

CHORDS Packet #3

Harmony

Notes that sound together. Harmony refers to the vertical aspect of music while melody refers to the horizontal or linear.

Chord

A *chord* is a harmonic unit with at least three different tones sounding simultaneously.



Triad

Strictly speaking, a *triad* is any three-tone chord. However, since western European music of the seventeenth through nineteenth centuries is *tertian* (chords containing a superposition of harmonic thirds), the term has come to be limited to a three-note chord built in superposed thirds.

Triad Root

The note on which the triad is built. The root of the C triad is C. There are four types of triads in common use.

Major Triad

A *major triad* consists of a major third and a perfect fifth.



Minor Triad

A *minor triad* consists of a minor third and a perfect fifth.



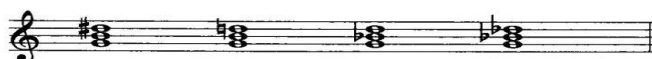
Diminished Triad

A *diminished triad* consists of a minor third and a diminished fifth.

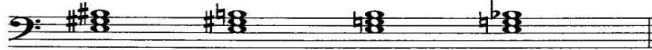


Augmented Triad

An *augmented triad* consists of a major third and an augmented fifth.



Augmented Major Minor Diminished



Augmented Major Minor Diminished

Triads built on G in treble clef

Triads built on E in bass clef

History

The Development of Harmony

Emerging during the thirteenth century from a style known as *organum*, harmony developed gradually in the medieval and Renaissance periods. In the Renaissance period (1450–1600) harmony was the result of the combination of melodic lines, and the study of harmony was a study of the consonant and dissonant relationships between melodic lines.

During the baroque period (1600–1750) the concept of accompanying a melody with chords was developed. The keyboard performer was expected to improvise the accompaniment from a given bass line and a set of symbols used to indicate in a general way the chords to be used. The bass line with its accompanying symbols is called a *figured bass*, and the instruments that play from this part are called the continuo.

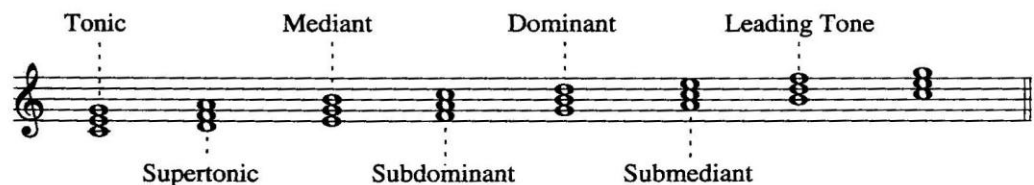
The figured bass system was employed throughout the baroque period for keyboard accompaniments and keyboard parts for solo songs, solo instrumental compositions, and small and large ensembles.

In 1722 Jean-Phillipe Rameau wrote a treatise, *Traite de L'Harmonie (Treatise on Harmony)*, which described a theory of harmony. Many of the principles presented in this book are a direct outgrowth of Rameau's ideas.

Triads may be constructed on top of any of the scale degrees and receive the same function name as the individual pitch.

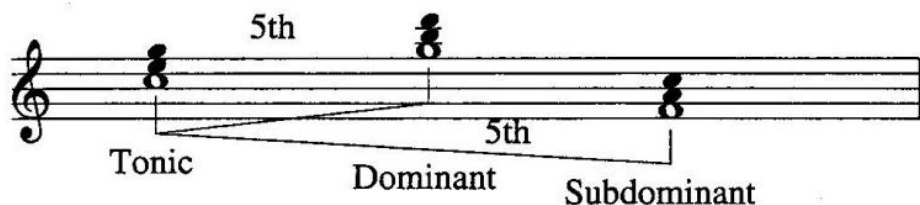
Triads on Scale Degrees

The pitch C and the C Major triad are the tonic below



Primary Triads

The triads built on the tonic, subdominant, and dominant are often referred to as the *primary triads* because of their strong relationship to each other. The tonic stands in the center of the tonal system with the dominant a perfect fifth above and the subdominant a perfect fifth below.



Harmonic Analysis

Musicians analyze harmonic elements in music for the purpose of identifying chord types, function, and relationships. A chord's connection to a key center, or perceived forward motion in a composition, can often be explained through harmonic analysis. Two analytical methods, Roman numeral analysis and macro analysis, are presented throughout this volume as tools for categorizing tonal harmonies and chord relationships.

Roman Numeral Analysis

In analysis, Roman numerals are used to distinguish triads based on scale degrees; Arabic numerals with carets are used for scale degrees themselves.

Uppercase Roman numerals	Major triads
Lowercase Roman numerals	Minor triads
Lowercase Roman numerals with °	Diminished triads
Uppercase Roman numerals with +	Augmented triads

CM: M m m M M m d
I ii iii IV V vi vii°

In the minor scale (natural form):

cm: m d M m m M M
i ii° III iv v VI VII

In the minor scale (harmonic form):

cm: m d A m M M d
i ii° III+ iv V VI vii°

In the minor scale (melodic form):

cm: m m A M M d d
i ii III+ IV V vi° vii°

Triad Position Symbols

Root position triads are indicated with Roman numerals without additional symbols.

First inversion triads are indicated with a superscript ⁶ to the right of the Roman numeral.

Second inversion triads are indicated with a superscript ⁴ to the right of the Roman numeral.

When triads are reduced to three notes spaced as close together as possible, it is called the *simple position*.

The image shows a grand staff with two staves. The top staff contains three triads: a C major triad in root position (C4, E4, G4), a C major triad in first inversion (E4, G4, C5), and a C major triad in second inversion (G4, C5, E5). The bottom staff contains the corresponding bass notes for each triad: C3, E2, G2 for root position; E2, G2, C3 for first inversion; and G2, C3, E3 for second inversion.

Chords reduced to simple position:

The image shows a bass staff with three triads in simple position. The first triad is C major (C, E, G), the second is C major in first inversion (E, G, C), and the third is C major in second inversion (G, C, E). The notes are grouped together to show their close spacing.

C: I I I I⁶ I⁶ I⁶ I⁴ I⁴ I⁴

Seventh Chords

A *seventh chord* is formed by adding another third above the fifth factor of a triad. Although triads are the main focus of this chapter, you may encounter seventh chords when analyzing music.

The image shows a treble staff with seven chords. The first six chords are grouped with a bracket labeled 'Seventh Chords'. The seventh chord is labeled 'Dominant Seventh Chord in C Major'. The chords shown are: C major 7 (C, E, G, Bb), F major 7 (F, A, C, Eb), G major 7 (G, B, D, F), C minor 7 (C, Eb, G, Bb), F minor 7 (F, Ab, C, Eb), G minor 7 (G, Bb, D, F), and C dominant 7 (C, E, G, Bb).

Triads and seventh chords by no means exhaust the possible tertian sonorities. One can continue adding thirds to tertian chords, resulting in ninth chords, eleventh chords, and thirteenth chords (discussed in detail in the second volume).

Seventh Chord Analysis Symbols

Root position seventh chords are indicated by adding a small superscript ⁷ to the right of the Roman numeral.

The image shows a treble staff with a dominant seventh chord in C major (C, E, G, Bb). Below the staff is the analysis symbol: C: V⁷.

The dominant seventh chord can appear in various inversions

Position	Analysis Showing All Intervals Above the Bass Tone	Analysis as Simplified for Conventional Use
Root Position	 V ⁷ ₃	 V ⁷
1st Inversion	 V ⁶ ₃	 V ⁶ ₃
2nd Inversion	 V ⁶ ₃	 V ⁴ ₃
3rd Inversion	 V ⁶ ₂	 V ⁴ ₂ or V ²

(Assignment 4.6, page 82; Workbook/Anthology 4F, 4G)

Figured Bass

Figured bass consists of a bass part (single line) with figures (mostly numbers) below to indicate the type of harmony. It is a contrapuntal/intervallic shorthand method of showing the harmony (along with nonharmonic tones).

Figured Bass Symbols

The numbers ⁶ and ₄ refer to intervals above the bass note. Figured bass numbers do not denote specific arrangements. That is, they do not indicate what note should be placed in a particular voice (soprano, alto, or tenor).

Figured bass as it appears originally:

Same figured bass harmonized in simple position:

Same figured bass harmonized in four-part harmony:

DM: I I⁶ ii⁶ I₄⁶ V I

Sometimes it is necessary to indicate sharps, flats, or naturals above the bass note. These are shown in the following manner:

Symbol	Meaning
#, b, or ♮	A sharp, flat, or natural alone beneath a bass note indicates a triad in root position with the third interval above the bass note sharpened, flattened, or naturalized.
⁶ #, ⁶ b, or ⁶ ♮	A sharp, flat, or natural below a 6 indicates a first inversion triad with the third interval above the bass note sharpened, flattened, or naturalized.
#6, ^b 6, [♮] 6	Any sharp, flat, or natural sign on either side of a number indicates that this interval above the bass note should be sharpened, flattened, or naturalized depending on the symbol.
♯6, ♭6, 4+	A slash mark through a number indicates that this interval above the bass note should be raised a half step. It means the same as a sharp sign beside the number. The plus sign (4+) also has the same meaning.

If none of these symbols are present it is assumed that the key signature should be followed in realizing figured bass symbols.

Figured bass: Figured bass as realized:

Macro Analysis

Macro analysis is an analytical technique that may be employed along with, or instead of, more conventional methods of analysis. The system employs letter names to indicate the roots of chords, accompanied by specific symbols to depict chord quality. Macro symbols for triads are written as follows:

1. Major triads are represented by uppercase letter names.
2. Minor triads are represented by lowercase letter names.
3. Diminished triads are represented by lowercase letter names followed by the ° symbol.
4. Augmented triads are represented by uppercase letter names followed by the + sign.

Major	Minor	Diminished	Augmented
G	g	g°	G+

In macro analysis, slurs are used to highlight the forward motion in music. Two types of slurs are added to the letter-based symbols:

1. The solid slur is attached to adjacent letter symbols whose roots are either an ascending fourth or a descending fifth apart.
2. The dotted slur is connected to leading-tone chords whose roots resolve upward a half step. Since the leading tone is functioning as a substitute for the dominant in this type of progression, the dotted slur indicates the use of a related chord as a substitute.

$B\flat$ $E\flat$ f $B\flat$ d° $E\flat$
 E♭M: V I ii V vii°6 I

Macro analysis symbols are traditionally positioned below the score. If used in conjunction with Roman numerals, the macro analysis will occupy the upper level with the Roman numerals positioned below.

Popular Music Symbols

Just as figured bass was the shorthand of the eighteenth century, popular music symbols are the shorthand of the twentieth century—a system for notating chords when the performer is expected to improvise the specific details. Instead of writing out the exact notes on score paper, popular music composers and arrangers indicate the chords to be used for accompaniment with chord symbols written above the melody line of the composition. Such a score, with the melody and the popular music symbols, is called a *lead sheet* or *fake sheet*.

Major Triad

A major triad is shown by a capital letter designating the root.



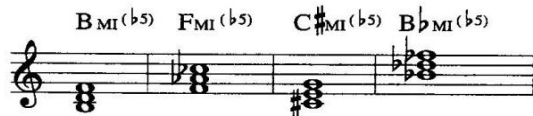
Minor Triad

A minor triad is shown by a capital letter with MI added (DMI).



Diminished Triad

A diminished triad is shown by a capital letter with MI (b5) added.



Augmented Triad

An augmented triad is shown by a capital letter with + added.

Figure 4.27



Added Sixth Chord

A triad with an added tone a major sixth above the triad root (common in popular music) is indicated by adding a superscript 6 after the letter designating the triad (C⁶).



Major-Minor Seventh Chord

The major-minor seventh chord (dominant seventh) is indicated by adding 7 after the letter designation of the triad (C⁷).

