

Time Warps in Early Jazz

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March 2, 2010

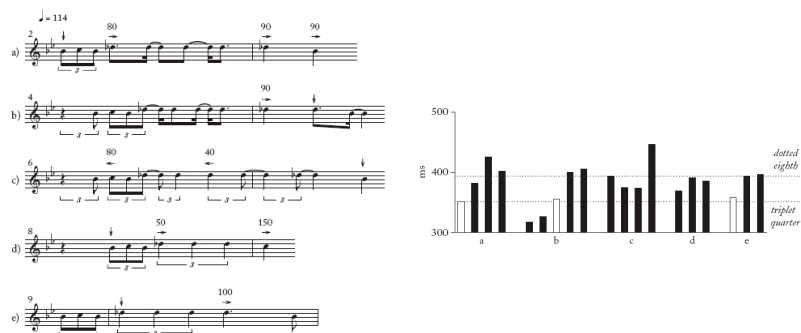
Focus of the Paper

- Transformations in Jazz
 - Flux (F) – Flux distorts a basic rhythmic template into an acceleration, deceleration, or a combination of both
 - Shift (S) – Shift replaces the tempo of the template.

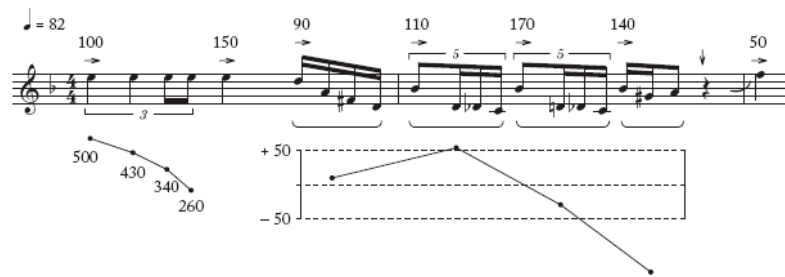
Goal

- To show how unrelated rhythmic and microrhythmic devices may be defined as “consequences of a single larger force.”

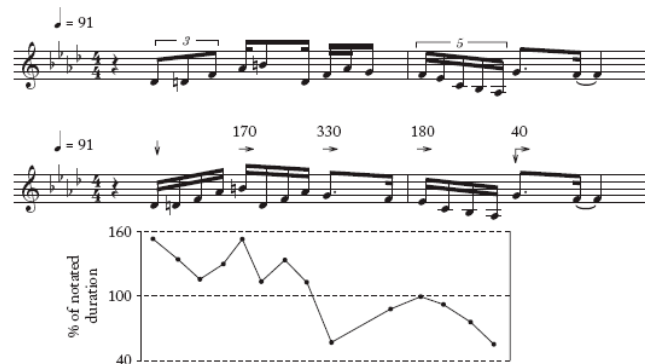
Ex. 1 – Lamar Wright, “Crawdada Blues”



Ex. 2 – Louis Armstrong, “Two Deuces”



Ex. 3 – Coleman Hawkins, “One Hour”



Ex. 4 – Bubber Miley and Bernard Addison, “Ponchatrain”

Musical score for "Ponchatrain" by Bubber Miley and Bernard Addison. The score is in 4/4 time with a tempo of $\text{♩} = 104$. It consists of three staves labeled a), b), and c).

Staff a) shows measures 1 through 5. Annotations include measure numbers 1, 2, 3, 4, 5 and durations: 1180 ms, 630, 490, 1180, 1420. A note below the staff states: "All D's are pitch bent: ♭-♮-♭".

Staff b) shows measures 6 through 10. Annotations include measure numbers 4, 9, 13, 22 and a tempo change to $\text{♩} = 104$.

Staff c) shows measures 11 through 16. Annotations include measure numbers 11, 14, 5, 16, 16. Below the staff are four diagrams illustrating pitch bends: "right-to-left" (downward arrow), "right-to-right" (upward arrow), "right-to-left" (downward arrow), and "right-to-right" (upward arrow).

Ex. 4 cont. – Louis Armstrong, “Sobbin’ Blues”

Musical score for "Sobbin' Blues" by Louis Armstrong. The score is in 4/4 time with a tempo of $\text{♩} = 71$. It consists of two staves labeled x) and y), each with a "template" label.

Staff x) shows measures 1 through 3. Annotations include measure numbers 1, 2, 3 and a tempo change to $\text{♩} = 90$.

Staff y) shows measures 1 through 3. Annotations include measure numbers 2, 3, 1.

Ex. 4 cont. - Louis Armstrong, “Lonesome Blues”

un - til I don't know what to do.

so darn so dog - gone dis - gust - ed un - til I cried.

un - til I don't know what to do.

so darn so dog - gone dis - gust - ed un - til I cried.

Tempo markings: $\text{♩} = 86$, $(\text{♩} = 76)$, 90 , 140 , (♩) , \downarrow , $\text{♩} = 86$, $(\text{♩} = 79)$, 30 , 80 , 240 , 240 , 310 , \downarrow

Ex. 5 – Rex Stewart, “Easy Money”

$5 \text{ ♩} : 6 \text{ ♩}$
 $\text{♩} = 102.5$

$\text{♩} = 123$

Ex. 6 cont. – Louis Armstrong, “Hotter than That”

Two staves of musical notation in 4/4 time. The first staff starts with a tempo marking of quarter note = 216. The second staff starts with a tempo marking of quarter note = 180, followed by a dashed line, and then a tempo marking of quarter note = 216.

Shaping a Solo

a) Main motive. Tempo: quarter note = 97. Graph shows a slight rise in frequency.

b) S replaces original tempo of 97 bpm. Tempo: quarter note = 120. Graph shows a slight F spike (frequency increase) at the start of the phrase, followed by a slight dip (frequency decrease) at the end.

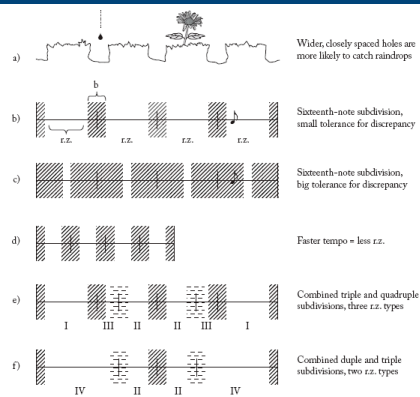
c) F inodes "quitters" of fast S from b). Tempo: quarter note = 100. Graph shows a rise in frequency.

d) Scanties accelerating F. Tempo: quarter note = 112 = 112. Graph shows a steady increase in frequency.

e) Emergence of filled-in ternary unit... which F runs from slow dotted eighth into full beat. Tempo: quarter note = 97. Graph shows a rise in frequency.

f) Finishes intended anchor... because normally tend to be triplets. Tempo: quarter note = 97. Graph shows a slight dip in frequency.

An Illustrated look at Tempo



Concluding Statements

- Flux and Shift are highly representative in the examples provided in the paper
- It is unknown whether or not it can be universally applied to all non-metronomic jazz pieces