

CHAPTER 8

Non-Harmonic Tones

Non-Harmonic tones (non-chord tones) occur with chords but are not chord members.

FIGURED BASS

Non-Harmonic tones are figured like chord tones. Non-Harmonic tones occurring after the initial attack of the chord are indicated with a change of numeral. When the Bass voice moves without movement in any upper voice, no additional figured bass is necessary. When one or more voices remain stable, a dash(-) is used to indicate the continuation of the same pitch. In root position triads with doubled root, only the voice that moves is figured. Figuring will be arranged from highest to lowest numeral.

B:

I 8 7 I 3 2 I 5 6 V 5 7 I 8 7 8 V V 8 7 3

FIGURE 8.1: Figuring Non-Harmonic Tones

Figuring for non-harmonic tones occurring at the initial attack of a chord (suspensions, appoggiaturas, and accented passing tones), results in figured bass which does not represent the true position of the chord. Usually, a chord's position is represented with the resolution of the non-harmonic tone.

b^b:

V 7 8 i 4 3 i 3 iv 6 5

FIGURE 8.2: Figuring Non-Harmonic Tones at Initial Attack

DIATONIC PASSING TONE

A *diatonic passing tone* fills the interval between two chord tones a third apart and occurs in a weak rhythmic position.

Figure 8.3 shows musical notation for a diatonic passing tone. The score is in 4/4 time and consists of two systems. The first system has three measures: d: (D minor), E: (E major), and e: (E minor). The second system has three measures: i: (D minor), E: (E major), and e: (E minor). The notation shows a diatonic passing tone in the upper voice of each measure. Below the staff are figured bass notations: $i^8 \ 7 \ iv \ 8 \ 7 \ V^\# \ i \ 6$, $I \ 3 \ 4 \ I \ 3 \ 6 \ 6 - \ I$, $i \ 5 \ 6 \ V \ 5 - \ i \ 8 \ 3$.

FIGURE 8.3: Diatonic Passing Tone

ACCENTED PASSING TONE

Occasionally the interval of a third is filled with a non-harmonic tone which occurs in a strong rhythmic position. This is called an *accented passing tone*.

Figure 8.4 shows musical notation for an accented passing tone. The score is in 4/4 time and consists of two systems. The first system has three measures: $D^b:$ (D^b major), $e^b:$ (e^b major), and $A:$ (A major). The notation shows an accented passing tone in the upper voice of each measure. Below the staff are figured bass notations: I , $I \ 7 \ 6 \ 6 - \ 3 -$, iv , $V \ 6 \ 5 \ 4 -$, I , $IV \ 4 \ 3 \ V$.

FIGURE 8.4: Accented Passing Tone

CHROMATIC PASSING TONE

A *chromatic passing tone* fills the interval between two chord tones a major second apart and occurs in a weak rhythmic position.

D:

I 5#5 IV^{3b3} V

FIGURE 8.5: Chromatic Passing Tone

Cross Relation

Cross Relation occurs when a chromatically altered note in one voice is next to the same diatonic scale degree in a different voice. It should be avoided except when using the upper tetrachord of the melodic minor scale.

C: incorrect a: correct

I 5#5 V₂ i_{3/3} V# i iv⁶

FIGURE 8.6: Cross Relation

DOUBLE PASSING TONE (*melodic*)

Double passing tones fill the interval of a perfect fourth between two chord tones and occur in a weak rhythmic position. In a minor key, the melodic minor scale is used for double passing tones over the tonic chord.

A^b: f[#]: C:

I V^{7/3} iv^{3/3} 4 5 V⁷ i i^{8/7} 6 i^{6/3} iv V^{7/3} 5 i^{8/3}

FIGURE 8.7: Double Passing Tone

CHROMATICALLY ALTERED PASSING TONE

A *chromatically altered passing tone* fills the interval of a third between two chord tones and uses an accidental. It appears in either a weak or strong rhythmic position. Chromatically altered passing tones occur most often in the ascending melodic minor over the dominant chord.

The musical notation for Figure 8.8 is in F major (one flat) and 4/4 time. The key signature is F major. The music is written on two staves: a treble clef staff and a bass clef staff. The treble staff begins with a dynamic marking 'f:'. The melody in the treble staff consists of four notes: F4 (quarter), A4 (quarter), Bb4 (quarter), and C5 (quarter). The bass staff consists of four notes: F3 (quarter), C4 (quarter), F4 (quarter), and C4 (quarter). Below the bass staff, the chord symbols are: i⁵/₃, V⁷/₂, and i⁶.

FIGURE 8.8: Chromatically Altered Passing Tone Over the Dominant Chord

In major keys, the subtonic scale degree, borrowed from the parallel minor, passes to the submediant scale degree.

The musical notation for Figure 8.9 is in E major (three sharps) and 4/4 time. The key signature is E major. The music is written on two staves: a treble clef staff and a bass clef staff. The treble staff begins with a dynamic marking 'E:'. The melody in the treble staff consists of four notes: E4 (quarter), G#4 (quarter), A4 (quarter), and B4 (quarter). The bass staff consists of four notes: E3 (quarter), G#3 (quarter), A4 (quarter), and B4 (quarter). Below the bass staff, the chord symbols are: I⁸/₇ and IV⁸/₃.

FIGURE 8.9: Subtonic as Chromatically Altered Passing Tone

UPPER AUXILIARY

An *upper auxiliary* is a non-harmonic tone a step above two chord tones of the same pitch and appears in a weak rhythmic position.

I 5 6 I 3 6 IV 8 9 8 V

FIGURE 8.10: Upper Auxiliary

LOWER AUXILIARY

A *lower auxiliary* is a non-harmonic tone a step below two chord tones of the same pitch and appears in a weak rhythmic position. Lower auxiliaries may be chromatically altered to create a semitone when one does not appear diatonically.

i 5 3 2 3 - iv I 5 # I 6 vii 6 V 3 I

FIGURE 8.11: Lower Auxiliaries

CHANGING TONES

Changing tones are two non-harmonic tones approaching a chord tone, one above and one below. The first must occur in a weak rhythmic position. The second may be in a weak or strong rhythmic position.

(I) (I) (V) (I) (I) (I) (V)

FIGURE 8.12: Rhythmic Position of Changing Tones

Changing tones may be preceded by the same pitch as the note of resolution,

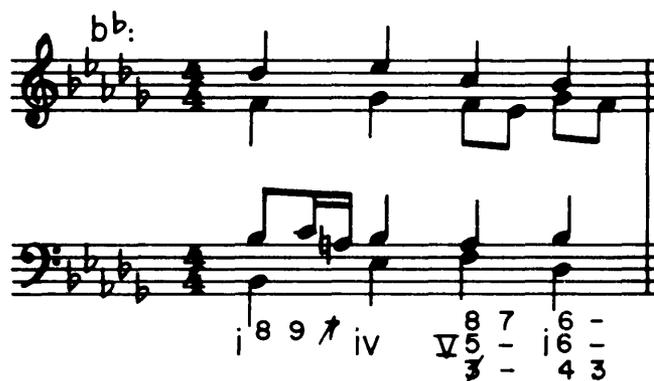


FIGURE 8.13: Changing Tones Preceded by the Same Note as the Note of Resolution

or by a chord tone a third removed from the following chord tone. The latter is frequently called *Nota Cambiata*. Similar melodic direction is used from the first chord tone through the changing tones.

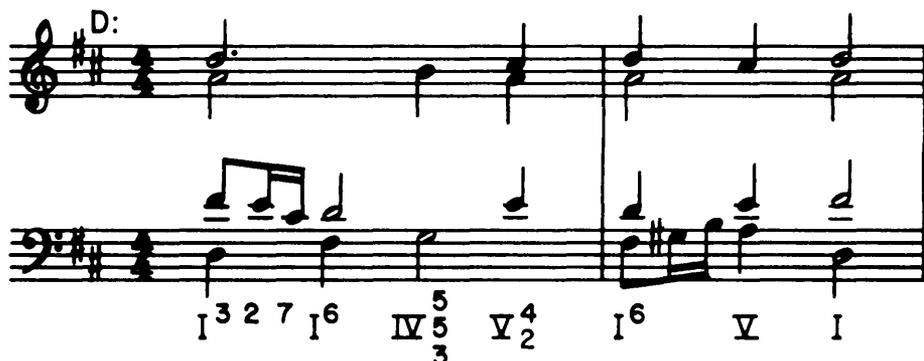


FIGURE 8.14: Nota Cambiata

The changing tone below the next chord tone may be chromatically altered to create semitone movement.



FIGURE 8.15: Changing Tones with Chromatic Alteration

CAMBIATA

A *cambiata* is a non-harmonic tone approached by disjunct motion in one direction and resolved by conjunct motion in the opposite direction. It occurs in a weak rhythmic position. When a *cambiata* resolves upward, it may be chromatically altered to create semitone movement.

Chord symbols for Figure 8.16: Cambiata

System 1 (C major): $i^5 \ 9 \ i^6 \ iv^5 \ 7 \ V^6 \ i$

System 2 (A \flat major): $I^8 \ \# \ V^6 \ I^5 \ 7 \ IV$

FIGURE 8.16: Cambiata

ÉCHAPPÉE

An *échappée* (escape tone) is non-harmonic tone approached by conjunct motion and left by disjunct motion in the opposite direction. It occurs in a weak rhythmic position.

Chord symbols for Figure 8.17: Échappée

System 1 (C major): $I^6 \ 7 \ IV^8 \ 7 \ I^5 \ 7 \ V^6 \ I$

System 2 (C# major): $i^3 \ 2 \ iv^6 \ 8 \ V^7 \ i$

FIGURE 8.17: Échappée

SUSPENSION

A *suspension* is a non-harmonic tone occurring when a note's natural melodic progression is delayed. This requires two different chords. A suspension is a chord tone in the first chord sustained or repeated in the same voice as a non-harmonic tone of the second chord. There are three parts of a suspension: *preparation (P)*, *suspension (S)*, and *resolution (R)*. The preparation is a chord tone of the first chord. The suspension is non-harmonic and is the same pitch as the preparation continued to the second chord.

The resolution occurs when the suspension resolves by conjunct motion to a chord tone of the second chord. An upward resolution of a suspension is called a *retardation*. The note of resolution may be present if it is a compound interval below the suspension. Suspensions may be tied or dotted note values; however, when repeated, they are called *struck suspensions*. The suspension and resolution must be in a strong-weak rhythmic relationship. The preparation must be as long or longer than the suspension. Resolutions of suspensions may be decorated with other non-harmonic tones. Common suspensions are 9-8, 7-6, 6-5, and 4-3.

FIGURE 8.18: Suspension

APPOGGIATURA

An *appoggiatura* is a non-harmonic tone a step above or below a chord tone of a single chord. It resolves to the chord tone. An appoggiatura functions as a suspension without a preparation. Normally, appoggiaturas are approached by disjunct motion in the opposite direction of the resolution, or by conjunct motion from either direction. When an appoggiatura is approached by conjunct motion in the same direction as its resolution, it is also called an accented passing tone.

FIGURE 8.19: Appoggiatura

Linear movement of individual voices is figured starting from the figuring of the chord's position.

The musical score for Figure 8.24 consists of two staves, treble and bass clef, in 4/4 time. The first measure is in the key of D minor (one flat) and contains a D minor triad. The second measure is in the key of F# major (three sharps) and contains an F# major triad. The bass line is figured with the following numbers: 8 9, 1 8 7 iv, 3 -. The treble line is figured with the following numbers: 6 -, 1 6 3 V, 3 2.

FIGURE 8.24: Linear Figuring for Simultaneous Non-Harmonic Tones

Non-harmonic tones of the same kind can occur simultaneously. The most common are passing tones or auxiliaries. Some have become so widely used that a change of chord analysis may occur (auxiliary $\frac{6}{4}$).

The musical score for Figure 8.25 is divided into two sections: 'Passing Tones' and 'Auxiliaries'. The 'Passing Tones' section is in the key of E-flat major (three flats) and shows a sequence of chords: I5- (root position), V5- (first inversion), and I (root position). The bass line is figured with the numbers: 8 2 3, 1 5 -, 3 4 5. The 'Auxiliaries' section is in the key of G# major (three sharps) and shows a sequence of chords: i iv $\frac{6}{4}$ i V* (auxiliary), I5- (first inversion), IV5- (first inversion), and i (root position). The bass line is figured with the numbers: 8 -, 1 5 6 5, 3 4 3, 8 -, 1 5 6 5, 3 4 3.

FIGURE 8.25: Passing Tones and Auxiliaries used Simultaneously

Another kind of simultaneous use is the *appoggiatura six-four*. It is similar to a cadential six-four. It uses the 6 to 5 and 4 to 3 voice leading and appears in a strong-weak rhythmic

relationship, but not at a cadence. The two uses of the appoggiatura six-four are the I^6_4 to V or IV^6_4 to I.

The musical score consists of two systems. The first system is in F# major (indicated by F#) and the second system is in a minor key (indicated by f). Each system has a treble and bass staff. The notes are as follows:

- System 1 (F#): Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes F#3, G3, A3, B3, C4, B3, A3, G3.
- System 2 (f): Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes F3, G3, A3, B3, C4, B3, A3, G3.

Below the bass staff, Roman numerals are provided for each measure:

I IV I^6_4 V IV^6_3 V^6 I^5_3 | i V^4 V^6 iv^6_4 i

FIGURE 8.26: Appoggiatura Six-Four

Non-harmonic tones of different kinds also occur simultaneously. A passing six-four is an example of the use of passing tones, passing through the octave, combined with a lower auxiliary.

The musical score is in C major (indicated by C) and 4/4 time. It shows two systems of music. The notes are as follows:

- System 1: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes F3, G3, A3, B3, C4, B3, A3, G3.
- System 2: Treble staff has notes G4, A4, B4, C5, B4, A4, G4. Bass staff has notes F3, G3, A3, B3, C4, B3, A3, G3.

Below the bass staff, Roman numerals and figured bass notation are provided for each measure:

I V^6_4 I^6 V^8_3 6 6 | I^5_3 6 8 6 8 | IV^6_3 6 5 V

FIGURE 8.27: Comparison of Passing Six-Four and Simultaneous Use of Different Non-Harmonic Tones

CHORDAL SEVENTHS

Chapter 15, Basic Music (TC 12-41/NAVEDTRA 10244) defines chordal sevenths. Care should be taken when using a non-harmonic tone which would be a chordal seventh. Under most circumstances, the treatment of the seventh of the Dominant Seventh chord discussed in Chapter VII is an excellent guide.

I 5 7 IV 8 7 V 8 7 I 6

FIGURE 8.28: Chordal Sevenths

VOICING

Non-harmonic tones may occur in any voice. They occur less frequently in the Bass voice and are generally limited to unaccented passing tones, auxiliaries, and pedals.

V[#] i⁶ 8 3 i⁸ 7 iv⁵ 3 9 8 3 V[#] i⁵ 9 8 4 3 iv⁶ V 8 9 5 6 3 4 V[#] 7 I 8 4 3 2 3

FIGURE 8.29: Voicing Non-Harmonic Tones

