



### MTO 25.4 Examples: Beavers, Beyond Mere Novelty

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

<https://www.mtosmt.org/issues/mto.19.25.4/mto.19.25.4.beavers.html>

#### Example 1a. Simultaneous segregation in the opening of the *Concerto in G Major*

The musical score is presented in a multi-staff format, color-coded by instrument group. The top staff (Piccolo) is blue, the middle group (Snare Drum, Slapstick, Piano) is yellow, and the bottom group (Violin, Viola, Cello) is orange. The score is in 2/2 time, G major, and marked 'Allegramente' with a tempo of quarter note = 116. The Piccolo part features a 'Solo' section starting with a dynamic of *f*. The Piano part consists of a continuous triplet accompaniment starting with a dynamic of *pp*. The Violin and Viola parts include dynamics of *pp* and *p*, with markings for 'Div.' (divisi) and 'pizz.' (pizzicato). The Cello part starts with a dynamic of *p* and includes a 'Sna' marking. The score illustrates simultaneous segregation through the distinct textures and dynamics of these instruments.

**Example 1b.** Simultaneous integration in *Boléro*

The musical score for Example 1b is divided into three horizontal sections, each with a different background color and labeled on the left:

- Melody Line (Blue background):** Features Piccolo 1 & 2, Celesta 8<sup>va</sup>, and Horn. The notation shows a melodic line with a *pp* dynamic marking.
- Bolero Line (Yellow background):** Features Flute and Fr. Horn. The notation shows a rhythmic pattern of eighth notes with triplet markings (3).
- Harmony Line (Orange background):** Features Violin I & II, Viola, Cello, and Contrabass. The notation shows chordal accompaniment.

**Example 1c.** Simultaneous segregation and integration

Segregated	Integrated
Concerto in G, opening streams	<i>Boléro</i> melody (Reh. 8+2)
Multiple Streams	Single Stream
<ol style="list-style-type: none"> <li>1. Piccolo melody</li> <li>2. Percussion section (multiple)</li> <li>3. String section pizz. chords (multiple)</li> </ol>	<p>Melody: multiple instruments perceptually fuse together because of similar onsets, dynamics, and harmony</p>

Example 2a. Simultaneous segregation in Duo, II

Trés vif. ♩ = 160

Violin

Cello

*ff*

*ff*

*pizz.*

*pizz.*

(b)

(b)

Example 2b. Simultaneous segregation in Duo, I

229 sur Sol

*mp* *expressif*

*mp*

*pizz.*

*arco*

*pizz.*

*arco*

*pizz.*

*arco*

*pizz.*

*arco*

236

*pizz.*

*arco*

*pizz.*

*arco*

*p*

*p*

**Example 2c.** Sequential integration in *Chansons madécasses* "Il est doux"

The musical score for "Il est doux" is presented in three systems. The first system shows the Flute and Cello parts. The Flute part begins with a melodic line marked *Lento* and *p*. The Cello part is silent until measure 5, where it enters with a sustained harmonic accompaniment marked *p* and *sul sol*. The second system shows the Cello part continuing with a melodic line marked *naturale* and *p*, which is highlighted with a blue box. The third system shows the Voice part with the lyrics: "Il est doux de se cou-cher du-rant la cha-leur sous un ar-bre touf-fu, et d'at-ten-dre que le vent du soir a-me-ne la frai-cheur." The lyrics are written below the vocal line.

**Example 2d.** Sequential segregation and integration

Integrated	Segregated
Duo, II (opening ostinato)	Duo, I (cello part, m. 229)
<i>Chansons madécasses,</i> "Il est doux"	
Single Stream: two instruments	Two streams: one instrument

Example 3a. Text to "Il est doux," from *Chansons madécasses*

"Il est doux"

Il est doux de se coucher, durant la chaleur,  
sous un arbre touffu, et d'attendre que le  
vent du soir amène la fraîcheur

Femmes, approchez. Tandis que je me repose ici sous un arbre touffu, occupez mon oreille par vos accents prolongés. Répétez la chanson de la jeune fille, lorsque ses doigts tressent la natte ou lorsqu'assise auprès du riz, elle chasse les oiseaux avides.

Le chant plaît à mon âme. La danse est pour moi presque aussi douce qu'un baiser. Que vos pas soient lents; qu'ils imitent les attitudes du plaisir et l'abandon de la volupté.

Le vent du soir se lève; la lune commence à briller au travers des arbres de la montagne. Allez, et préparez le repas.

"It is sweet"

It is sweet in the hot afternoon  
to lie under a leafy tree and wait for the  
evening breeze to bring coolness.

Come, women! While I rest here under a leafy tree, fill my ears with your sustained tones. Sing again the song of the girl plaiting her hair, or the girl sitting near the rice field chasing away the greedy birds.

Singing pleases my soul; and dancing is nearly as sweet as a kiss. Tread slowly, and make your steps suggest the postures of pleasure and ecstatic abandonment.

The breeze is starting to blow; the moon glistens through the mountain trees. Go and prepare the evening meal.

Example 3b. Last line of "Il est doux"

Flute

Cello

Voice

Piano

*p*

Al - lez, et pré - par - ez le re - pas

Example 4a. Concerto alternations between the orchestra and piano

P		TR					S	
		[1	]	[2	2.2]			
R1		S1					R2	
Orchestra and piano - piano		Piano	"G"	Piano	"G"	Piano	Piano	Orchestra and piano
key areas: GM B-Dorian		F#M/m					EM	
measure nos.: 1	37	44	52	55	63	67	75	96
rehearsal nos.:	2 3	4	5		6		7	9

Gray = orchestra with piano as part of ensemble  
 White = solo piano  
 Black = orchestra tutti; "G" = allusion to Gershwin

**Example 4b.** Different organization of exposition based on other solo and small ensemble alternations

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P					TR [1 ] [2 2.2]					S	
Wind solos and small ensembles alternate with orchestral tutti					Piano solo with orchestral interjections					Piano solo with orchestral ritornello	
Piccolo		Trumpet		Eng. Horn	Piano	"G"	Piano	"G"	Piano	Piano	
GM				B-Dorian	F#M/m					EM	
m.: 1	16	25	37	42	44	52	55	63	67	75	96
Reh. nos:	1	2	3		4	5		6		7	9

White = solo  
Black = tutti

**Example 5a.** Concerto in G Major, themes from the exposition

<p><b>P-theme</b></p>	
<p><b>TR<sub>1</sub></b></p>	
<p><b>TR<sub>2</sub></b></p>	

**Example 5b.** Displaced dissonances in opening piano ostinato

	<b>Piano</b>					<b>Pitch collection in orchestra</b>			
	<b>Right hand</b>	<b>D</b>	<b>G</b>	<b>B</b>	<b>D</b>				
		↑	↙	↙	↙				
<i>double inflection</i>									
	<b>Left hand</b>	<b>C#</b>	<b>D#</b>	<b>F#</b>	<b>A#</b>	<b>(C#?)</b>			
						<b>Violin II</b>			
<i>Ostinato dissonance</i>		m2	o4	P4	o4				



**Example 5c.** Unusual sounds from opening theme of *Concerto in G Major*

<b>Sound</b>	<b>Rhythm</b>
Percussion “Crack of Whip” or play starter-pistol in carnival race	Begins on beat 2, sounds like downbeat
Piccolo, as soloist, carries main melody in mid to lowest range (ends on the piccolo’s lowest note, D4)	Results in off-kilter melody: weak/strong  Rhythm and note patterns never repeat in same place within measure (mm. 1–25), creating improvisatory/“becoming” a theme
Piano “Out-of-tune” GM/F#-pent. arpeggios as part of ensemble	3:2 ostinato between piano and orchestra
String divisi pizzicatos in high register with dissonant inflections sounds like part of percussion section	Unpredictable and irregularly-repeating rhythm, mostly upbeat oriented. Downbeats in m. 6 and mm. 13–16 lead to first real downbeat at Reh. 1

**Example 5d.** Stylistic heterogeneity in exposition

Reh. nos: m. 1 Form: (R1)	Reh. 1	Reh. 2	Reh. 3	Reh. 4 (S1)	Reh. 7
Music box/carnival music	More real	Marching band	Real orchestra	Spanish piano/guitar, jazz, “Gershwin”	Real piano
Piccolo, out-of-tune percussive strings and piano	Piano glissandi, winds and brass join in with normalized timbres	Deceptive repeat of P-theme in trumpet, snare drum, and piccolo	Tutti orchestra, arco strings, dynamic and key change, English horn denouement	Deceptive solo arrival with Spanish/Basque colors, rasgado-like arpeggiations, proto-jazz “bee-da” <sup>*</sup> ninth chords, Gershwin-like theme and orchestration	Lyrical E-major pentatonic melody (retains “bee-da” intrusions), normalized period structure, orchestral accompaniment, and followed by first and only ritornello

\* some words, like “bee-da” are to represent an onomatopoeic sound; here, “bee-da” implies the sound effect of the rhythms, pitches, and instrumentation.

### Example 5e. Marching band auditory scene

2

**System 1:**

- Hn. in F Tbn.**: Horns in F and Tuba part, starting with a dynamic marking of *f*.
- Tpt. in C**: Trumpets in C part, starting with a dynamic marking of *f*.
- Snare Drum**: Snare drum part with a steady rhythmic pattern.
- Harp**: Harp part with chords and a dynamic marking of *SOLA*.
- Strings**: String part with a dynamic marking of *pizz.* (pizzicato).

**System 2:**

- Picc.**: Piccolo part, starting with a dynamic marking of *f*.
- Hn. in F Tbn.**: Horns in F and Tuba part, starting with a dynamic marking of *f*.
- Tpt. in C**: Trumpets in C part, starting with a dynamic marking of *f*.
- Snare Drum**: Snare drum part with a steady rhythmic pattern and dynamic markings of *+ Trg.* and *- Trg.*
- Harp**: Harp part with chords and a dynamic marking of *SOLA*.
- Strings**: String part with a dynamic marking of *pizz.*

Example 5f. TR<sub>1</sub> Gershwin-like quote in E $\flat$  Clarinet

4

Piano *mp*

Clar. in E $\flat$  Solo

*p espress.*

(5 6  $\flat$ 3 2 1)

Example 5g. Gershwin, "An American in Paris"

Oboe

(5 6 5 1  $\flat$ 3 2 1 6 5)

**Example 6a.** Highly novel timbral transformations in the recapitulation

P	TR							S	Coda
	1	[2	2.2]				[cadenza]	(Dvlp and P)	
R3	S3								R4
Orchestra and piano	Piano	"G"	Harp	Ethereal orch.	Harp	"G"	Fr. horn	Ethereal Piano to theremin	Orchestra and piano
key areas: GM B'M	AM/m						GM		
measure nos.: 122 184	191	199	204	212	213	216	221	230	255
rehearsal nos.: 18 19	20	21	22			24	25	26	29

Gray = orchestra with piano as part of ensemble  
 White = solo piano  
 Black = orchestra tutti; "G" = Gershwin-like quote  
 Blue = timbral transformation either to another instrument or to emulate another instrument  
 Dotted pattern = ethereal orchestra

**Example 6b.** Dramatic presentation of Gershwin-like quotation

The musical score shows a piano part in 4/4 time. The right hand has a melodic line with a circled section marked '8va' (8va) and 'ff'. The left hand plays a rhythmic accompaniment of triplets. The piece concludes with a circled 'A0' in the bass line.

Example 6c. Concerto in G Major, second theme as harp and ethereal orchestra. "TT" indicates timbral transformation between instruments

The image displays a musical score for Example 6c, consisting of two systems of staves. The first system (measures 203-205) features a Harp and Piano. The Harp part begins with a rest, followed by a melodic line starting at measure 204. A blue arrow labeled "TT: piano to harp" points from the Piano's melodic line to the Harp's. The Piano part includes a melodic line with a "Ped." marking and a "3 Vcl." marking. The second system (measures 206-208) features a Harp (Hp.), Triangle, and 3 Vcl. (3 Violins). The Harp part continues the melodic line. The Triangle part has a single note with a wavy line above it. The 3 Vcl. part has a sustained harmonic accompaniment. The score includes various performance instructions such as "Andante", "Quasi cadenza", "gliss.", "marcato il canto", "glissando a piacere", "Piano", "8va...", "TR2", "Ped.", and "8va...".

Example 6d. *Concerto in G Major*, transformation into ethereal piano, "TT" indicates the piano's timbral transformation

The image displays three systems of musical notation for a piano piece. The first system, starting at measure 230, features a treble clef staff with a key signature of one sharp (F#) and a bass clef staff. The treble staff contains a melodic line with a trill (tr) and a wavy line above it labeled "Ethereal piano trills". The bass staff is labeled "Acoustic piano" and contains a rhythmic accompaniment. A jagged, star-shaped annotation box is drawn over the middle of the first system, containing the text "TT: piano split between acoustic and ethereal piano". The second system continues the piece, with the treble staff featuring a wavy line and a trill, and the bass staff continuing the accompaniment. The word "Echo" is written above the treble staff. The third system shows the continuation of the piece, with the treble staff featuring a wavy line and a trill, and the bass staff continuing the accompaniment. The word "upper trill" is written above the treble staff. The notation includes various musical symbols such as clefs, key signatures, trills, wavy lines, and dynamic markings.

Example 6e. Harmonic reduction, Reh. 22–27

22-23+2    24    25    26    27

212    213    216    221    226    230-2    234    237    245

C#    C#

TR 2    TR 2.2    S    S

*va*-1     $\alpha$      $\alpha$

A<sup>5</sup><sub>3,4</sub>    D<sup>7</sup><sub>3/#3</sub>    G<sup>7</sup>

Chromatic Mediant

IV    V7    I

Harp/Ethereal Orchestra    Fr. Horn    Ethereal Piano    music saw/"theremin"    Orchestra & Piano

**Example 6f.** *Concerto in G Major*, transformation of ethereal piano into a musical saw or theremin. "TT" indicates the piano's last timbral transformation

237

gliss.

TT: ethereal piano to musical saw/theremin

tr

Second subordinate theme continues in right hand as musical saw/theremin

tr tr tr tr tr tr

tr tr tr tr tr tr



**Example 6g.** Video: Ethereal sounds of piano trills, musical saw, and theremin



**Example 6h.** Leon Theremin with his instrument

