

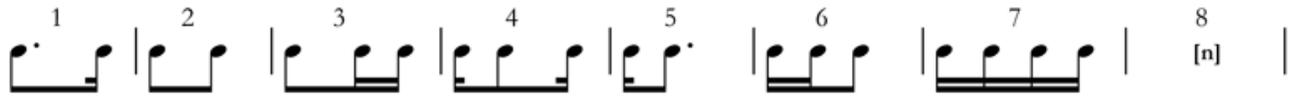


MTO 17.2 Examples: Bernstein, Duplicated Subdivisions

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

<http://www.mtosmt.org/issues/mto.11.17.2/mto.11.17.2.bernstein.php>

Example 1. The subdivision series of *It Takes Twelve to Tango*



Example 2. Measures 1–12 of *It Takes Twelve to Tango*, with the subdivision series and semiblocks indicated above the staff and the aggregate boundaries indicated with vertical lines

Note that the first beat's series proceeds to series member 2 only at measure 11 while the second beat's series proceeds through series members 2–8 in measures 1–10 before beginning again at measure 11. Further note the coordination of two-measure aggregates and repeated subdivisions.

A1: 1 2 | 1 2 | 1 3 | 1 4 |

Tempo Di Tango

Piano

mp *mp* *mf* *f* *mf* *mp* *mf*

mp *mf* *mp* *mf* *f* *mf* *mp* *mf*

1 5 | 1 5 | 1 6 | 1 7 |

5

p *mf* *p* *f* *mp* *p* *mp* *mf* *p* *mp*

p *mf* *p* *f* *mp* *p* *mp* *p* *mp*

1 8 | 1 8 | A2: 2 1 | 2 1 |

9

mf *mp* *p* *mf* *f* *mp* *p*

mp *mf* *f* *mp* *f* *mp* *p*

Table 1. Subdivisions of the quarter note in *It Takes Twelve to Tango*

'X' indicates an attack and 'O' indicates a sustain. Columns represent the first beats, rows the second beats, numbers the measures in which the subdivisions coincide, and bracketed numbers a string of notes of cardinality [n] that evenly divides the quarter note.

	A1	A2	B1	B2	C1	C2	D1	D2
	X00X	X0X0	X0XX	XX0X	XX00	XXX0	XXXX	[n]
X00X		11, 12	21	29	38, 39	50, 51	61	68 [7]
X0X0	1, 2		22	30	40, 41	52, 53	62	69 [5]
X0XX	3	13		31	42, 43	54, 55	63	70 [5]
XX0X	4	14	23	36, 37	44	56	64	71 [5]
XX00	5, 6	15, 16	24	32	48, 49	57, 58		72 [5], 73 [3]
XXX0	7	17	25	33	45		65	74 [5]
XXXX	8	18, 19	26	34	46	59	67	75 [1]
[n]	9 [1], 10 [3]	20 [7]	27 [1] 28 [3]	35a [1] 35b [3]	47 [5]	60 [5]	66 [3]	

Table 2. Measures occupied by each subdivision and aggregate, in each semiblock

A1 (mm. 1–10)	2112112
A2 (mm. 11–20)	2112121
B1 (mm. 21–28)	1111112
B2 (mm. 29–37)	11111122
C1 (mm. 38–49)	22211112
C2 (mm. 50–60)	2221211
D1 (mm. 61–67)	1111111
D2 (mm. 68–75)	1111211

Example 3. Dyadic invariance between inversionally related series forms (“t” and “e” indicate pitch classes ten and eleven respectively)

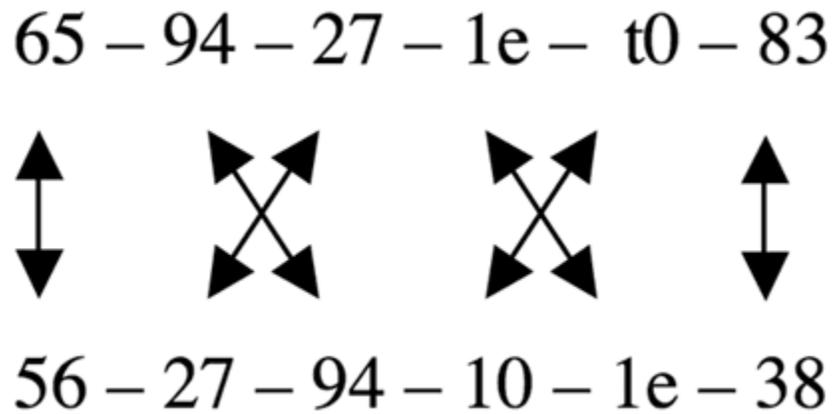


Table 3. Disposition of twelve-tone series within lynes, blocks, and registers (C=0 throughout)

	A (mm. 1-20)	B (mm. 21-37)	C (mm. 38-60)	D (mm. 61-75)
VI: F6-E7	6594271et083 380te1724956	295764t3180e e0813t467592	562794t01e38 83e10t497265	92645718t3e0 0e3t81754629
V: F5-E6	87e6493102t5 12t3506897e4	4e7986053t21 5t2013946e78	7849e602315t 2150t397684e	e486793t0512 t513206e9487
IV F4-E5	9t6e18245370 07354281e6t9	16t89e052734 437205e98t61	t9186e532407 704325e6819t	619et8275043 3405728te916
III: F3-F4	72t0e9386154 5483160t9e72	te7029356481 8153460792te	27e9t0613845 4516839e0t27	et2970643518 1846539207et
II: F2-F3	05978t4e1623 e6243170t598	895t0713426e 3261e4t87950	508t97164e32 6e3124t57089	98075t4213e6 23e46179t805
I: F1-F2	491e02835t67 6738t5e12049	3t6875e42910 104e9286573t	94021e5t8376 76t53820e194	01924e5786t3 t3756829e401

Table 4. The pitch-class array for semiblock C2

Double virgules indicate the end of a series form. The parentheses and strikethroughs in measure 56 indicate that pitch classes 5 and t are expected in V but appear in register IV.

Measure	50–51	52–53	54–55	56	57–58	59	60
VI: F6-E7				497	t01e38 26	8 //	5 //
V: F5-E6				02315t	97	t //	7684e //
IV: F4-E5		5	32	(5t) e68		2407 // 1	19t // 3
III: F3-E4		61384 9e0t27 //			45	5 //	
II: F2-E3			164e t57089			e3 9 //	2 //
I: F1-E2	5t8376 20e194 //					6 //	0
Partition	6 ²	6 5 1	6 4 2	6 3 ²	6 2 ³	4 2 1 ⁶	5 3 1 ⁴

Example 4. Measures 50–60 of *It Takes Twelve to Tango*, with the aggregate boundaries indicated by vertical lines, the missing attacks indicated by ovals, and the transposed pitch classes in measure 56 boxed

Note the gradual ascent between measures 50 and 57.

The image displays a piano score for measures 50 through 60 of the piece "It Takes Twelve to Tango". The score is presented in three systems, each with a grand staff (treble and bass clefs). Measure numbers 50, 54, and 58 are indicated at the beginning of their respective systems. The music features various dynamics such as *mp*, *p*, *mf*, and *mp*. Vertical lines indicate aggregate boundaries. Ovals highlight specific notes or groups of notes, some of which are identified as missing attacks. In measure 56, certain pitch classes are enclosed in boxes, indicating they are transposed. A dashed line labeled "8va" is present above the treble staff in measures 54 and 58, indicating an octave transposition. The notation includes chords, single notes, and rests, with some notes beamed together.

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