



The Augmented Sixth Chord

Characteristics, Derivation, and Behavior

The two excerpts in Example 24.1 are from different style periods, yet they share several features. In terms of form and harmony, both divide into two subphrases and close with strong half cadences. Further, the pre-dominant harmony in both examples is the same: an altered iv^6 chord. Indeed, we hear not a Phrygian cadence (iv^6-V), but rather some chromatic version, where the diatonic *major* sixth above the bass is raised a half step to create the strongly directed interval of the *augmented* sixth (+6). The new half-step ascent ($\hat{\#4}-\hat{5}$) mirrors the bass's half-step descent ($\hat{6}-\hat{5}$). We refer to such chromatic pre-dominants as **augmented sixth chords** because of the characteristic interval between the bass $\hat{6}$ and the upper-voice $\hat{\#4}$. Listen to both excerpts in Example 24.1, noting the striking sound of the augmented sixth chords.

EXAMPLE 24.1

A. Schubert, Waltz in G minor, *Die letzte Walzer*, op. 127, no. 12, D. 146

g: #4 — 5

6 — 5
HC

EXAMPLE 24.3

A. B.

D: I V₅⁶ I IV⁶ V⁸ - 7 I I V₅⁶ I iv⁶ V⁸ - 7 I

C. D.

D: I V₅⁶ I $\frac{vii^{\circ 6}}{V}$ V⁸ - 7 I I V₅⁶ I +6 V⁸ - 7 I

Accordingly, the mixture iv^6 uses $\flat\hat{6}$ in the bass, and the applied $vii^{\circ 6}/V$ uses $\sharp\hat{4}$ in the soprano. So how do we describe the augmented sixth chord that has both pitches (Example 24.3D)? It is the ultimate chromatic chord, combining mixture (bass $\flat\hat{6}$) and tonicization ($\sharp\hat{4}$) to create the augmented sixth that pushes toward the dominant. The augmented sixth chord is typically preceded by a tonic chord, a subdominant chord, (\flat)VI, or (\flat)III; it is almost always followed by V or the cadential $\frac{6}{4}$ chord.

Types of Augmented Sixth Chords

All augmented sixth chords have three basic components.

1. The bass is a *half step above* $\hat{5}$.
 - a. In minor keys, the bass is the diatonic $\hat{6}$ and does not need an accidental.
 - b. In major keys, the bass is $\flat\hat{6}$, requiring an accidental.
2. One of the upper voices—often the soprano—is a *half step below* $\hat{5}$, on $\sharp\hat{4}$.
3. Another upper voice has *the tonic*, $\hat{1}$.

We distinguish three types of augmented sixth chords, based on the pitch in the final upper voice (Example 24.4). We label augmented sixth chords using their “regional” names followed by their figured bass (without chromatic alterations).

- If the final upper voice doubles $\hat{1}$, it creates an **Italian augmented sixth chord**, It^6 (Example 24.4A).
- If the voice has $\hat{2}$, it creates a **French augmented sixth chord**, Fr^4_3 (Example 24.4C).
- The **German augmented sixth chord**, Ger^6_5 , includes $\hat{3}$ in minor keys (Examples 24.4B and D).

- In major keys, this added pitch is $\flat\hat{3}$. When a Ger_5^6 occurs in the major mode and leads to a cadential $\frac{6}{4}$ with a *major* sixth above the bass, composers often notate $\flat\hat{3}$ using the enharmonic equivalent $\sharp\hat{2}$ (Example 24.7E).

EXAMPLE 24.4 Common Types of Augmented Sixth Chords

<p>A. Italian</p> <p>figured bass: $\frac{6}{3}$ #</p> <p>harmonic analysis: It^6</p>	<p>B. German</p> <p>figured bass: $\frac{6}{5} \frac{4}{3}$ #</p> <p>harmonic analysis: Ger_5^6</p>	<p>C. French</p> <p>figured bass: $\frac{6}{4} \frac{5}{3}$ #</p> <p>harmonic analysis: Fr_3^4</p>
<p>D. In Major</p> <p>G: I IV⁶ Ger_5^6 $\text{V}_{4-3}^6-\frac{5}{3}$</p>	<p>E. In Major</p> <p>G: I IV⁶ Ger_3^4 $\text{V}_{4-3}^6-\frac{5}{3}$</p>	

Writing Augmented Sixth Chords

The voice leading after an augmented sixth chord is straightforward, due to the number of tendency tones in the chord. The bass moves down by half step to $\hat{5}$, the upper voice with $\sharp\hat{4}$ moves up by half step to $\hat{5}$, and the other voices move as smoothly as possible (usually by step). The most common chord after the augmented sixth is V; however, the progression Ger_5^6-V involves parallel fifths and is often avoided (Example 24.5A). Instead, a Ger_5^6 is followed first by the cadential $\frac{6}{4}$ before resolving to the V; this results in no forbidden parallel motions (Example 24.5B).

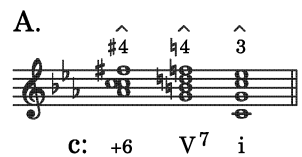
EXAMPLE 24.5

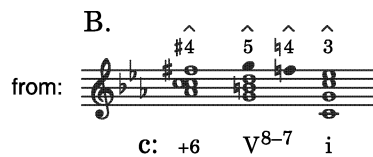
<p>A.</p> <p>c: i Ger_5^6 V i</p>	<p>B.</p> <p>c: i Ger_5^6 $\text{V}_{4-3}^6-\frac{5}{3}$ i</p>
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Although augmented sixth chords tend to occur more often in the minor mode, they can occur in the major mode, though at least one additional chromatic alteration is necessary in major: The bass must be lowered to $\flat\hat{6}$. This holds for all three species of augmented sixth chords. In the special case of the Ger_3^6 , $\hat{3}$ must also be lowered (refer back to Example 24.4D). Finally, when a German Ger_5^6 occurs in the major mode and leads to a cadential Ger_4^6 with a *major* sixth, composers often notate this chromatic ascent (from $\flat\hat{3}$ to raised $\hat{3}$) using the enharmonic equivalent $\sharp\hat{2}$, which visually leads more effectively up to $\hat{3}$. See again, Example 24.4E. Given that the fourth above the bass is doubly augmented, this unfortunate-looking chord is referred to as the *doubly augmented sixth chord* or sometimes as the *Swiss augmented sixth chord*.

When the augmented sixth chord moves directly to V^7 , an **elided resolution** often occurs, in which $\sharp\hat{4}$ does not resolve literally to $\hat{5}$ but moves directly to $\flat\hat{4}$ (and on to $\hat{3}$) (Example 24.6).

EXAMPLE 24.6

A. 

B. 

EXERCISE INTERLUDE



WORKBOOK 1
24.1–24.3


SOLVED/APP 6

ANALYSIS

24.1 Identification

Determine the key in which each of the augmented sixth chords would function; then identify the type of augmented sixth chord that is notated.

1. 2. 3. 4. 5. 6. 7. 8.



g: Ger_5^6 _____ _____ _____ _____ _____ _____

WRITING

24.2

- A. For each given augmented sixth interval, label the minor key in which it would function as a pre-dominant and provide a key signature. Then add the missing chordal members to complete the sonorities as specified (the first one is completed for you).

1. 2. 3. 4. 5. 6. 7. 8.

b: It^6 Ger^6_5 It^6 Ger^6_5 Fr^4_3 It^6 Ger^6_5 Fr^4_3

B. Determine the key and the type of augmented sixth chord that is notated, and resolve each to a form of the dominant.

1. 2. 3. 4. 5. 6. 7.

ANALYSIS



24.3

Listen to and then provide a harmonic analysis for the following examples, which contain augmented sixth chords.

SOLVED/APP 6

A. Mozart, "Wer ein Liebchen," from *Abduction from the Seraglio*

Doch sie treu sich zu er - hal - ten, schliess' er Lie - chen sorg - lich ein;
 Do not waste your time in chit - chat for a wo - man's like a cat,

B. Verdi, "Se m'an ancor," from *Il trovatore*, no. 19

Continued

Musical score for piano, consisting of three systems of two staves each. The first system includes dynamics markings *pp* and *f*. The second system includes *p* and trills (*tr*). The third system includes another trill (*tr*).

C. Verdi, "Si, la stanchezza m'opprime, o figlio," from *Il trovatore*, no. 19

Musical score for voice and piano. The voice part is marked *a mezza voce*. The piano accompaniment includes dynamics *f* and *p*.

D. Paganini, Caprice for Solo Violin, op. 1, no. 11

Musical score for violin, marked *Andante*. It features a single staff with various musical notations including slurs, accents, and a quintuplet marked with a *5*.

Augmented Sixth Chords as Part of PD Expansions

Augmented sixth chords frequently combine with other pre-dominant harmonies to expand the pre-dominant function (Example 24.9). Given that two of its voices are so goal-directed toward $\bar{5}$, the augmented sixth chord is usually the last event before the dominant, following either $iv^{(6)}$ or VI. In Example 24.9 Beethoven drives home the arrival in B^b minor by moving from iv^6 to a Ger_5^6 in mm. 129–30 (the $vii^{\circ 6}_5$ appears as a neighbor). The Ger_5^6-V motion is then reiterated seven times in the following nine measures and highlighted by the *sf* marking.

EXAMPLE 24.9 Beethoven, Piano Sonata no. 13 in E^b major, op. 27, no. 1, *Allegro vivace*

124

b^b : iv^6 $vii^{\circ 6}_5$ (N) Ger_5^6

130

V_{b6}^8 $\frac{7}{5}$
 $\frac{4}{4}$

i Ger_5^6 V i Ger_5^6 V

135

i Ger_5^6 V i Ger_5^6 V i Ger_5^6 V i Ger_5^6 V i

Augmented sixth chords often appear in chromaticized bass descents as the final step before the dominant (Example 24.10).

EXAMPLE 24.10 Chromaticized Bass Descent Expands PD

g: i V⁶ V⁴₂ IV⁶ It⁶ V

T ——— PD ——— D

One of the most important techniques for expanding the PD is to move from iv through a passing $\frac{6}{4}$ chord to iv⁶, as in Example 24.11A. It is also common for iv to move to a different PD harmony, such as the ii⁶₅ in Example 24.11B. In both cases, the expansion of the PD involves a prominent voice exchange between the bass and one of the upper voices.

EXAMPLE 24.11 PD Expanded by Voice Exchange

A: i vii^{o7} i iv P⁶₄ iv⁶ V i vii^{o7} i iv⁶ P⁶₄ ii⁶₅ V

T ——— PD ——— D T ——— PD ——— D

When chromatic augmented sixth chords occur with other diatonic pre-dominants (such as iv and ii⁶), the resulting voice exchange is not exact. This can be seen in m. 1 of Example 24.12A, in which the C and E^b of the iv chord swap to become the E^b and C[#] of the It⁶ chord. This special swapping of cross relations is called a **chromatic voice exchange**. Example 24.12B illustrates both a diatonic voice exchange (m. 108 to downbeat of m. 109) and a chromatic voice exchange (m. 109).

EXAMPLE 24.12 Chromatic Voice Exchange Incorporates Augmented Sixth Chord



A.

g: i iv P₄⁶ It⁶ V[#]
 T — PD ————— D

B. C. P. E. Bach, Flute Sonata no. 6 in G, Wq 134 H548, *Allegro*

g: i V⁶ iv⁶ V_{5/IV}⁶ iv P₄⁶ It⁶ V _____
 T _____ PD _____ D _____

In rarer cases where the PD expansion involves only an augmented sixth chord, the resulting voice exchange is literal, as in Example 24.13. The chord on the downbeat of m. 1 in Example 24.13 is a Ger_5^6 . The chord on beat 3 of that measure sounds like—and contains the same pitches as—a Ger_5^6 , although the pitches have been reordered such that $\sharp\hat{4}$ appears in the bass and $\flat\hat{6}$ in an upper voice. The resulting chord is therefore an inversion of the augmented sixth and is called a **German diminished third chord**.

Since the figure for this chord would be “7,” we label the German diminished third chord as Ger^7 .

EXAMPLE 24.13 Prolonging the Augmented Sixth Chord

i $\frac{6}{5}$ i₄⁶ 7 4
 c: i Ger_5^6 P₄⁶ Ger^7 V
 T — PD ————— D

EXAMPLE 24.14 Part Writing the Ger⁷ Chord

c: $\hat{b}6$ $\hat{5}$ $\hat{\#}4$ $\hat{5}$
 Ger $\frac{6}{5}$ $V \frac{6}{4} - \frac{5}{3}$ Ger⁷ $V \frac{6}{4} - \frac{5}{3}$

The individual voices of this chord behave identically to those in any augmented sixth chord— $\hat{6}$ descends to $\hat{5}$ and $\hat{\#}4$ ascends to $\hat{5}$. But given that the pitches are switched from the traditional Ger $\frac{6}{5}$ arrangement, the voices contract on resolution rather than expand (Example 24.14).

In the first scene of Tchaikovsky's ballet *Sleeping Beauty* (Example 24.15), an extended PD involves IV, ii⁶, and Ger⁷, which Tchaikovsky marks *ff* in m. 72. The diminished third chord returns in m. 76, elaborating the V $\frac{6}{4}$ as its neighbor (see the reduction in Example 24.15B).

EXAMPLE 24.15 Tchaikovsky, *Sleeping Beauty*, scene 1

A.

62
 A: IV $V \frac{3}{4} / ii$ ii $V \frac{3}{4} / ii$

67
 ii 6 $\frac{6}{4}$ $\frac{5}{3}$ (ii) 6 Ger 7 (as CPT)

73
 V Ger 7 (as neigh.) V

B. Tchaikovsky, *Sleeping Beauty* (reduction)

meas: 71 72 73 76 77 78

A: ii^6 Ger^7 V_4^6 Ger^7 $\overset{6}{\underset{4}{-}}$ $\overset{5}{\underset{3}{-}}$
 (PT) (N)

The Augmented Sixth Chord and Modulation: Reinforcement

Because of its half-step tendencies to $\hat{5}$, the augmented sixth chord contains more linear drive toward the dominant than any other PD harmony. Therefore, its appearance *after* a pivot chord is particularly helpful in securing a new key. Listen to Example 24.16.

EXAMPLE 24.16 Haydn, String Quartet in A major, op. 55, no. 1, Menuetto

A:

p	f		p	f	
I	V_3^4	I^6 ii^6 V_5^6 V_{-2}^4	I^6		f
I	(P)	I^6 ii^6 V	V: IV^6	Ger_5^6	V_{4-3}^{6-5} I
T	PD		D		
T	PD		D		T

As the analysis of Example 24.16 shows, the excerpt's two phrases form a contrasting progressive period. The first phrase moves from the opening tonic to the dominant on the downbeat of m. 4. After a brief connective passage (over a passing V_2^4), the second phrase restarts on the tonic and modulates to V.

At first glance, it seems there are two possible pivot chords in the excerpt: the tonic that begins the second phrase (m. 5) and the chord that follows in m. 6. Because the chord in m. 6 functions in only one way—as a Ger_5^6 in the key of E (V)—the tonic is best regarded as the pivot chord. Now we can understand why Haydn began the second phrase with the tonic in first inversion. As a pivot, it becomes IV^6 in the key of V, which smoothly moves by step to the Ger_5^6 in m. 6.

In most modulating passages, composers take special care to make the harmonic motion to the new key as smooth as possible. In situations where composers desire a more striking effect, they often juxtapose radically different chromatic harmonies but then confirm the second tonal area by using the augmented sixth chord.

In Example 24.17, Schubert boldly moves from the tonic D major to F ($\flat\text{III}$) in m. 36. At this point, he reinterprets F major as $\flat\text{VI}$ and converts it into an augmented sixth chord that resolves to V of A (V). (Note that all three types of the augmented sixth chord appear in m. 38 as the alto voice moves by step from C to $\text{G}\sharp$.)

EXAMPLE 24.17 Schubert, *Sonatina in D major for Piano and Violin, op. posth. 137, no. 1, D. 384, Allegro molto*

D:
V: $\begin{matrix} \flat\text{III} \\ \flat\text{VI} \end{matrix}$ -----> +6 ----- V ----- 7

The Augmented Sixth Chord as Pivot in Modulations

You may have already discovered that the It_3^6 is enharmonically equivalent to an incomplete V^7 chord, and the Ger_5^6 , shown in Example 24.18, sounds like a complete V^7 chord.

EXAMPLE 24.18 Sonic Equivalence of Ger_5^6 and V^7

Ger_5^6 in C V^7 in $\text{D}\flat$

Despite the aural similarity between the augmented sixth chords and their V^7 respellings, their distinct functions are based on their resolutions and voice leading.

- An *augmented sixth chord* is a PD chord and leads to dominant. The bass descends by half step to $\hat{5}$, and another voice ascends by half step to $\hat{5}$.
- A V^7 chord is a dominant chord that leads to tonic. The seventh of the chord descends by step as the bass leaps.

But voice leading aside, the two chords are sonically interchangeable, and their identities differ only by one enharmonic pitch. Look again at Example 24.18. See how the only difference between the Ger_5^6 chord in C and the V^7 in D^b is the shift of $F\#$ to G^b ? To take advantage of this enharmonic relationship, composers treat this sonority as a pivot chord. Such **enharmonic reinterpretation** permits certain chromatic modulations, as shown in Example 24.19.

Example 24.19B illustrates how Beethoven's enharmonic reinterpretation allows him to tonicize ^bII effortlessly: A quick modal shift from G major to G minor prepares the Ger_5^6 (mm. 163–165). In m. 167, D^b appears (rather than the previously notated $C\#$). As the chordal seventh of the E^b chord, the D^b resolves by step descent and leads to the restatement of the theme in A^b (^bII).

EXAMPLE 24.19 Enharmonic Pivot: $\text{Ger}_5^6 \rightarrow V^7$

A.

F# = G \flat

Ger $\frac{6}{5}$ = V 7

c minor -----> D \flat major

B. Beethoven, "Rage Over a Lost Penny," op. 129

154

G: V^6_5 I

160

V^4_3 I 6 V^6_5 i $\text{vii}^\circ\frac{6}{5}/V$ Ger $\frac{6}{5}$

cresc.

bII (Ab): Ger $\frac{6}{5}$
V 7 I etc.

Composers do not always notate the Ger_5^6 and the V^7/bII successively in their two forms, as in Example 24.19. Rather, they notate one form, which functions as a pivot chord between the two harmonic areas. Example 24.20 shows how to label such a dual-functioning sonority.

EXAMPLE 24.20 Ger_5^6 as Pivot

c: i Ger $\frac{6}{5}$
V 7 I

Just as the Ger_5^6 and V^7 are enharmonically equivalent, so too are the Ger^7 and V_2^4 chords. Example 24.21 illustrates how these chords can be used interchangeably. In m. 2 of Example 24.21A, the Ger^7 chord (labeled *x*) functions as part of a PD expansion that leads to V . In m. 2 the Ger^7 chord (labeled *y*) expands the dominant through chromatic neighbor motion. Its final appearance in m. 2 (labeled *z*) is sonically identical to its previous statement, but G^\flat appears in the bass, transforming the chord into a V_2^4 of D^\flat (bII). This enharmonic pivot is boxed to show how it secures the tonicization of bII .

EXAMPLE 24.21 Ger^7 as Pivot

A.

i Ger_5^6 P_4^6 Ger^7 V Ger^7 Ger 7
V $_2^4$ I^6 IV V_4^6 $\frac{8-7}{4-3}$ $\frac{5}{3}$ I



B. Tchaikovsky, *Sleeping Beauty*, Pas de Six, "Violente"

Allegro molto vivace

d: V Ger⁷ V Ger⁷ V V₂⁴ bII

Example 24.21B, from Tchaikovsky's *Sleeping Beauty*, contains many examples of modulations using enharmonically respelled Ger⁷ chords. The opening of the "Pas de Six" begins on V of D minor, which is expanded by the Ger⁷ chord in mm. 2 and 4. In m. 6, the chord is respelled as a V₂⁴ of E^b (bII), to which it resolves.

The reverse of this enharmonic reinterpretation is shown in Example 24.22. This procedure is not nearly as common as the move to bII, because the new tonic is $\overset{\flat}{7}$, a scale degree that is rarely tonicized in tonal music.

EXAMPLE 24.22 Enharmonic Pivot: V⁷ → Ger₅⁶

c: i V⁷ V⁸ - $\text{b}7$ i
 b: Ger₅⁶ $\text{b}4$ - $\#$

In Chapter 18, you will remember that it is possible to precede any consonant triad in a key with its own V⁷. With enharmonic reinterpretation, you can now change any of these V⁷s into augmented sixth chords. This transformation provides composers with easy access to both closely and distantly related keys.

EXAMPLE 24.23 Chopin, *Mazurka in B major*, op. 56, no. 1, BI 153

39

B: V⁷/IV
 E^b: (III[#]) Ger₅⁶

Poco più mosso

45

leggiero

V⁸ ————— 7 I I

Listen to Example 24.23. Notice how B major (I) closes the phrase in m. 44. Immediately, a seventh is added to the tonic, creating the aural expectation that it will function as V⁷ in the key of E (IV). Remarkably, this chord is resolved differently: It acts as a Ger₅⁶ moving to the dominant of the new key D[♯] major (III[♯], enharmonically spelled as E^b). The roman numeral analysis below Example 24.23 shows how the pivot functions.

Enharmonic reinterpretation functions just like a pun. Based on traditional syntax, the listener has clear expectations. But a good pun leads the story in an entirely unexpected direction. Consider the following: “I couldn’t understand why the ball was getting bigger and bigger. Then it hit me.”

EXERCISE INTERLUDE

ANALYSIS

24.4 Analytical Snapshots from the Literature

Listen to and then provide roman numerals for the following excerpts, which contain examples of the following techniques:

- converting \flat VI into an augmented sixth chord.
- pre-dominant expansions using augmented sixth or diminished third chords.
- enharmonic modulation using augmented sixth and dominant seventh chords.

A. Mozart, Adagio in C major, K. 356

p *mf*

I I I I

WORKBOOK 1
24.4–24.7

B. Gluck, Chorus, "Bettet den Vater," from *Alceste*, act 1

Musical score for Gluck's Chorus "Bettet den Vater" from *Alceste*, act 1. The score is in C major, 2/4 time, and begins with a forte (*ff*) dynamic. The right hand features a series of chords and arpeggiated figures, while the left hand provides a steady bass line with eighth-note accompaniment.

C. Mendelssohn, "Weh mir!" Ariette, from *Elijah*, no. 18

Andantino

Musical score for Mendelssohn's "Weh mir!" Ariette from *Elijah*, no. 18. The score is in B-flat major, 3/4 time, and begins with a piano (*p*) dynamic. The tempo is marked Andantino. The right hand features a melodic line with slurs and ties, while the left hand provides a harmonic accompaniment with chords and moving bass lines.

D. Beethoven, Andante in F major, WoO 57

Musical score for Beethoven's Andante in F major, WoO 57. The score is in F major, 3/4 time, and begins with a piano (*p*) dynamic. The tempo is marked Andante. The score is divided into two systems. The first system starts at measure 13 and includes dynamics *cresc.*, *decresc.*, *p*, and *pp*. The second system starts at measure 19 and includes dynamics *cresc.* and *sf*. The right hand features a melodic line with slurs and ties, while the left hand provides a harmonic accompaniment with chords and moving bass lines.

Summary of Part 6

With the examination of modal mixture, the Neapolitan chord, and augmented sixth chords, we have completed our study of common-practice harmony. We have seen that mixture is a procedure through which pitches belonging to the parallel mode can be incorporated and—in the cases of $\flat\text{III}$ and $\flat\text{VI}$ —tonicized. Such stabilization is one of the hallmarks of nineteenth-century music. These chromatic third tonicizations, so called because the tonicized keys lie a third away from the tonic, function identically to their diatonic counterparts. Furthermore, these new chromatic harmonies are often connected to an underlying musical narrative, or drama, whether or not a text is present. We learned that these chords can function in vocal music as musical analogues that highlight, clarify, or even expand on a text. Finally, we have seen yet again how counterpoint is a central force behind not only mixture sonorities but also both the Neapolitan and augmented sixth chords.

TERMS AND CONCEPTS

- augmented sixth chord
- chromatic voice exchange
- doubly augmented sixth chord
- enharmonic reinterpretation
- French augmented sixth chord (Fr_3^4)
- German augmented sixth chord (Ger_5^6)
- German diminished third chord (Ger_7)
- Italian augmented sixth chord (It^6)