INTERNATIONAL GUITAR RESEARCH CENTRE

Nuages

Rhythmic diffusion in the music of Roland Dyens (1955-2016)

Milton Mermikides
University of Surrey UK

Speaking of Rhythm

“Rhythm is our universal mother tongue. It's the language of the soul.”

–Gabrielle Roth

“Music creates order out of chaos: for rhythm imposes unanimity upon the divergent, melody imposes continuity upon the disjointed, and harmony imposes compatibility upon the incongruous.

–Yehudi Menuhin

“There is music wherever there is rhythm, as there is life wherever there beats a pulse.”

–Stravinsky

“You can’t have a sound without having any duration.”

–Steve Reich

“One of the reasons I believe in jazz is that the oneness of man can come through the rhythm of your heart. It’s the same anyplace in the world, that heartbeat. It’s the first thing you hear when you’re born — or before you’re born — and it’s the last thing you hear”

–Dave Brubeck

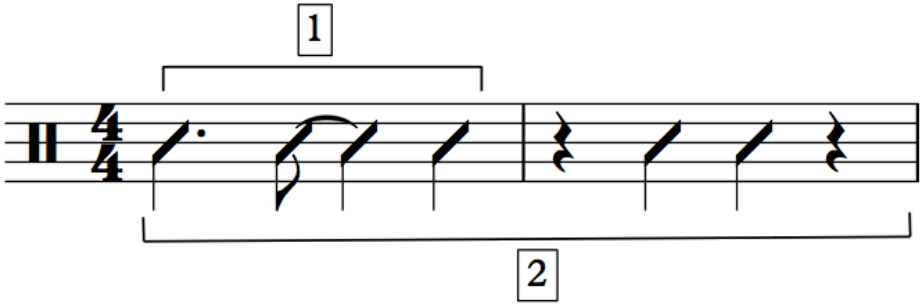
“Rhythm is something you either have or don't have, but when you have it, you have it all over.”

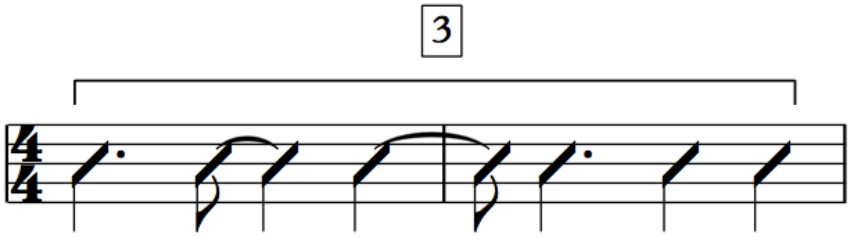
–Elvis Presley

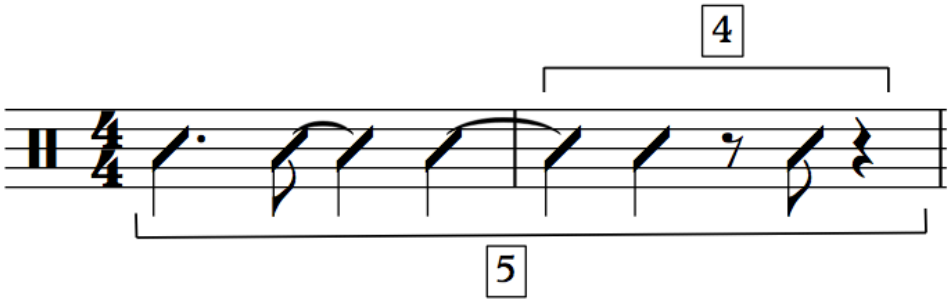
“Rhythm is melody deprived of pitch”

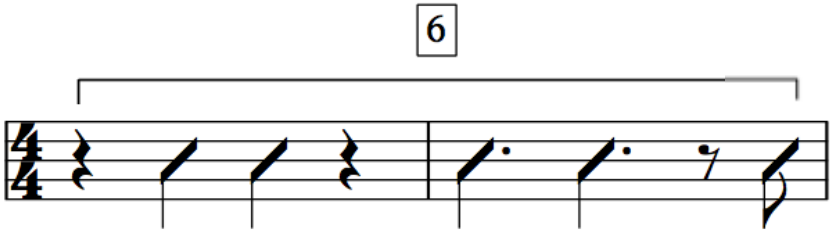
–Schopenhauer

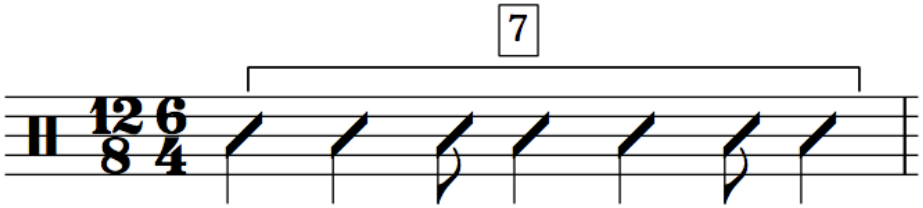
An Unspoken Language

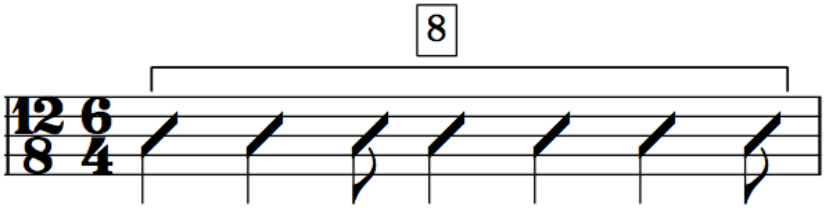

1
2

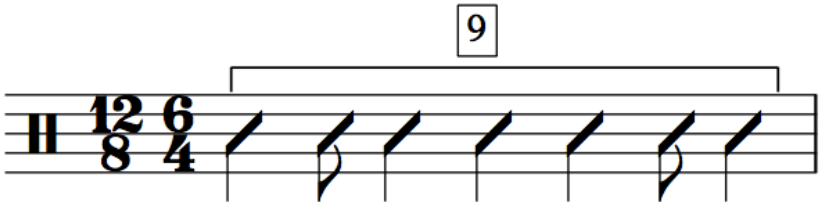

3

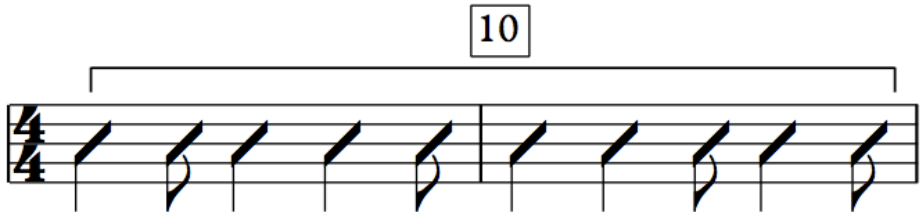

4
5

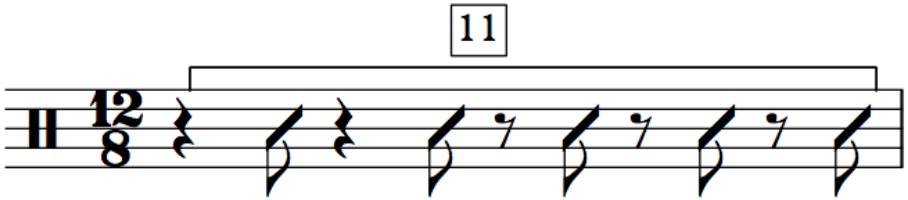

6

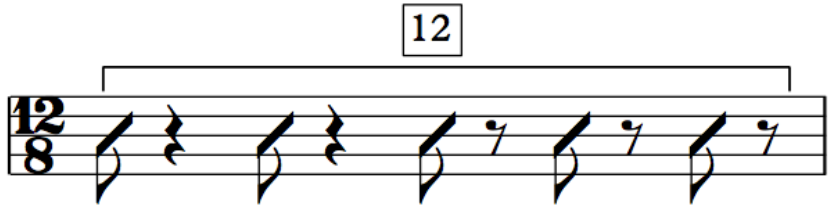

7


8

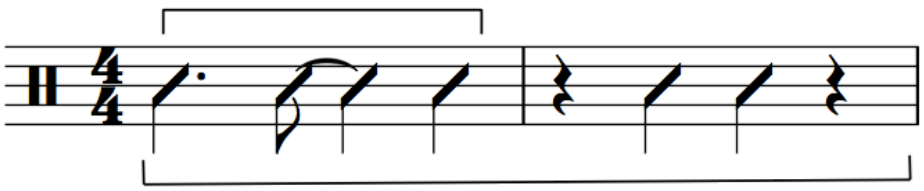

9


10

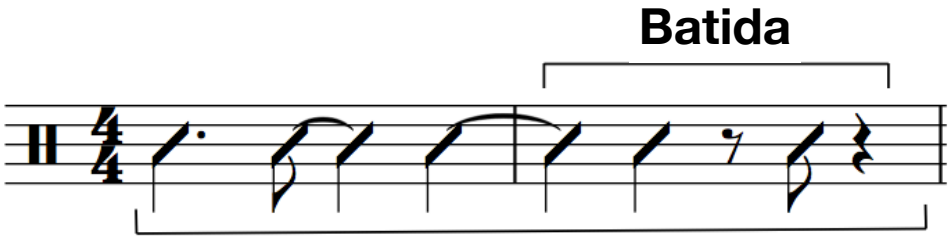

11


12

Tresillo



3-2 Son Clave

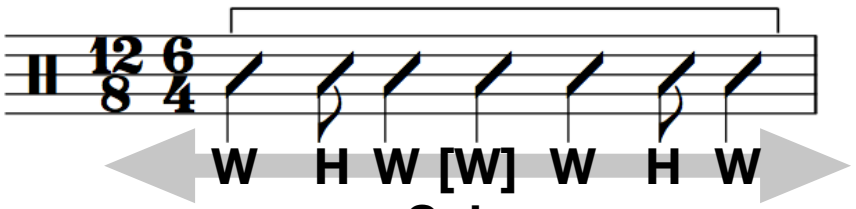


Batida

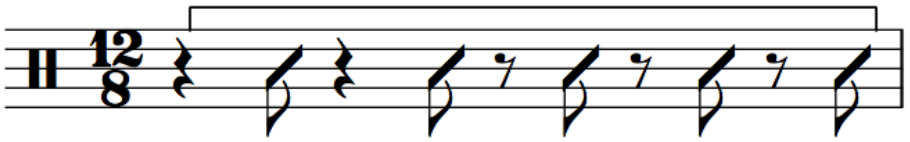
3-2 Bossa Clave

African Standard Pattern

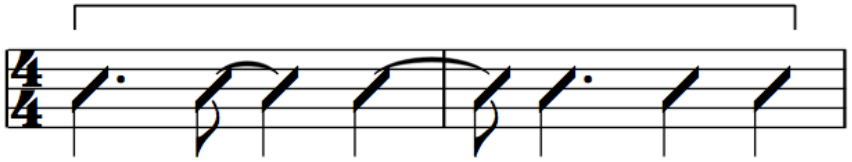
Diatonic (palindromic)



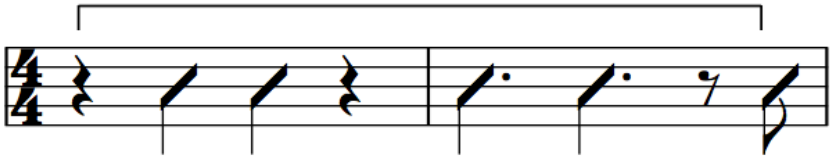
Soleares



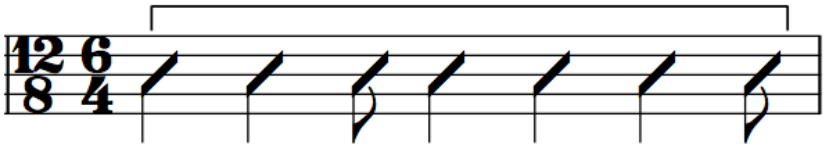
Double Tresillo



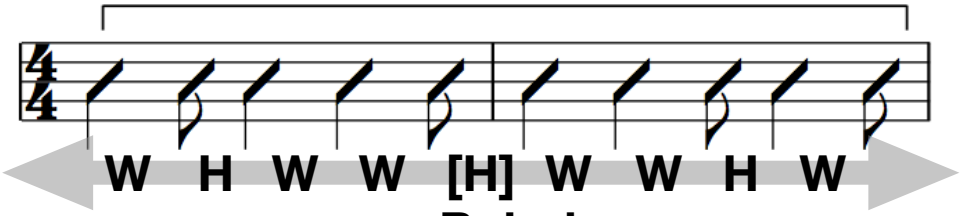
2-3 Rhumba Clave



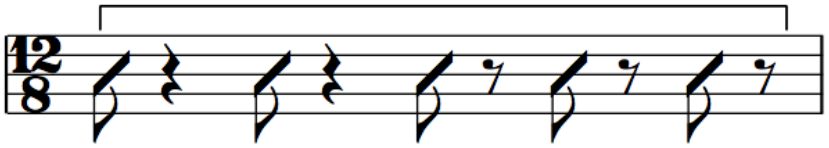
Agbekor Timeline



Cáscara (IOI palindrome)



Bulerias



1. Proximity Blindness

2. Brain/Body Bias

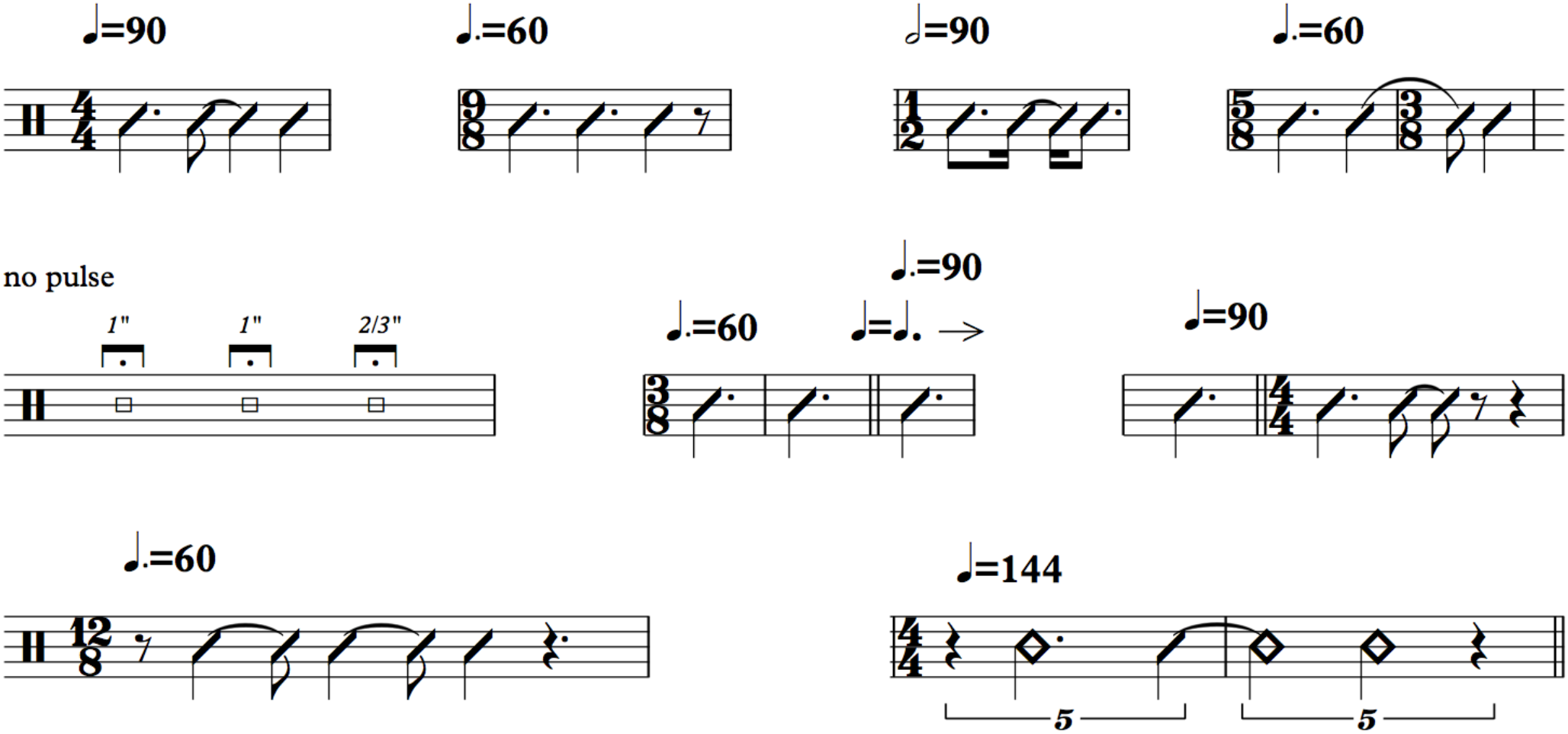
MARTINO UNSTRUNG (2008)

MARTINO UNSTRUNG (2008)

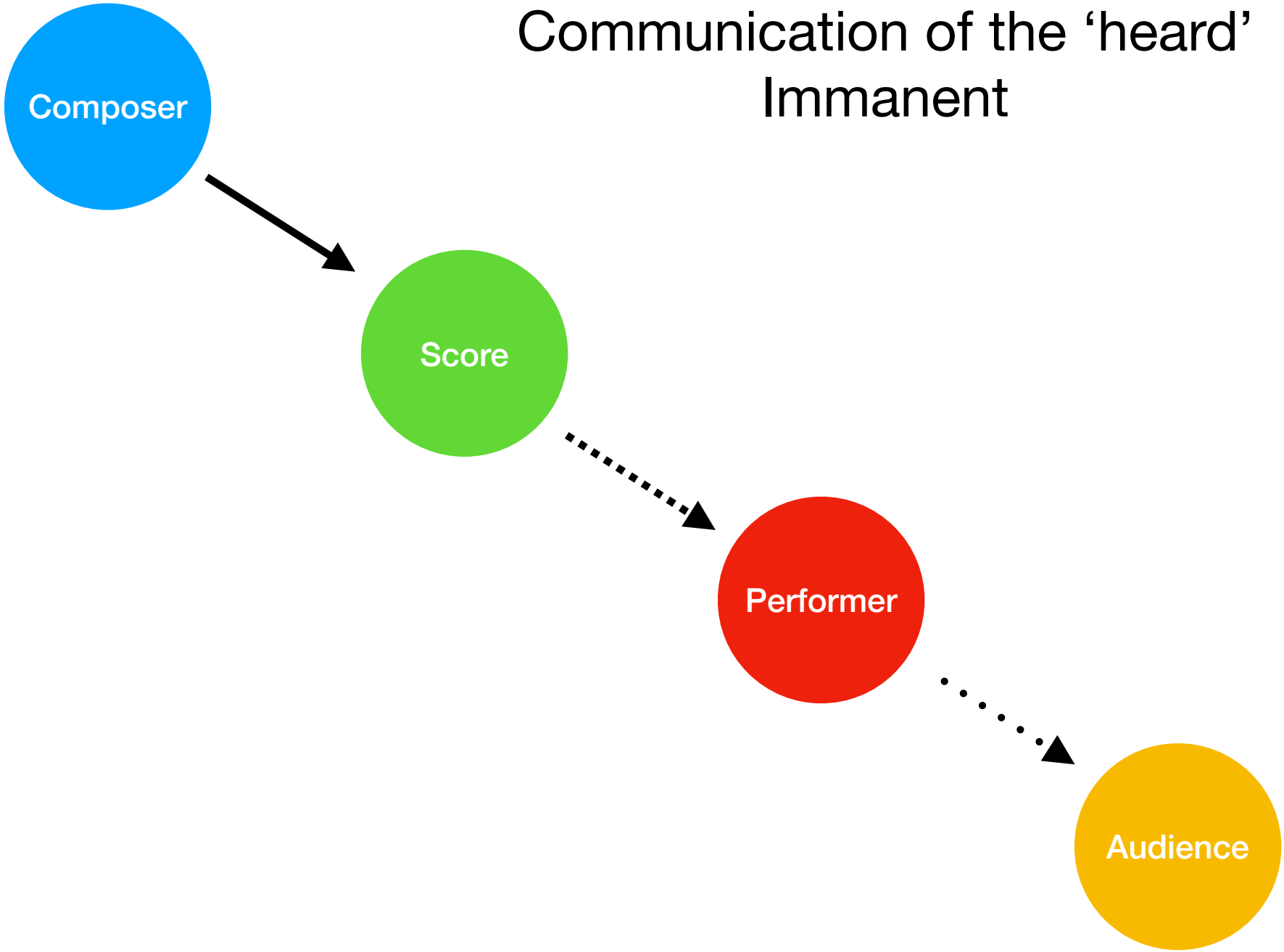
3. Rhythm as Belt

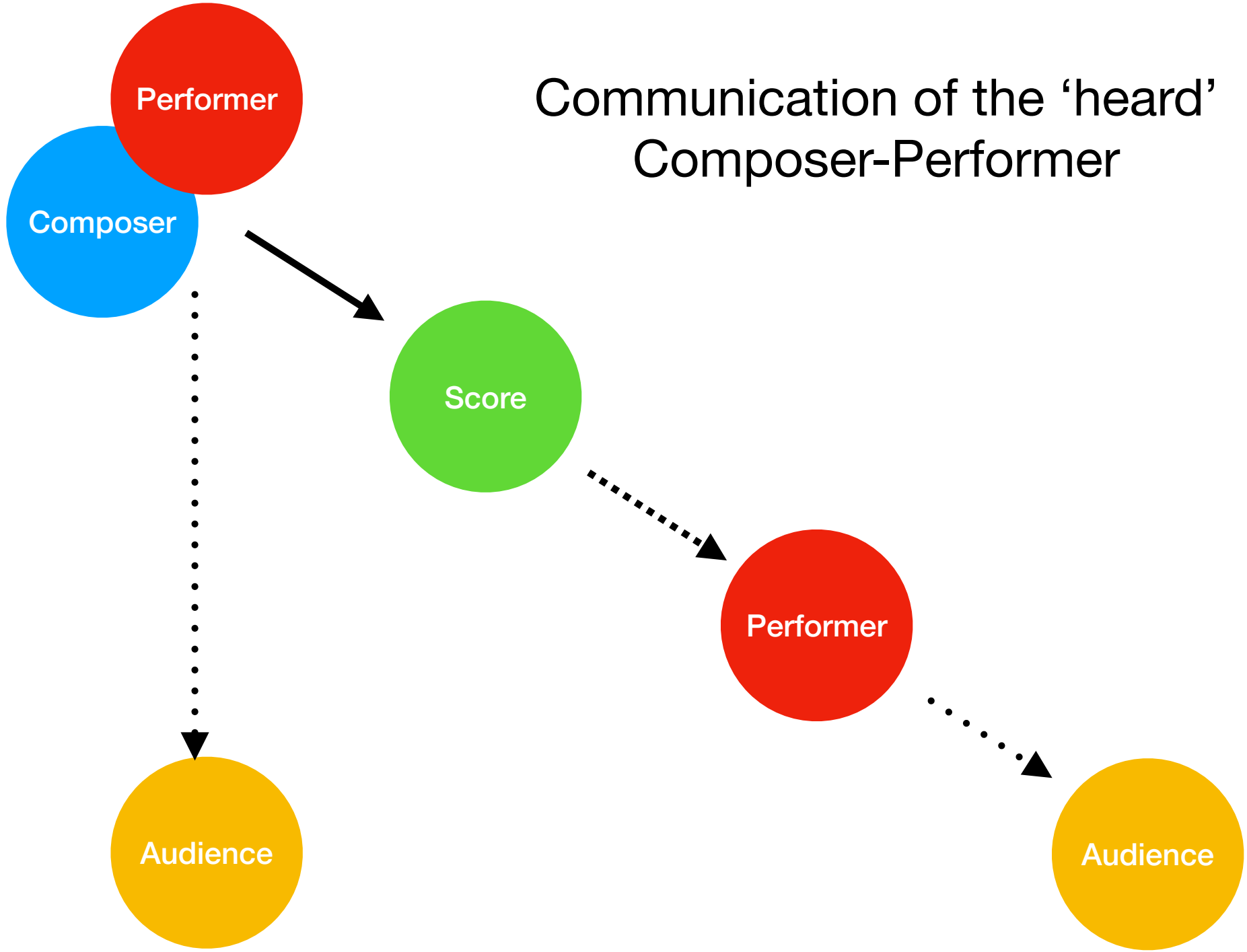
Music and Time

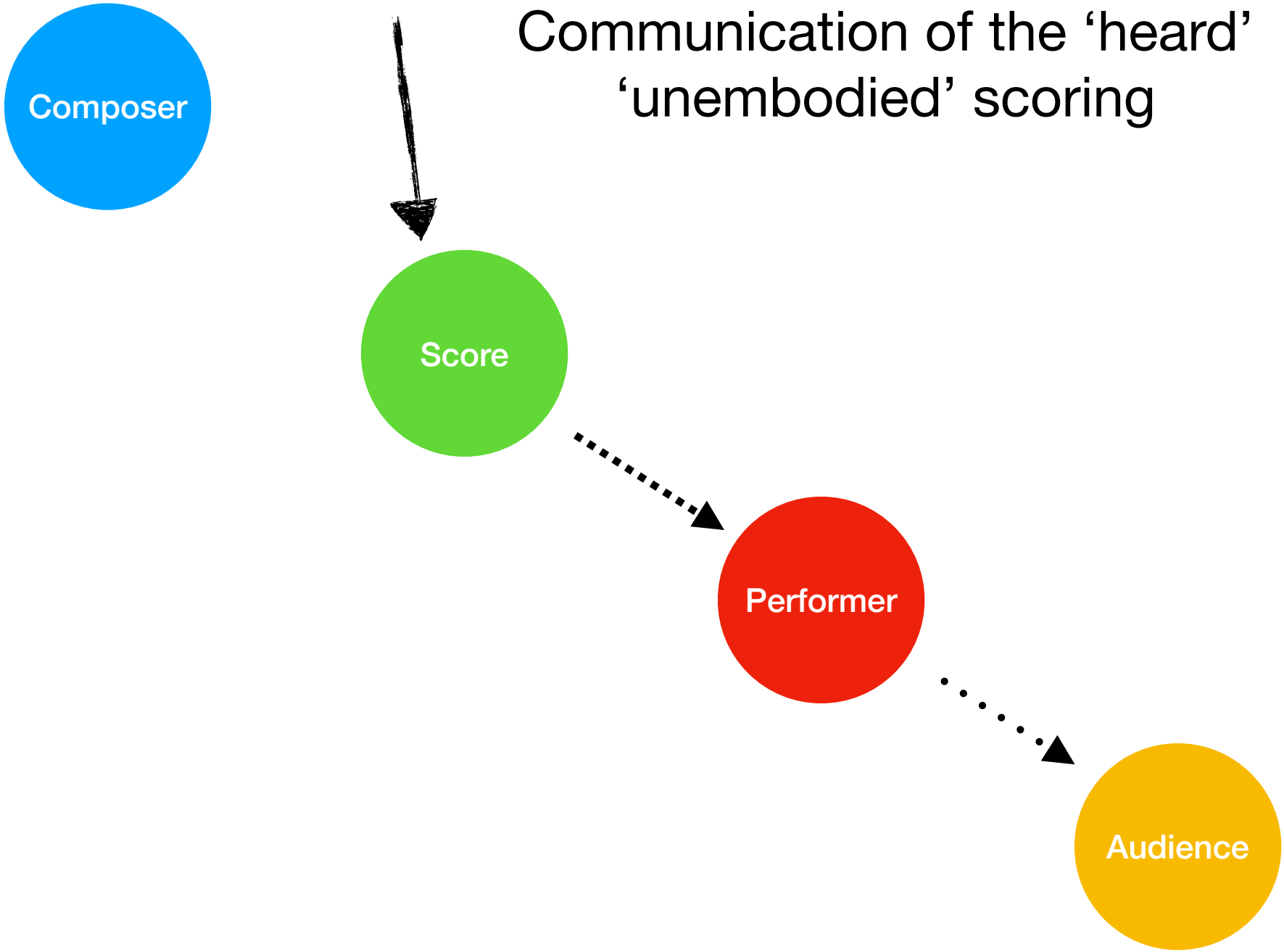
Multiple Perspectives



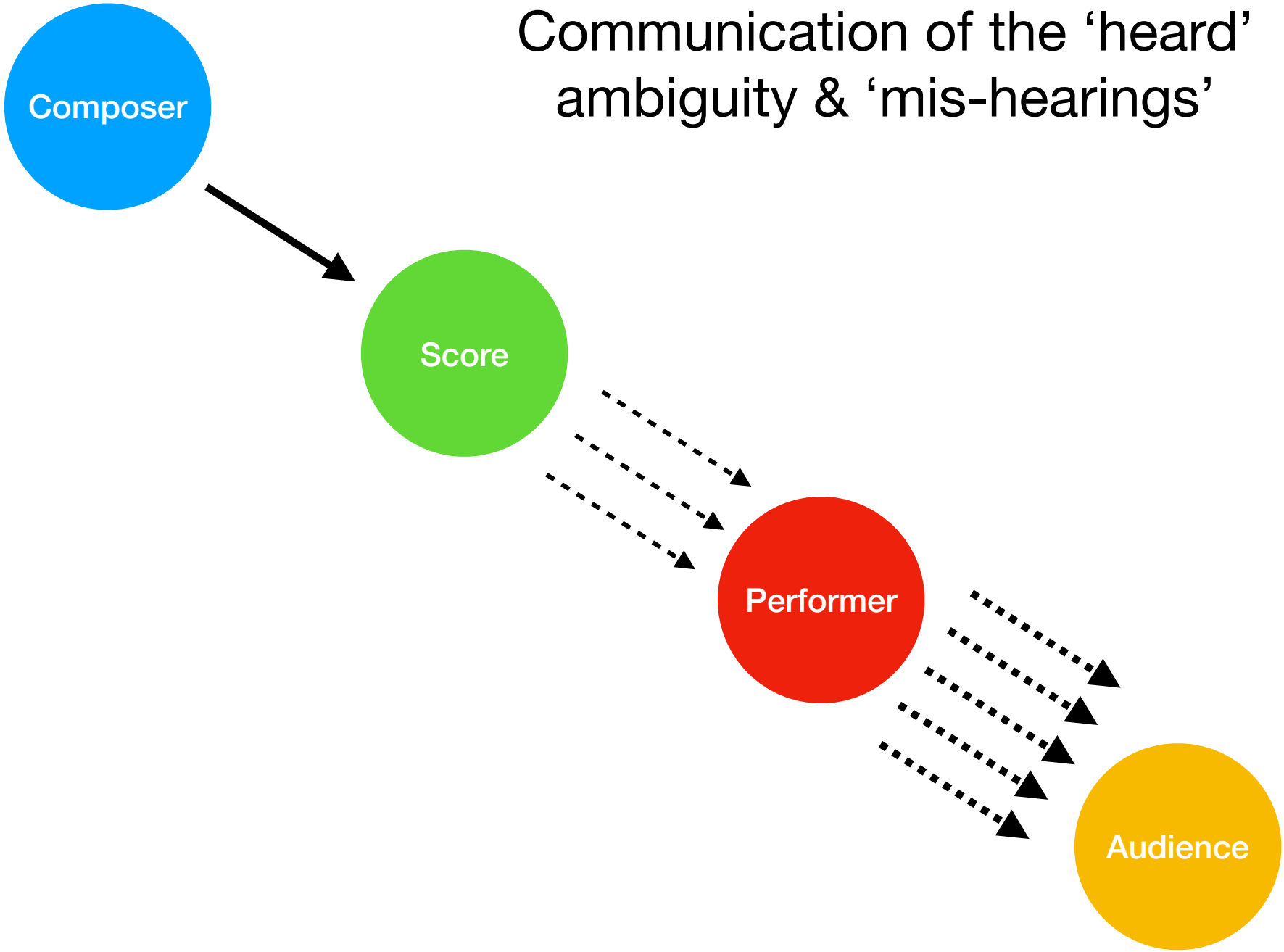
Communication of the ‘heard’ Immanent

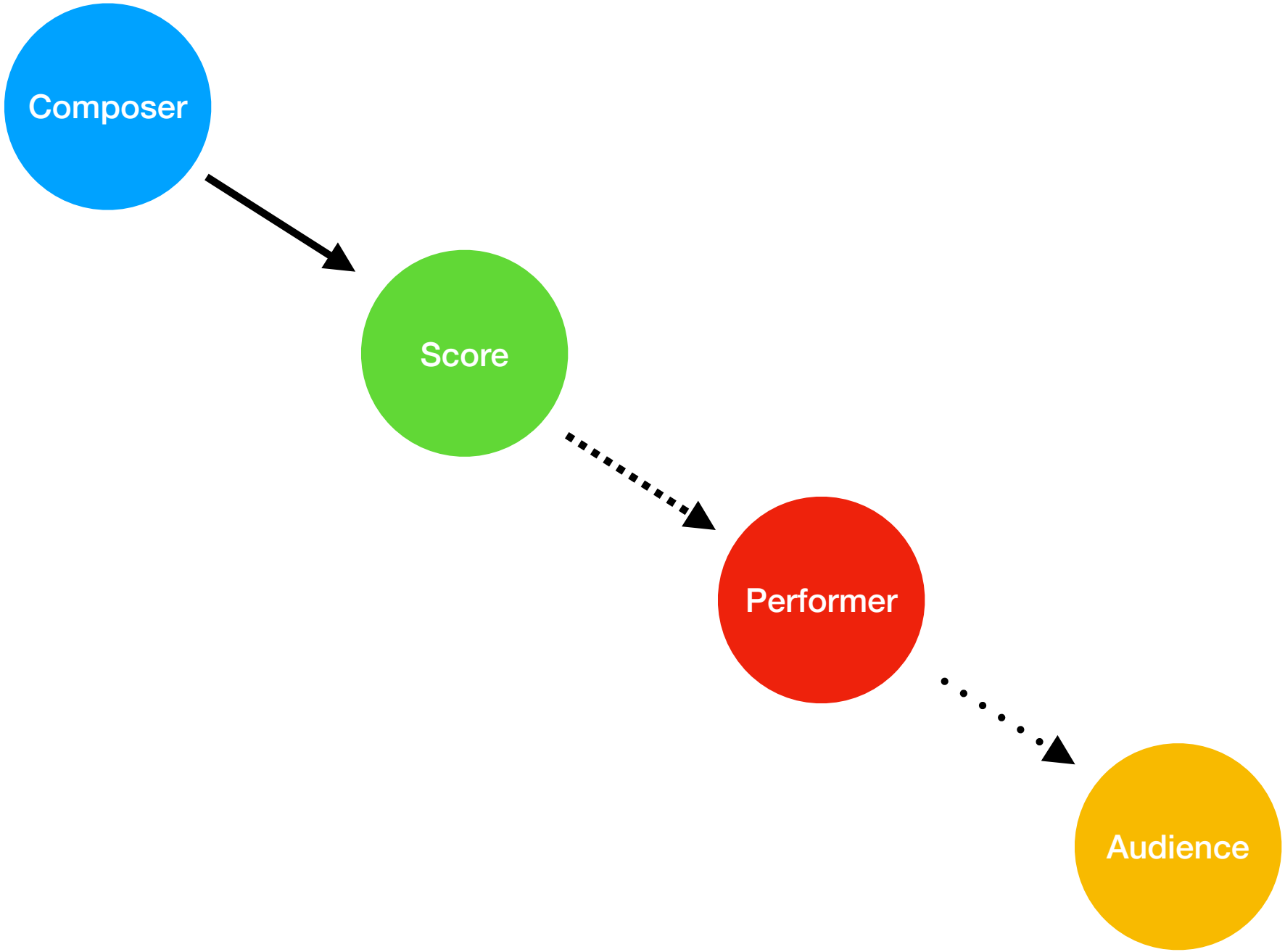


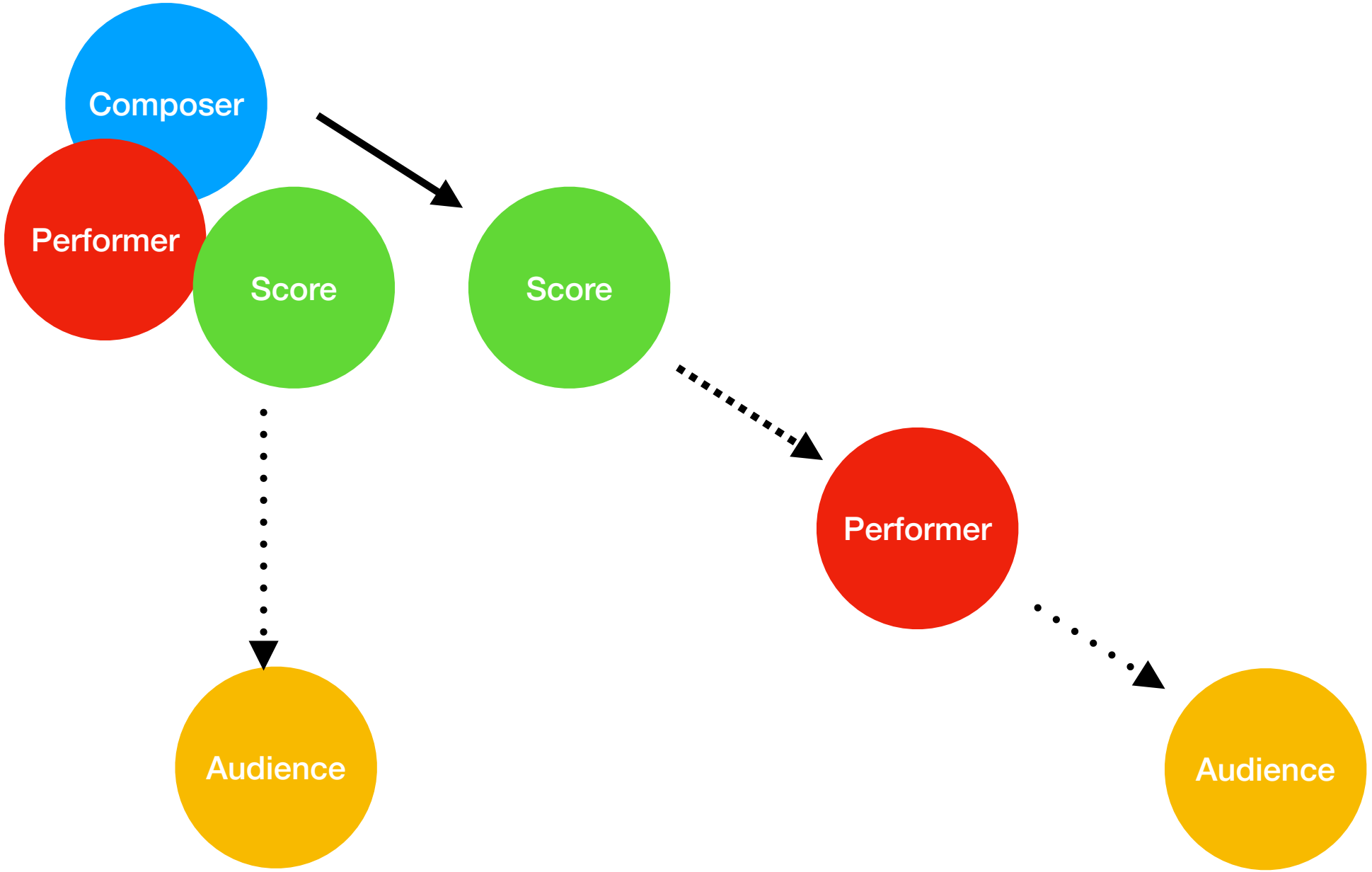

Communication of the ‘heard’
Composer-Performer
Performer
Composer
Score
Performer
Audience
Audience

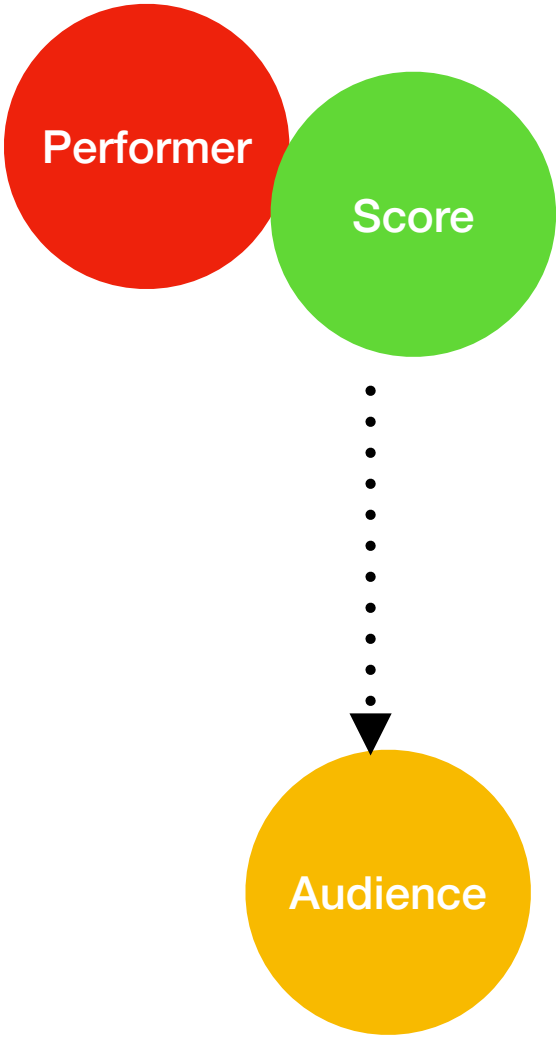

Communication of the ‘heard’
‘unembodied’ scoring
Composer
Score
Performer
Audience

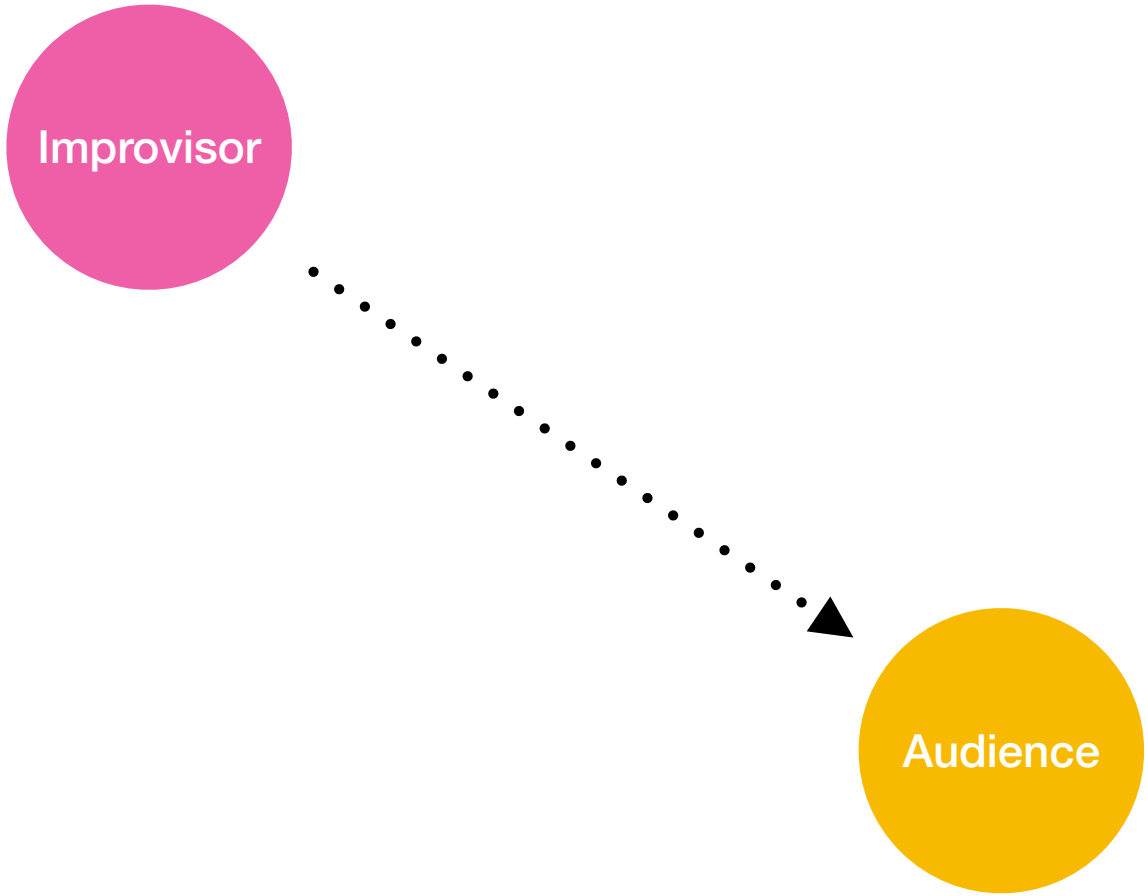
Communication of the ‘heard’ ambiguity & ‘mis-hearings’

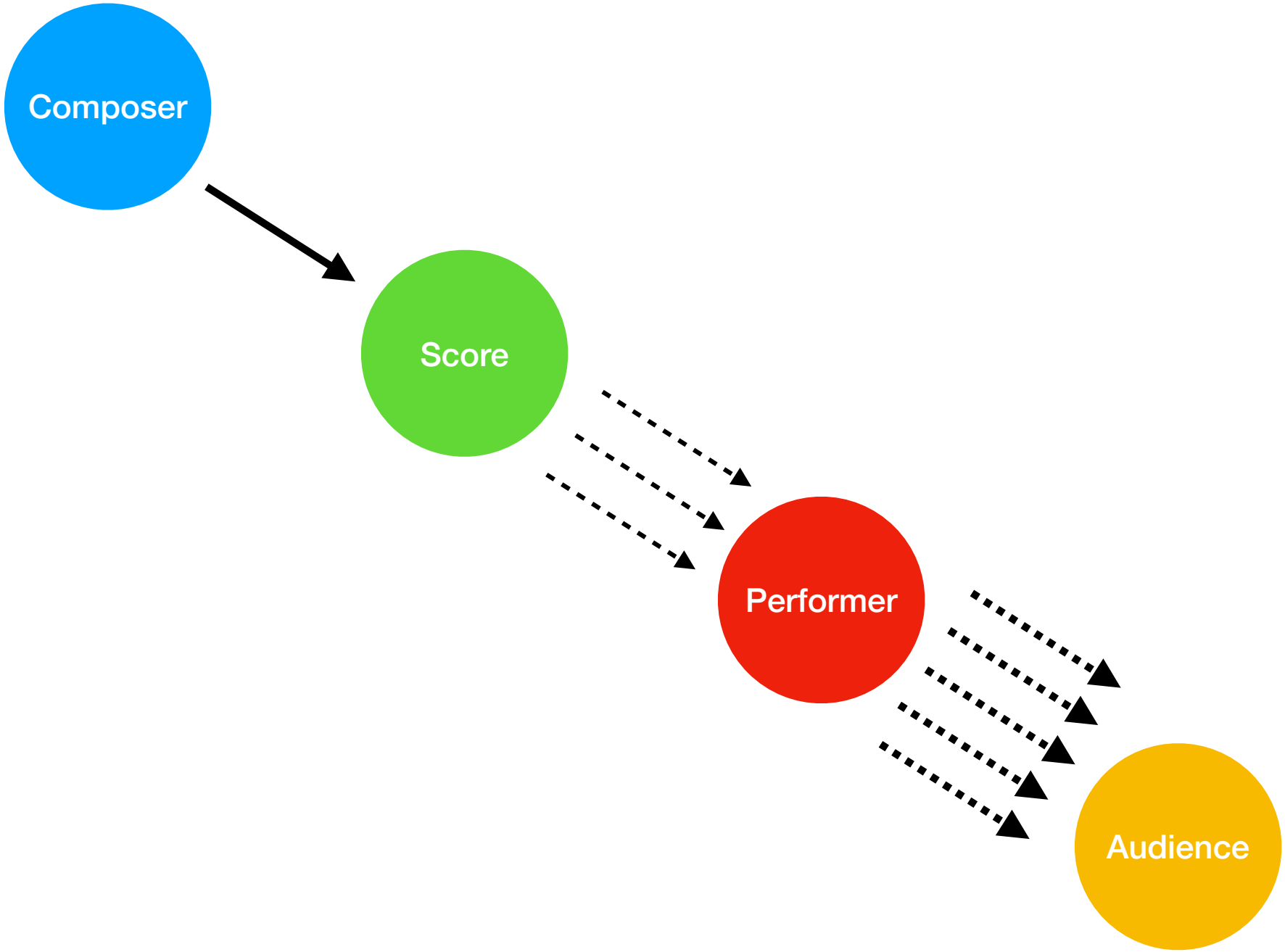


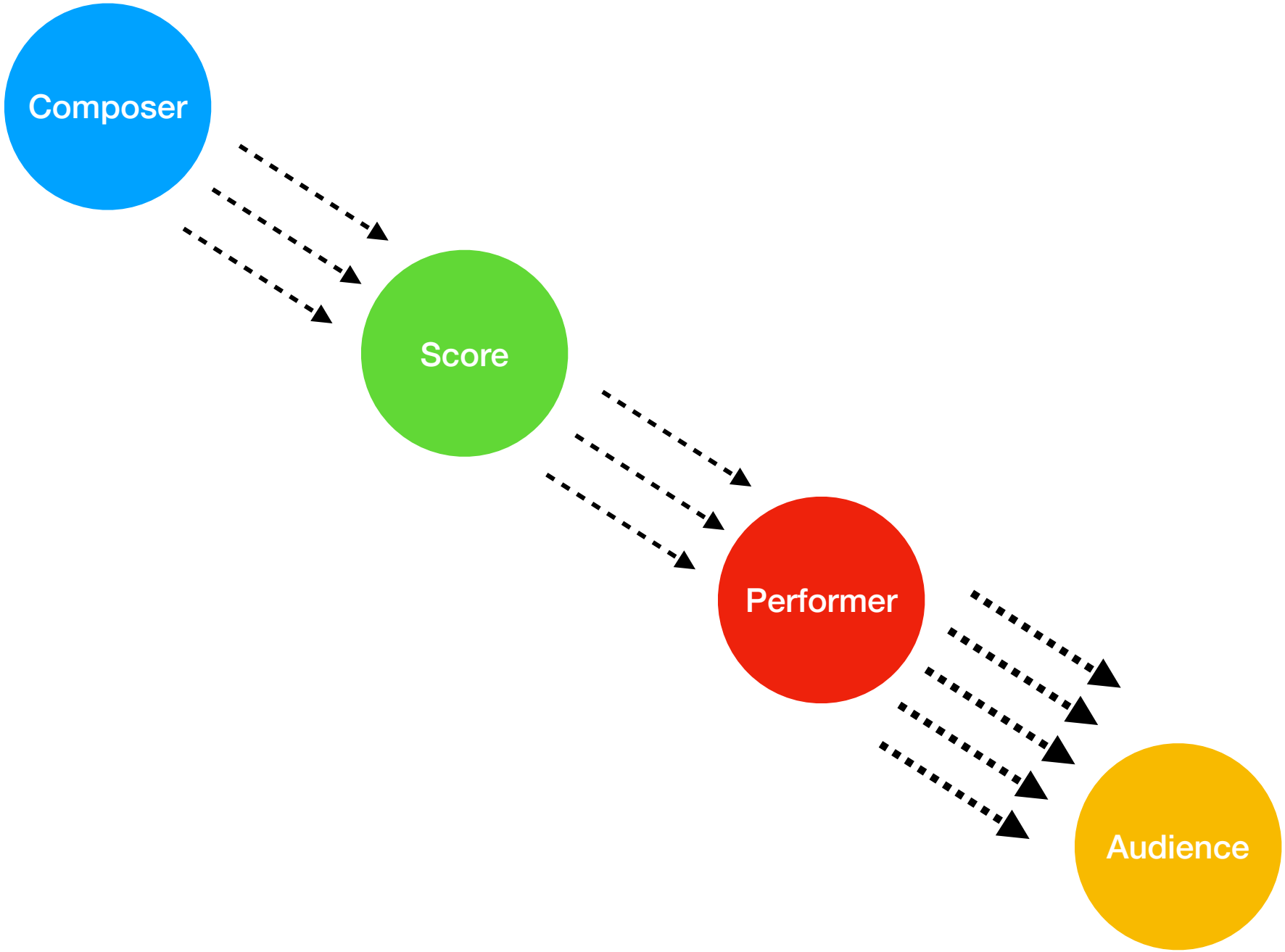

Composer
Score
Performer
Audience

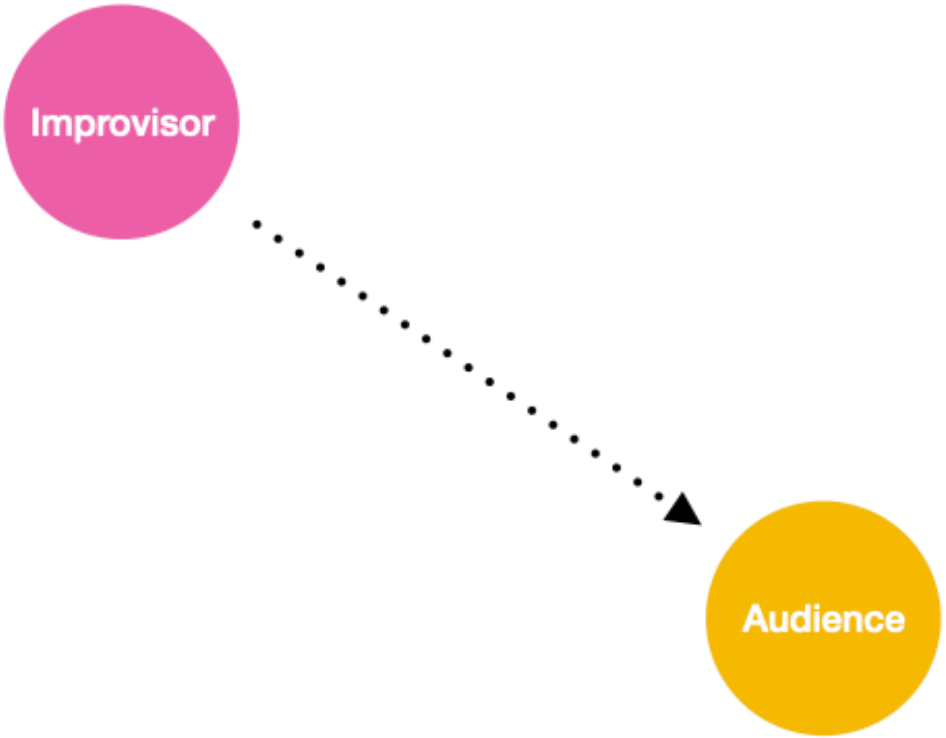

Composer
Performer
Score
Score
Performer
Audience
Audience

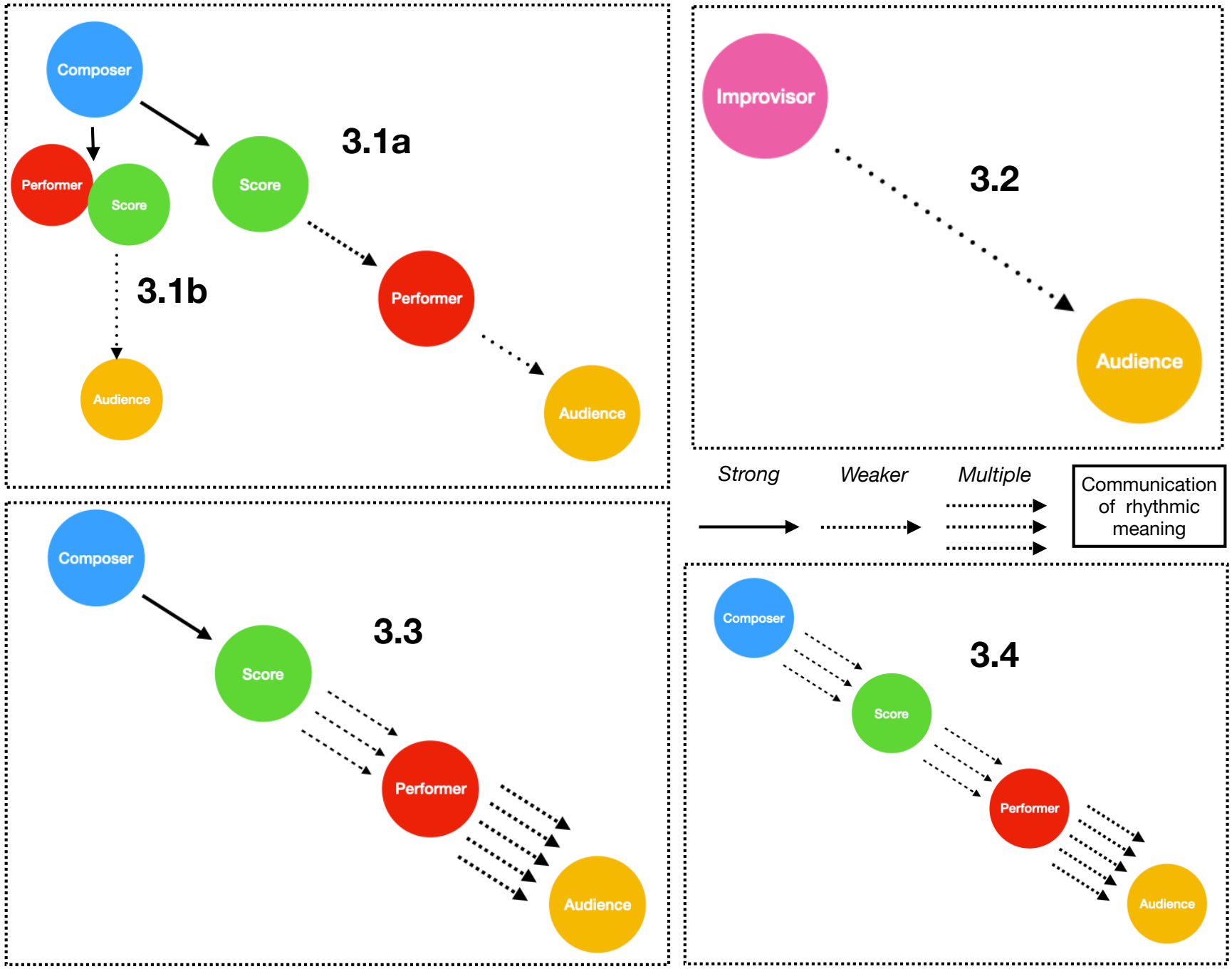

Performer
Score
Audience


Improvisor
Audience

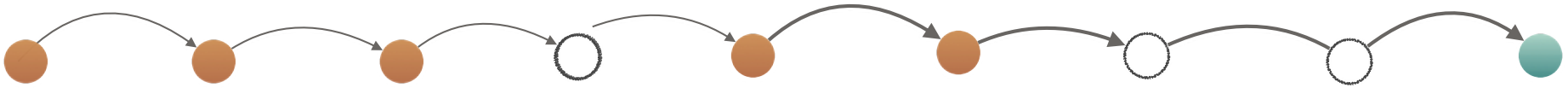

Composer
Score
Performer
Audience


Composer
Score
Performer
Audience

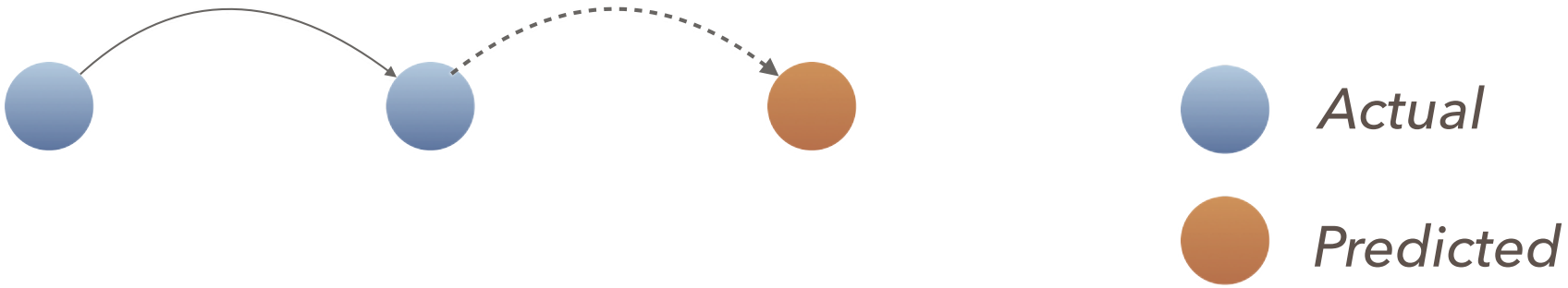

Improvisor
Audience

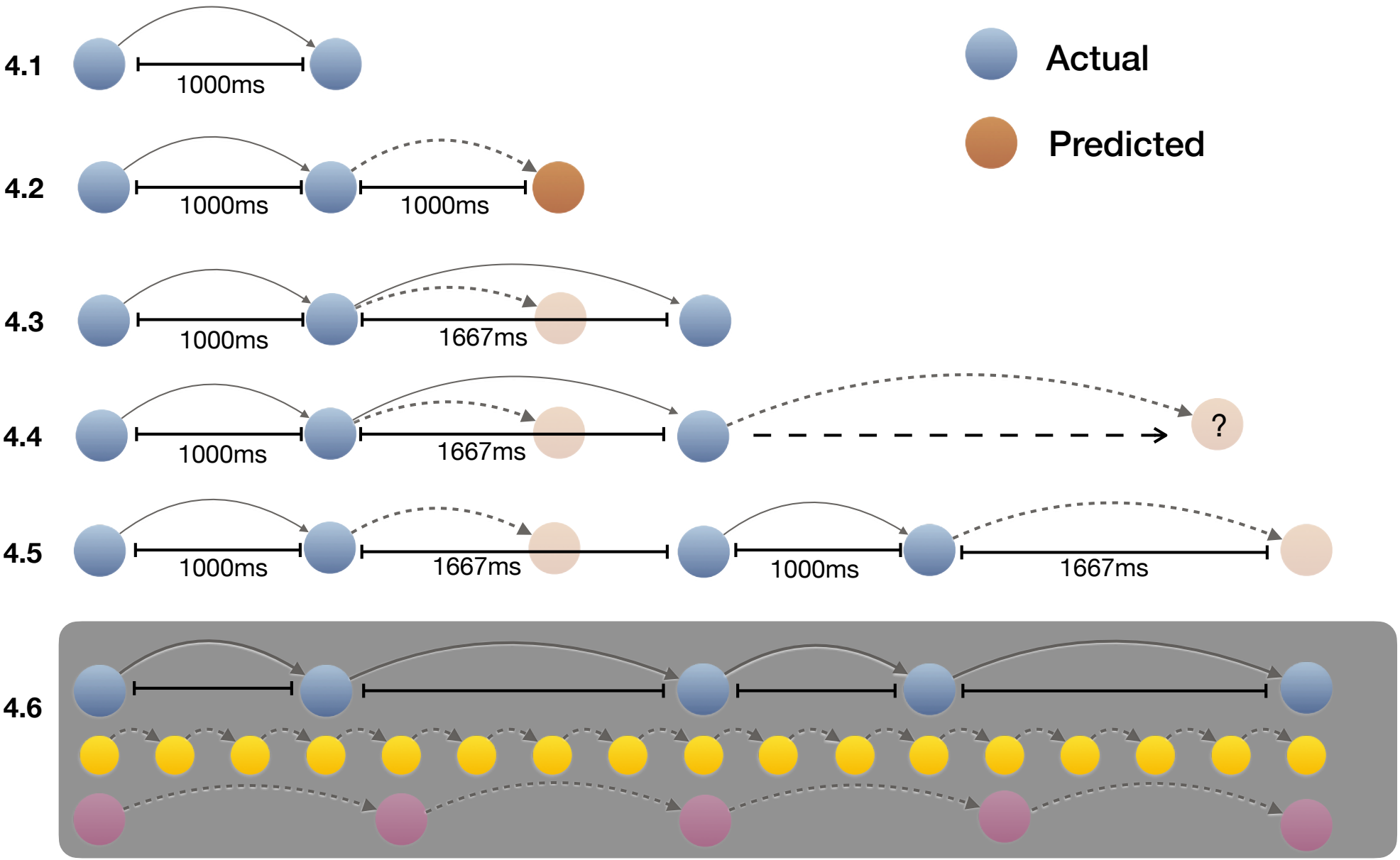

Composer
Performer
Score
Score
3.1a
3.1b
Performer
Audience
Audience
Improvisor
3.2
Audience
Strong
Weaker
Multiple
Communication of rhythmic meaning
Composer
Score
3.3
Performer
Audience
Composer
3.4
Score
Performer
Audience

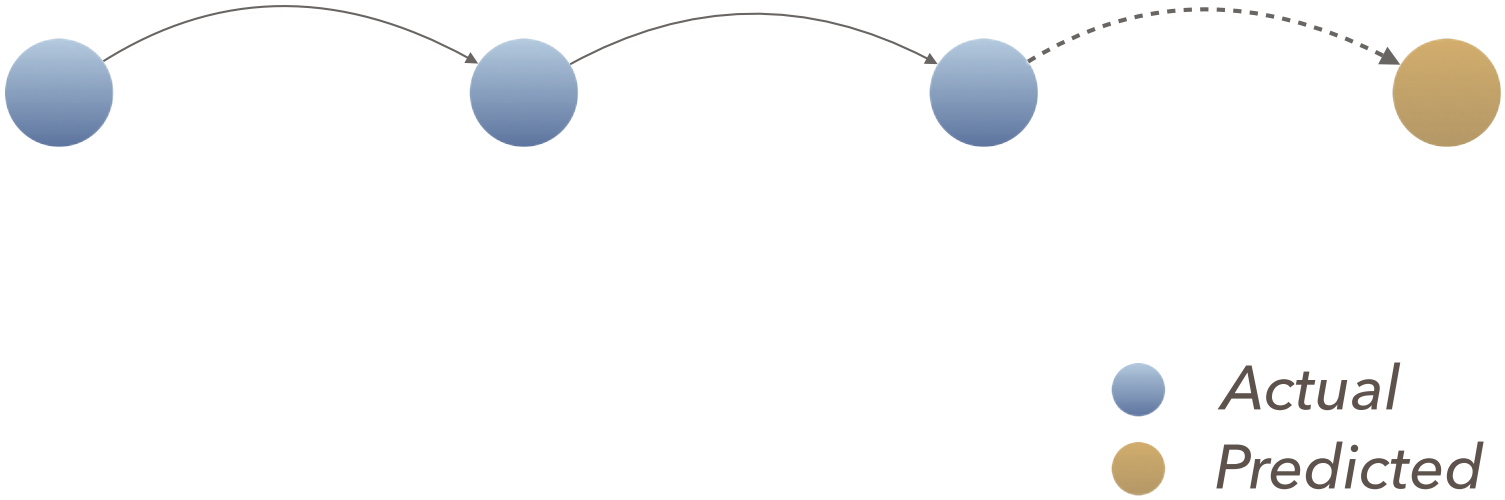
Rhythm as Prediction

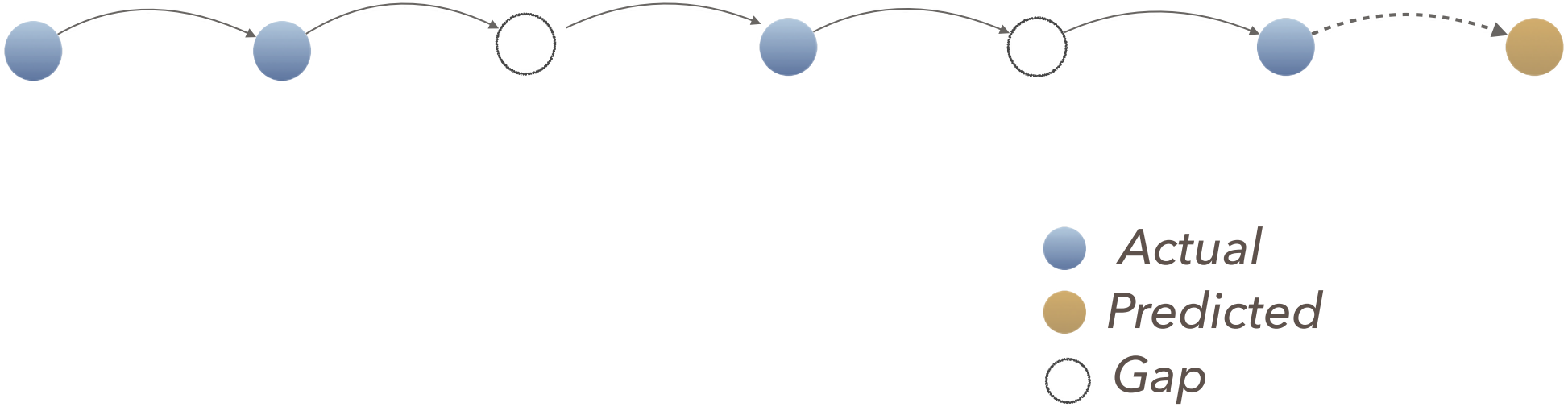


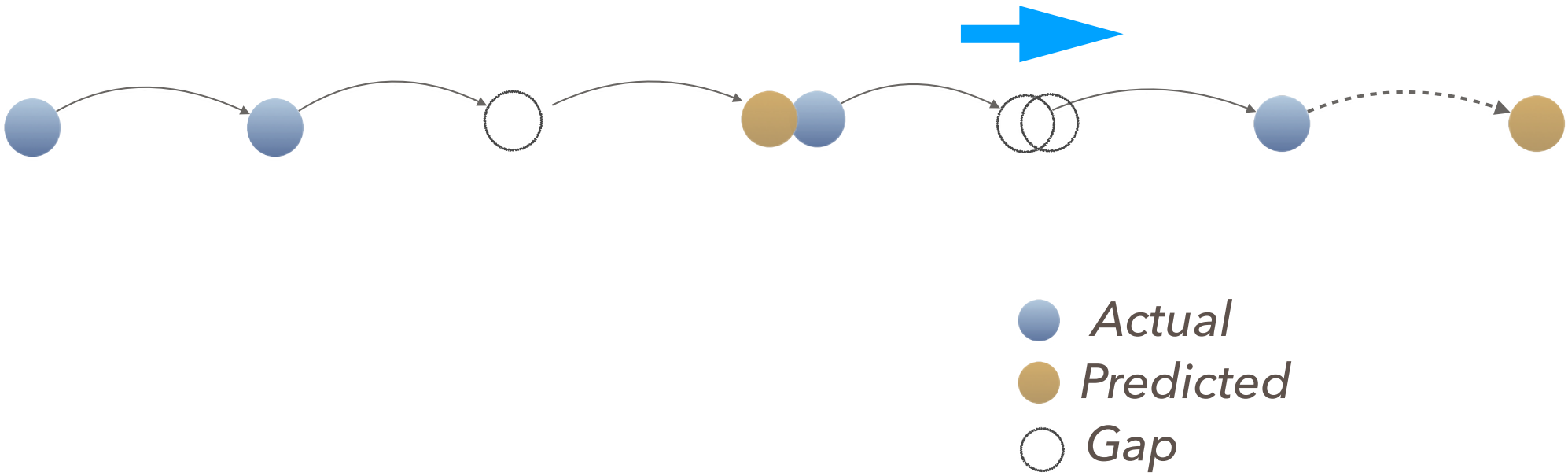
Rhythm As Prediction (body maths)

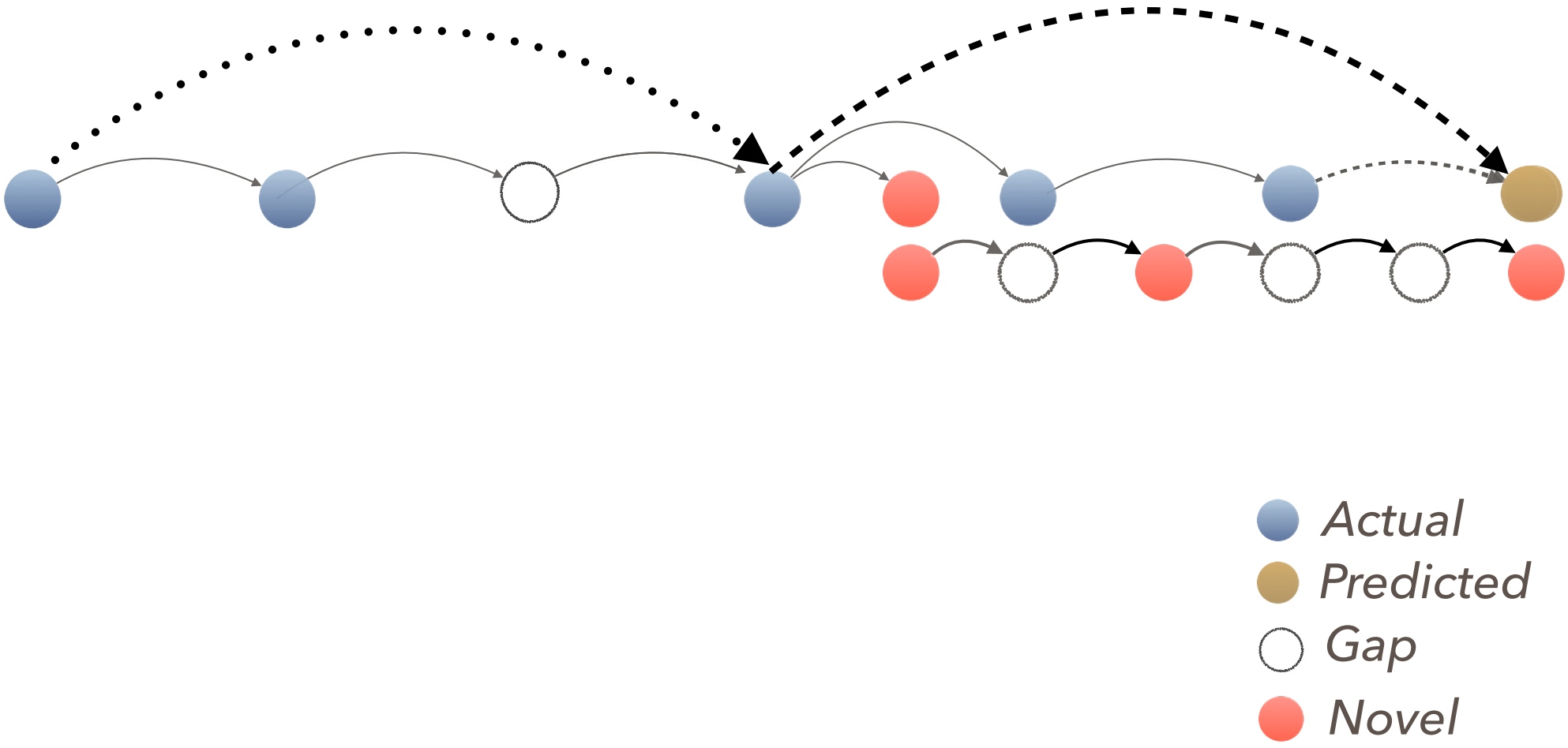


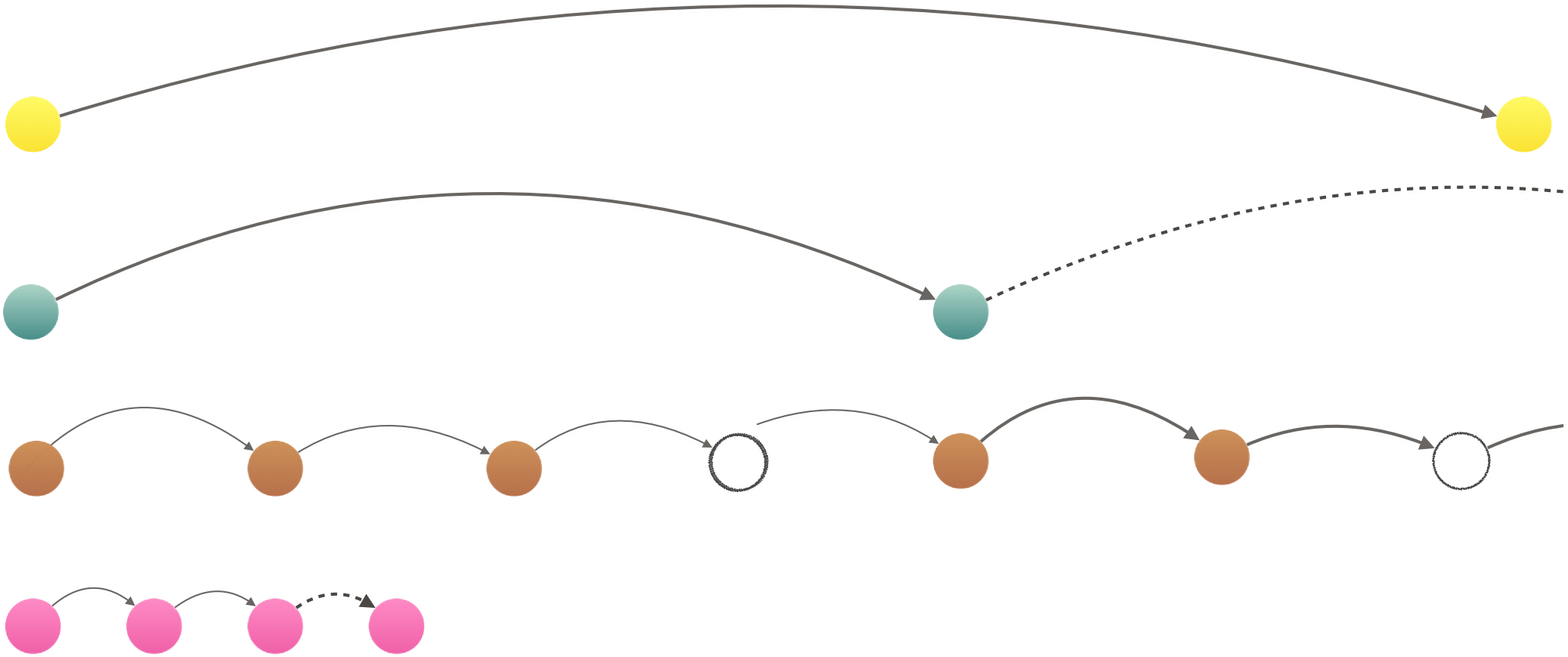

4.1
1000ms
4.2
1000ms
1000ms
4.3
1000ms
1667ms
4.4
1000ms
1667ms
?
4.5
1000ms
1667ms
1000ms
1667ms
4.6
Actual
Predicted


Actual
Predicted

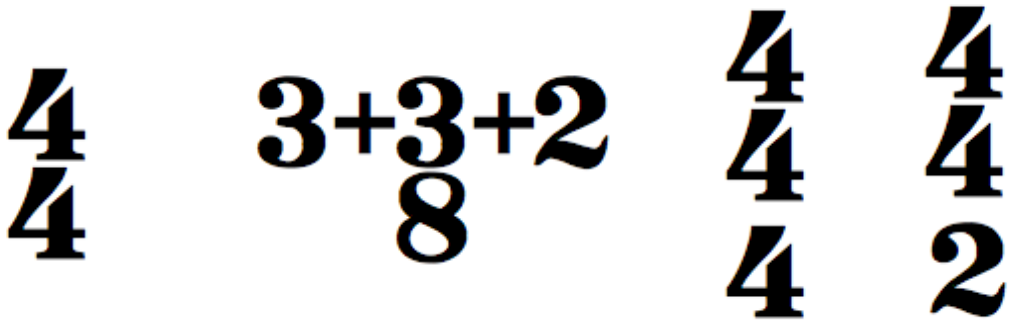

Actual
Predicted
Gap


Actual
Predicted
Gap

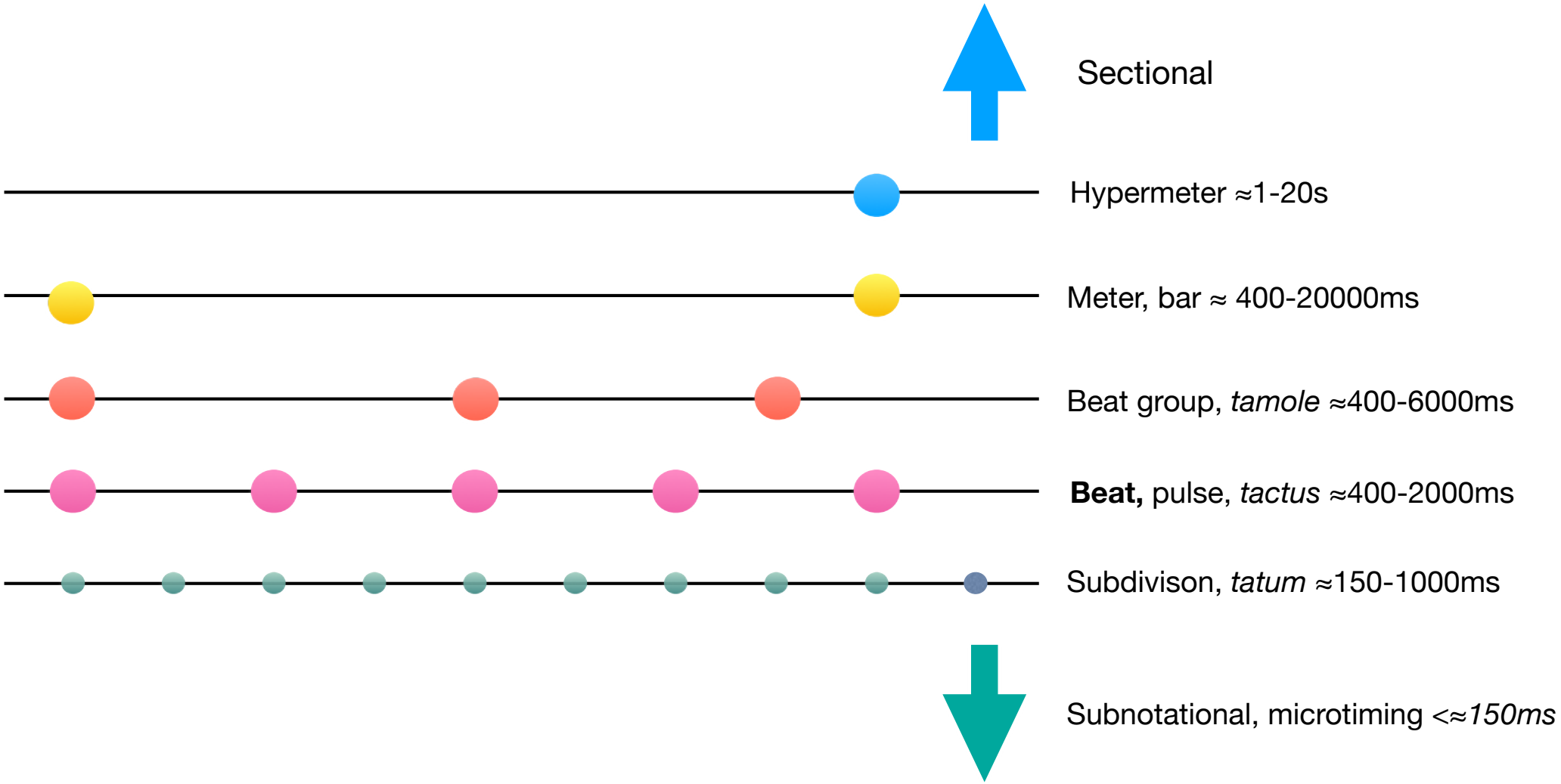

Actual
Predicted
Gap
Novel

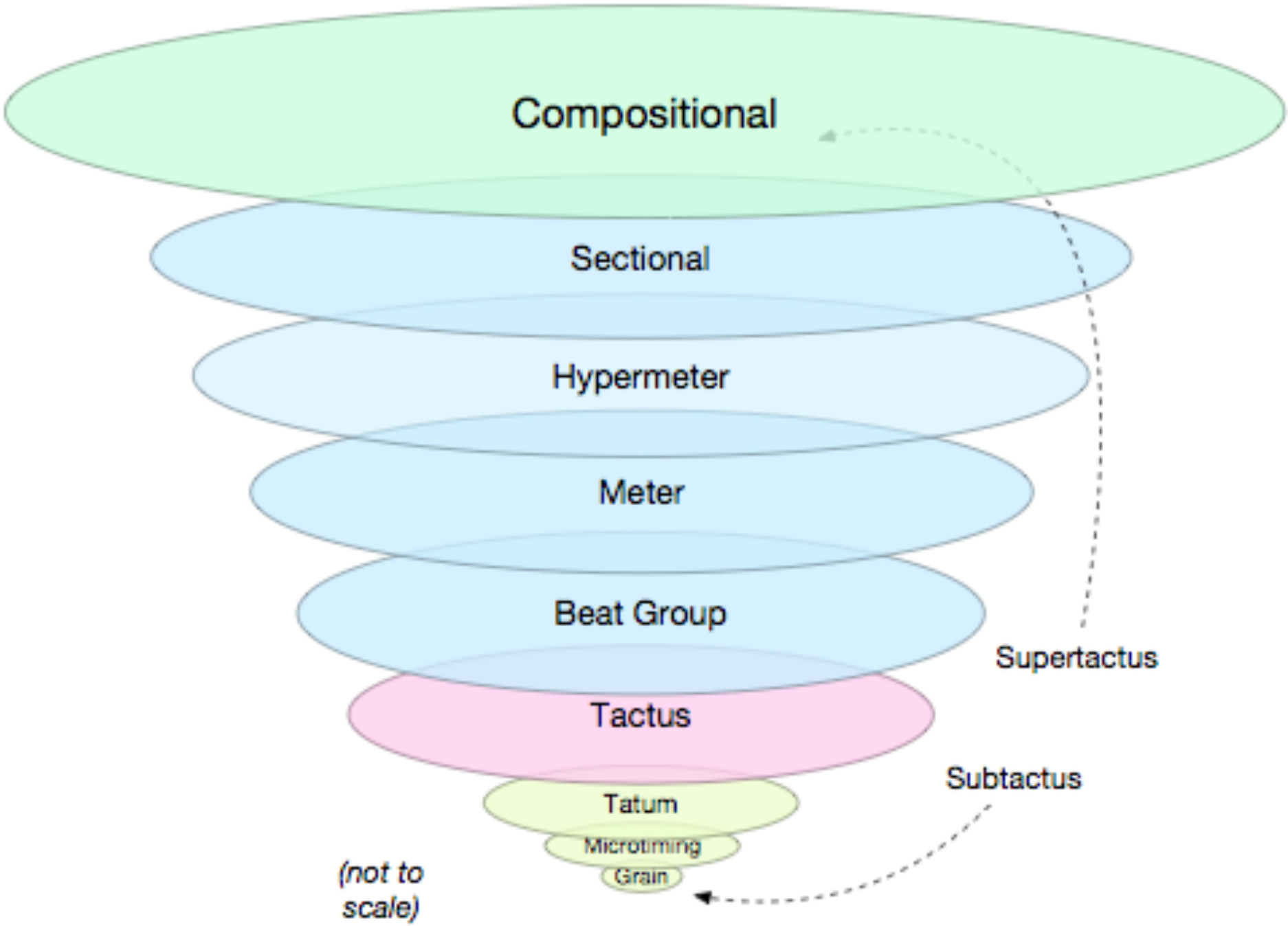


Notational Levels



Levels of Musical Time




Compositional
Sectional
Hypermeter
Meter
Beat Group
Tactus
Tatum
Microtiming
Grain
Supertactus
Subtactus
(not to scale)

Rhythm on a Postcard

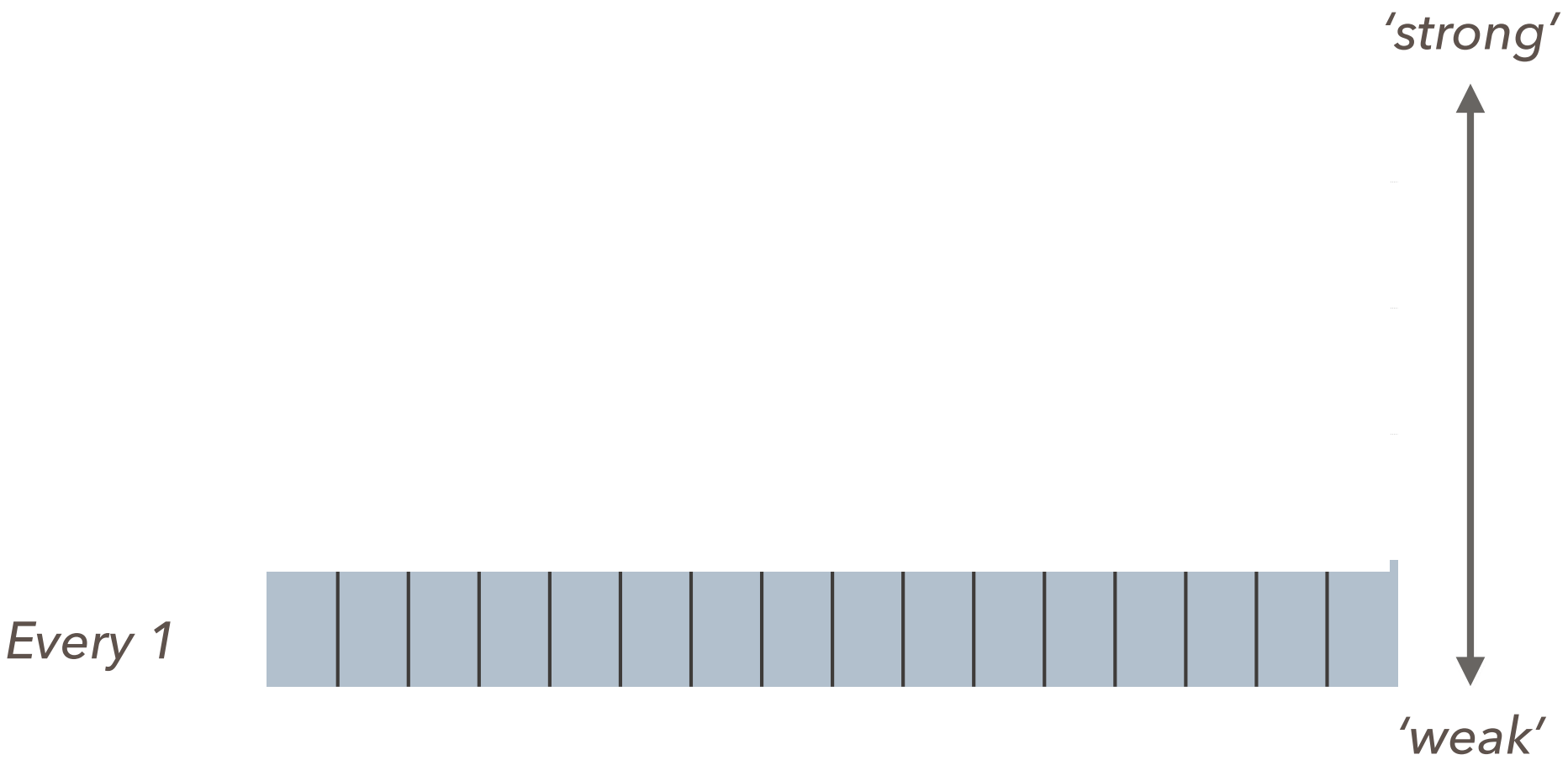
Rhythm relies on **prediction on multiple layers** (e.g. tatum, tactus, tamole, meter and hypermeter). These predictive patterns are dynamic and can tolerate omissions and adaptations.
These layers operate within different durational (sometimes overlapping) ranges and are *felt* differently, which can allow **identical acoustic events** to be heard as different rhythms.
There exists a binary default - a **hierarchy of primes** - in prediction. This results in a varied profile of node ‘strength’, not all nodes on the same layer feel the same.

Rhythmic consonance results from **simple predictions being** repeatedly **met.**
Rhythmic dissonance interest/dissonance **challenges**/thwarts/obfuscates/complicated/reconfigures/involves ‘higher prime’ **predictions** .

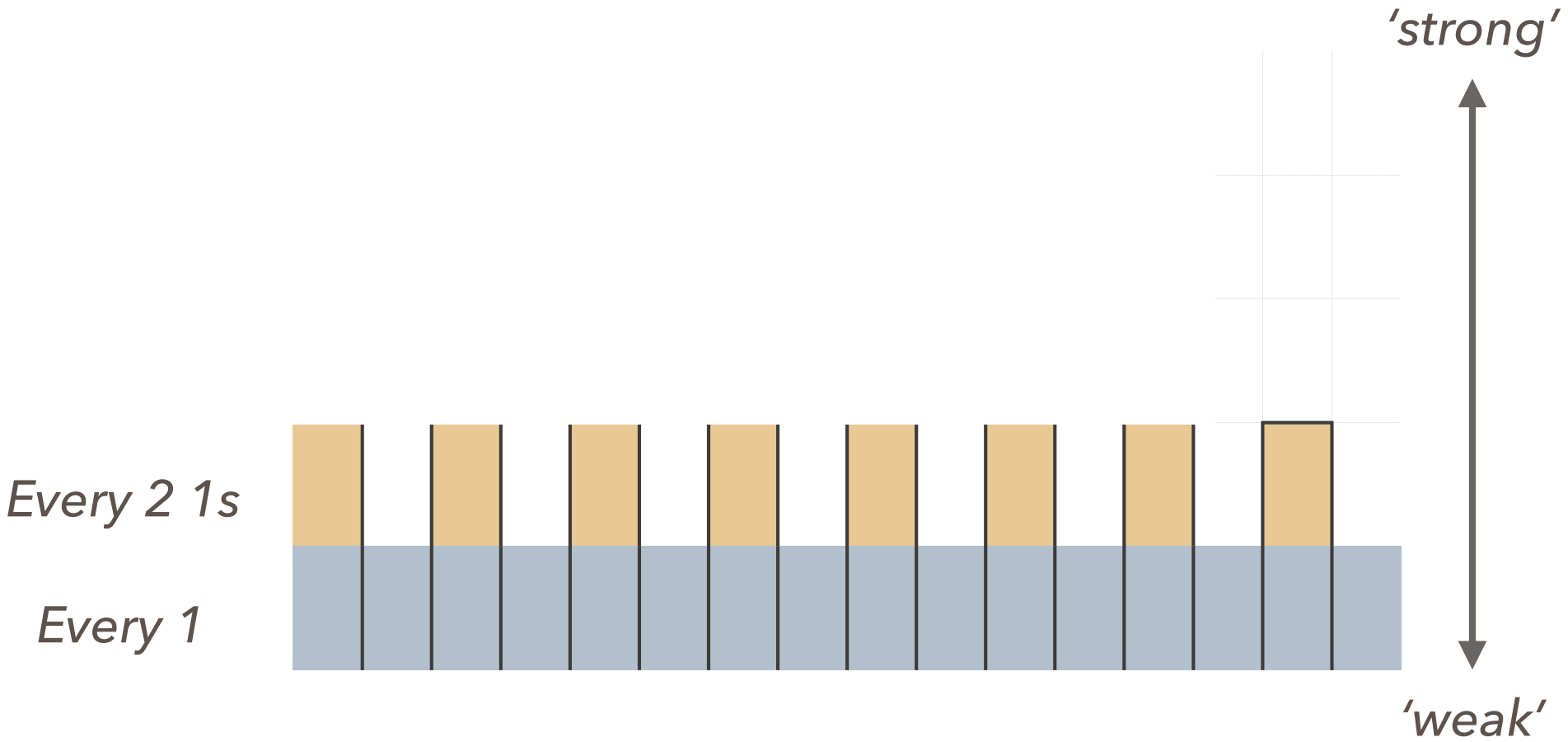
Roots and Wings

Displacement Dissonance

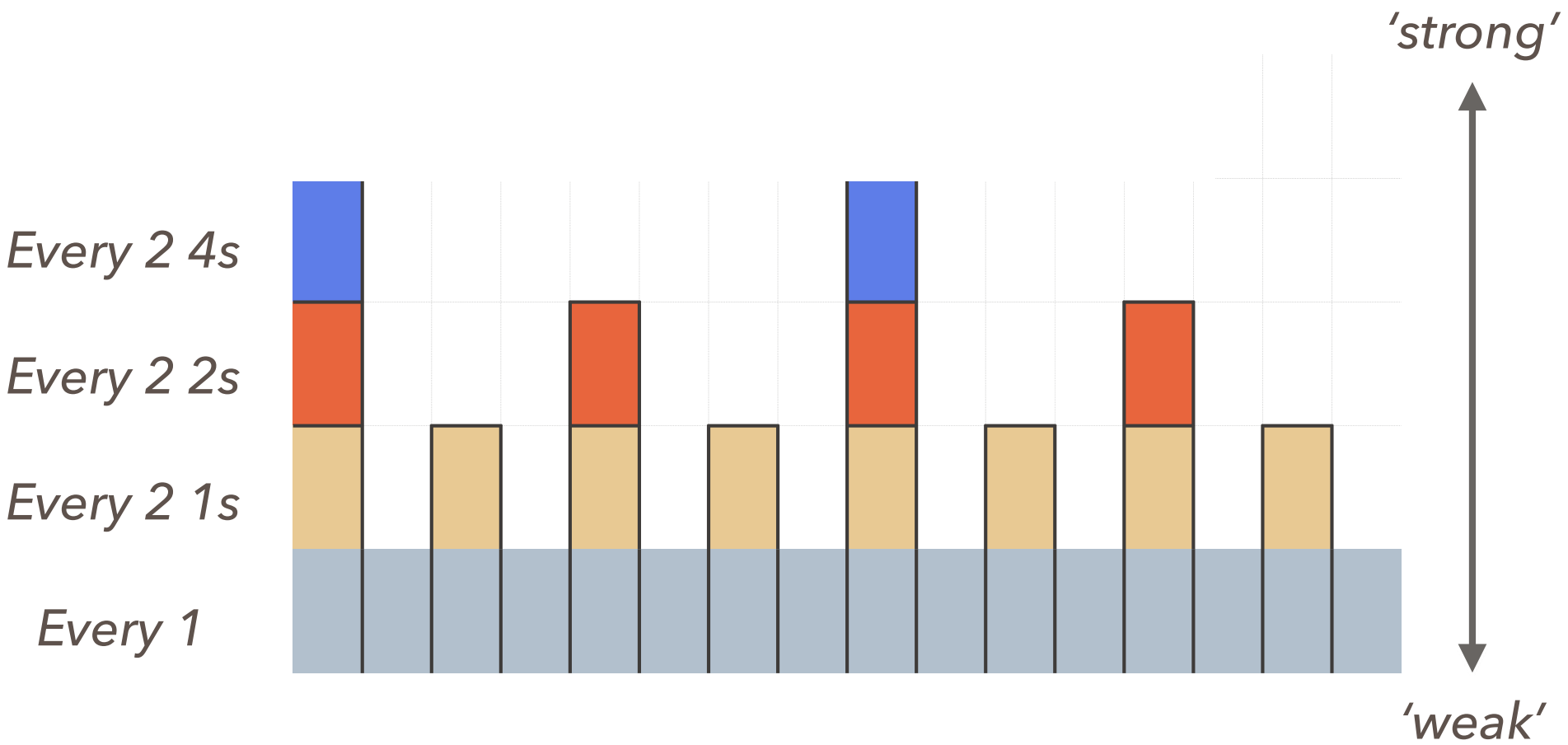
The Binary Default



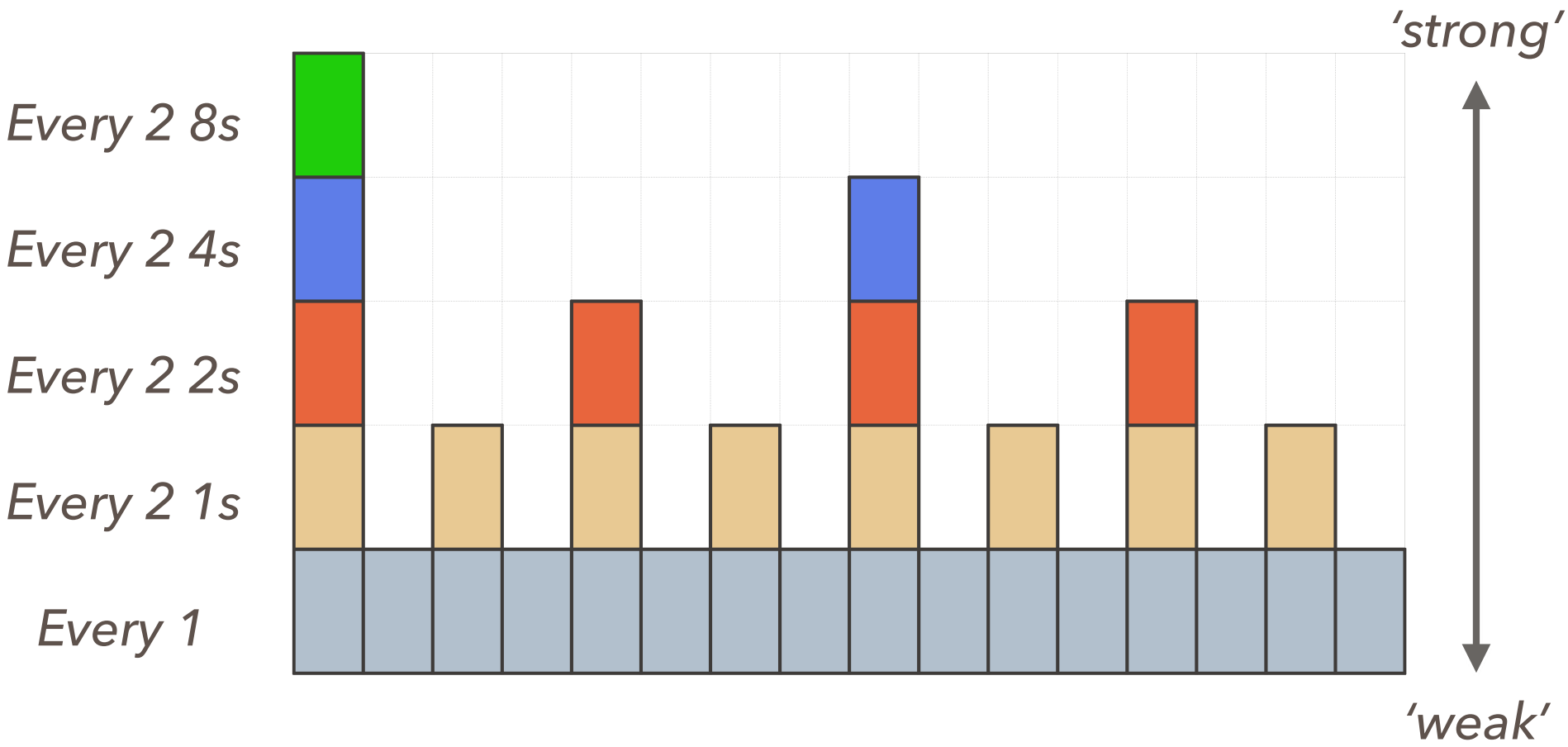
2 by 2 by 2



2 by 2 by 2

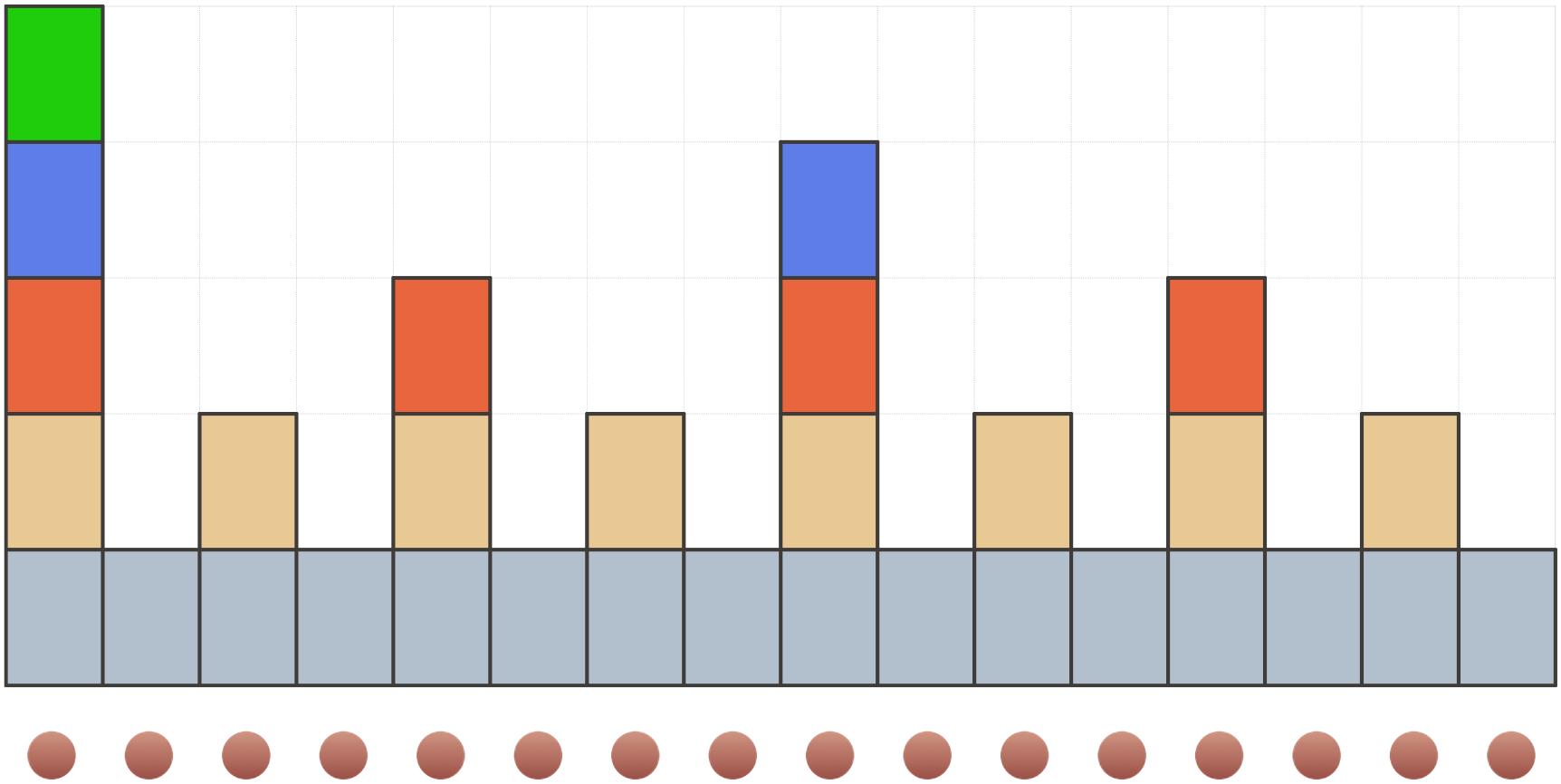


2 by 2 by 2



2 by 2 by 2

Node ‘Strength’

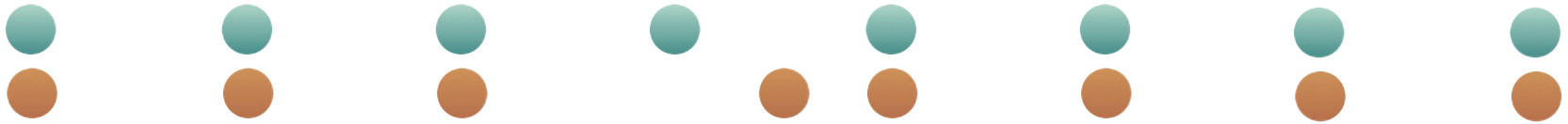


SYNCOPATION

(AKA DISPLACEMENT DISSONANCE)

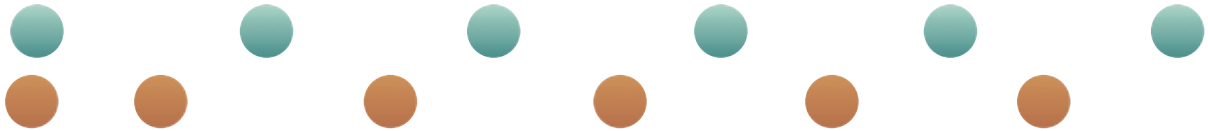
POWER THE WEAK
WEAKEN THE STRONG

WEAK SYNCOPATION

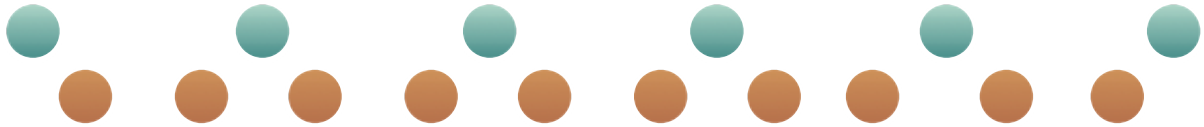


MEDIUM SYNCOPATION

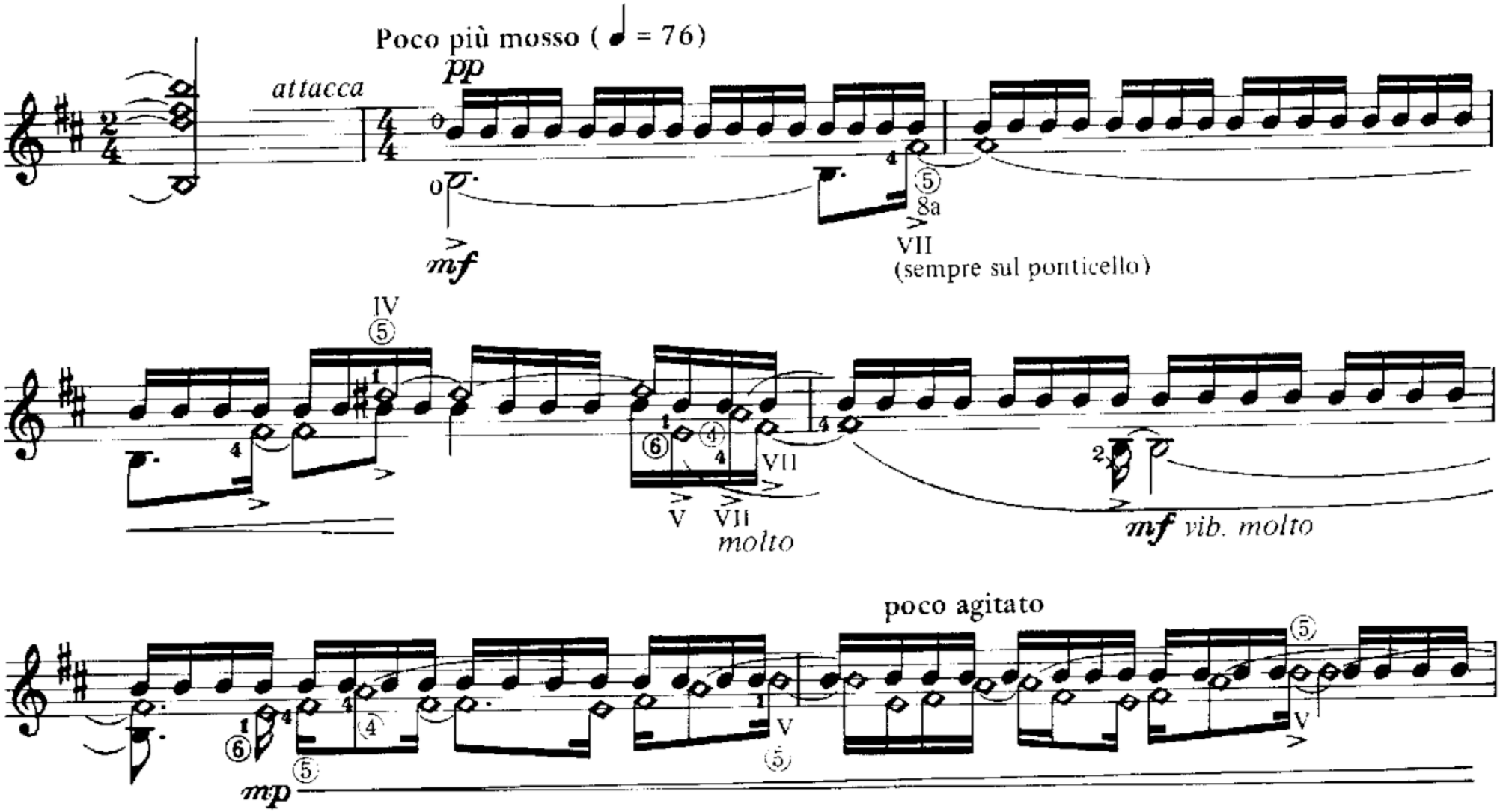
STRONGER SYNCOPATION



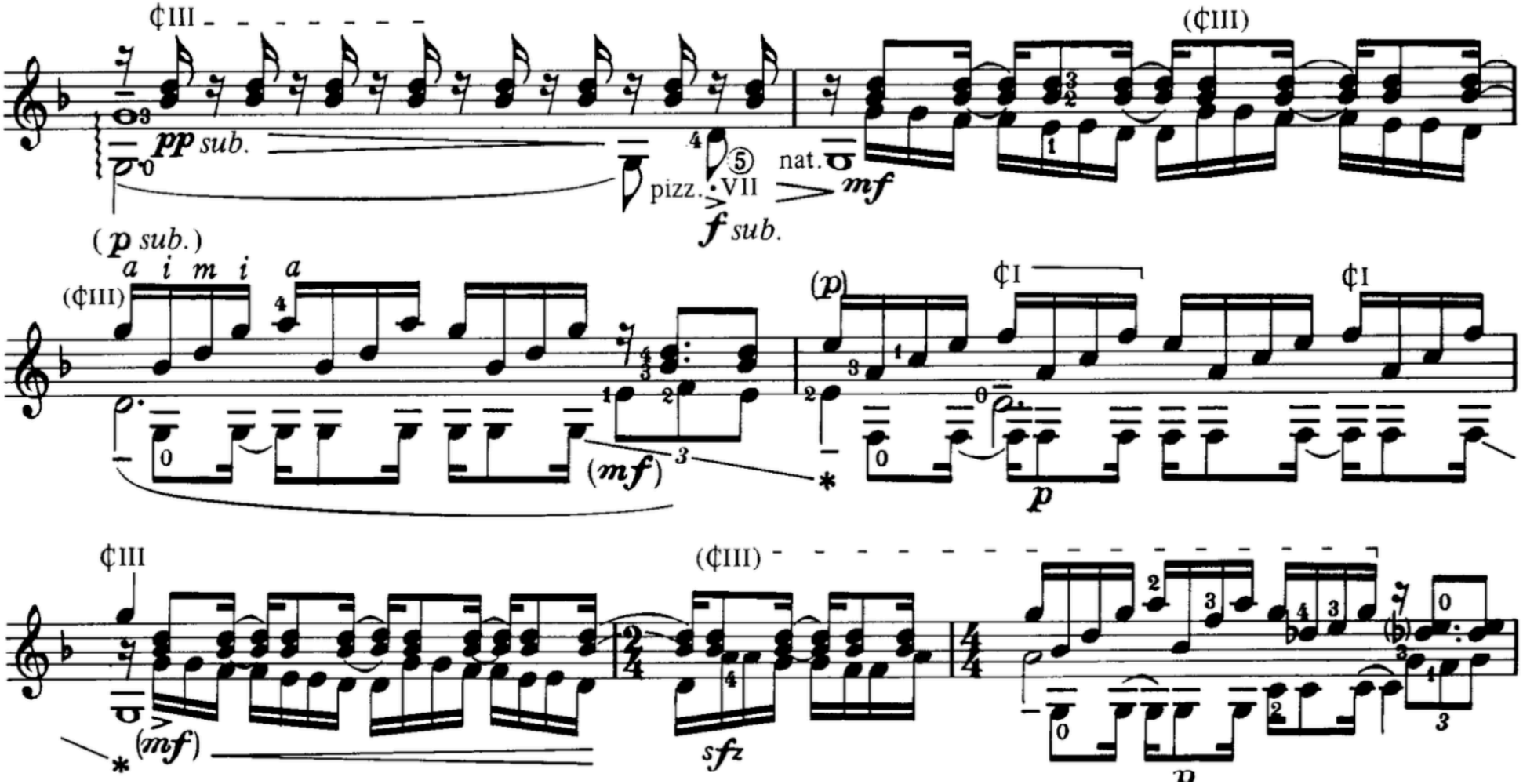
(Un)Popular Displacement Dissonance



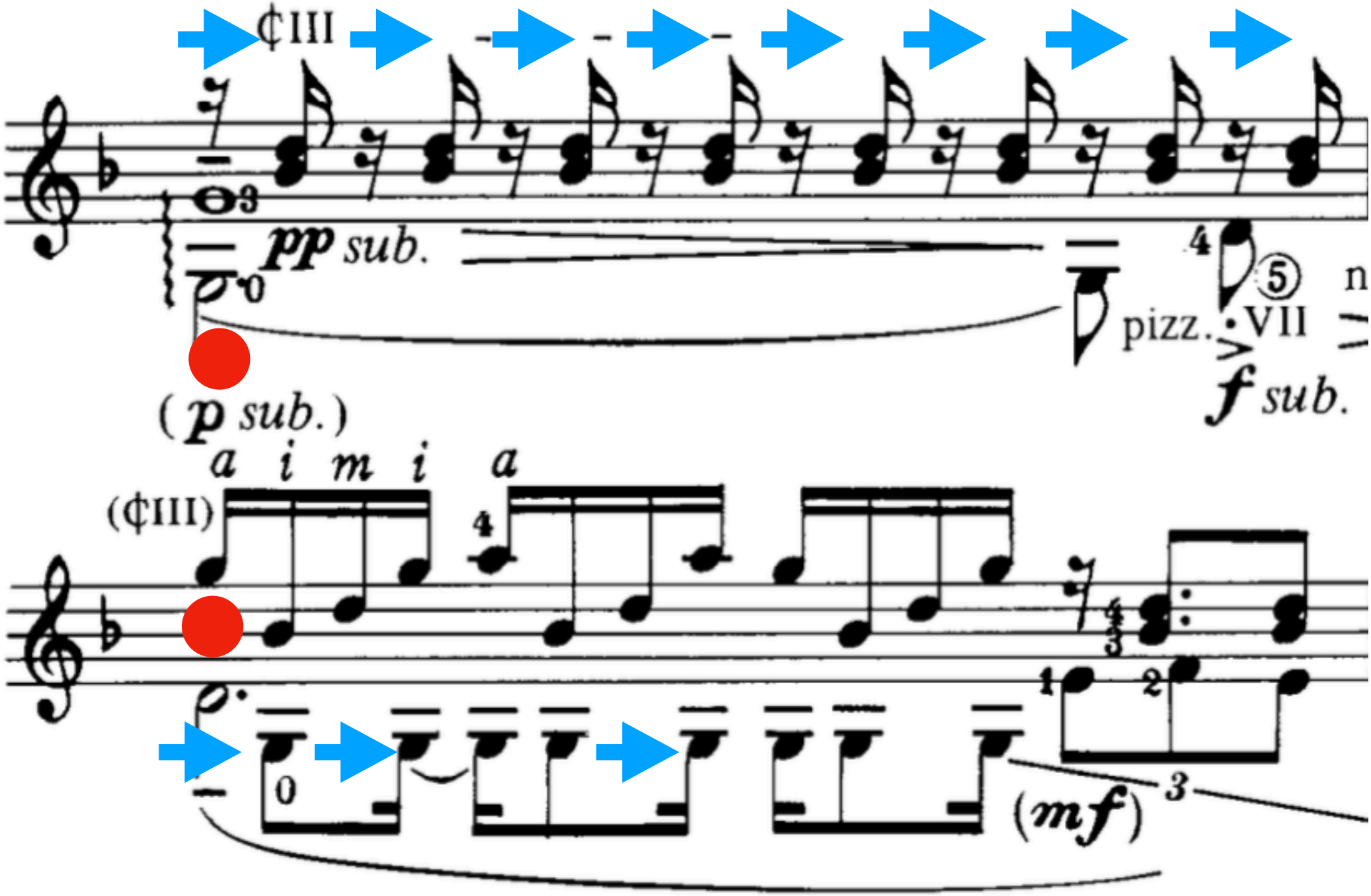
Lettre Encore



Songe Capricorne



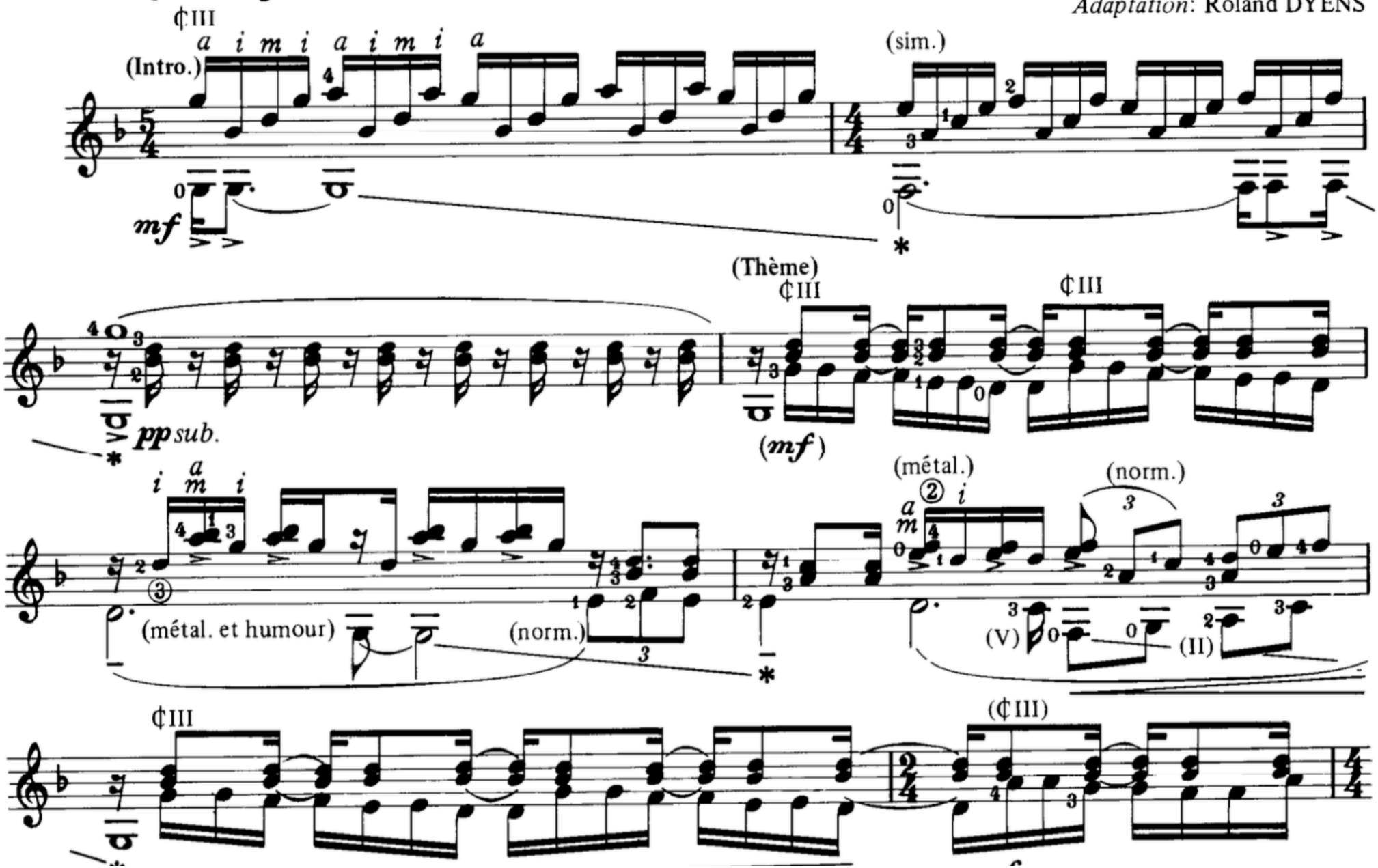
La Bicyclette, b.17-23



La Bicyclette, b.17 & 19

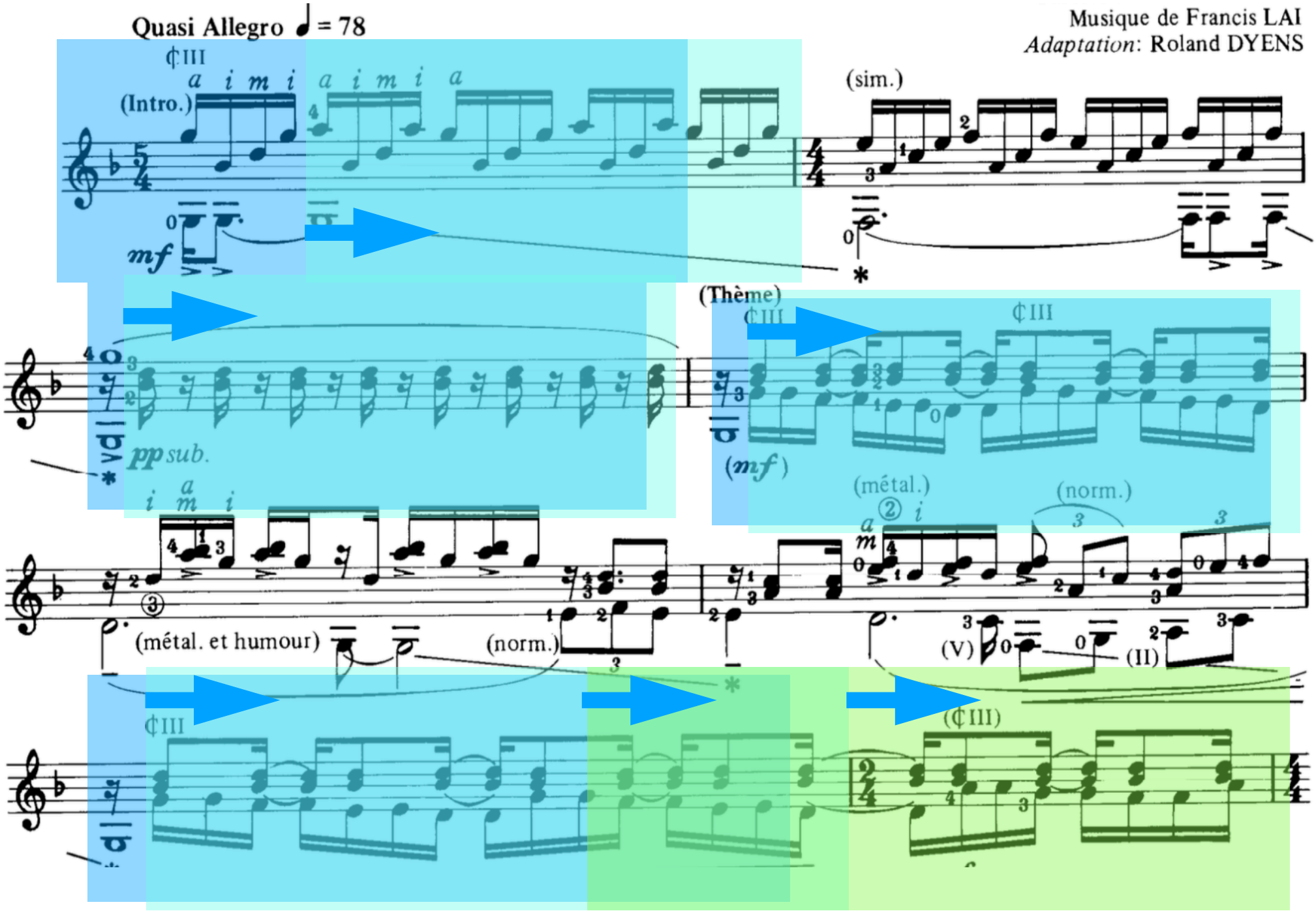
Quasi Allegro ♩ = 78

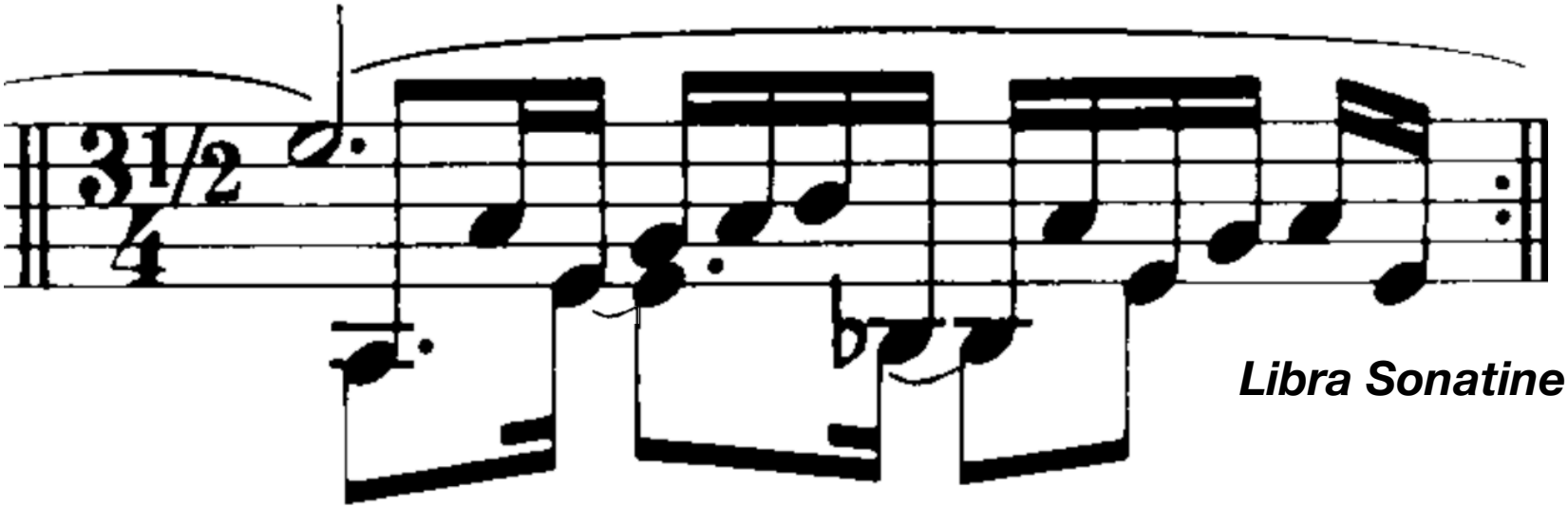
Musique de Francis LAI
Adaptation: Roland DYENS



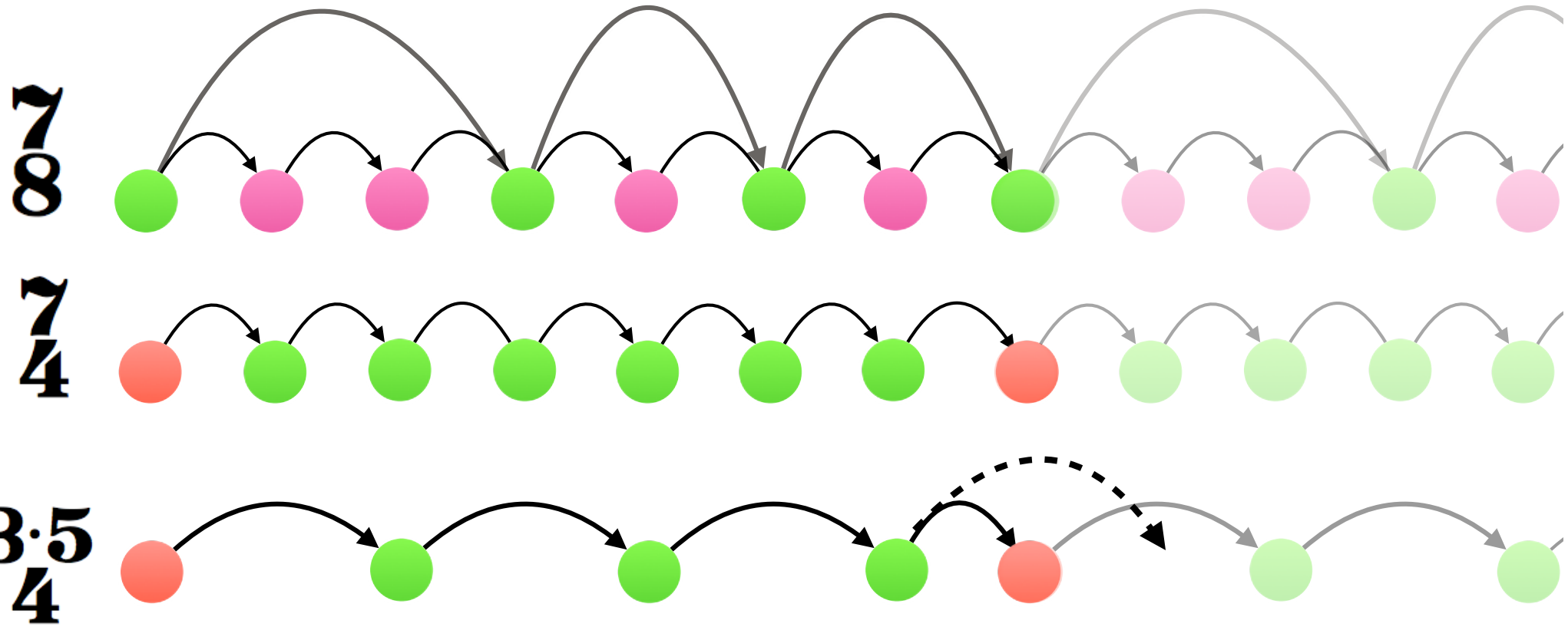
Quasi Allegro ♩ = 78

Musique de Francis LAI
Adaptation: Roland DYENS

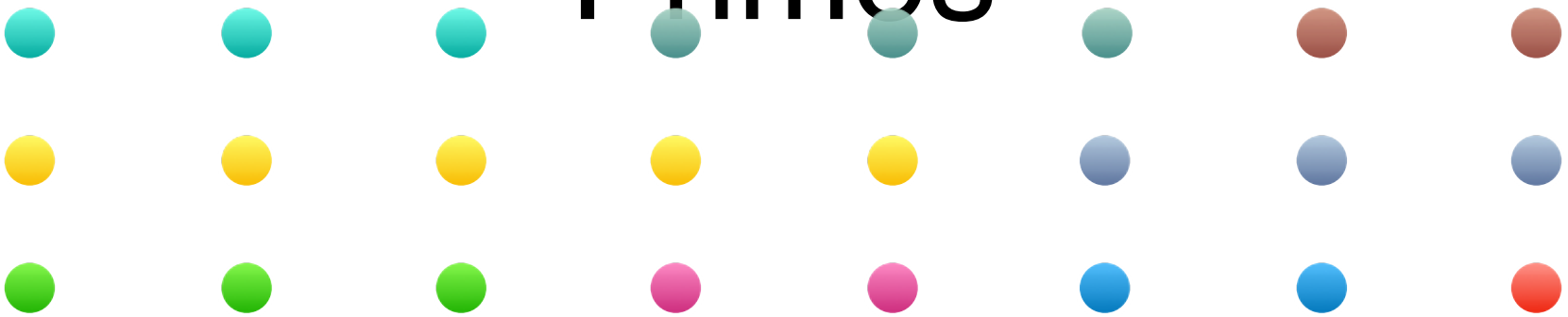




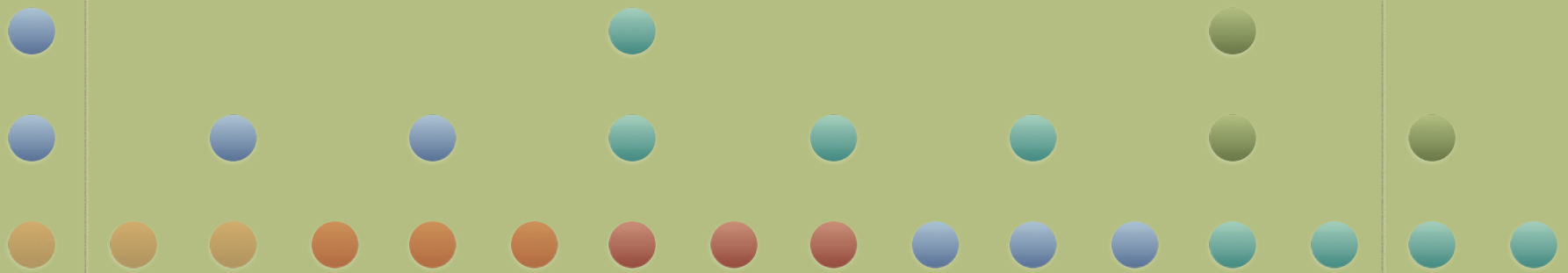
Libra Sonatine - India



Grouping Dissonance & The Hierarchy of the Primes



GROUPING DISSONANCE



THE TRESILLO, DOUBLE TRESILLO & BEYOND

TRESILLO

Libertango – Astor Piazzolla, Yo-Yo Ma

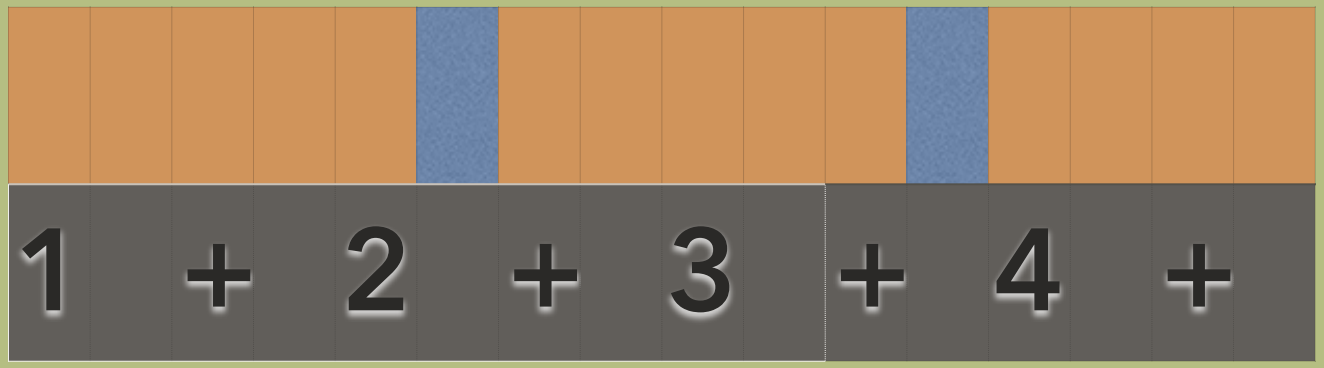
TRESILLO EXAMPLE 1

Oblivion – Malena Tango Quintet

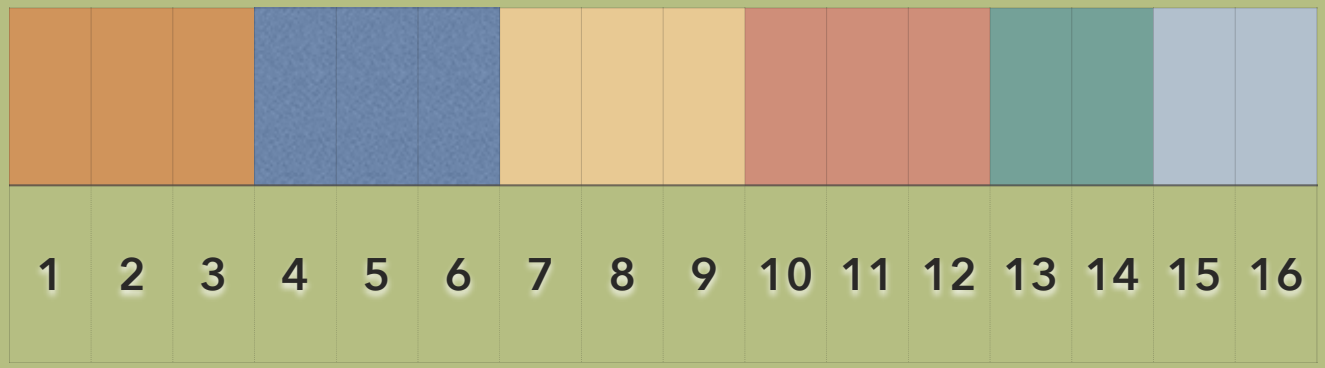
TRESILLO EXAMPLE 2

Wake Up - Remastered – Rage Against The Machine

TRESILLO EXAMPLE 3



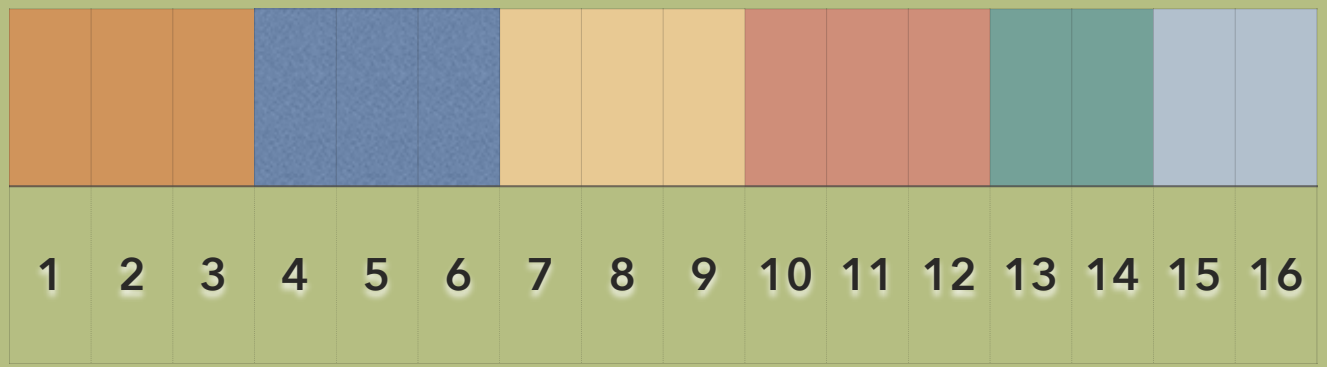
DOUBLE TRESILLO



THE TRESILLO, DOUBLE TRESILLO & BEYOND

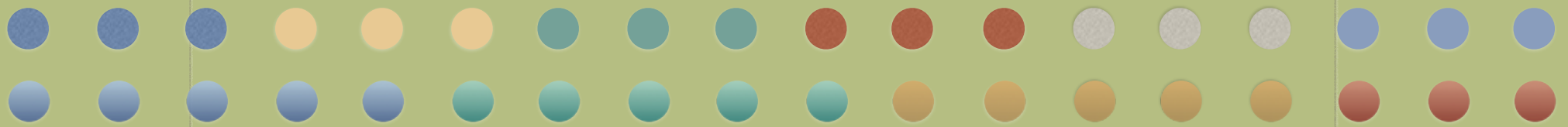
Kashmir – Led Zeppelin

DOUBLE TRESILLO EXAMPLE



GROUPING DISSONANCE

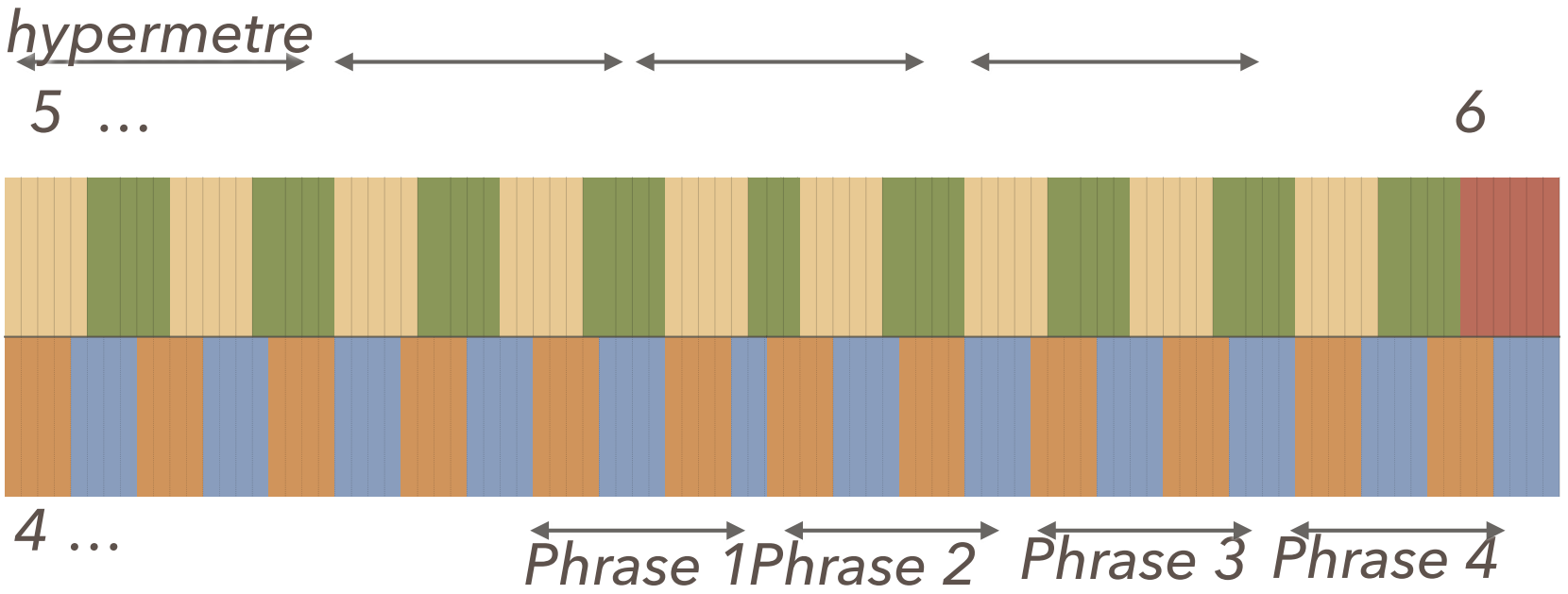
(SHARED PULSE POLYMETER)



[Touch And Go – The Cars]

Polymeter

The Cars - *Touch and Go*

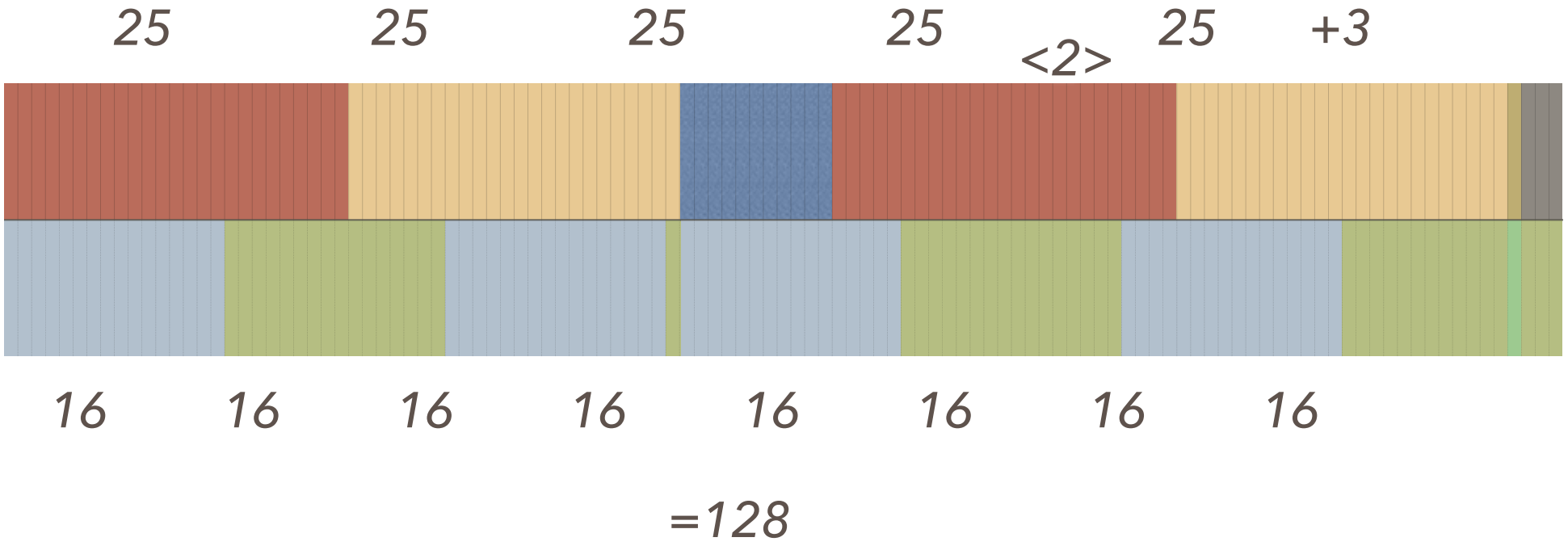


18 bars of 5 + 1 x 6 = 96
24 bars of 4 = 96

[Rational Gaze – Meshuggah]

Polymeter

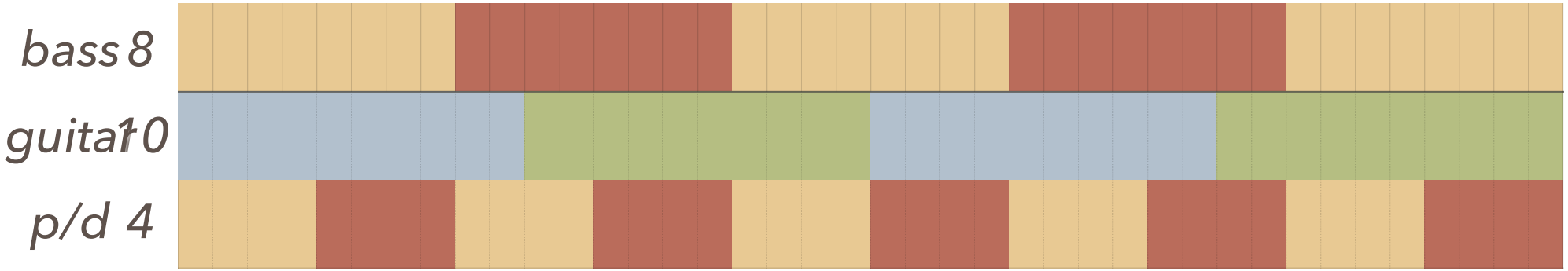
Meshuggah - *Rational Gaze*
(0:00-0:29)



[Laid Back Schematics - Live – Steve Coleman and Five Elements]

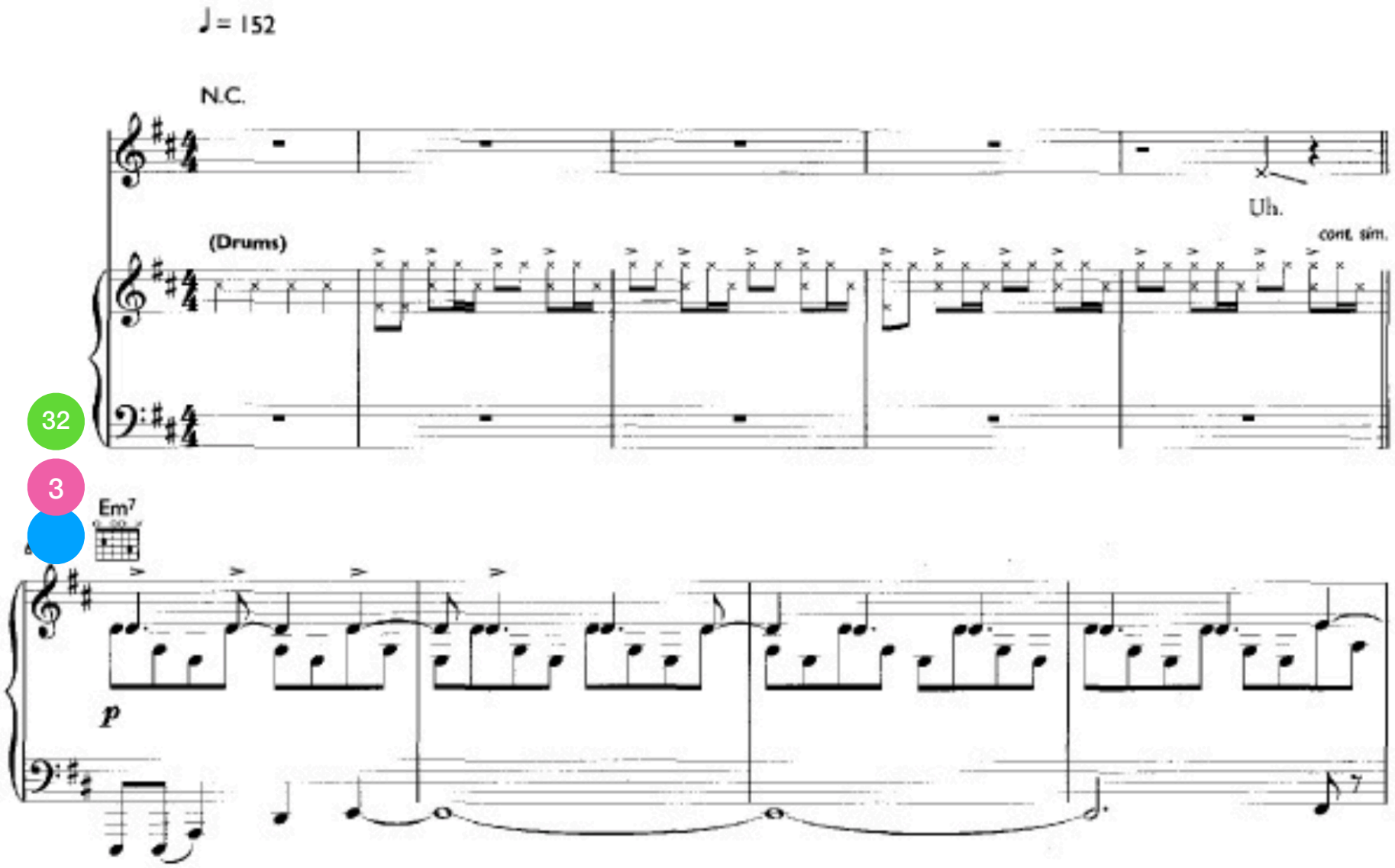
Polymeter

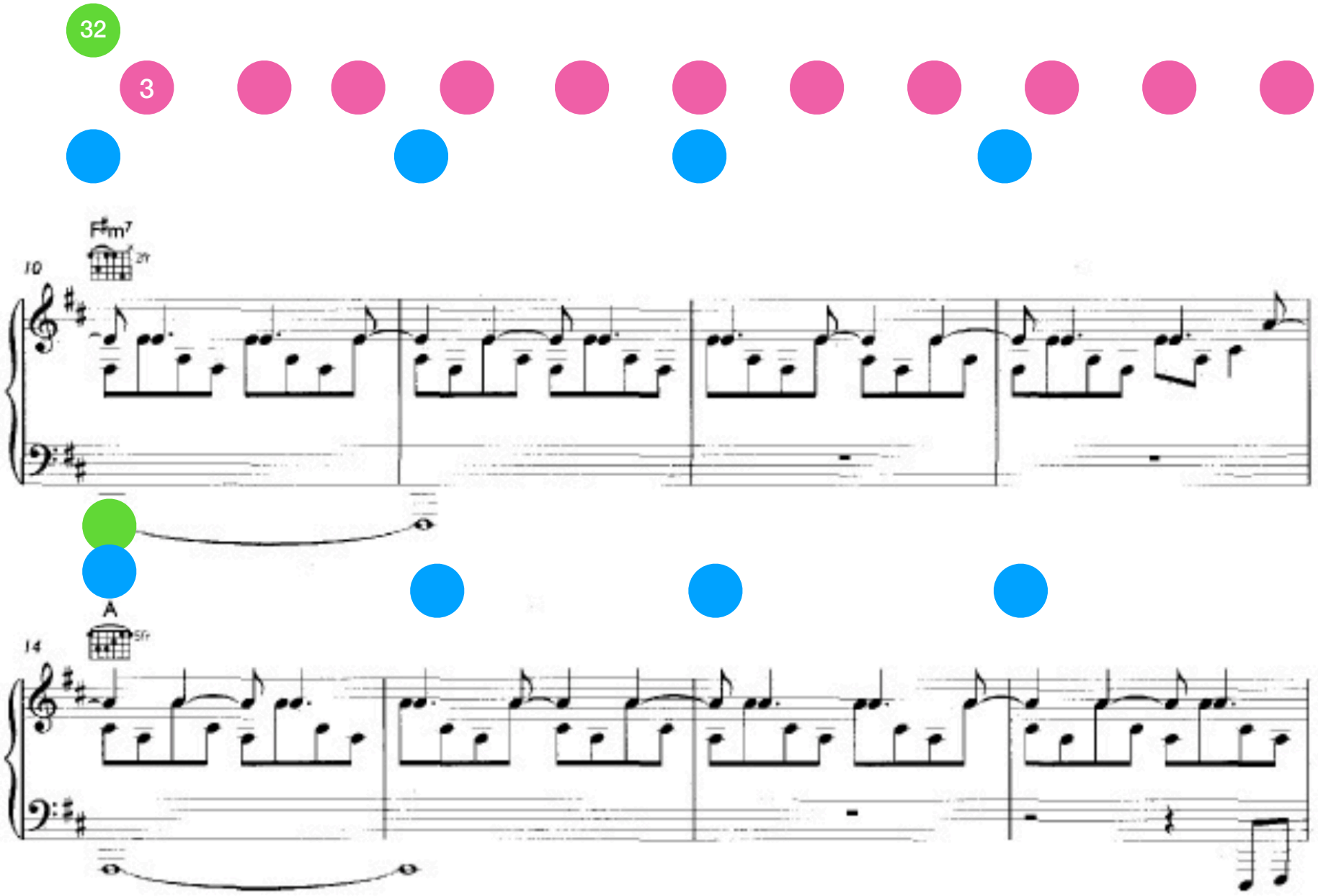
Steve Coleman - *Laid Back Schematics*

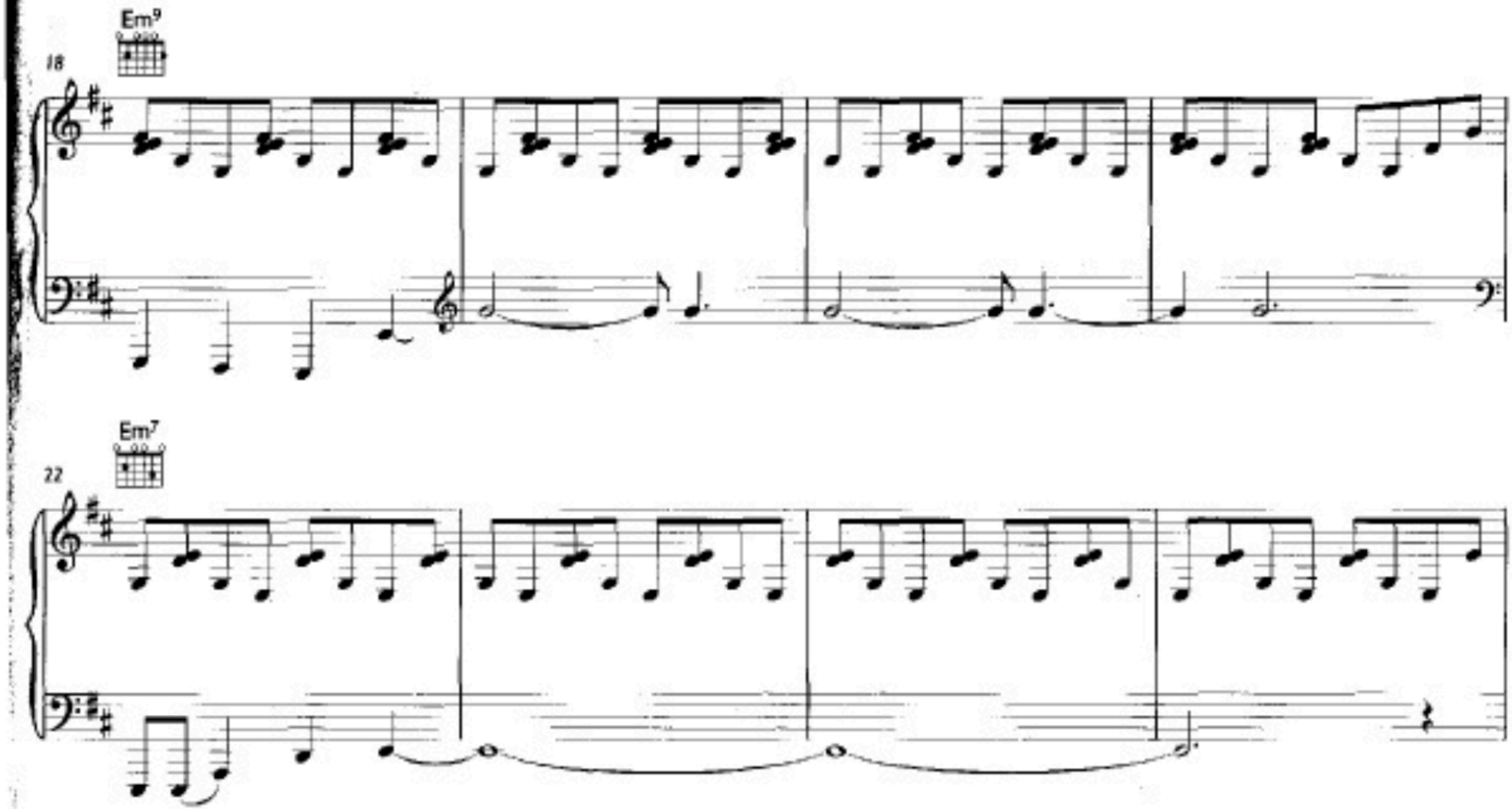


WEIRD FISHES/ARPEGGI

Words and Music by Thomas Yorke, Jonathan Greenwood,
Colin Greenwood, Edward O'Brien and Philip Selway




32
3
F♯m7
2fr
10
A
5fr
14

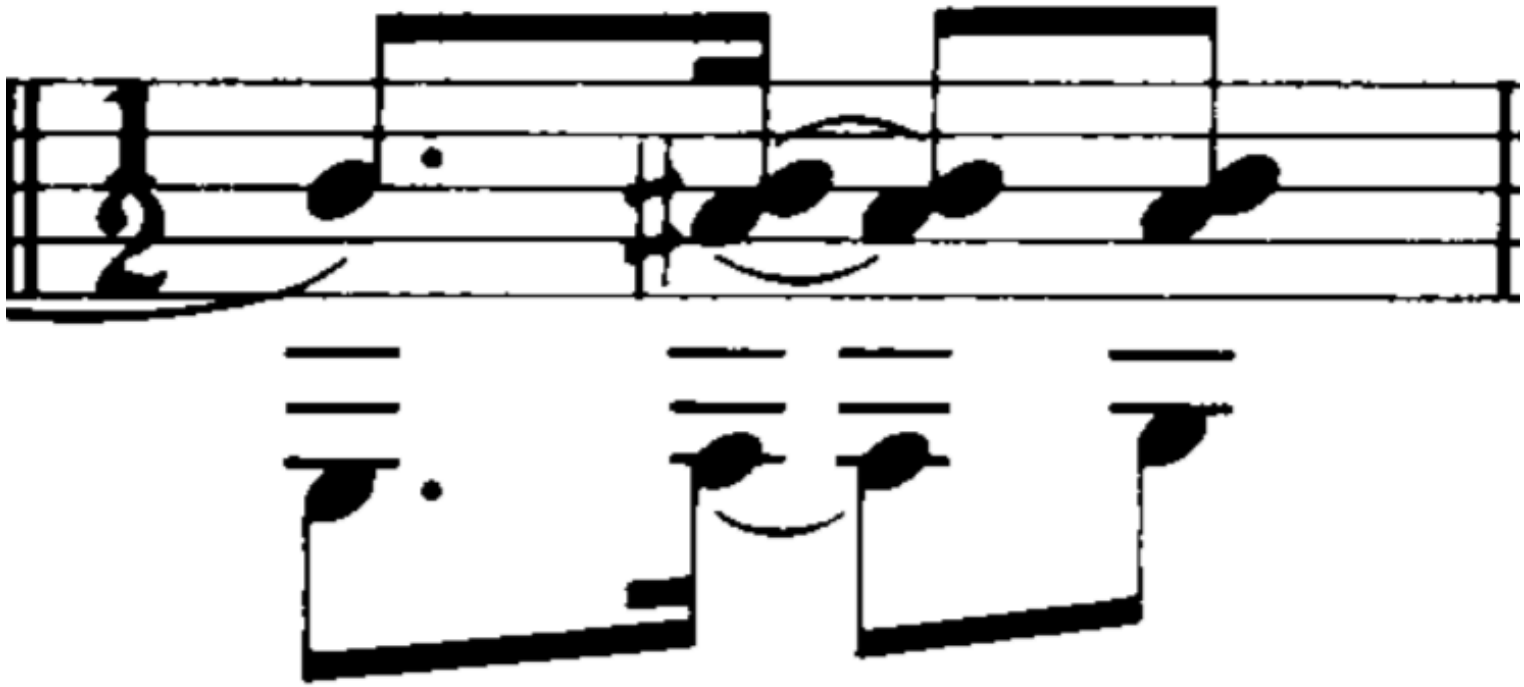

Em9
18
Em7
22

Tresillo

$$\frac{3+3+2}{8}$$

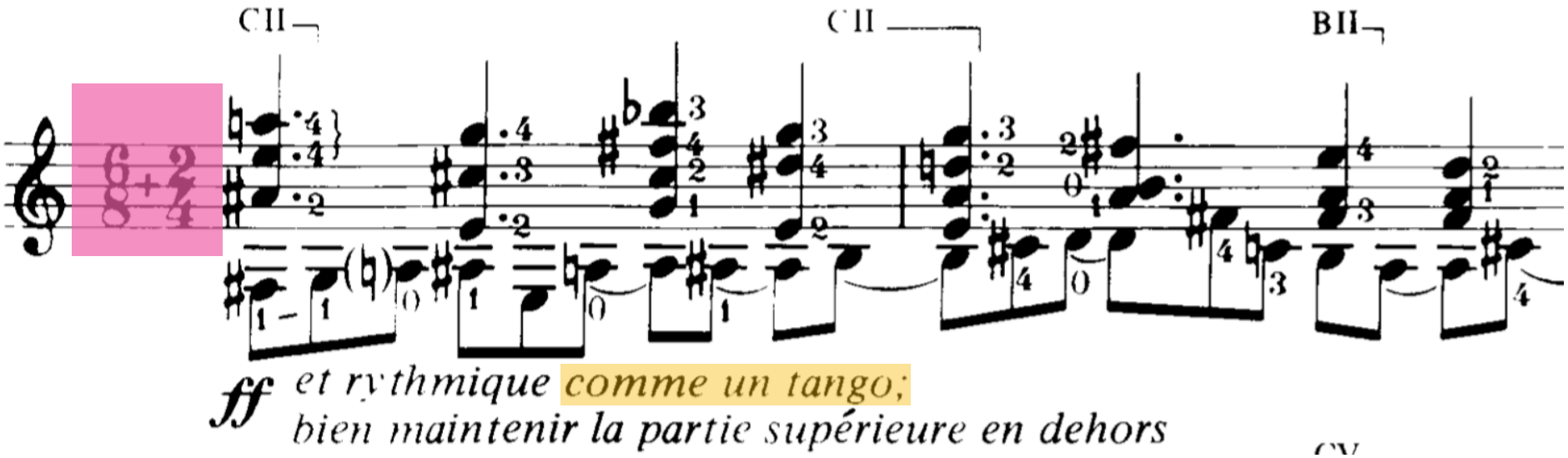
$$3+3+2=8$$

3+3+2

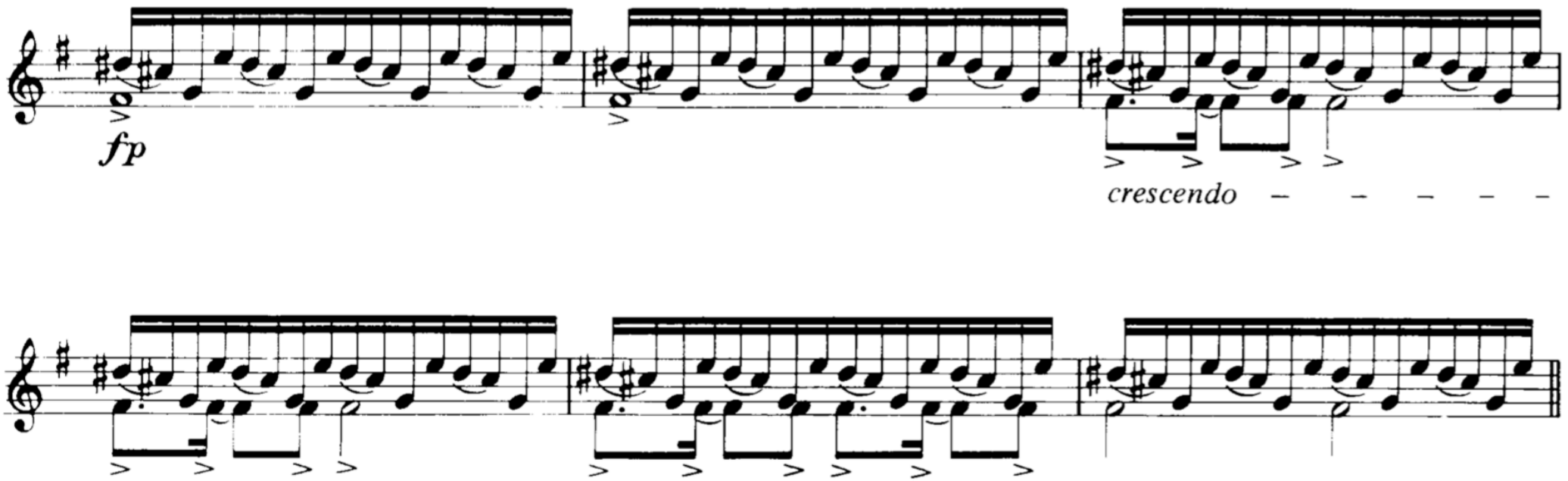


Libra Sonatine - Fuoco

3+3+2+2

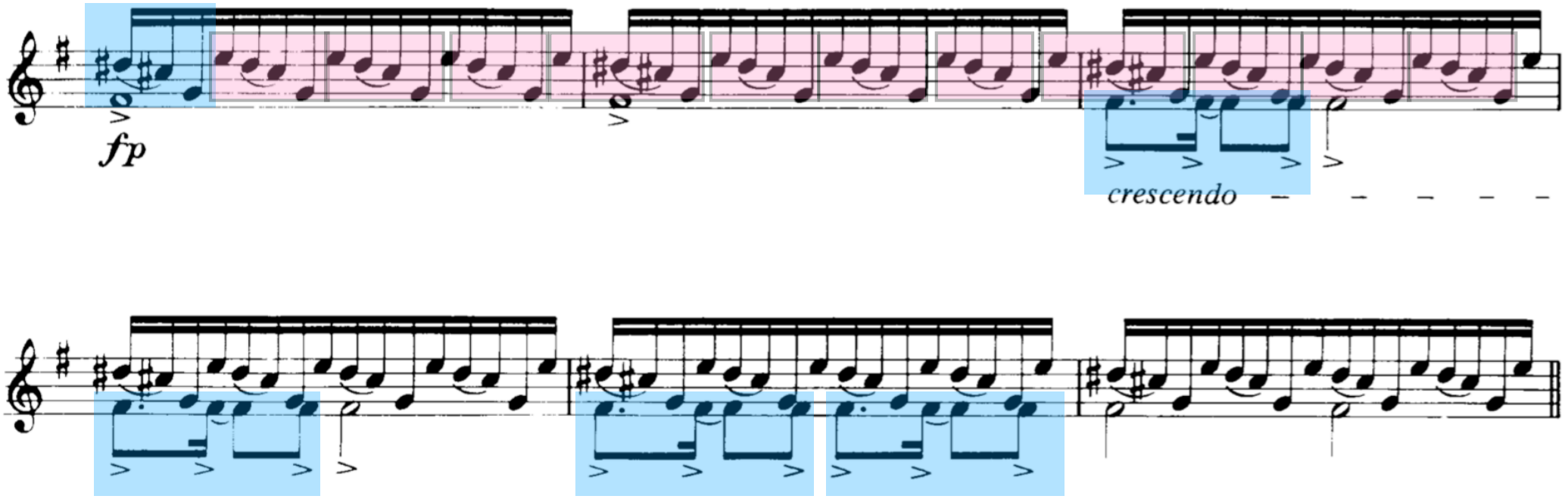


Libra Sonatine - India



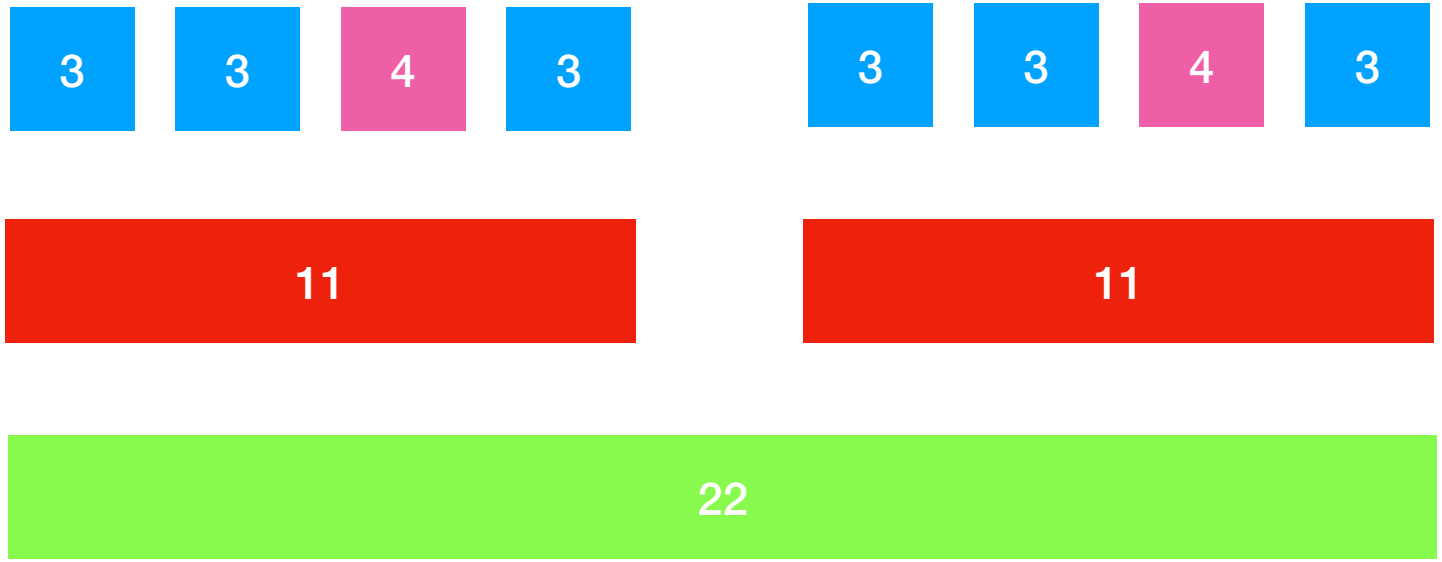
Libra Sonatine - Fuoco

3 + 4 + 4 + 4 + 4 + ...



Libra Sonatine - Fuoco

Euclidean Rhythms & Higher Primes



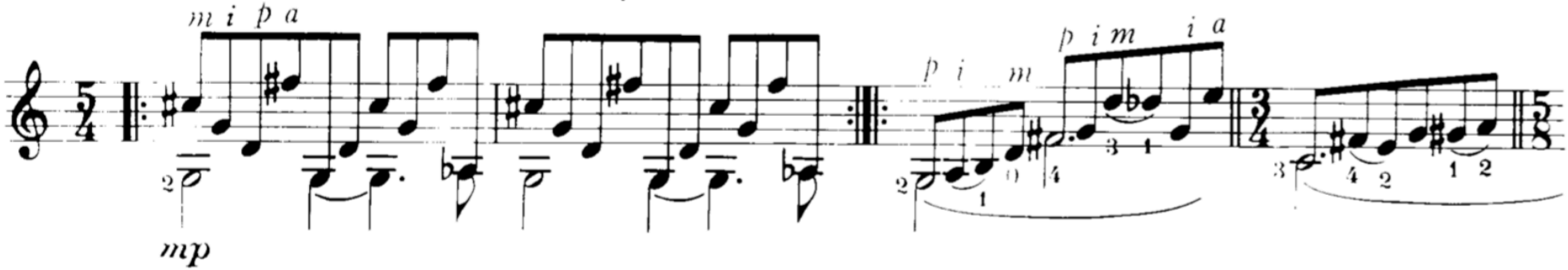
LIBRA SONATINE

Ⓐ INDIA

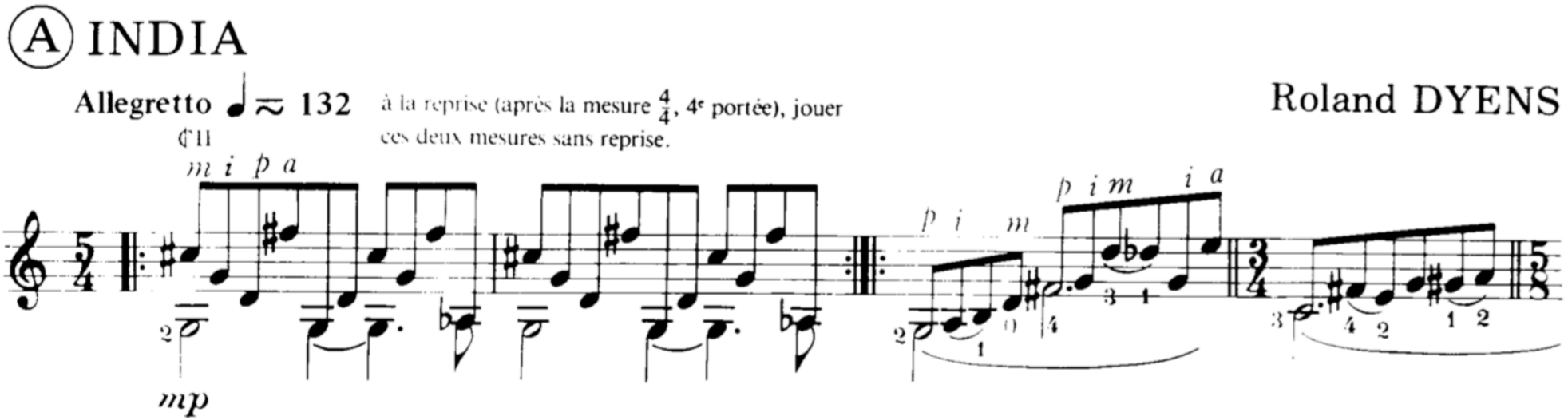
Allegretto ♩ ≈ 132

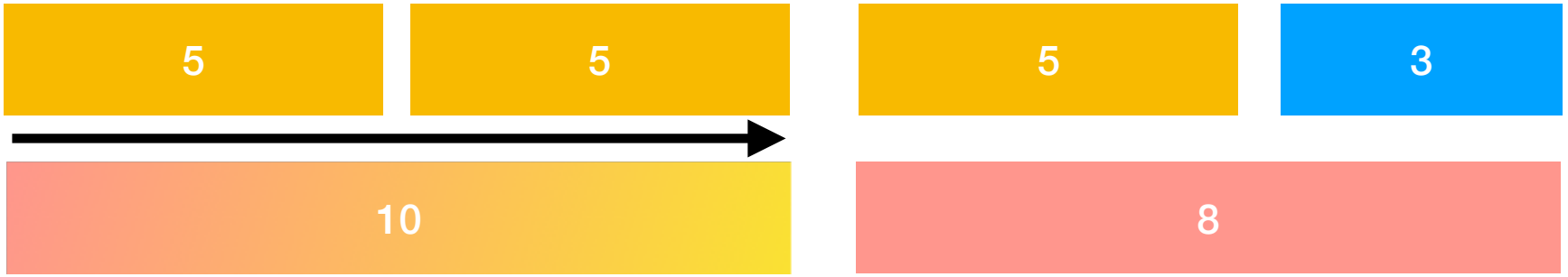
à la reprise (après la mesure $\frac{4}{4}$, 4e portée), jouer ces deux mesures sans reprise.

Roland DYENS



LIBRA SONATINE

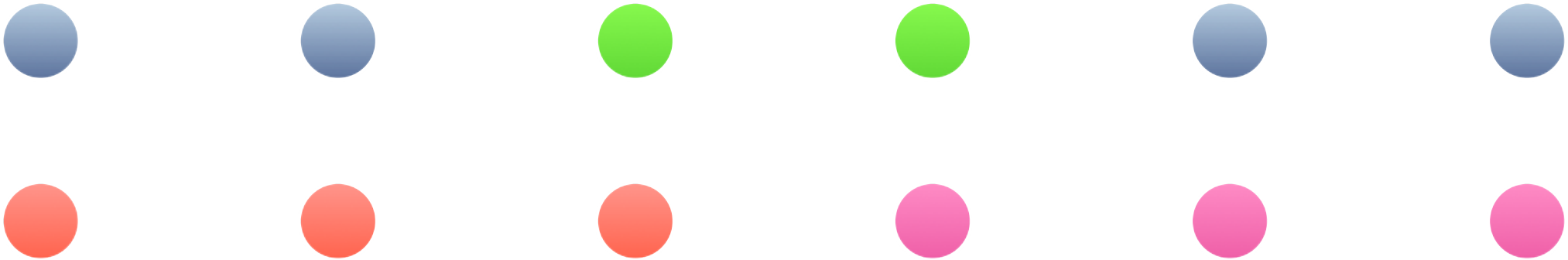




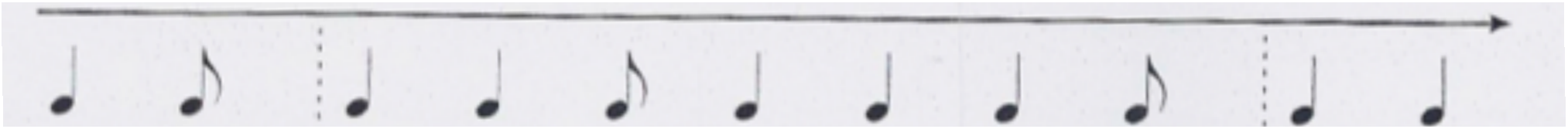
Hypermetric cadence

Levels of Multiplicity

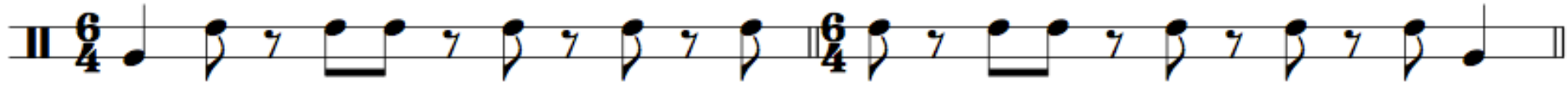
Metric Illusion

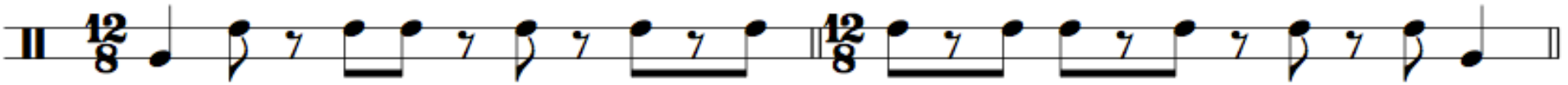


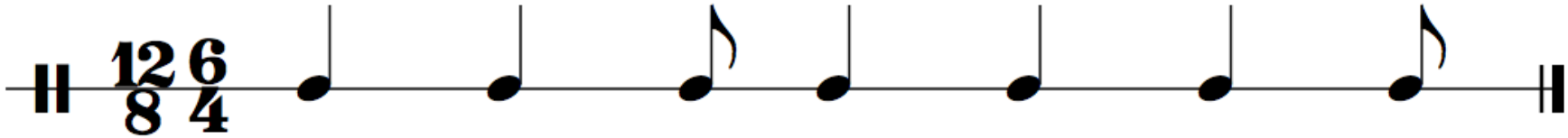
Agbekor

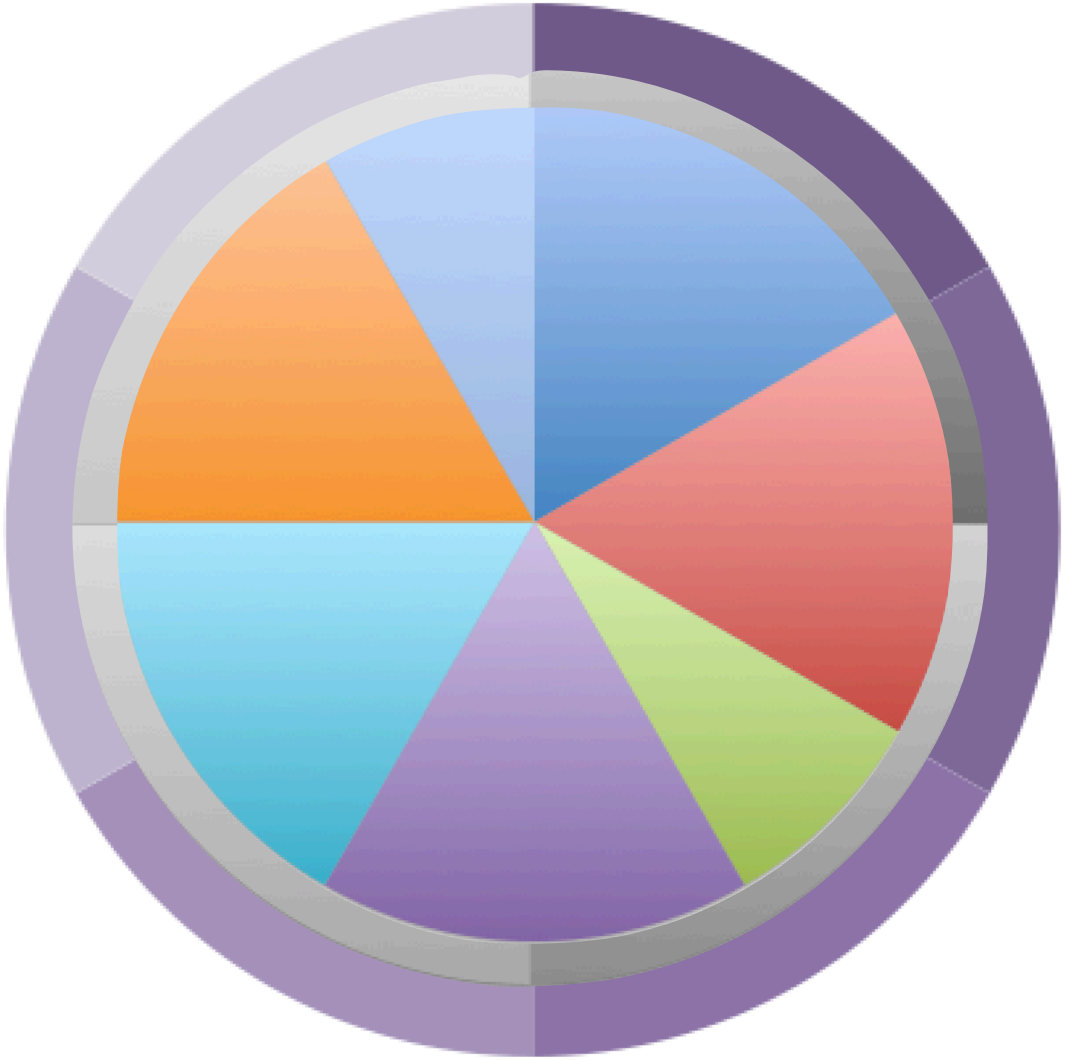


West African rhythms are sometimes written as above (soft barlines and no time signature) to represent the metric ambiguity the agbekor pattern can in fact be heard (and

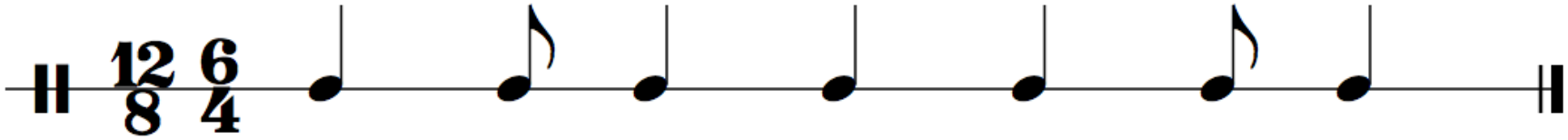


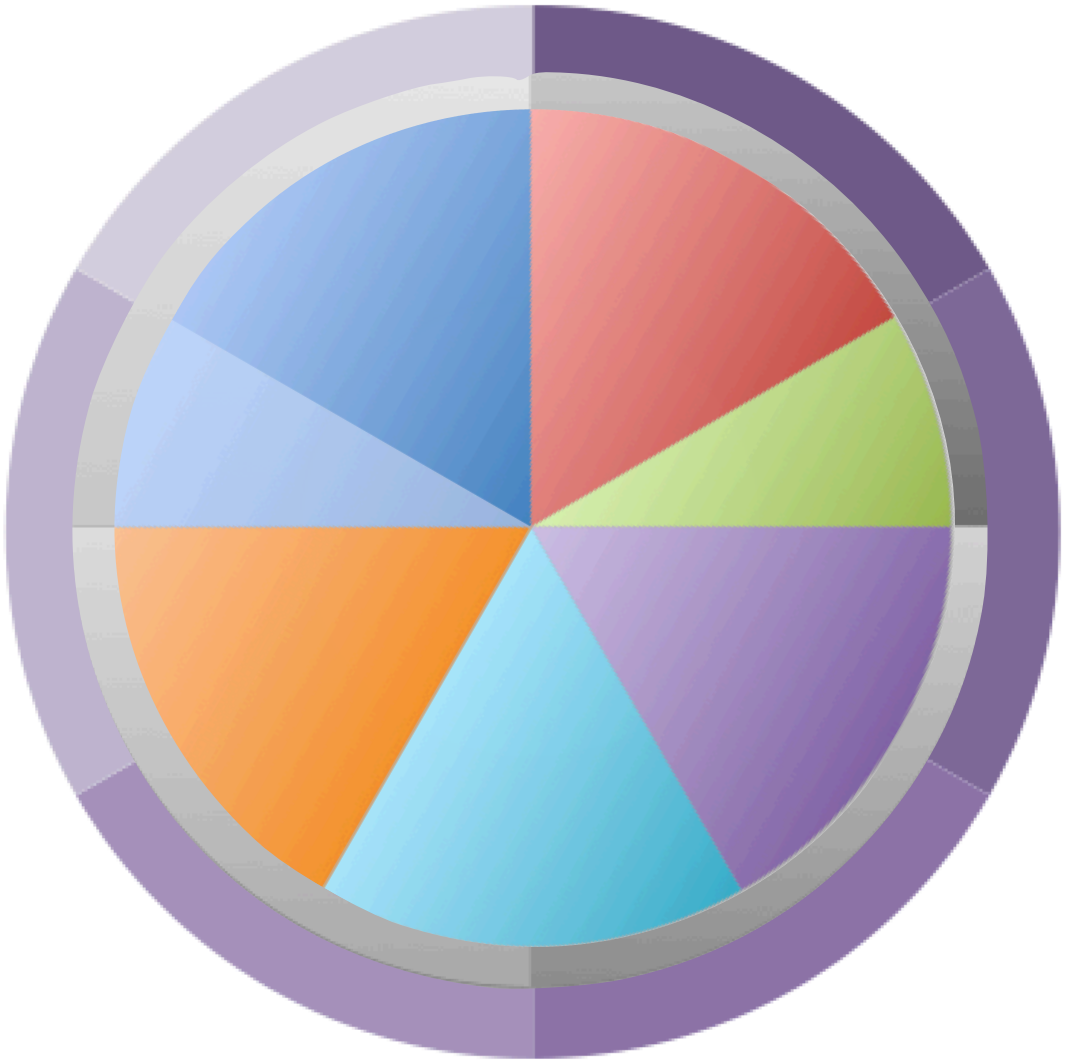




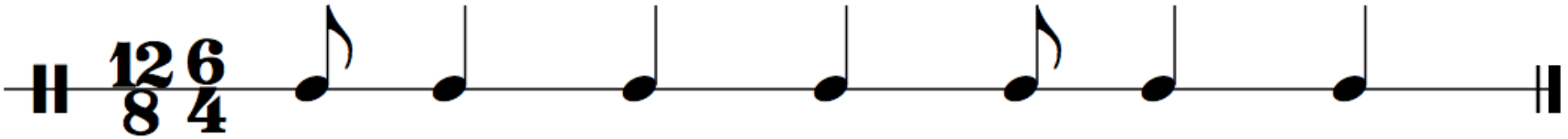


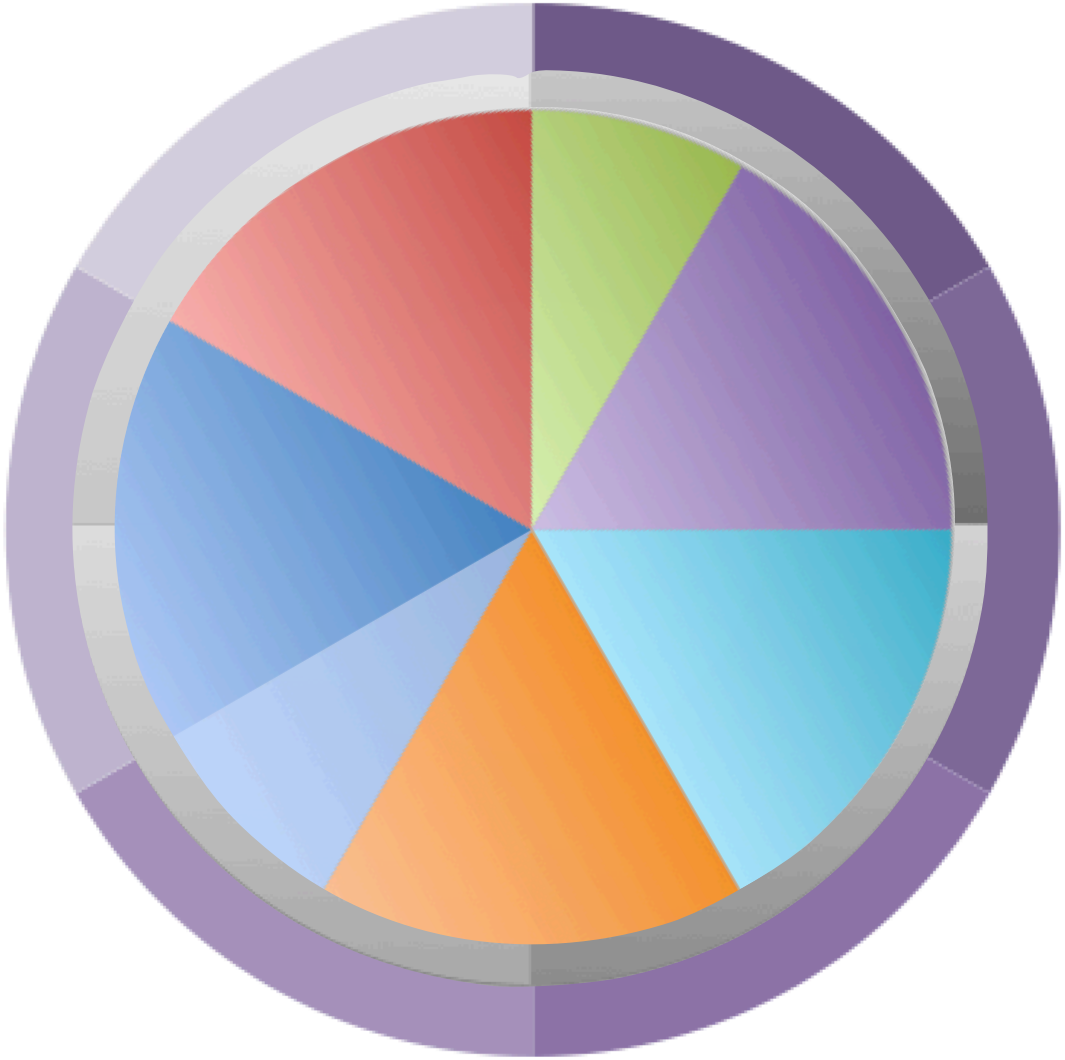
Agbekor/Ionian





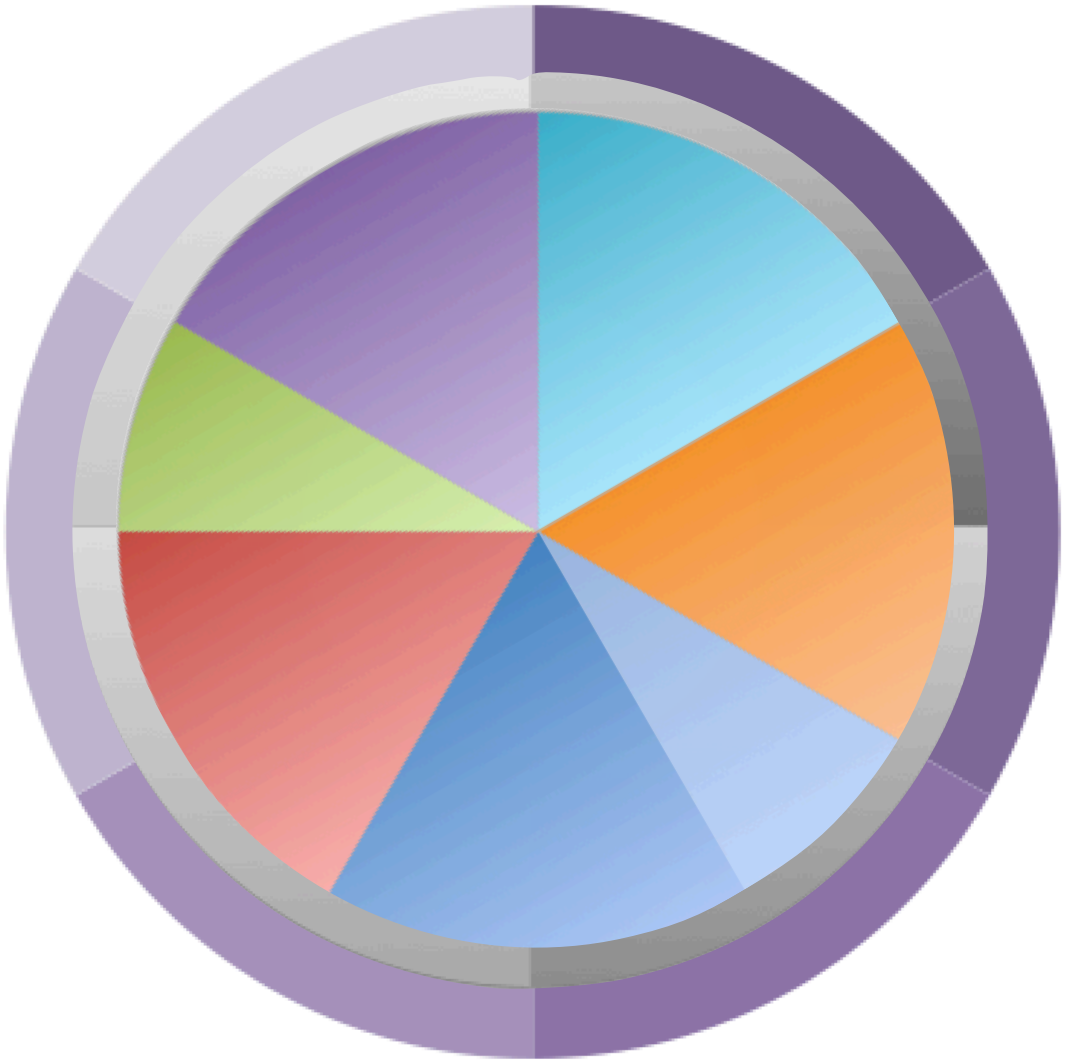
Dorian Palindromic





Phrygian

Lydian



‘African Standard Pattern’

Absorbing Multiplicity

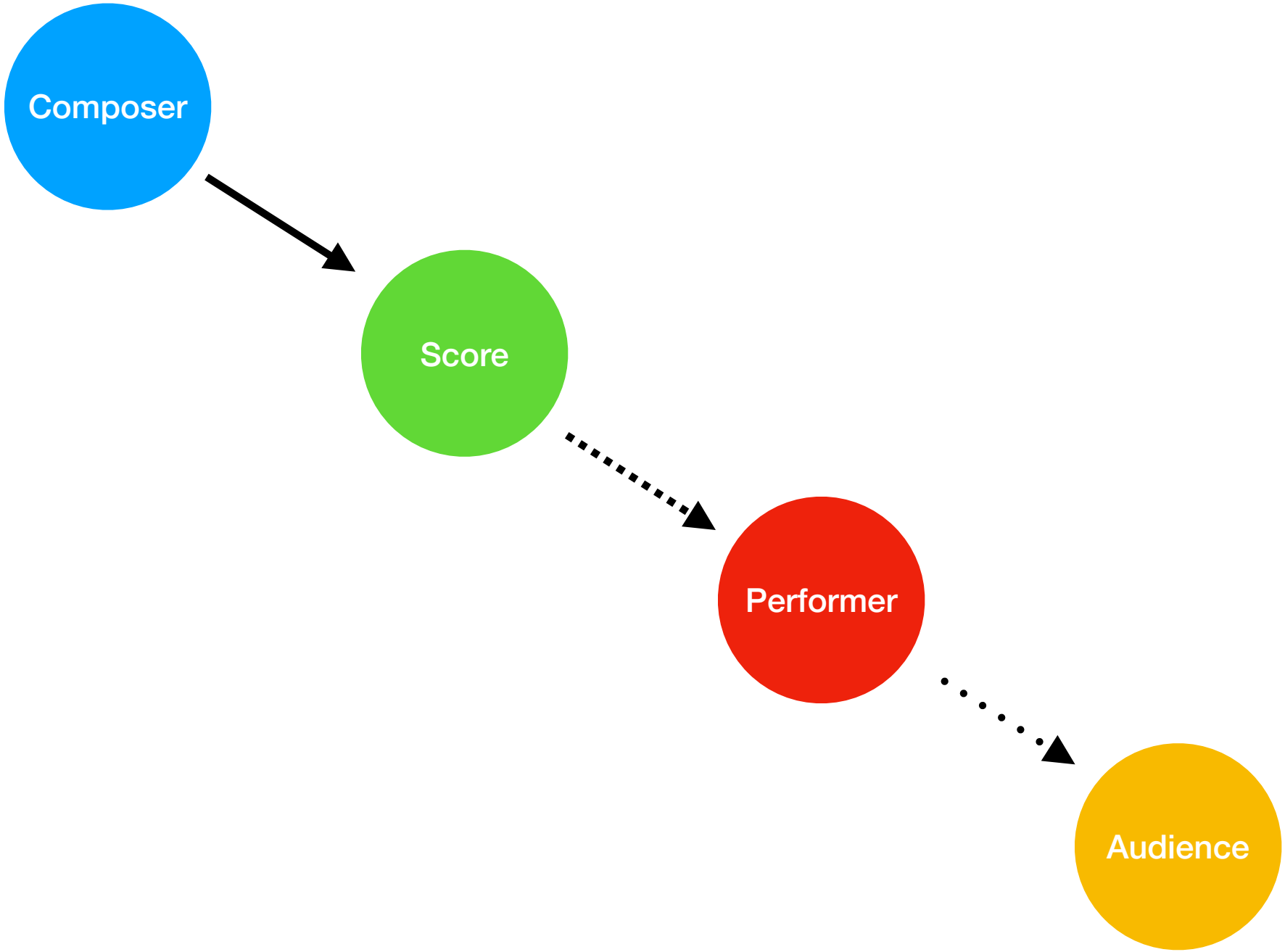
Ma-ti-ko Ma-ti-ko__ Kle__ Ku Dza
(simplified consonants)

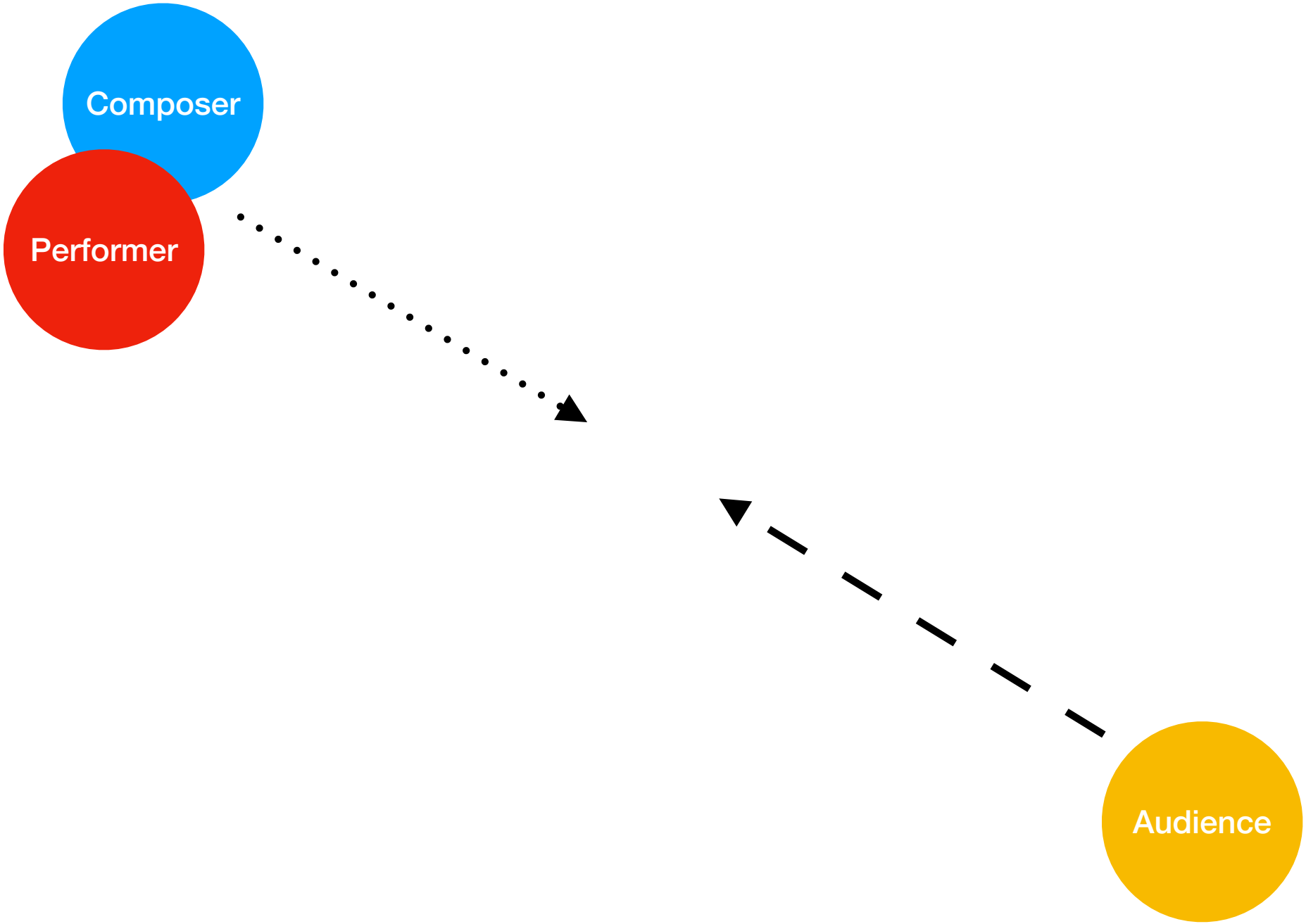
Ma-ti-**ko** **Ma**-ti-**ko**__ **Kle**__ **Ku Dza!**
(Bell pattern)

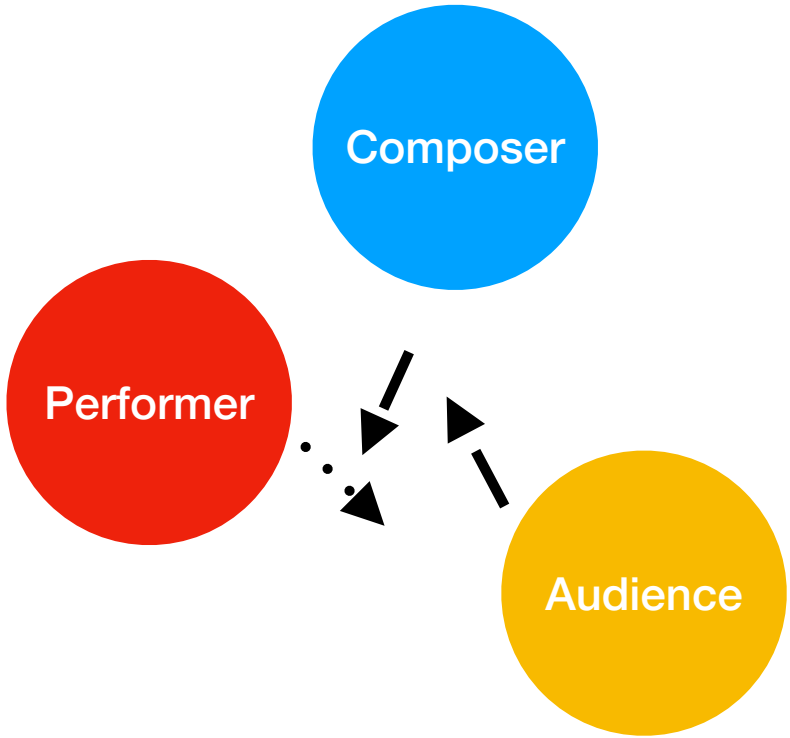
ma-**Ti**-ko ma-**Ti**-ko__ **Kle**__ ku **Dza!**
(4 feel)

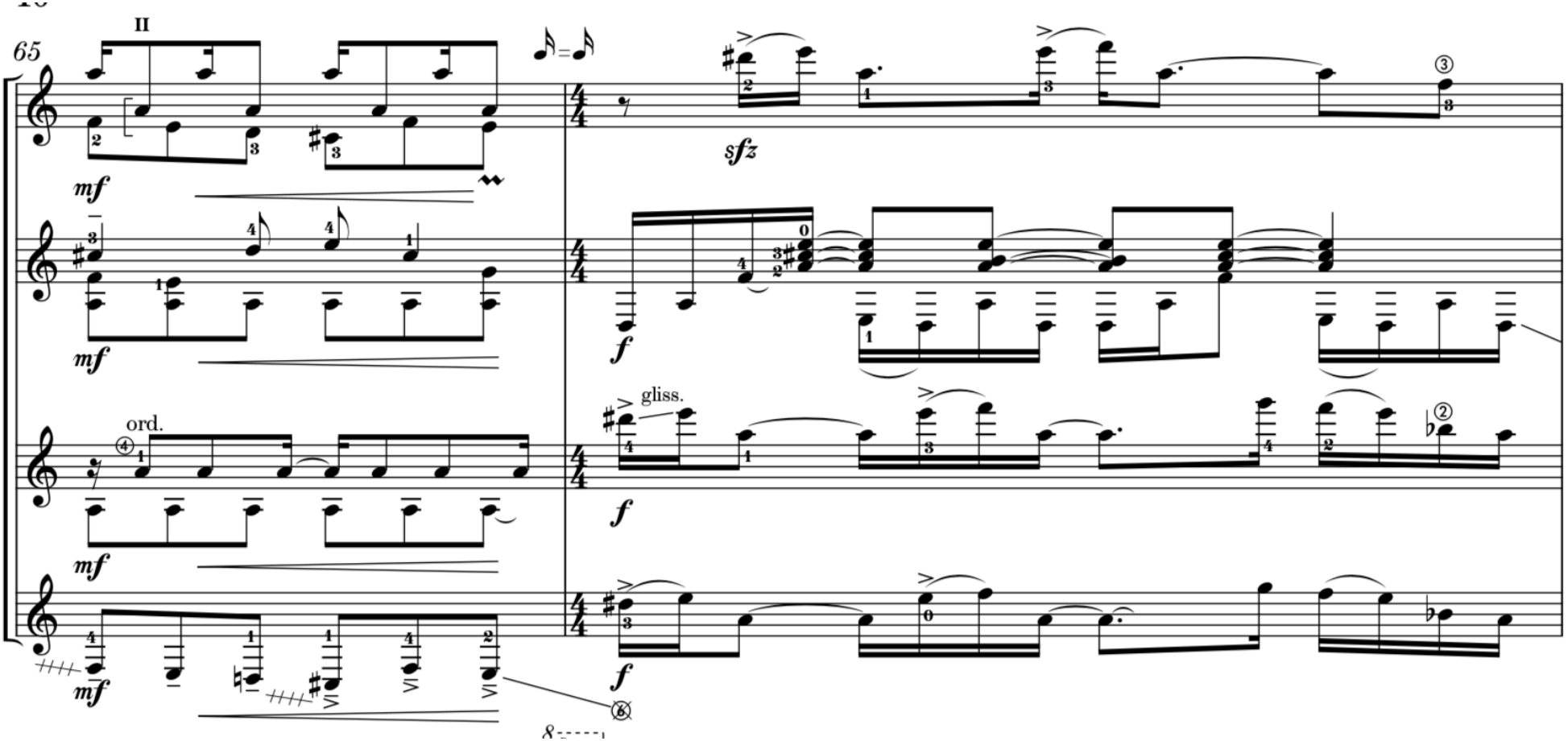
Ma-ti-**ko** Ma-**ti**-ko_*_ Kle_*_ Ku **Dza!**
(6 feel)

The pattern may also start on “Dza”

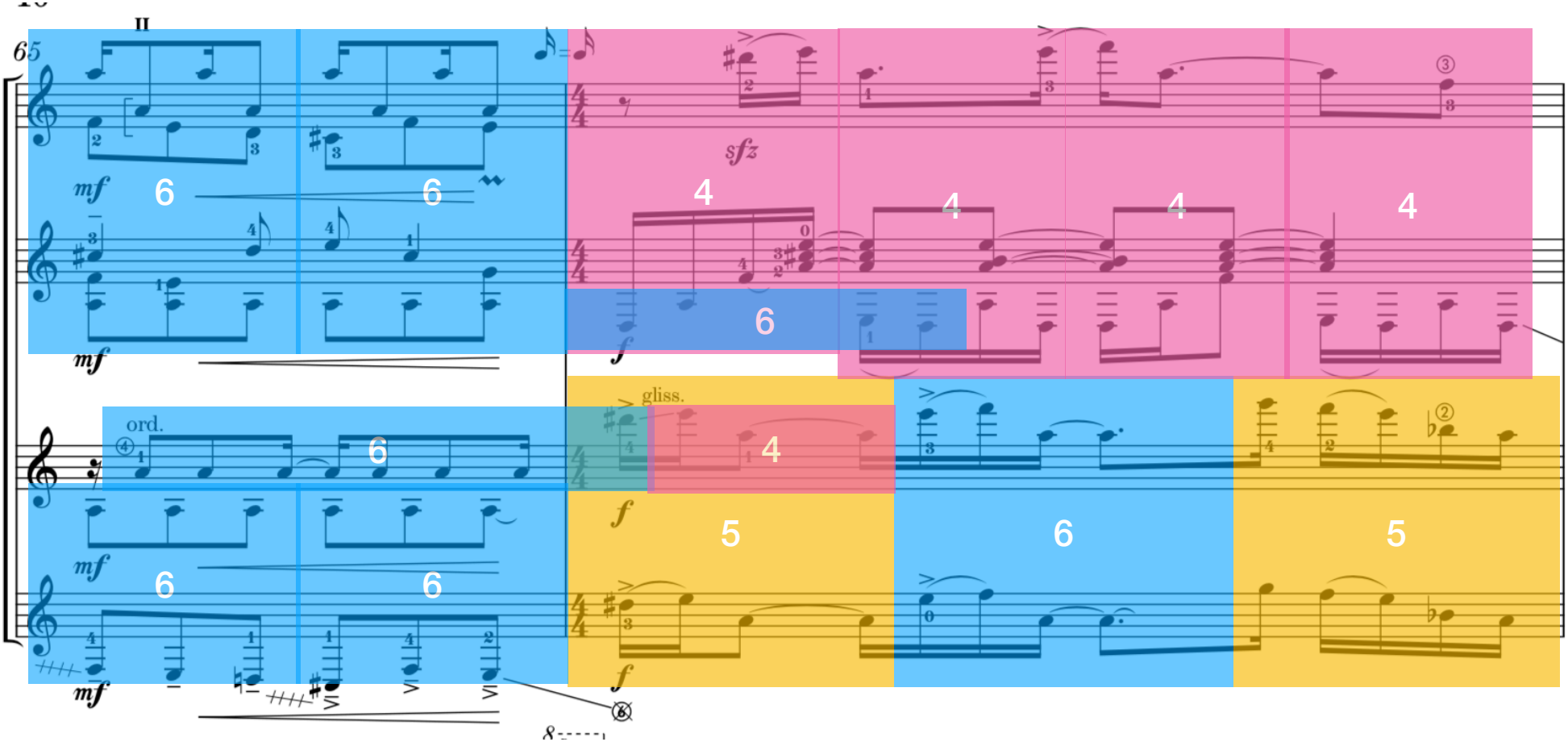

Composer
Score
Performer
Audience


Composer
Performer
Audience

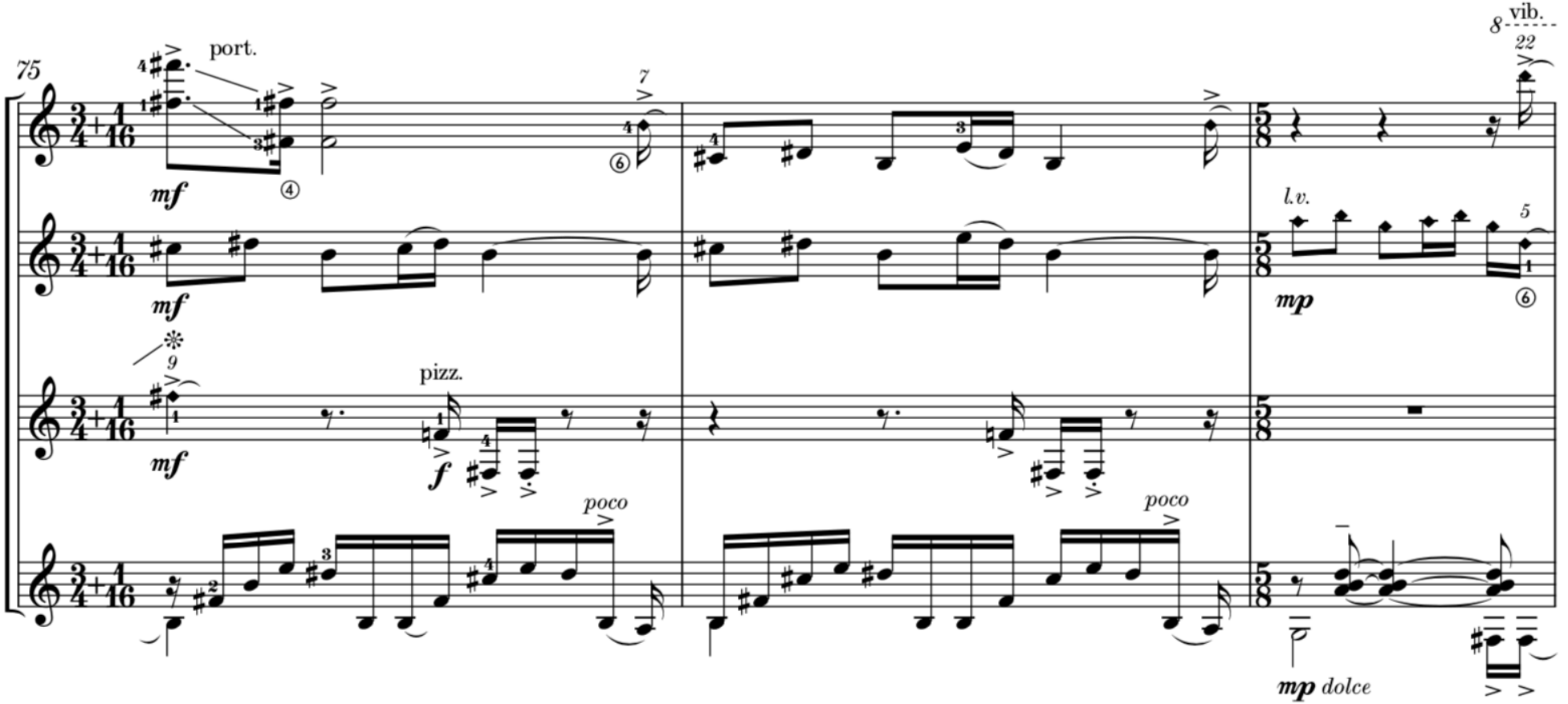

Composer
Performer
Audience



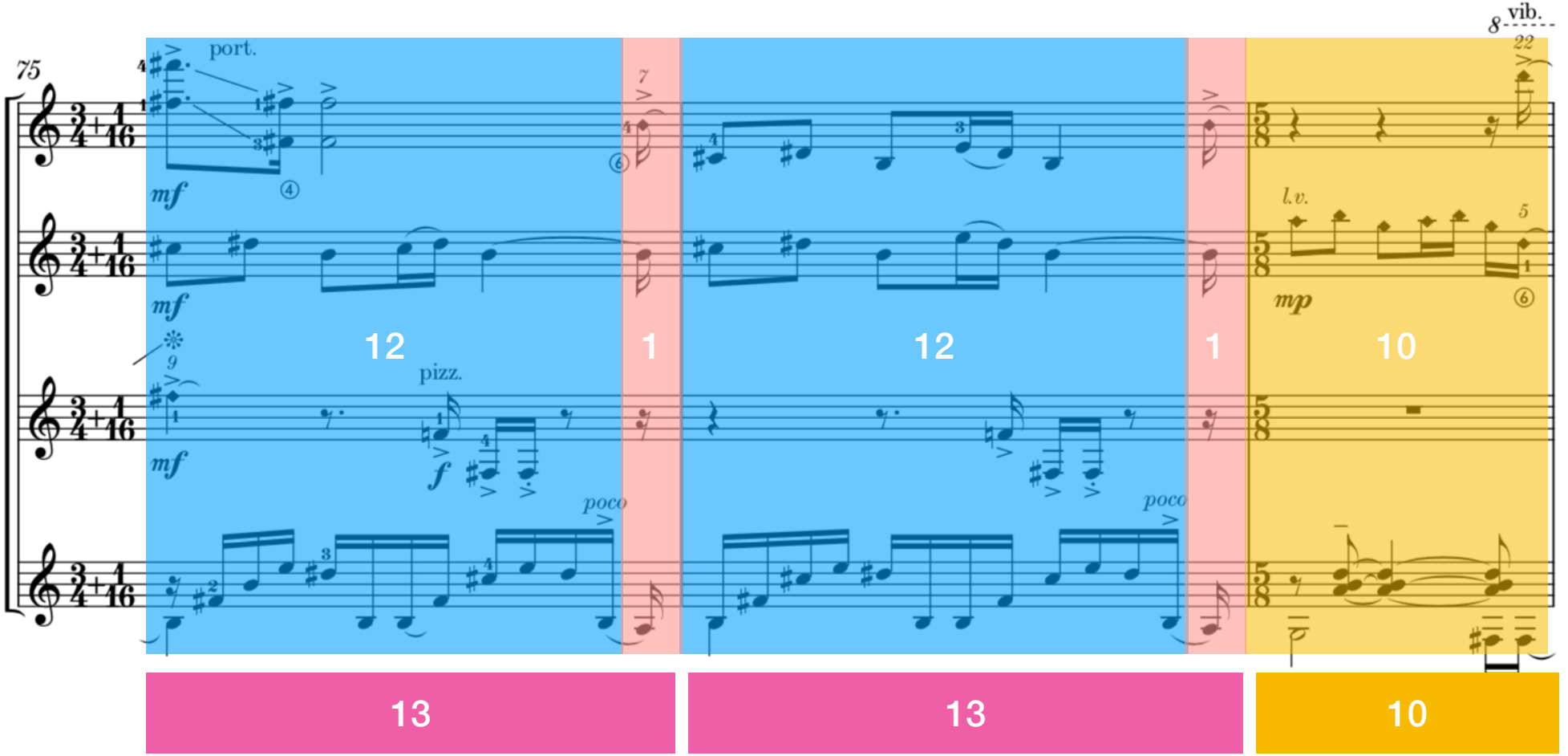
Comme un rond d'eau



Comme un rond d'eau

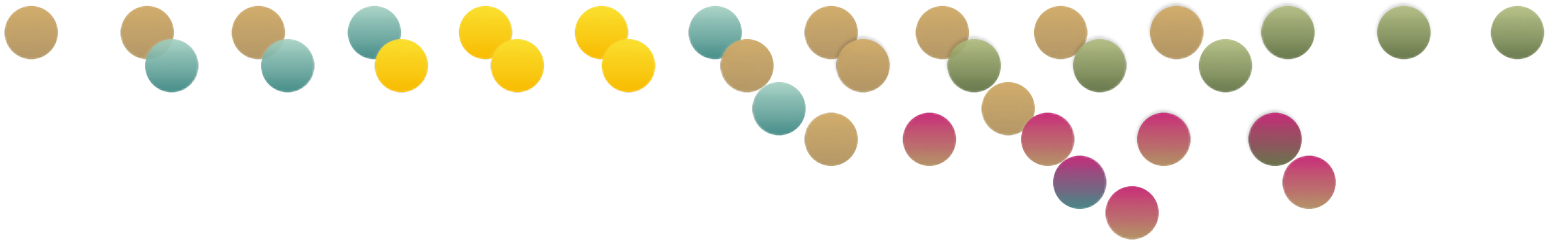


Comme un rond d'eau

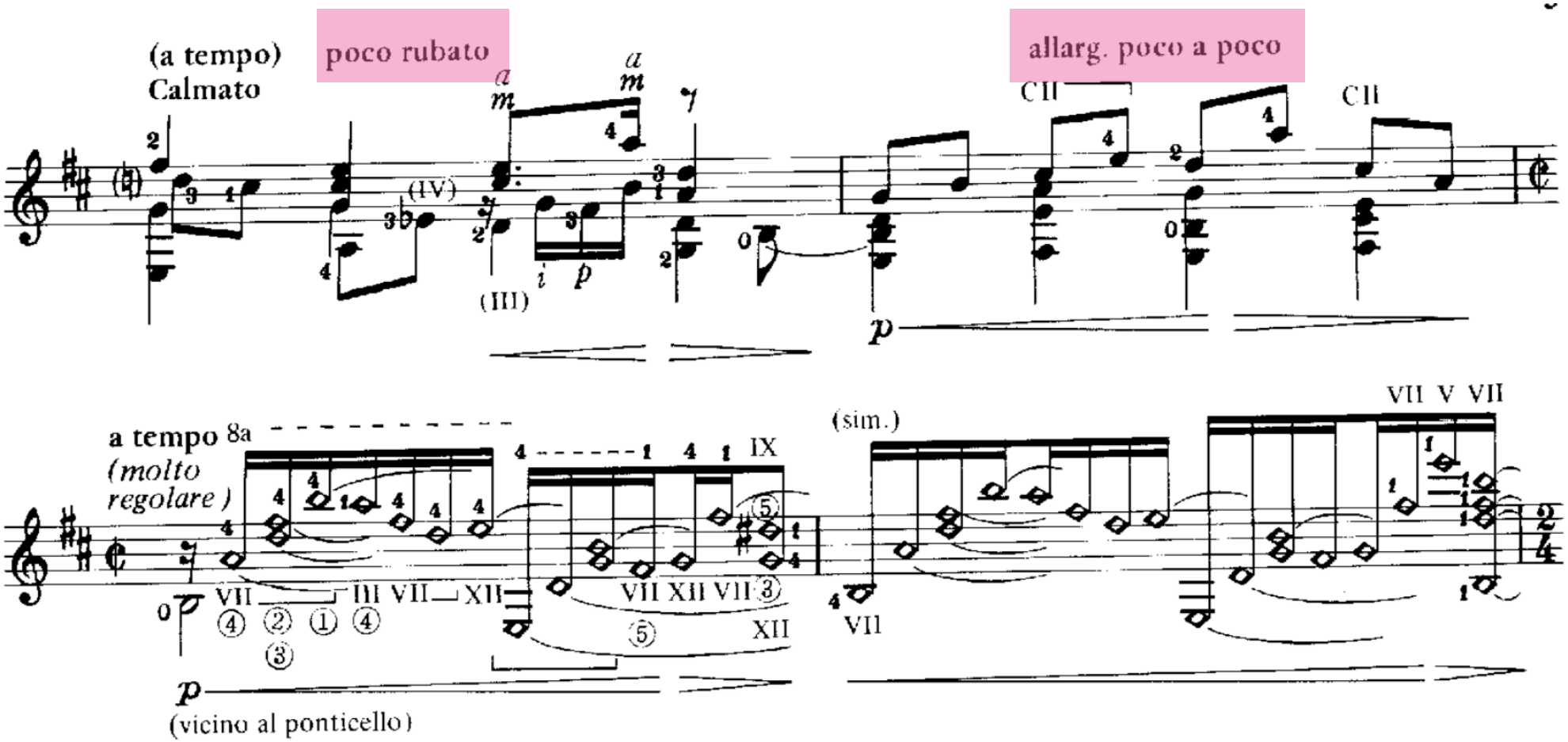


Comme un rond d'eau

(Sub-)Notational Expression



Stolen Time



time stolen

Songe Capricorne

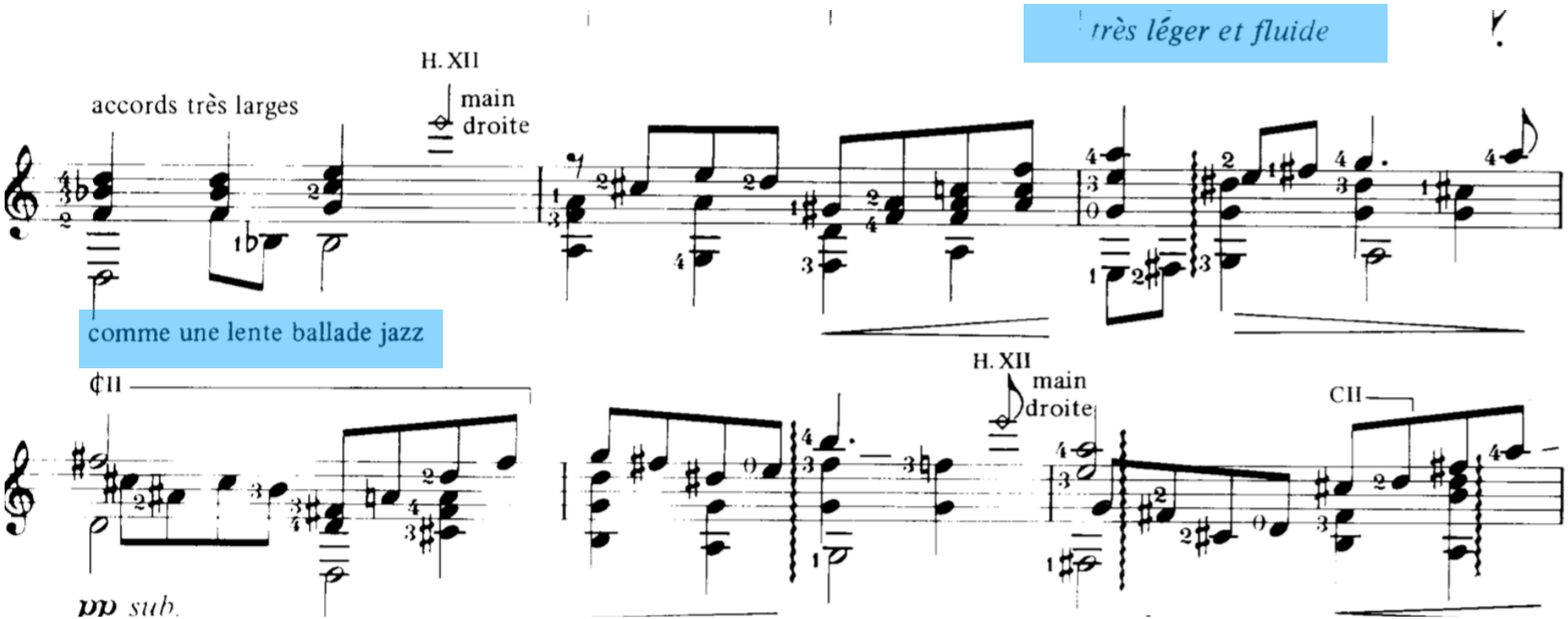
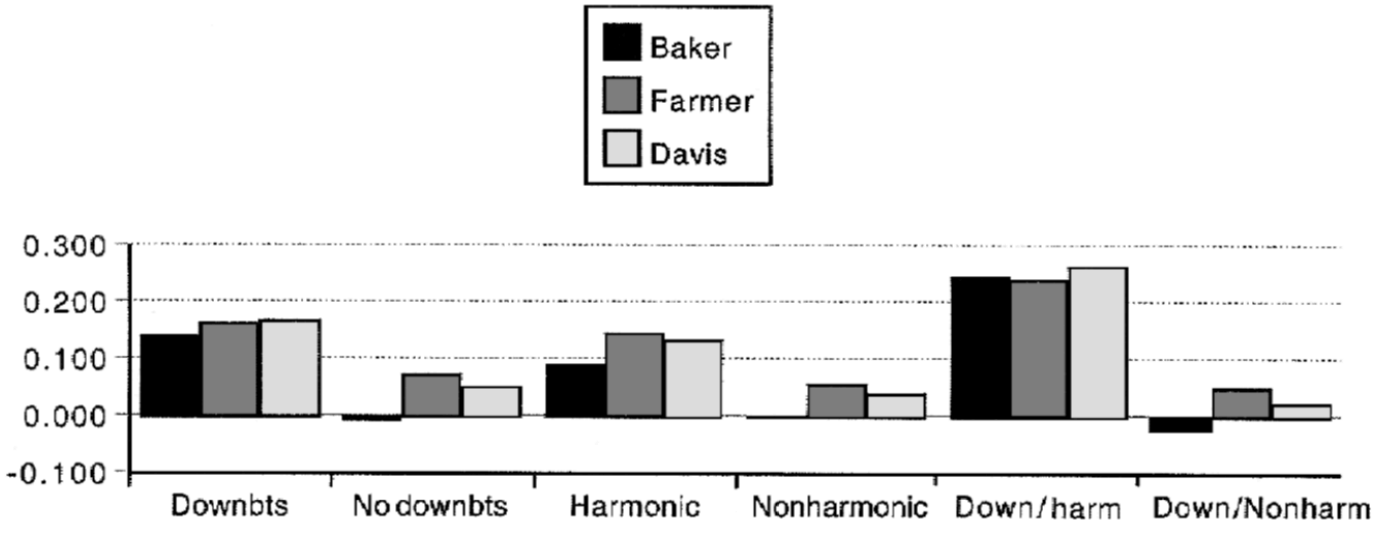

très léger et fluide
H. XII
main droite
accords très larges
comme une lente ballade jazz
¢II
H. XII
main droite
CII
pp sub.

TABLE 1

Tempo Characteristics of Three Performances of *My Funny Valentine*, A Section

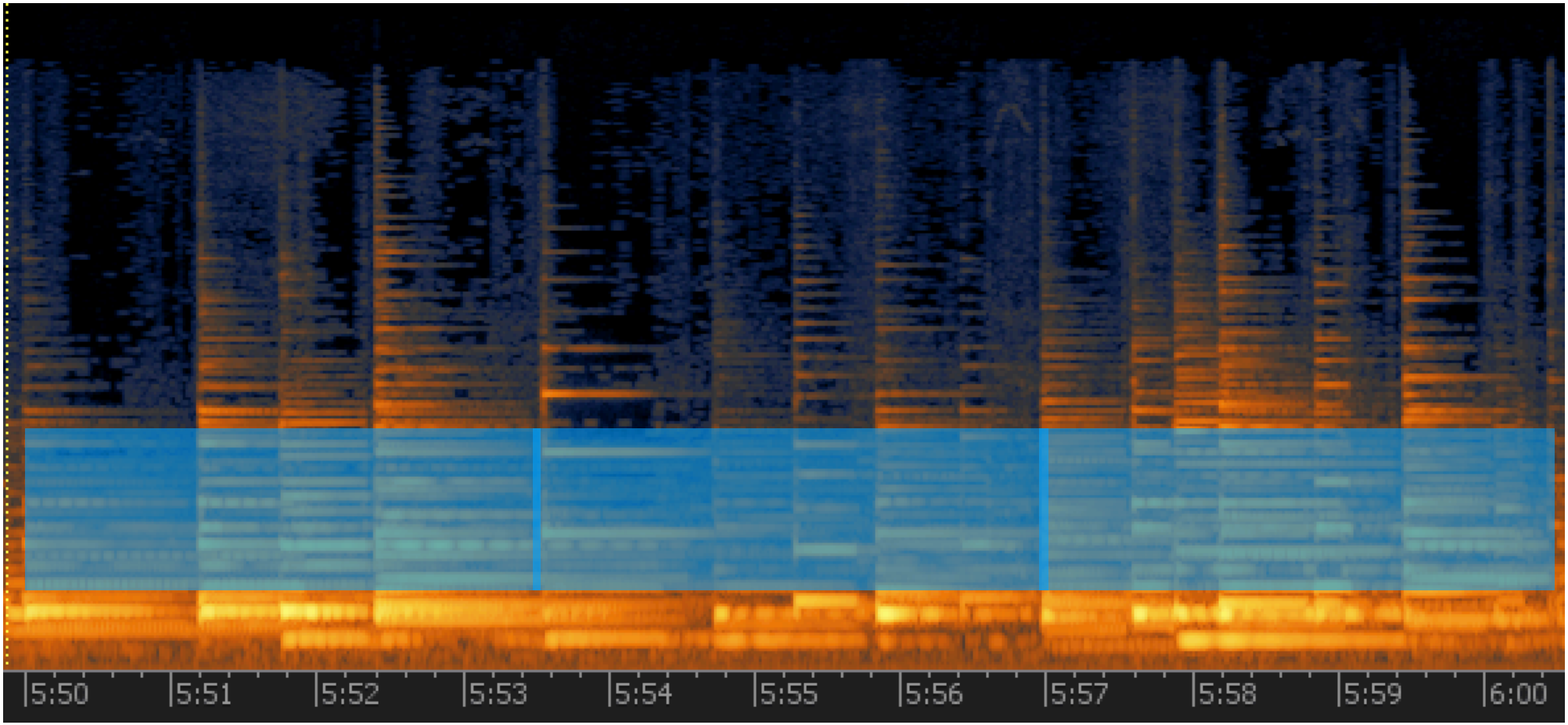
Performer	Mean Tempo (bpm)	SD (bpm)	SD as % of Tempo
Baker	71.4	3.0	4.20
Davis	66.1	0.8	1.21
Farmer	74.3	1.9	2.56

SD indicates standard deviation.



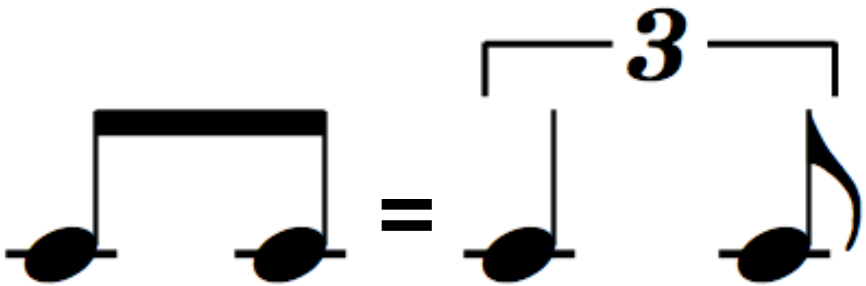
Ashley (2002)

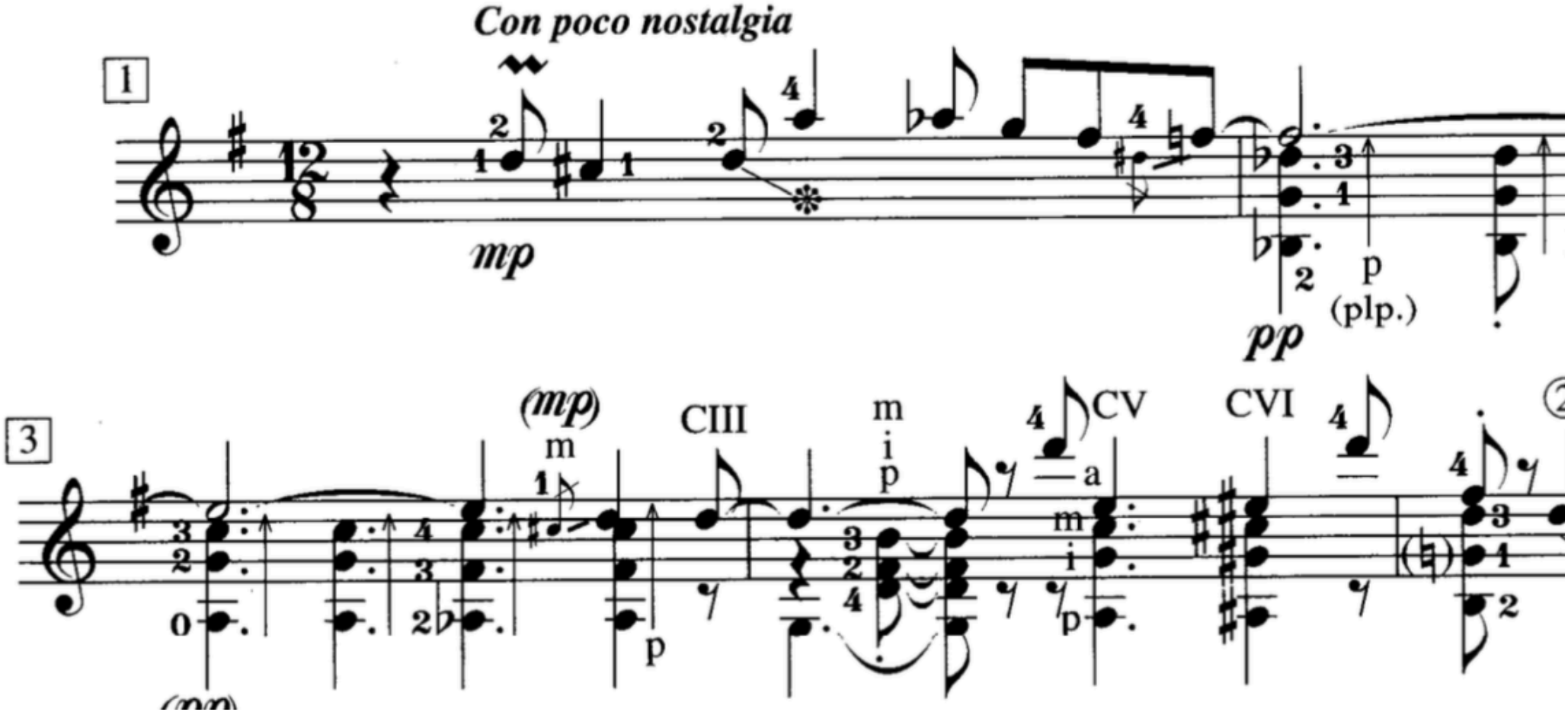
Borrowed Time



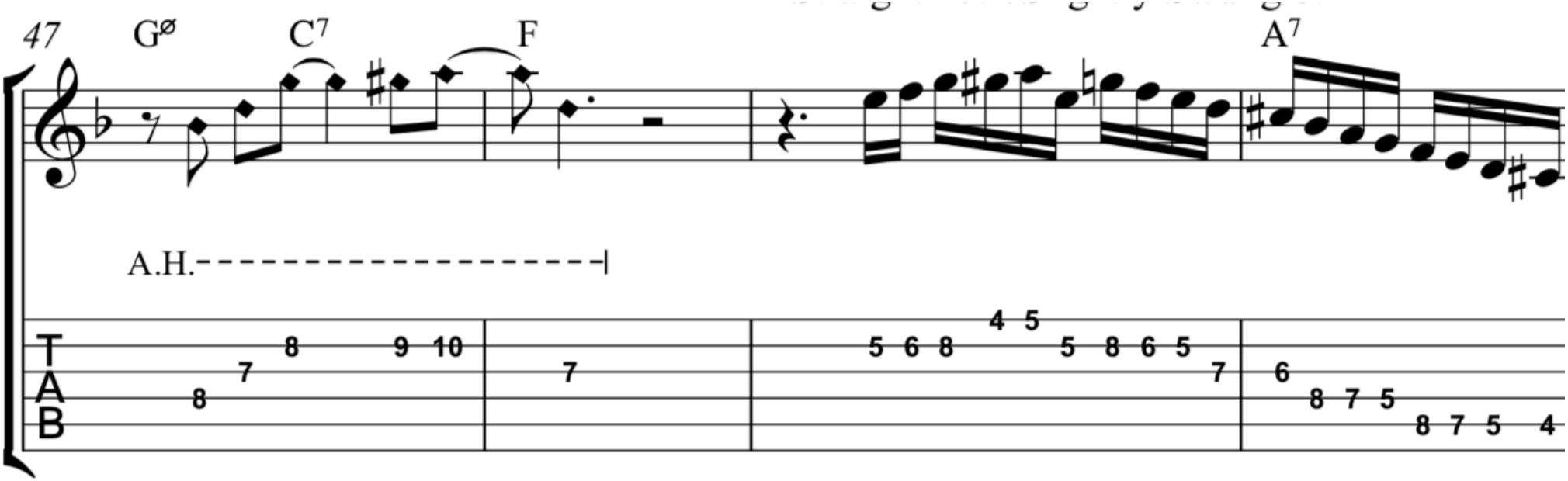
Libra Sonatine - Largo

Swing

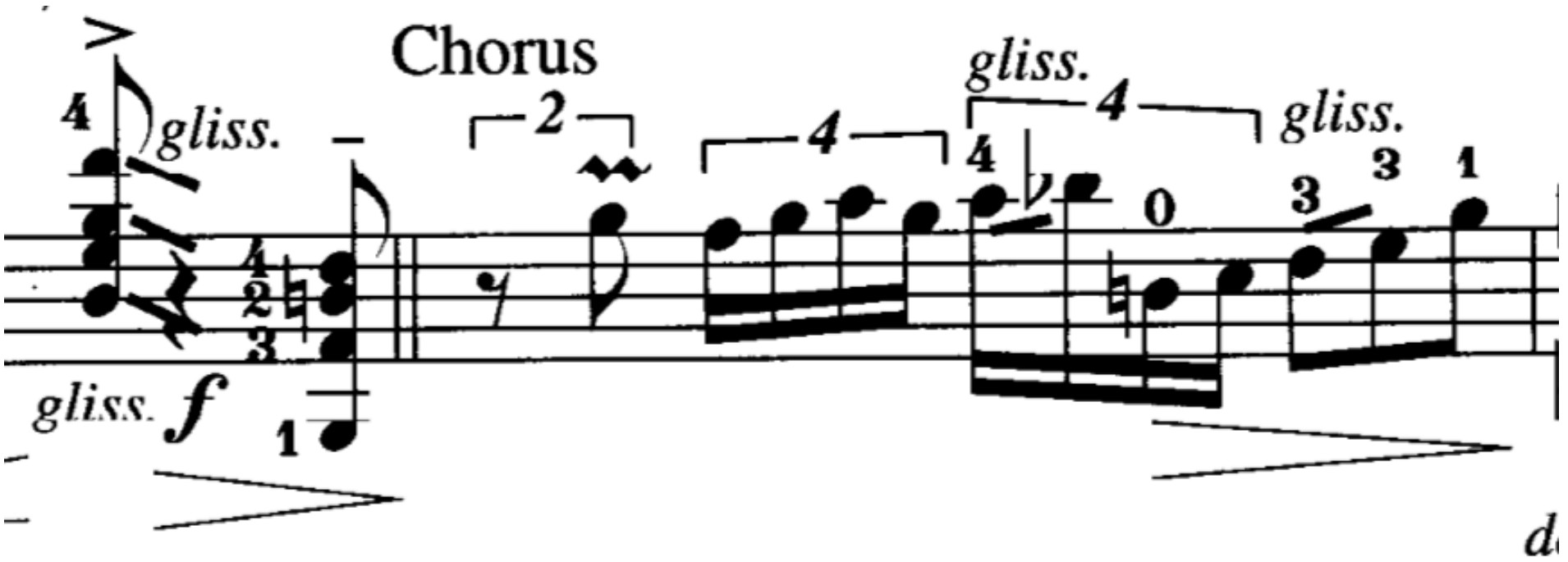




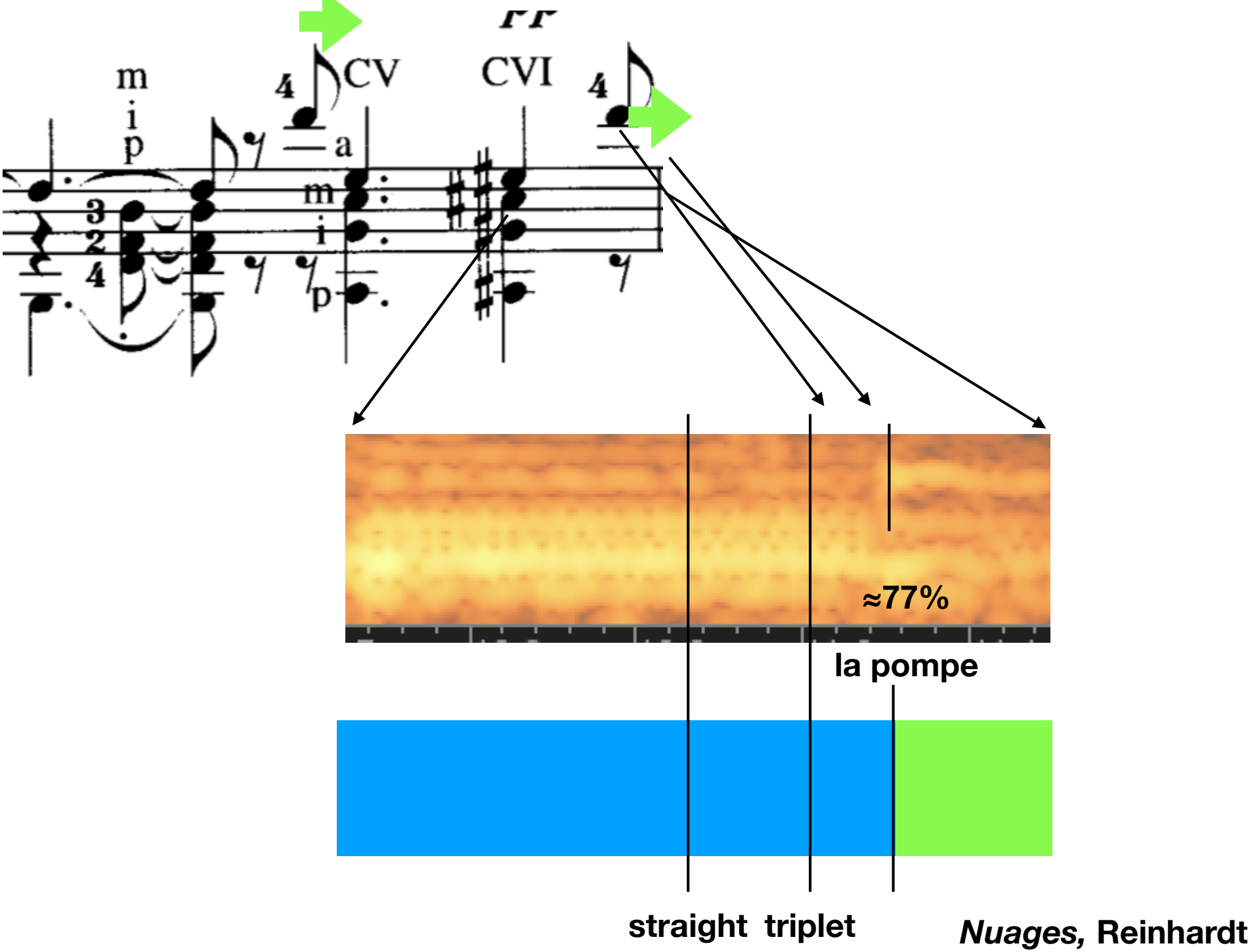
***Nuages,* Reinhardt arr. Dyens**



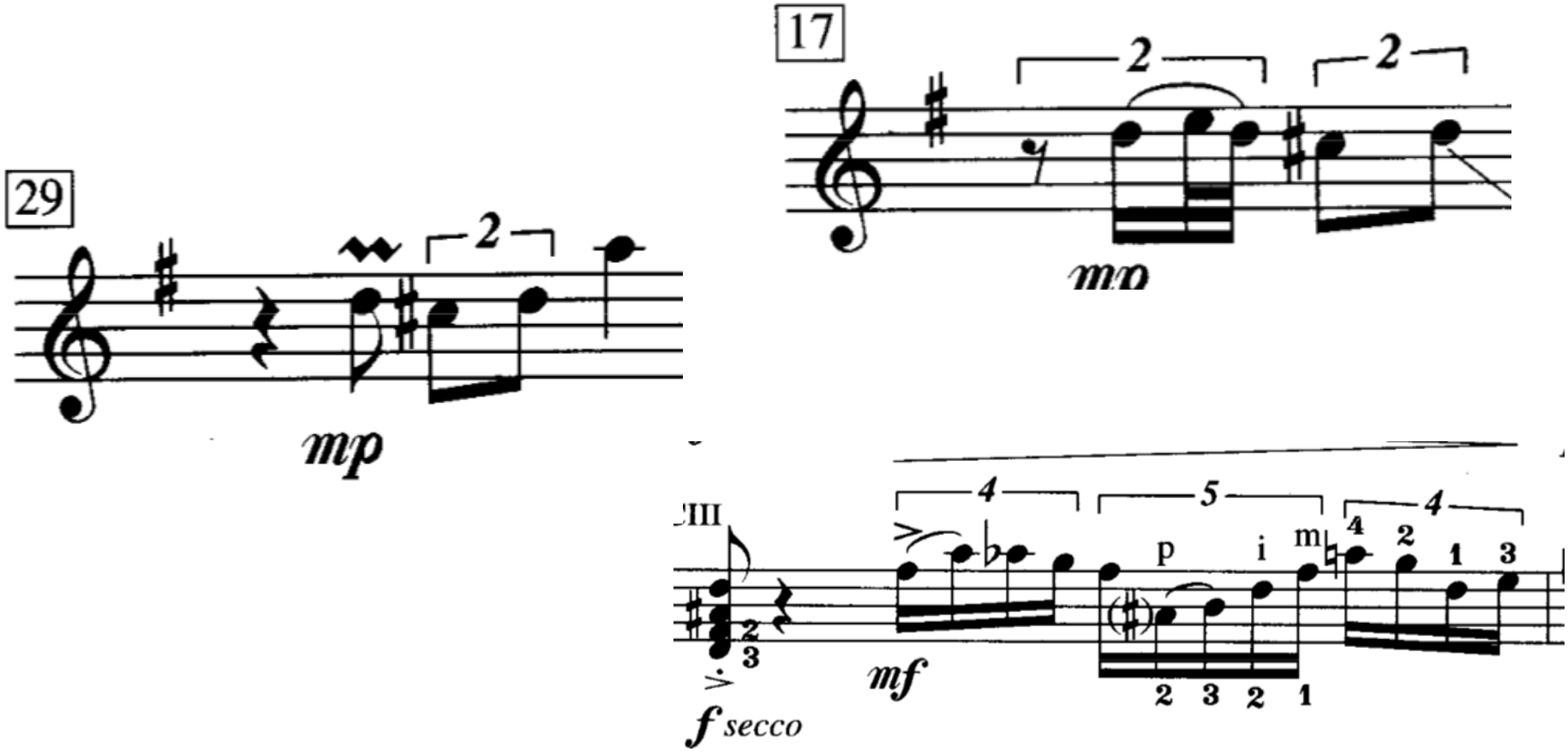
***Nuages,* Reinhardt**



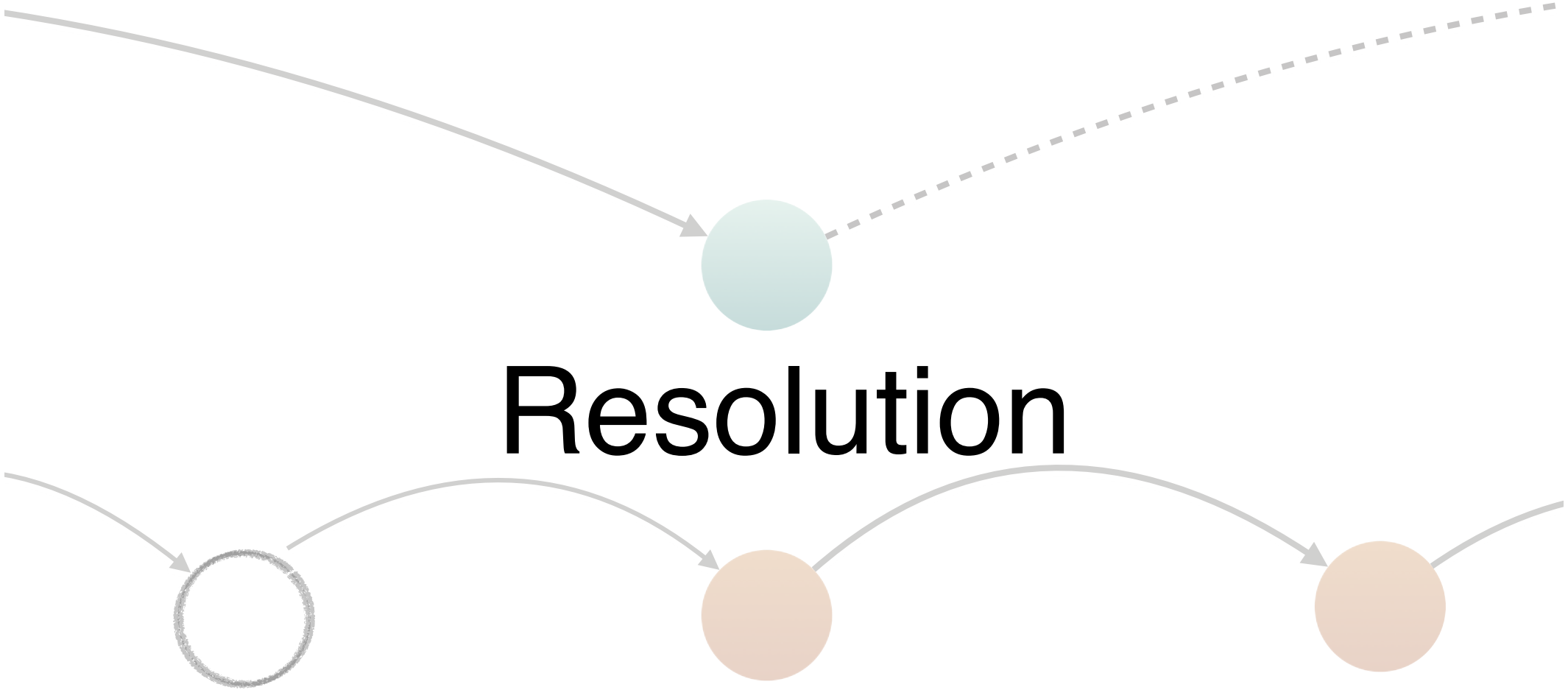
***Nuages,* Reinhardt**



Nuages, Reinhardt



***Nuages,* Reinhardt**


Resolution