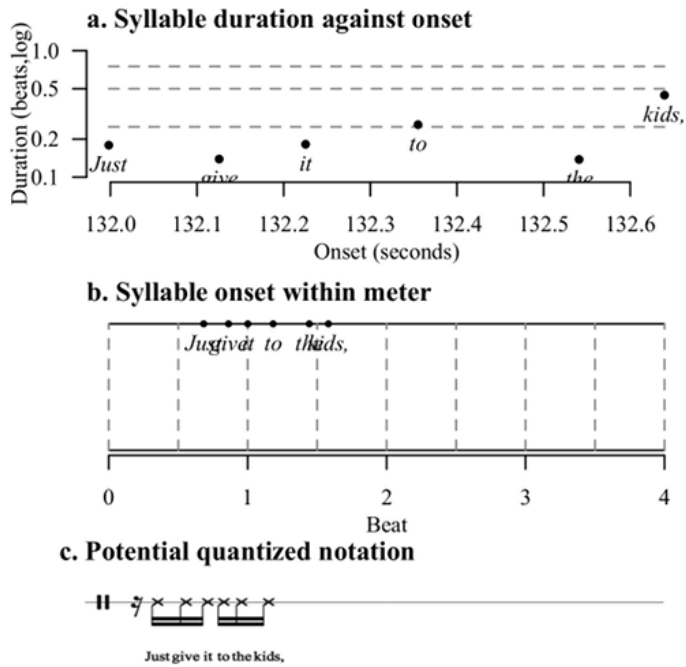
c. Potential quantized notation



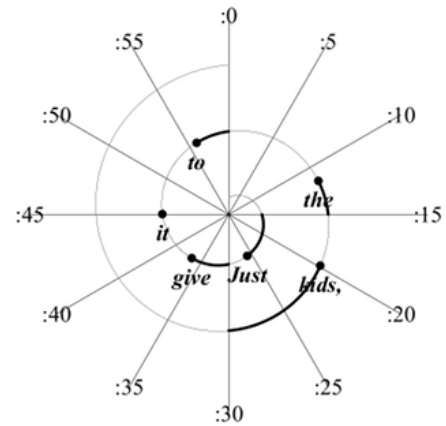
d. Syllable onset within beat (spiral representation)



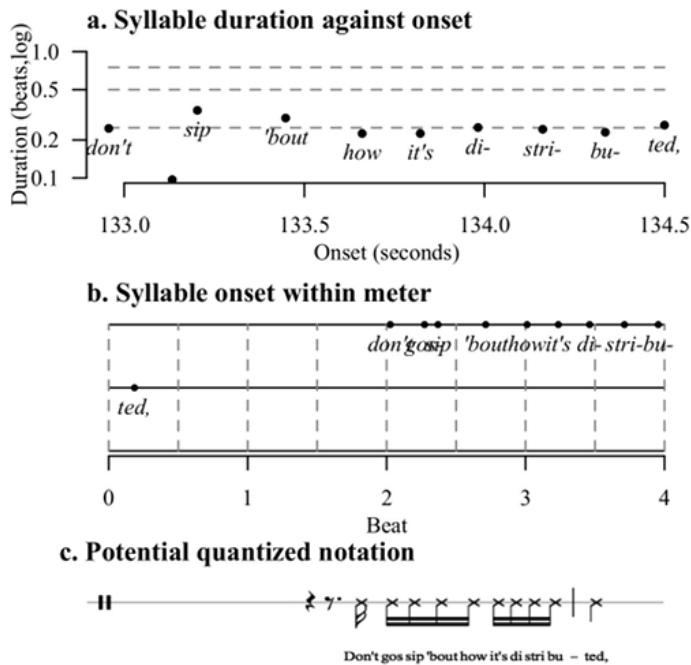
Example 11. Rhythmic delivery of “Just give it to the kids”



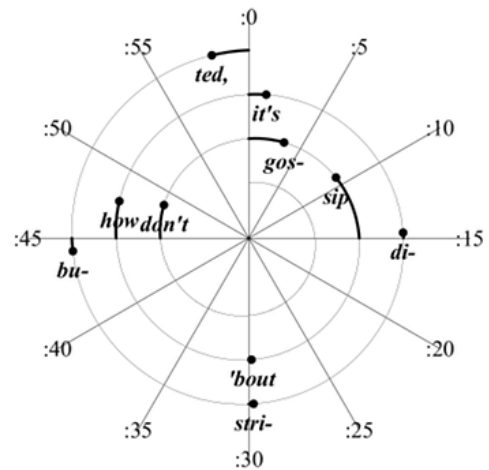
d. Syllable onset within beat (spiral representation)



Example 12. Rhythmic delivery of “Don’t gossip ‘bout how it’s distributed”

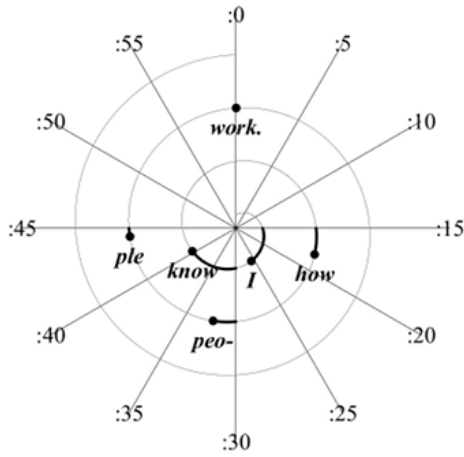


d. Syllable onset within beat (spiral representation)



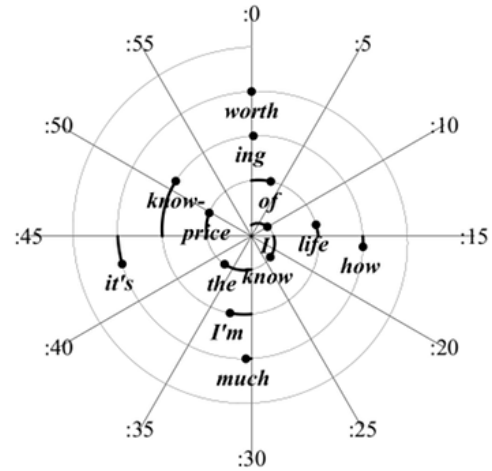
Example 13. Phase in the penultimate couplet of “Momma,” verse two. Phase adjustment chosen to place final, rhyming syllable on the beat

Syllable onset within beat: “I know how people work”



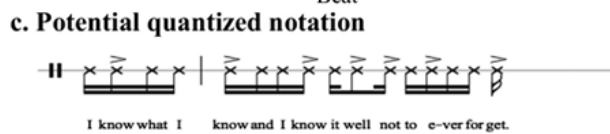
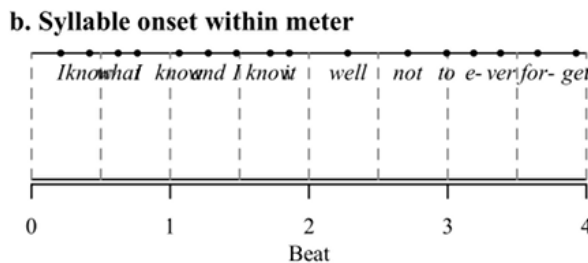
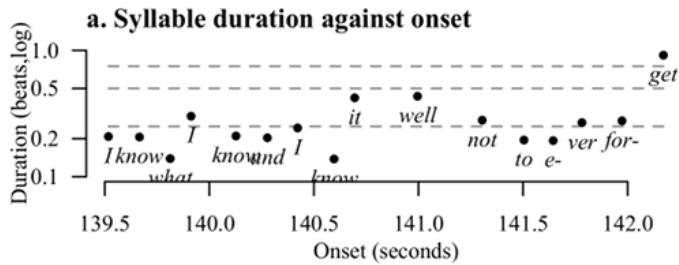
Phase of -1 minutes
Mean asynchrony = 4.6 minutes

Syllable onset within beat: “I know the price of life...”

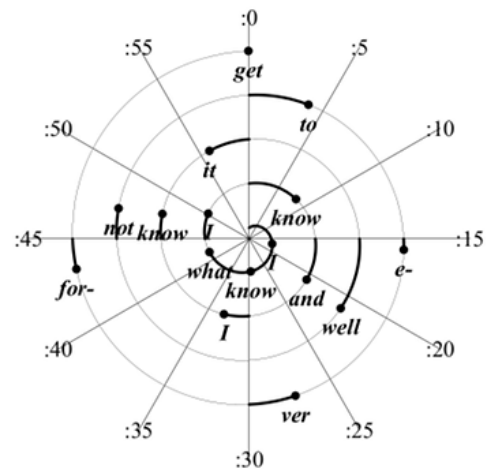


Phase of 3.25 minutes
Mean asynchrony = 3.6 minutes

Example 14. Rhythmic delivery of “I know what I know, and I know it well not to ever forget”



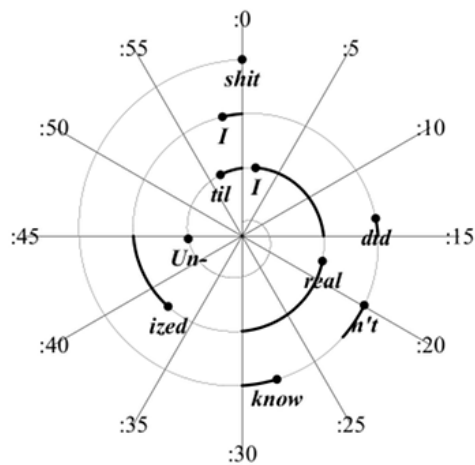
d. Syllable onset within beat (spiral representation)



Phase of 4.4 minutes
Mean asynchrony = 5.6 minutes

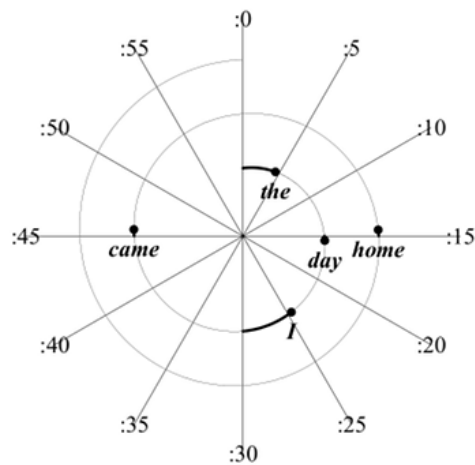
Example 15. Phase in the final couplet of “Momma.” Phase adjustment chosen to align final syllable with its quantized position

Syllable onset within beat: "Until I realized..."



Phase of -6 minutes
Mean asynchrony = 4.4 minutes

Syllable onset within beat: "...the day I came home"



Phase of -3.5 minutes
Mean asynchrony = 2.3 minutes