

# Groove on the Field

## Microtiming “Feels” and Rhythmic Synchronization in Marching Percussion

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### Defining Groove

- Extensive research has produced various definitions of groove
  - Broadly, groove describes wanting to move to music
  - Keil (1966) describes microtiming deviations, or participatory discrepancies, that create an “engendered” feeling, like the swing feel in jazz
  - Syncopation, among many other rhythmic and textural factors, may also play a role in creating a groove feeling (Witek 2017, Butler 2006, Butterfield 2006)
  - Jazz drummers evoke different timing feels, like playing ahead or behind the beat, although the extent to which this is perceived is unclear (Butterfield 2010, 2006; Iyer 2002)
- Unlike groove-based musics, drumlines seek to eliminate any microtiming deviations to achieve near-perfect synchronization
- It is curious that drumlines use “groove” language and employ microtiming feels, like playing ahead or behind the beat

### Timing in the Marching Arts

- Drumlines attempt to achieve a “clean” or perfectly synchronized rhythmic performance
  - The need for precision timing is a result of the competitive style, large ensemble size, complex rhythms, and articulate timbres of marching percussion instruments
- Previous research has examined cognitive and pedagogical mechanisms that allow for synchronization in drum corps
  - Marching musicians assess their bodily entrainment to an external stimulus (conductor, drumline, vocalizations of the pulse) and make appropriate adjustments (Bowden 2024)
  - Drummers synchronize their feet to a metronome, then relate the timing of familiar drumming patterns (rudiments) in their hands to their marching feet (Lookenbill 2024)
- Marching ensembles have to account for timing delays as a result of distances between performers
  - Performers “listen back” and use sounds behind them as a reference

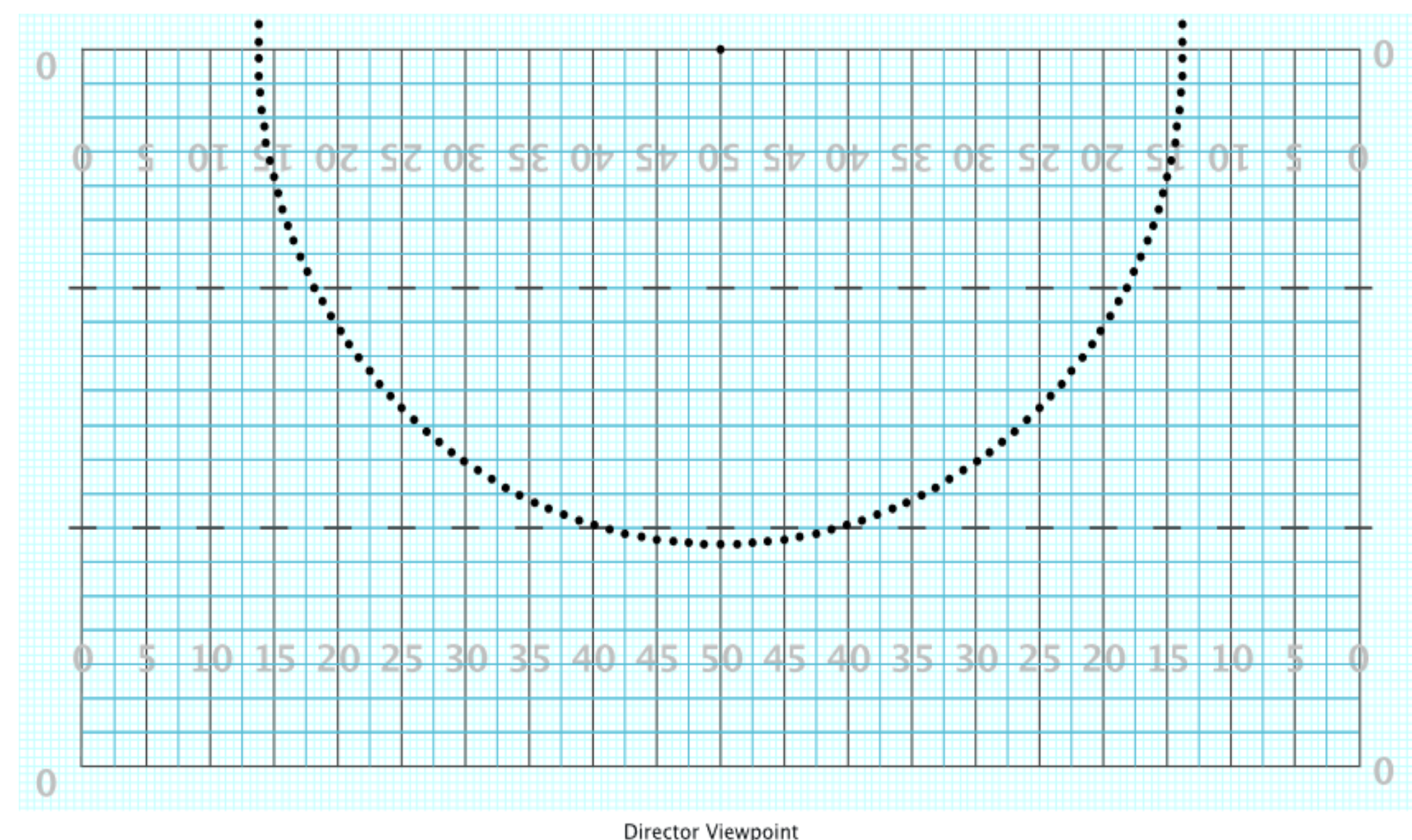


Figure 1. Area of permitted entrainment to the back sideline metronome (Bowden 2024, 145)

### Summary

#### Microtiming “feels” (playing ahead or behind the beat) help drummers accommodate timing delays on the field

- Fieldwork with the Bluecoats Drumline demonstrates how drummers rehearse these “feels”
- This phenomenon illustrates the role embodied meter plays in coordinating ensemble performance of complex rhythms

### Groove on the Field

- Studying the 2023 Bluecoats Drumline, I found that drummers employ different microtiming feels to adjust for timing delays on the field
- “Listening back” is not always available to drummers, and they must adjust their timing relative to a timing source
- They practice different timing feels during their warm-up exercises
  - When playing with a metronome, they play ahead of the beat; when playing with the drumset, they play behind the beat
- “Groove” language encourages drummers to “feel” the correct timing of their performance, implementing embodied meter as a pedagogical device

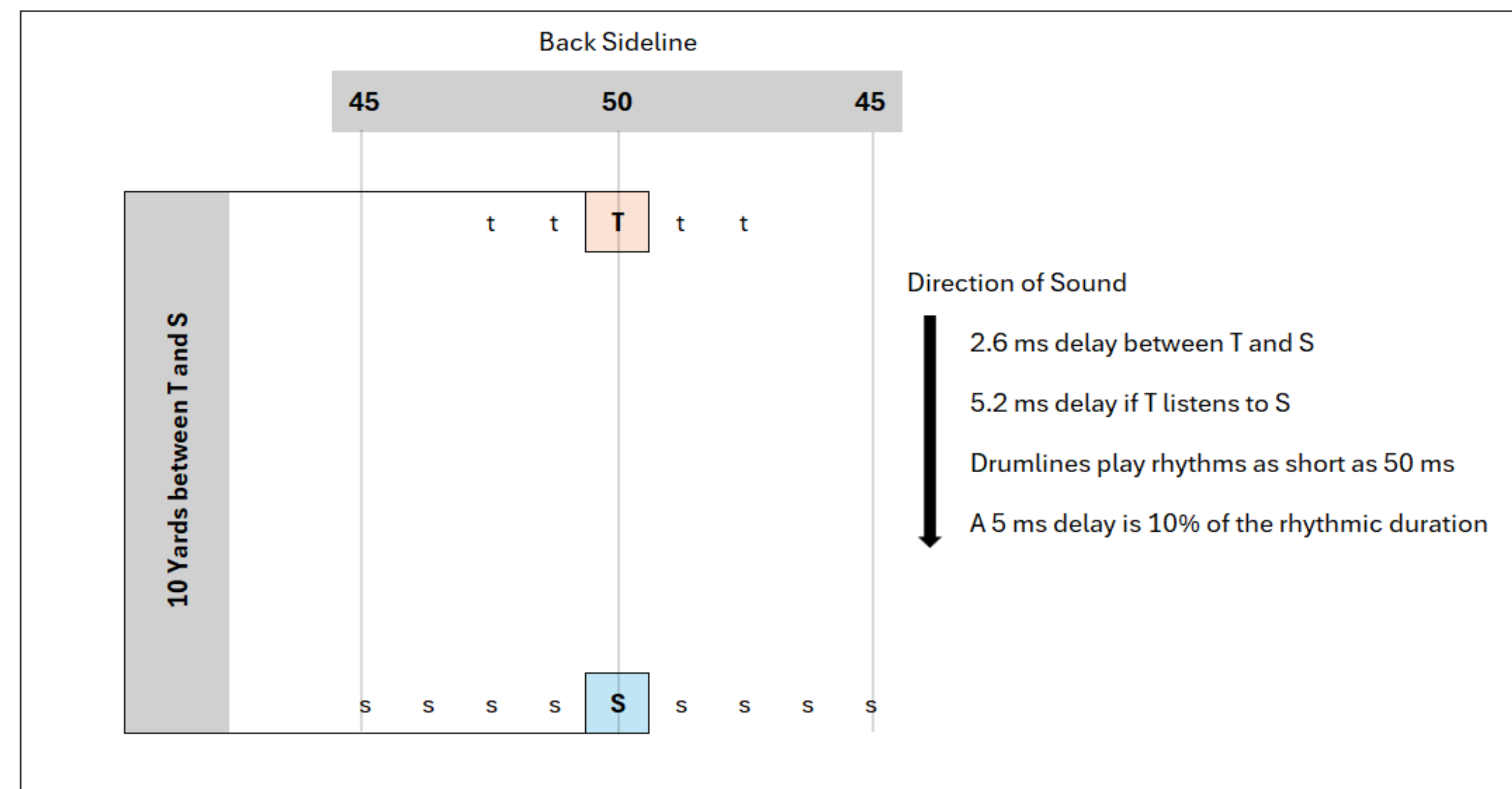


Figure 2. Drill scenario resulting in a timing delay between tenors and snares

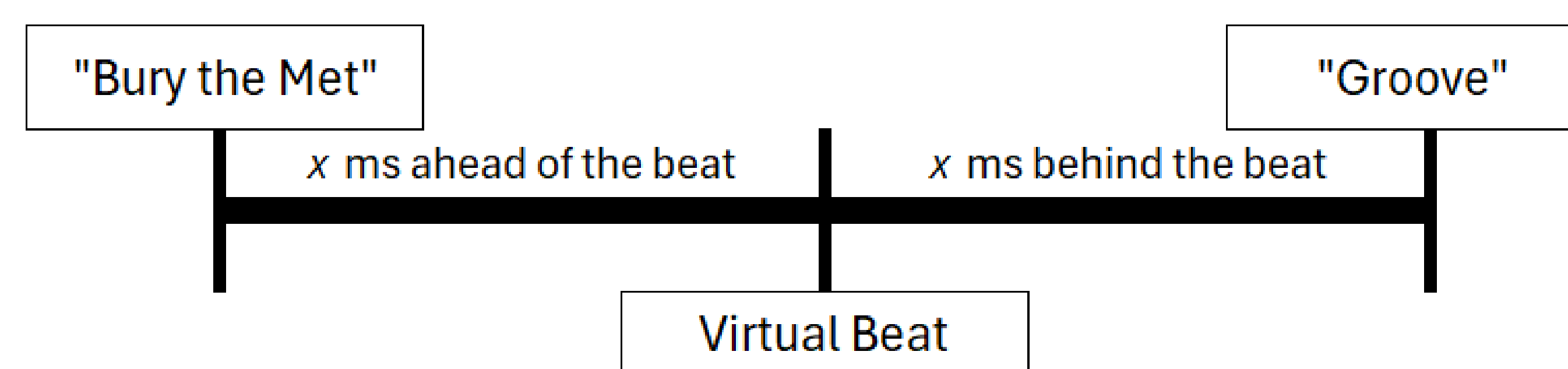


Figure 3. Microtiming adjustments employed by the Bluecoats Drumline

### Interviews

Interviews conducted with the 2023 Bluecoats Drumline staff and performers

Ryan Kilgore, Music Ensemble Coordinator

- “[Burying the metronome] is when the metronome becomes inaudible because you are so much on top of that sound...so it becomes invisible to our ear.”

Tommy Roam, Battery Coordinator

- “I would say we use it [the metronome] from day one, we use it as much as possible, but that’s why we have the drum set to spice it up...hopefully feel things differently...you’d probably talk to some people that will tell you that [beats] one and three are very important. But I would say typically [beats] two and four are...that’s the true groove inside of it.”
- “It’s all about that tempo and the feel, how consistent it feels and the groove withinside of that.”

Suvin Varghese, Battery Ensemble Coordinator

- “You need to have both [the metronome and the drum set] so that we change the way that they feel about the music. So it’s not that we want them to feel one way about it, but that we have a variety of ways in which we interpret the music. And one way isn’t right, one way isn’t wrong. But if we tell them that they need to sit kind of more on the back of the beat, they can internalize what it feels like to play with a drum set or play with a groove. And then if we tell them that they need to drive this section of the show and bury the met, then they have a sense of what that’s like as if it was just the met playing.”

Ty Slaughouh, Tenor Section Leader

- “I definitely think Tom [drumline arranger] has a very unique and special way of phrasing his music, where we might be playing all of these crazy rudiments and crazy dense flam material, I think Tom does a very good job of making everything feel right in the pocket and right in the groove with his phrasing”

### Bibliography

- Bowden, Sara Ann. 2024. “Musical Visuality: Embodying Meter and Overcoming Noise in the Marching Arts.” Dissertation, Northwestern University.
- Butler, Mark Jonathan. 2006. *Unlocking the Groove: Rhythm, Meter, and Musical Design in Electronic Dance Music*. Indiana University Press.
- Butterfield, Matthew. 2010. “Participatory Discrepancies and the Perception of Beats in Jazz.” *Music Perception* 27 (3): 157–76.
- . 2006. “The Power of Anacrusis: Engendered Feeling in Groove-Based Musics.” *Music Theory Online* 12 (4).
- Iyer, Vijay. 2002. “Embodied Mind, Situated Cognition, and Expressive Microtiming in African-American Music.” *Music Perception* 19 (3): 387–414.
- Keil, Charles M. H. 1966. “Motion and Feeling through Music.” *The Journal of Aesthetics and Art Criticism* 24 (3): 337–49.
- Lookenbill, Zachary. 2024. “Rhythm and Timing in North American Drum Corps Drumline: In Theory and in Practice.” Dissertation, The Ohio State University.
- Witek, Maria A. G. 2017. “Filling In: Syncopation, Pleasure and Distributed Embodiment in Groove.” *Music Analysis* 36 (1): 138–60.