

Temporal Transformations in the Timekeeper's Toolkit: Metric Modulation in Popular Music Drumming

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Society for Music Theory Annual Meeting, Denver, CO
11/10/23

Supplemental Materials

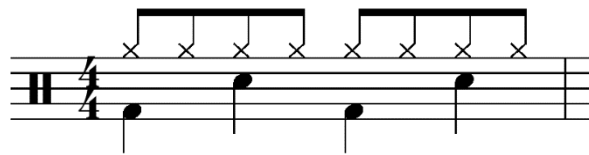
https://osf.io/w5pcg/?view_only=e8e81c0364c54fe4afaeb073b10626e6

Examples

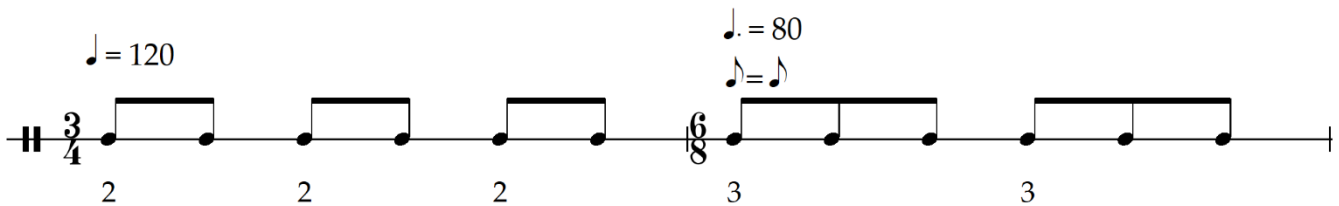
All transcriptions are work of the author

Additional examples of metric modulation: [Collaborative spreadsheet of musical examples.](#)

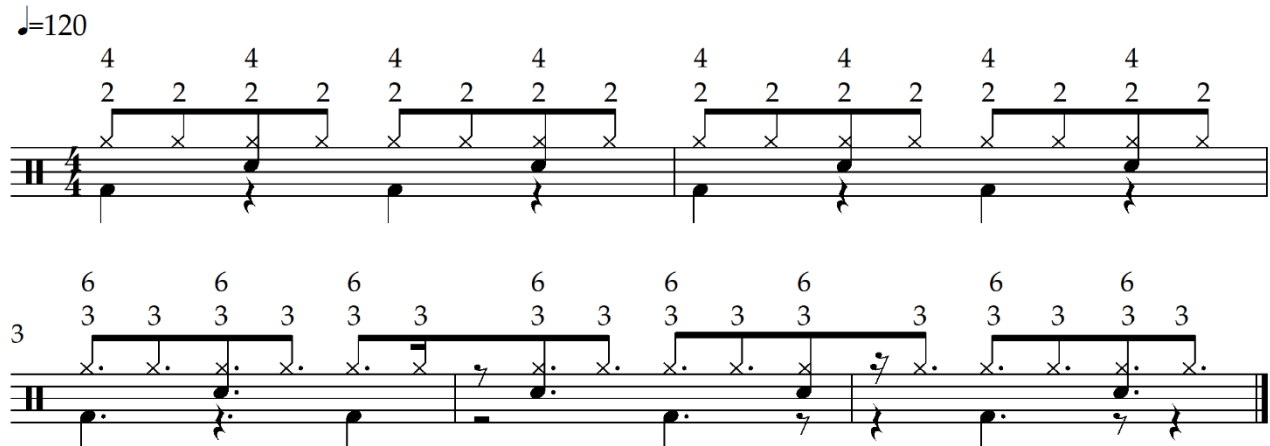
Example 1. Standard backbeat pattern.



Example 2. Metric modulation as a result of a regrouping of subdivisions.



Example 3. Metrically modulated drum set backbeat. See Audio Example 1.



Example 4. Re-notation of Example 3. See Audio Example 2.

♩=120

♩ = ♩
♩=80

Example 5. Complete metric modulation in Led Zeppelin, “The Ocean” (1973). See Audio Example 3.

Link Cont.
3'11"

♩ = approx. 88

Outro

♩ = approx. 124

Electric Guitar

Drum Set

"When the tears are goin' down!"

"Yeah! Yeah, yeah"

Example 6. Form, tempo, and drum beats in Dave Weckl, “Here and There” (1990).

Timestamp	0:00	1:51	1:54	2:29	3:28	3:31	4:06
Form	A		B	A		B	A/Outro
Drum Beat	Compound Shuffle		Simple Backbeat	Compound Shuffle	Simple Backbeat		Compound Shuffle
Tempo (bpm approx.)	140		110	140		110	

Example 7. Complete metric modulation in Dave Weckl, “Here and There” (1990). See Audio Example 4.

Section A cont.
1'44"

♩ = approx. 140

Drum Set

Section B

Fill

♩ = approx. 110

Example 8. A and B “status” of a “rhythmic modulation” [what I call an implied metric modulation] from Gavin Harrison’s book, *Rhythmic Illusions* (1996, 18)

CD 15 Ex. 19A

Ex. 19B

Example 9. Implied metric modulation in Verse 2 of Yes, “Hold On” (1983). See Audio Example 5.

Verse 2 cont.
1'05"

♩. = approx. 78

6 6 6 6 6 6 6 6 6 6 6 6
3 3 3 3 3 3 3 3 3 3 3 3

Voice

Blood flows in the des-ert, dark ci-ta-dels burn-ing too Watch! Look o-ver your shoul-der, This

Electric Guitar

Dm F C G Dm F
6 6 6 6 6 6

Drum Set

3 3 3 3? 2 2 2 2 2 2? 3 3 3 3
6 6? 4 4 4? 6 6

Example 10. Re-notation of Example 9. See Audio Example 5.

Verse 2 cont.
1'05"

♩ = approx. 78
"Blood flows..."

♩ = approx. 120
♩ = ♩
"dark citatdels..."

Drum Set

♩ = approx. 78
♩ = ♩
"Watch! Look over..."

Example 11. Implied metric modulation in the Bridge of Yes, "Hold On" (1983). See Audio Example 6.

Bridge cont.
2'51"

♩ = approx. 78

Voice

Shake we shake so hard, How we laugh so loud When we reach, We be-lieve in e-ter ni-ty

Drum Set

3 3 3 2 2 2 2 2 2 3 3 3 3

Example 12. Re-notation of Example 11. See Audio Example 6.

Bridge cont.
2'51"

♩ = approx. 78
"Shake we shake so hard..."

♩ = approx. 120
♩ = ♩
"When we reach..."

♩ = approx. 78
♩ = ♩

Drum Set

Example 13. Implied metric modulation in the Guitar Solo of Yes, “Hold On” (1983). See Audio Example 7.

Guitar solo
3'25"

♩ = approx. 78

Electric Guitar

Drum Set

Chorus
"Hold on..."

Detailed description: This musical score illustrates metric modulation in the guitar solo of 'Hold On' by Yes. The guitar part (top staff) is written in 12/8 time and features a melodic line with triplets and sixteenth notes. The drum set part (middle staff) shows a complex pattern of eighth and sixteenth notes with various rests. The score is divided into a 'Guitar solo' section (3'25") and a 'Chorus' section ('Hold on...'). The tempo is marked as approximately 78 bpm. The guitar solo section consists of 12 measures, and the chorus section consists of 6 measures. The drum set part is written in 12/8 time for the solo and 4/4 time for the chorus. The guitar solo part has a tempo of approximately 78 bpm, while the chorus part has a tempo of approximately 117 bpm. The drum set part has a tempo of approximately 78 bpm. The score includes various musical notations such as triplets, sixteenth notes, and rests.

Example 14. Re-notation of Example 13. See Audio Example 7.

Guitar solo
3'25"

♩ = approx. 78

♩ = approx. 117

Drum Set

Chorus
♩ = approx. 78

Detailed description: This musical score is a re-notation of Example 13, showing the guitar and drum parts with metric modulation. The guitar solo part (top staff) is written in 12/8 time and features a melodic line with triplets and sixteenth notes. The drum set part (middle staff) shows a complex pattern of eighth and sixteenth notes with various rests. The score is divided into a 'Guitar solo' section (3'25") and a 'Chorus' section. The tempo is marked as approximately 78 bpm for the guitar solo and approximately 117 bpm for the chorus. The drum set part has a tempo of approximately 78 bpm. The score includes various musical notations such as triplets, sixteenth notes, and rests.

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