



MTO 24.4 Examples: Meeùs, Harmonic Vectors and the Constraints of Tonality

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

<http://mtosmt.org/issues/mto.18.24.4/mto.18.24.4.meeus.html>

Example 1. Chord substitutions

	Main vector	Substitutions
Dominant	V→I	V→VI or V→III
Subdominant	IV←I	II←I or VI←I
Root progr.:	4 th or 5 th	2 ^d or 3 ^d

	Main vector	Substitutions
Dominant	I→IV	I→II or I→VI
Subdominant	I←V	VI←V or III←V
Root progr.:	4 th or 5 th	2 ^d or 3 ^d

Example 2. Progressions indicated by interval size and direction

	Main vector	Substitutions
Dominant	$\vec{+4}$	$\vec{+2}$ or $\vec{-3}$
Subdominant	$\vec{-4}$	$\vec{-2}$ or $\vec{+3}$

(By convention, the progressions are indicated in their shortest form, 4th, 3^d and 2^d; but these also stand for their inversions, 5th, 6th and 7th. The progressions, in other words, are between roots as pitch classes.)

Example 3. Arnold Schoenberg, *Structural Functions of Harmony*, examples 10a, 11a, 12a and 13a (adapted)

The diagram illustrates chord progressions in two directions: Ascending and Descending. It uses a grand staff with treble and bass clefs. Roman numerals (V, I, VI, III) are placed below the notes to identify the chords. Arrows indicate the intervals between roots of adjacent chords.

Ascending Progression:

- Chord V (root) to Chord I (root): interval of 5th.
- Chord I (root) to Chord VI (root): interval of 3d.

Descending Progression:

- Chord I (root) to Chord V (root): interval of 5th.
- Chord I (root) to Chord III (root): interval of 3d.

Example 4. Lassus, *Bonjour mon Coeur* (1564), mm. 16–22

Mon doux print-temps, ma dou - ce fleur nou-vel - le, Mon doux plai - sir, ma dou - ce co - lom - bel - le

Pitch classes: 11	Major triads: 14 (78%)	Dissonances: 0 (0%)
Roots: 7	B \flat : 1 F: 3 C: 2 G: 4 D: 4 A: 3 E: 1	
DV: 16 (94%)	+4/-5: 10 (53%)	+2: 6 (35%) -3: 1 (6%)

Example 5. Lassus, *Bonjour mon Coeur* (1564), mm. 1–6

Bon - jour mon coeur, Bon-jour ma dou - - - ce vi - e,

Pitch classes: 9	Major triads: 12 (92%)	Dissonances: 0 (0%)
Roots: 5	F: 2 C: 4 G: 4 D: 2 A: 1	
DV: 6 (50%)	+4/-5: 5 (42%)	+2: 1 (8%) -3: 0 (0%)

Example 6. Melchior Vulpius, chorale *Christus, der ist mein Leben*

Pitch classes: 7	Major triads: 19 (83%)	Dissonances: 1 (4 %)
Roots: 5	B \flat : 3 F: 10 C: 5 G: 3 D: 1	
DV: 14 (64%)	+4/-5: 10 (45%)	+2: 4 (18%) -3: 0 (0%)

Example 7. J.S. Bach, setting of *Christus, der ist mein Leben*, BWV 281

Pitch classes: 9	Major triads: 21 (78%)	Dissonances: 9 (33%)
Roots: 6	B \flat : 2 F: 9 C: 8 G: 5 D: 2 A: 1	
DV: 22 (85%)	+4/-5: 16 (62%)	+2: 6 (23%) -3: 0 (0%)

Example 8. Max Reger, setting of *Christus, der ist mein Leben*, op. 79b, no. 9

The image displays three systems of musical notation for a piano accompaniment. Each system consists of a grand staff (treble and bass clefs) and a separate bass line with figured bass notation. The figured bass notation includes numbers 1-7 and arrows indicating fingerings and slurs. The first system has a figured bass line with notes and slurs, and a separate line with numbers 7, 6, 7, 6, 5, (4) 3, 6, 7, 6, 5, 2. The second system has a figured bass line with notes and slurs, and a separate line with numbers 7, 7, 7, 6, 7, 7, 6, 5, 7. The third system has a figured bass line with notes and slurs, and a separate line with numbers 7, 6, 5, 7.

Pitch classes: 12	Major chords: 22 (73%)
Roots: 6	B \flat : 1 F: 5 C: 5 G: 6 D: 7 A: 4
27 DV (93%)	+4/-5: 20 (66%) +2: 2 (7%) -3: 5 (19%)

Example 9. Vulpius (?), *Christus, der ist mein Leben* (1609), melody

The image shows a single melodic line in treble clef with a key signature of one flat and a common time signature. The melody is written on a single staff. Below the staff, the lyrics are written in German: "Chris - tus, der ist mein Le - ben, Ster - ben ist mein Ge - winn. Dem tu ich mir er - ge - ben, mit Freud fahr ich da - hin."