

The Art of Schillinger

$r3\div 2$
(pronounced "r-3-2")

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Con Moto $\text{♩} = 72$

Violin $r3\div 2 = [(2+1)+(1+2)] t =$ $r3\div 2$ (Balanced) $[(2 \ 1)]$

Violoncello $[(2 \ 1) (1 \ 2)]$ $[(2 \ 1) (1 \ 2)]$

Piano $[(2 \ 1) (1 \ 2)]$ $[(2 \ 1) (1 \ 2)]$ $(2 \ 1) (1 \ 2) (2 \ 1)$

$1+2+1+4$

$r3\div 2 + r3\div 2$ (Expansion) = $[(2+1)+(1+2)] + [(2+1)+(1+1+1)+(1+2)]$

12a: 3+5 see Kaleidophone pg.34 Rev.Edition

8 $t =$ $r3\div 2 = (2+1)+(1+2)$

Balanced: $3\div 2 + r3\div 2 + [3(3-2)=3] = [(2+1)+(1+1+1)+(1+2)] + [(2+1)+(1+2)+3]$

$(1 \ 1 \ 1) (1 \ 2)]$ $[(2 \ 1) (1 \ 2)]$ $[(3)]$ $(2 \ 1)(1 \ 2)$

Maj. generator "a"

$(1 \ 1 \ 1) (1 \ 2)$ (3) (3) (3) (3)

Maj. generator "a" Maj. generator "a"

14

$r3 \div 2$ (diminution $t = \text{♪}$)

$(2+1)+(1+2) t = \text{♪}$

$(2+1)+(1+2) t = \text{♪}$

$(2+1)+(1+2) t = \text{♪}$

$r3 \div 2$ (diminution)

a

a

a

20

$(2+1)+(1+2) t = \text{♪}$

$(2+1)+(1+2) t = \text{♪}$

$(2+1)+(1+2) t = \text{♪}$

$(2+1)+(1+2) t = \text{♪}$

$r3 \div 2$

$(2+1)+(1+2) t = \text{♪}$

[2 1] [1 2]

[(1 2) (2 1)]

(permute abba to baab)

2 1 1 2 2 1 1 1 1 1 2

$r3 \div 2 + r3 \div 2$ Expanded

26

(2+1)+(1+2)

(a b a c)

tr

permuted

(b a c)

11a: 3+4

2+1+2+2

see Kaleidophone
pg.34 Rev. Edition

31

a)

2+1+1+2

(a b a c)

sequence on r2 of 3 Series
(see pic below)

37

tr

r2 of 3 Series

[(1 2) (1 1 1)]

r2 of 3 Series

[(1 2)]

tr

8^{va} *permutate*

(b a c) (a)

3 Series (2+1), (1+2)

$f = \text{♩}$

3(2) = 9

(2+1)2

3(2+1)

(1+2)2

3(1+2)

r2

r

r3+2

*motive fig.
taken from
the resultant*

44

r2 of 3 Series *r2 of 3 Series*

(2 1) [(1 2)] (1 1 1) (2 1) [(1 2)] (1 1 1) (2 1)

r2 of 3 Series *r2 of 3 Series*

(1 1 1) (2 1) [(1 2)] (1 1 1) (2 1) [(1 2)] (1 1 1) (2 1)

r2 of 3 Series *r2 of 3 Series* *r2 of 3 Series*

[(1 2)] (1 1 1) (2 1) [(1 2)] (1 1 1) (2 1) [(1 2)] (1 1 1)

52

c.d. t=♪ *tr* *c.d. t=♪* *tr* *c.d. t=♪* *tr*

(3:2 motive) *c.d. t=♪* *tr* *c.d. t=♪* *tr* *c.d. t=♪*

(1 2)

c.d. t=♪ *c.d. t=♪*

(2 1) *c.d. t=♪*

*motive fig.
taken from
the resultant*

58

Annotations: c.d. $t=$, cp $t=$, tr, r3÷2, v.v., p.v.

Detailed description: This system covers measures 58 to 62. The top staff (treble clef) features a melodic line with two phrases of eighth notes, each marked 'c.d. t=' and followed by a trill 'tr'. The middle staff (bass clef) has a bass line with a 'cp t=' marking and a slur over the first three measures. The bottom system (grand staff) has a right-hand part with 'r3÷2' markings and a left-hand part with eighth-note patterns. Red dots and vertical lines labeled 'v.v.' and 'p.v.' are placed above and below notes in measures 61 and 62.

63

Annotations: tr, cp $t=$, [9], r3÷2, c.d. $t=$, v.v., p.v.

Detailed description: This system covers measures 63 to 67. The top staff (treble clef) has a melodic line with a trill 'tr' in measure 64. The middle staff (bass clef) has a bass line with a 'cp t=' marking and a red '[9]' below it. The bottom system (grand staff) has a right-hand part with 'r3÷2' markings and a left-hand part with three phrases of eighth notes, each marked 'c.d. t='. Red dots and vertical lines labeled 'v.v.' and 'p.v.' are placed above and below notes in measures 66 and 67.

summation series 1,2,3,5,8

b1 (minor generator)

summation series 1,2,3,5,8

Imitation at the 5th 1, 2, 3, 5, 8

$r_{3\div 2}$ c.d. = $3 \times 3 = 9(1)$

c.d. (common denominator)

b1

b1

summation series 1,2,3,4,8

$r_{3\div 2}$ (minor generator **b1** - see pic below)

c.d.

common denominator →

a →
(maj.generator)

b1 →
(min.generator)

b2 →
(min.generator)

resultant →

common product →

c.p.

77

a (major generator)

b1

a (major generator)

a b a

circular permutations: | aba | baa | aab |

Grouping by 'a': $a = \frac{3}{9}$, $\frac{a^2}{a} = aT$, $\frac{9}{3} = 3T$

<u>3</u>				
4	1 =			
	cp			
	cd			
	a			
	b1			
	b2			
	r			

84

circular permutations: | aba | baa | aab |

a (major generator)

b1

90

$r3 \div 2 = [(2+1)+(1+2)] t = \downarrow$

[(2 1) (1 2)] [(2 1) (1 2)] [(2 1) (1 2)] [(2 1) (1 2)]

[(2 1)]

Balanced: $r^3 \div 2 + r3 \div 2 + [3(3-2)=3] = [(2+1)+(1+1+1)+(1+2)] + [(2+1)+(1+2)+3]$

98

[(2 1) (1 1 1) (1 2)] [(2 1) (1 2)]

(1 2) (2 1) (1 1 1) (1 2) (3) 3

$r3 \div 2 + r3 \div 2$ (Expansion) = $[(2+1)+(1+2)] + [(2+1)+(1+1+1)+(1+2)]$

104

$r3 \div 2 = (2+1) + (1+2)$

$r3 \div 2$ (diminution $t = \text{♪}$)

Square of a Binomial:
 $sq = (1+2)^2$

[1 2 2 4

[4 square: $(2+1)^2$ 2

3)

sync: $3(1+2)$

(3 6)

Square of binomial - Factorial

$$(a + b)^2 = a^2 + ab + ab + b^2$$

Synchronization of the binomial with it's distributive square - Factorial

$$S = a(a + b) + b(a + b)$$

3 Series (2+1), (1+2)

$t = \text{♪}$

$3(2) = 9$

square: $(2+1)^2$

sync. $3(2+1)$

square: $(1+2)^2$

sync. $3(1+2)$

$r2$

r

(resultant) $r3 \div 2$

9

4

6

1 2

3

1 2

3

2

9

4

6

1 2

3

1 1 1 2 1

3

2

1 1 1 1 1 2

(Vol.1 pg.74, Square of a Binomial)

$sq = (2+1)^2 = [4+2+2+1]$

111

(parts permute) $r3 \div 2$ (resultant)

$sq = (1+2)^2 = [1+2+2+4]$

permutated cello rhy.

$sq = (2+1)^2 = [4+2+2+1]$

(Vol.1 pg.74, Square of a Binomial)

118

$sync. = 3(1+2) = [3 + 6]$

(parts permute)

$sq = (1+2)^2 = [1+2+2+4]$

permutated cello rhy.

$sq = (2+1)^2$

$sq = (2+1)^2$

$r^2 3 \div 2$

(resultant)

$sq = (1+2)^2 = [1+2+2+4]$

permuted: [a+b+c+d] = [c+d+a+b]

r3÷2

125

(1 2) (2 1)

(1 2) (2 1)

(1 2) (2 1)

(1 2) (2 1)

132

a=2+1 b=3 c=1+2

a=2+1 a=2+1 a=2+1

a=2+1 a=2+1 a=2+1

138

b=3 *c=1+2* *c=1+2* *tr*

b=3

a *permute* *b* *c*

a=2+1

Combination of Durations, Rests & Accents
(Schillinger System Book I pg.57)

145

rests

tr

accent

accent

152

159

cube of trinomial: $(3+2+1)^3$ $t = \text{♪}$

Cube of Trinomial: $(3 + 2 + 1)$

Synchronization of the Cube:

$$(3 + 2 + 1)^3 = 3[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] + 2[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] + 1[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)]$$

Synchronization of the Square:

$$\begin{aligned} & [(27 + 18 + 9) + (18 + 12 + 6) + (9 + 6 + 3)] \\ & [(18 + 12 + 6) + (12 + 8 + 4) + (6 + 4 + 2)] \\ & [(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] \end{aligned}$$

166

(9+6+3) (6+4+2) (3+2+1)

[9 6 3] [6 4 2] [3 2 1]

(9+6+3) (6+4+2) (3+2+1)

[9 6 3] [6 4 2] [3 2 1]

(3+2+1) (3+2+1) (3+2+1)

4 2] [3 2 1] (3+2+1) [3 2 1] [3 2 1]

(6+4+2) (9+6+3)

[6 4 2] [3 2 1]

173

8va

t

to Fugue here

(8)-----|

179

Musical score for measures 179-185. The score is written for voice and piano. The vocal line consists of a melodic phrase starting with a dotted quarter note, followed by a quarter note, and then a half note. The piano accompaniment features a steady eighth-note pattern in the right hand and a bass line in the left hand. A triplet of eighth notes is marked with the annotation $3/2 = [(2+1) + (1+2)]$ and fingerings $[(2\ 1)\ (1\ 2)]$.

186

Musical score for measures 186-192. The score is written for voice and piano. The vocal line continues the melodic phrase. The piano accompaniment maintains the eighth-note pattern. A triplet of eighth notes is marked with the annotation $3/2 = [(2+1) + (1+2)]$ and fingerings $[(2\ 1)\ (1\ 2)]$.

accent
(Vol.1 pg.57) *accent* *rests (Vol.1 pg.58)*

Musical score for measures 193-199. The score is written for voice and piano. The vocal line features a series of notes with accents. The piano accompaniment consists of a series of chords and single notes, with green arrows indicating accents and rests.

193

$$\text{Balanced: } \frac{3}{2} + r\frac{3}{2} + [3(3-2)=3] = [(2+1)+(1+1+1)+(1+2)] + [(2+1)+(1+2)+3]$$

199

[(2 1) (1 1 1) (1 2)]

[(2 1) (1 2) (2 1)]

$$r\frac{3}{2} + r\frac{3}{2} \text{ (Expansion) } = [(2+1)+(1+2)] + [(2+1)+(1+1+1)+(1+2)]$$

205

(2 1) (1 2) (3) [(2 1)]

tr

stretto

r3÷2 [(2 1) (1 2)] [(2 1) (1 2)]

tr

r3÷2 [(2 1) (1 2)] [(2 1)]

(1 1 1) (1 2) [(2 1) (1 2)]

212

(1 2)

tr

r3÷2 [(2 1) (1 2)]

tr

(1 2)

r3÷2 [(2 1) (1 2)]

tr

r3÷2 a

a b b a

[(2 1) (1 2)] [(2 1) (1 2)]

218

c permutation *b permutation*

[(1 2 2 1)] [(1 1 2 2)]

b permutation *c permutation*

b b a a b a a b

225

tr *tr*

[(2 1) (1 1 1) (1 2)] [(2 1)]

c permutation

[(1 2) (2 1)]

sequence on r2 of 3 Series

232

tr

[(1 2) (1 1 1) (2 1)] [(1 2)]

tr

[(1 1 1) (1 2)] [(1 2) (1 1 1) (2 1)] [(1 2) (1 1 1)]

tr

[(1 2) (1 1 1) (2 1)]

r2 of 3 Series

239

r2 of 3 Series (motive figure)

c.d. t=

tr

(1 1 1) (2 1) [(1 2) (1 1 1) (2 1)]

r2 of 3 Series

c.d. t=

tr

c.d. t=

(2 1) [(1 2) (1 1 1) (2 1)] r2 of 3 Series (motive figure)

r2 of 3 Series

r2 of 3 Series

c.d. t=

c.d. t=

[(1 2) (1 1 1) (2 1)] [(1 2) (1 1 1) (2 1)]

c.d. t=

247

c.d. t=♪ *c.d. t=♪* *tr* *c.d. t=♪* *c.d. t=♪* *tr*

tr *c.d. t=♪* *cp t=♪*

r3÷2 *r3÷2*

motive from r3÷2

254

tr

cp t=♪

r3÷2 *r3÷2*

262

summation series
1,2,3,4,8

imitation at 5th 1, 2, 3, 5, 8

summation series 1,2,3,4,8

c.d. (common denominator) b1 [2 2 2] [2 2 2] 1, 2, 3, summation series 1,2,3,4,8

271

a (major generator)

c.d. (common denominator) tr a (major generator)

5 8

a b a

circular permutations: | aba | baa | aab |

circular permutations: | aba | baa | aab |

279

a b c b a a a a b

b1 b1

[2] 2 2 a (major generator) [2] 2 a (major generator)

285

$r_{3 \div 2} = [(2+1)+(1+2)] t = \text{tr}$

[2 1] (1 2) [2 1] [2 1]

[2 1] (1 2) [2 1]

[2 1] (1 2) [2 1]

$r_{3 \div 2}$

292

(1 2)]

(1 2)]

(2 1) (1 1 1) (1 2)

Balanced: $r_{3\div 2} + r_{3\div 2} + [3(3-2)=3] = [(2+1)+(1+1+1)+(1+2)] + [(2+1)+(1+2)+3]$

(1 2)]

[(2 1) (1 2)] [(2 1) (1 1 1) (1 2)]

$r_{3\div 2} + r_{3\div 2}$ (Expansion) = $[(2+1)+(1+2)] + [(2+1)+(1+1+1)+(1+2)]$

298

(2 1) (1 2) 3)

$r_{3\div 2}=[(2+1)+(1+2)]$ (diminution $t=\downarrow$)

(3 3 3)

304

(parts permute)

$sq = (1+2)^2$

$square = (2+1)^2$

[1 2 2 4] [4 2]

[4 2 2 1] [1 2 2 4]

Binomial Square: $(2+1)^2$

$sq = (1+2)^2$

(a) (b) (c)

Binomial synchronization: $3(1+2)$

[3 6] [2 4]

permuted cello rhythm

311

$r_{3 \div 2}$

Binomial synchronization: $3(1+2)$

2 1 | [1 2 1 1 1 2 1] [3 6]

(a)

[2 4 permuted cello rhythm 1 2] [4 2 2 1]

$sq = (2+1)^2$

$r_{3 \div 2}$

[1 2 1 1 1 2 1]

(a) permuted cello rhy.

[1 2] [4 2 2 1]

$sq = (2+1)^2$

318

$square = (1+2)^2$

(a) (b) (c)

[1 2 2 4]

[4 2 2 1]

$sq = (2+1)^2$

[1 2 2 4]

324

$r_{3 \div 2} \text{ permuted } (2+1) = (1+2)$

$r_{3 \div 2} \text{ permuted } (2+1) = (1+2)$

[(1 2) (2 1)] [(1 2) (2 1)]

[(1 2) (2 1)] [(1 2) (2 1)]

$r_{3 \div 2} \text{ permuted } (2+1) = (1+2)$

[(1 2) (2 1)]

[(1 2) (2 1)]

331

$r_{3 \div 2}$ permuted $(2+1) = (1+2)$

[(1 2) (2 1)]

[(1 2) (2 1)]

[(1 2) (2 1)]

[(1 2) (2 1)]

338

$a=2+1$

$a=2+1$

$a=2+1$

344

b=3 c=1+2 b=3 c=1+2 c=1+2 tr

a=2+1 a=2+1 b=3

permute

a b c

a=2+1 a=2+1 a=2+1

*Combination of Durations, Rests & Accents
(Schillinger System Book I pg.57)*

351

accents

358

tr rests dur/rests accent accent

366

cube of trinomial (3+2+1) (6+4+2) [3 2 1] [6] (3+2+1) (3+2+1) [3 2 1] [3 2 1] (9+6+3) [9] 6

Cube of Trinomial: (3 + 2 + 1)

Synchronization of the Cube:

$$(3 + 2 + 1)^3 = 3[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] + 2[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] + 1[(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)]$$

Synchronization of the Square:

$$\begin{aligned} & [(27 + 18 + 9) + (18 + 12 + 6) + (9 + 6 + 3)] \\ & [(18 + 12 + 6) + (12 + 8 + 4) + (6 + 4 + 2)] \\ & [(9 + 6 + 3) + (6 + 4 + 2) + (3 + 2 + 1)] \end{aligned}$$

373

(9+6+3) (6+4+2) 8va (3+2+1)

4 2] [9 6 3] [6 4 2] [3 2 1]

(9+6+3) (6+4+2) (3+2+1)

[9 6 3] [6 4 2] [3 2 1]

(6+4+2) (3+2+1) (3+2+1) (3+2+1)

[6 4 2] [3 2 1] (3+2+1) [3 2 1] [3 2 1]

(6+4+2) (9+6+3)

3] [6 4 2] [3 2 1] [9 6 3]

380

(8)

tr

386

(8)

392

$r_{3\div 2} = [(2+1)+(1+2)]$

$[(2 \quad 1) \quad (1 \quad 2)]$

$[(2 \quad 1) \quad (1 \quad 2)]$

$[(2 \quad 1) \quad (1 \quad 1 \quad 1) \quad (1 \quad 2)]$

$r_{3\div 2} = [(2+1)+(1+1+1)+(1+2)]$ (fractioned)

Arithmetical Progression

+3 Constant t = 12, 9, 6, 3

$r_{3 \div 2} = [(2+1)+(1+2)]$

399

[2 1] (1 2) 12 9

[2 1] (1 2) 12 9

taken from $r_{3 \div 2} = [(2+1)+(1+2)]$

406

6, 3 [2 1] (1 2) *for velocity*

6 3 [2 1] (1 2) [(2 1)]

[2 1] (1 2) [(2 1)]

for velocity

[(2 1)] [(1 2)] [(2 1)]

taken from $r_{3 \div 2} = [(2+1)+(1+2)]$

taken from $r_{3 \div 2} = [(2+1)+(1+2)]$

411

[2 1] (1 2) [2 1] (1 2) [2 1] (1 2) *for velocity* [2 1] (1 2) *for velocity*

(1 2) [(2 1)] (1 2) [(2 1)] (1 2) [(2 1)] (1 2)

(1 2) [(2 1)] (1 2) [(2 1)] (1 2)

[(1 2)] [(2 1)] [(1 2)] [(2 1)] [(1 2)]

Fermata -
Vol.1 Bk.1 pg.94 //

416

$r_{3 \div 2} = [(2+1)+(1+2)]$

[2 (subdivided) 1 1 2] [2 2 2] [6]

4 attacks 3 attacks 1 attack

*(2+1) is subdivided to $t = \text{♪} = 4+2$
in order to preserve the energy into the final attacks
i.e. 2 beats = 4 attacks | 1 beat = 2 attacks where $t=e$*

Fermata & Rallentando

18

8 2 8

12 6 6

6 6 6

[2 1 1 2] [2 2 2] [6]

4 attacks 3 attacks 1 attack

rallentando

Balance is achieved in 6 bars:

- 1.) $r_{3 \div 2} = (3 \times 2) = 6$ (i.e. the product of the two generators)
- 2.) $18 \div 6 = (3 + 1)$
- 3.) $12 \div 6 = (2 + 1)$
- 4.) The balanced trinomial is obtained: $6 \div 6 + 6$
- 5.) The balanced trinomial is obtained: $8 \div 2 + 8$
- 6.) $4 \div 3 + 1 =$ Trinomial: Rallentando
- 7.) $2 \div 1 =$ Ratio: Fermata (2 groups of 6 followed by fermata bars of 1 group of 6)