

Ninth, Eleventh, Thirteenth, and Added-Note Chords

IN THEIR QUEST for more expressive musical means, composers of the Classical and Romantic periods—and in the twentieth century, jazz and rock musicians—gradually enlarged their chordal vocabulary. We are already familiar with some of the chords that make up this expanded harmonic vocabulary, such as the various types of seventh chords and altered chords, which include secondary dominants, mixture chords, the Neapolitan, augmented 6th chords, and embellishing chords. Another means of expanding the harmonic spectrum involved the superimposition of 3rds on top of seventh chords, resulting in **extended tertian harmonies**. Some of these harmonies are present in the typical jazz progression below.

🎵 Example 35.1

C: I^7 IV^9 iv^9 iii^7 V^9/ii ii^{11} V^9 I^{+9}

In all but the fourth chord, at least one additional 3rd is superimposed above each seventh chord, producing a series of **ninth chords**. Locate the interval of the 9th above the root in each sonority; several accented nonharmonic tones are enclosed in parentheses. If we add another 3rd above a ninth, we produce an **eleventh chord**.

In this chapter we will discuss the various types of extended tertian sonorities and list their commercial chord symbols and possible harmonic Roman numeral functions, using C major and C minor as our home keys. Since these sonorities are used extensively in jazz, you should become familiar with their commercial chord symbols, which are found in Appendix 5. This chapter will conclude with some triadic harmonies that contain added notes, such as added 6ths or 9ths.

GENERAL CONSIDERATIONS

The additional stacked 3rds in 9th or 11th chords are dissonant not only to the root but to some of the other chordal members as well. In most cases we will treat these added notes as suspension or neighboring figures, much like the chordal 7ths in seventh chords. These chords usually occur in root position, with the 9th or 11th in one of the uppermost voices. In order for a sonority to be considered a legitimate ninth chord, rather than simply a triad with a suspended or added 9th, it must contain a chordal 7th. Ninth chords normally appear in *five-voice* texture, with each chord member assigned to a different voice part. In four-voice texture, the chordal 5th is usually omitted.

The various forms of ninth chords are classified by the type of triad, 7th, and 9th that appear above a given root. In chord labels, these indications are written in consecutive order. For instance, using C as the root, a major-minor-major (MmM) ninth chord is spelled C E G B \flat D (in commercial chord symbols, C 9); C E G is a major triad, C up to B \flat is a minor 7th, and C up to D is a major 9th. In similar fashion, a major-minor-minor (Mmm) ninth chord is spelled C E G B \flat D \flat . In the commercial chord symbol, a small minus sign is placed directly before the 9 to denote a minor 9th (C $^{-9}$).

DOMINANT NINTH CHORDS

We will begin by examining **dominant ninth chords**—that is, ninth chords that are built on the dominant scale degree. The illustrations use the keys of C major or minor. If the interval of a *major* 9th appears above a V 7 , the

result is a V^9 (a MmM ninth chord), which usually occurs in the major mode (Example 35.2a). If the interval of a *minor* 9th appears above a V^7 , the result is a V^{-9} (a Mmm ninth chord), which usually occurs in the minor mode (Example 35.2b). The pop symbols are G^9 and G^{-9} .

Example 35.2

A. MmM ninth Mmm ninth
 C: V^9 V^{-9}

B. Mmm ninth
 c: V^{-9}

The dissonant 9th (scale degree $\hat{6}$ or $\flat\hat{6}$) usually resolves downward to scale degree $\hat{5}$, either in the same chord (Example 35.3a) or in the tonic triad (Example 35.3b). Ninth chords are typically approached and resolved by a neighboring or suspension figure, as in Examples 35.3c and d.

A. B. C. D. S

C: V^9 V^7 V^9 I c: i (V^{-9}) i c: $ii^{\circ 6/5}$ V^{-9} i

Example 35.3

In Schubert's *Scherzo* (Example 35.4a) two forms of the dominant ninth appear in succession in the bracketed passages. Note that both are prepared by suspension figuration and resolve to $\hat{5}$ over a V^7 . On the other hand, the ninth of the dominant harmony in Tchaikovsky's *Nutcracker* is treated as a neighbor $\hat{5}$ - $\hat{6}$ - $\hat{5}$ (Example 35.4c and d).

Example 35.4

⊗ A. SCHUBERT: SCHERZO IN B-FLAT MAJOR, D. 593

B. (REDUCTION)

Bb: I IV 9 $\flat 9$ S I

⊗ C. TCHAIKOVSKY: *THE NUTCRACKER*, ACT I, NO. 5

D. (REDUCTION)

F: I (V⁹) I

Another way of approaching the ninth involves arpeggiation up through the dominant chord, leaping to the ninth in the manner of an appoggiatura. Compare the three examples of the procedure in these passages from the Baroque, Classical, and Romantic periods.

Example 35.5

- ⊗ A. BACH(?): MINUET IN D MINOR FROM ANNA MAGDALENA BACH'S *NOTEBOOK*, BWV ANH. II:132

d: V⁷ i

- ⊗ B. KUHHLAU: SONATINA IN C MAJOR, OP. 20, NO. 1, II

F: V V⁷ V⁹

⑦ C. WAGNER: *GÖTTERDÄMMERUNG*, ACT I

A musical score for piano accompaniment in 3/4 time. The right hand features a complex melodic line with a triplet of eighth notes and a trill. The left hand provides a harmonic accompaniment with sustained chords and moving bass lines.

D. (REDUCTION)

A reduction of the piano accompaniment from the previous example. It shows the essential harmonic structure with chord labels: C: I, V⁷, (9), and V⁷.

By the middle of the nineteenth century, composers used prolonged dominant ninths quite frequently. Franck's Violin Sonata daringly opens with various inversions of an extended V^9 that does not resolve to the tonic until measure 8 (Example 35.6a). Wagner often lingered on this same chord, as his initial presentation of Brünnhilde's motif illustrates (Example 35.6b).

Example 35.6

⑦ A. FRANCK: VIOLIN SONATA IN A MAJOR, I

A musical score for piano accompaniment in 3/4 time, showing a prolonged dominant ninth chord in A major. The right hand has a simple melodic line, while the left hand has a more complex accompaniment. An arrow labeled 'A: V⁹' points to the first measure.

Example 35.7a shows a musical score with a melody line and piano accompaniment. The key signature has two sharps (F# and C#). The piano accompaniment consists of sustained chords. The chord symbols below the piano part are: V^9 , (ii) , V^9 , and I with the notes 6 and 5 written below it.

Ⓣ B. WAGNER: PROLOGUE TO *GÖTTERDÄMMERUNG*, ACT I (BRÜNNHILDE'S MOTIVE)

Example 35.7b shows Wagner's Prologue to *Götterdämmerung*, Act I (Brünnhilde's motive). The score is in B-flat major (Bb:). It features a melody line and piano accompaniment. The piano accompaniment includes sustained chords. The chord symbols below the piano part are: $Bb: V^7$ and V^9 . A long horizontal arrow is drawn below the piano part, indicating a sustained or moving bass line.

NON-DOMINANT NINTH CHORDS

Since **non-dominant ninth chords** lack a tritone in their makeup, they cannot function as dominants. Two types are encountered most frequently. Examples of the minor-minor-major (mM) ninth chord, called Cm^9 in commercial chord symbols, may be found as the ii^9 (D F A C E) and vi^9 (A C E G B) of a major key, or the iv^9 (F A \flat C E \flat G) and i^9 (C E \flat G B \flat D) of a minor key (Example 35.7a). The major-major-major (MMM) ninth chord, expressed as $C^9(M^7)$ in commercial chord symbols, is limited largely to the major key, occurring as I^9 (C E G B D) or IV^9 (F A C E G), as shown in Example 35.7b. The so-called “augmented 9th” chord is less

common; it is a dominant seventh with an augmented 9th (G B D F A \sharp = V $^{+9}$ or G $^{+9}$), but the ninth is often notated enharmonically as a minor 10th, B \flat rather than A \sharp . This “bluesy” sonority contains two different thirds, B \flat and B \sharp . A good example of this chord may be found in measure 5 of Example 42.1.

Example 35.7

A. B. C.

C: ii 9 vi 9 c: i 9 iv 9 C: I 9 IV 9 V $^{+9}$

Ravel was fond of using non-dominant ninths in some of his slow movements. In the middle movement of his *Sonatine* for piano, most of the ninths resolve downward by step (Example 35.8). Roman numerals are provided in this sequence of roots descending by 5ths. Identify the chord type of each ninth chord. The use of a minor dominant gives the cadence a pronounced modal flavor.

Example 35.8

♪ RAVEL: SONATINE, II

f: i 9 iv 9 V 9 /III III 7 VI 7 ii $^{\circ 7}$ v i

Now go back to Example 35.1 and identify the various types of ninth chords. Can you find any parallel 5ths between measures 2 and 3? Although the treatment of 7ths and 9ths is rather conservative in this example, sometimes in jazz they are used freely, with little regard for traditional approach and resolution.

ELEVENTH AND THIRTEENTH CHORDS

Although freestanding eleventh and thirteenth chords occur frequently in 20th-century literature, in the Romantic period most of these sonorities are best explained in terms of nonharmonic activity. Like ninth chords, **eleventh chords** occur in both dominant and non-dominant functions. In the first category, a perfect 11th may be suspended over a dominant ninth in a major key, resulting in a V^{11} (G [B] D F A \bar{F} or G^{11}); the 11th usually resolves to the 10th over the same harmony as $11 \rightarrow 10$, similar to a compound $4 \rightarrow 3$ (Example 35.9a). When the 11th is suspended over a minor 9th chord in a minor key (G [B] D B A \flat C), we enclose the minor 9th in parentheses— $G^{11} (^{-9})$ and $V^{11} (^{-9})$, as shown in Example 35.9b.

In both forms of the V^{11} , you may have noticed that the chordal 3rd was enclosed in brackets. This chord member is normally omitted, since it is the resolution note of the suspended 11th and produces a harsh clash with that tone: G () D F A C \rightarrow (B). Since this eleventh chord almost always includes a 7th and 9th, it is difficult to find it in four-voice texture. In such cases, both the 3rd and 5th have to be omitted (Example 35.9c).

Example 35.9

A. B. C.

C: V^{11} c: $V^{11} (^{-9})$ C: V^{11}

In the second act of his opera *Die Meistersinger*, Wagner superimposes the open strings of Beckmesser's lute, which has the same tuning as a guitar, over an A^2 to produce a V^{11} . Notice in Example 35.10a that the 11th resolves in the next measure (D-C \sharp), producing a V^7 in D major. On the other hand, the 11th (C 5) in the prolonged dominant of the Grieg excerpt (Example 35.10b) completely avoids the expected resolution to B $^+$.

Example 35.10

- Ⓐ A. WAGNER: BECKMESSER'S SERENADE FROM *DIE MEISTERSINGER*, ACT II

- Ⓑ B. GRIEG: PIANO CONCERTO, I

Examples of so-called “augmented 11th” chords are less common (in C major, $G B D F A C\sharp = V^{+11}$ or G^{+11}); note that the 3rd (B) is now retained. These chords function as quasi-dominants or dominant substitutes (see measure 3 in Example 35.11b). Non-dominant elevenths are usually mmM ninth chords with a superimposed perfect 11th (in C major, $D F A C E G = ii^{11}$ or Dm^{11}). They are generally restricted to the supertonic function and are usually complete. Examples may be found in the excerpts by Ravel and Victor Young in Example 35.11.

Examples of legitimate **thirteenth chords** are extremely rare in music before 1900. Because they contain six different pitches, multiple alterations are possible in thirteenths. We will mention four basic types with their commercial chord symbols, spelled in C major: (1) the G^{13} , G (B) D F A C E with B omitted, which usually occurs as a V^{13} ; (2) the Dm^{13} , D F A C E G B, which usually occurs as ii^{13} ; (3) the G^{13-9} , G (B) D F $A\flat$ C E, normally a V^{13-9} ; and its minor form $G^{-13(-9)}$, G (B) D F $A\flat$ C $E\flat$, normally a $V^{-13(-9)}$ (Example 35.11).

Example 35.11

A. B. C. D.

G: V^{13} ii^{13} $V^{13(-9)}$ $V^{-13(-9)}$

Although the Ravel passage (Example 35.12a) appears to follow twentieth-century compositional techniques, its tonal language is completely diatonic. The bridge from Victor Young's haunting ballad in the movie *The Uninvited*, shown in reduction in Example 35.12b, contains several 11th and 13th chords, all of which resolve downward by proper stepwise motion.

Example 35.12

- ⊙ A. RAVEL: "RIGAUDON" FROM *TOMBEAU DE COUPERIN*

G: IV^7 ii^{11} V^{13} I

- ⊙ B. VICTOR YOUNG: "STELLA BY STARLIGHT" (REDUCTION)

G: I^7 $V^{13(-9)}/ii$ ii^{11} $bVII^{+11}$ $I^9(MAJ7)$
(functions as a dominant)

Sometimes in the common-practice period we may encounter a sonority which appears to be an incomplete dominant thirteenth chord, with its 9th and 11th missing (in C major, G B D F plus E). In reality, this chord is nothing more than a V^7 with a melodic 6–5 over the root (Example 35.13a). Occasionally the chordal 5th (scale degree $\hat{2}$) may be missing altogether (Example 35.13b), giving rise to our pseudo-13th chord. In fact, nonharmonic linear motion is probably the best explanation for most of the seemingly weird harmonies one finds in the Late Romantic period. For instance, in Cecile Chaminade's *Air de Ballet*, the final cadence contains several unusual sonorities, marked with arrows in Example 35.13c. The reduction in Example 35.13d suggests that these sonorities are the result of a $vii^{o7}/ii-ii^7-V^7-I$ progression over a dominant D pedal, with several of the resolutions missing, as indicated by the notes in parentheses.

Example 35.13

A.

6 5
C: V^7 I

B.

C: ii^7 V^7 I

⑦ C. CECILE CHAMINADE: *AIR DE BALLET*, OP. 30

D. (REDUCTION)

G: $\frac{6}{4}$ (vii^{o7}/ii) ii^7 V^7 I

Although the 6-5 over the dominant also occurs in the Bizet quotation (Example 35.14a), the harmonies on the third beat of measures 21 and 22 are eleventh chords that are created by neighboring motion, as shown in the reduction (Example 35.14b). Note the distinction between stemmed and unstemmed note-heads in this and the preceding examples. In summary, remember that in most cases the chordal 9th, 11th, and 13th above the root are treated as dissonant embellishing tones.

Example 35.14

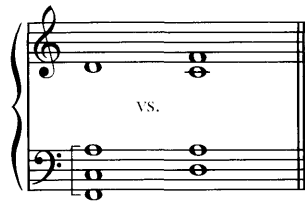

⊗ A. BIZET: MICAELA'S ARIA FROM *CARMEN*, ACT III

B. (REDUCTION)

ADDED NOTES: 6THS AND 9THS

In Chapter 17 we discussed 5-6 or 6-5 linear motion above the tonic triad or tonic root. An example of the melodic motion occurs in measure 8 of the earlier Franck excerpt (Example 35.6a). It is also possible to add a major 6th to an existing major tonic triad so that the **added 6th** forms part of the essential harmony. The chordal spacing in Example 35.15a suggests an F major triad with an added 6th (F A C D, or I^{add6}), rather than a minor seventh chord over D (D F A C). Compare this model to the chord in the Wagner excerpt (Example 35.15b).

Example 35.15

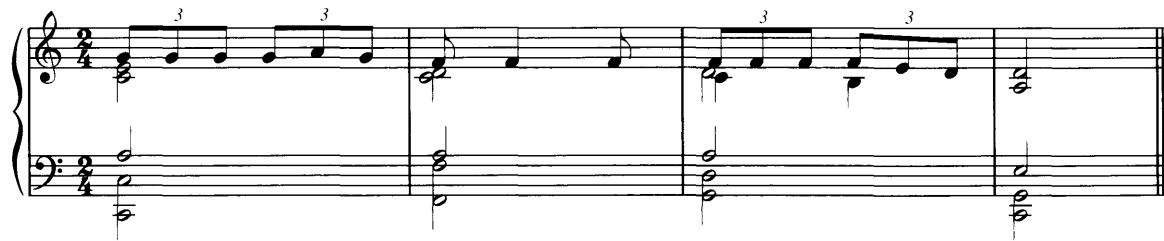
A.  vs. 

B. WAGNER: RHINEMAIDENS' SCENE FROM *GÖTTERDÄMMERUNG*, ACT III

F: I^(add6) 3

We may also add a major 9th to a triad (C E G D, or I^{add9}). Do not confuse this **added 9th** with a ninth chord, since no chordal 7th is present. The addition of a 6th or 9th is not confined to tonic harmony alone. Analyze the cadential progression shown in Example 35.16, identifying any added-note chords.

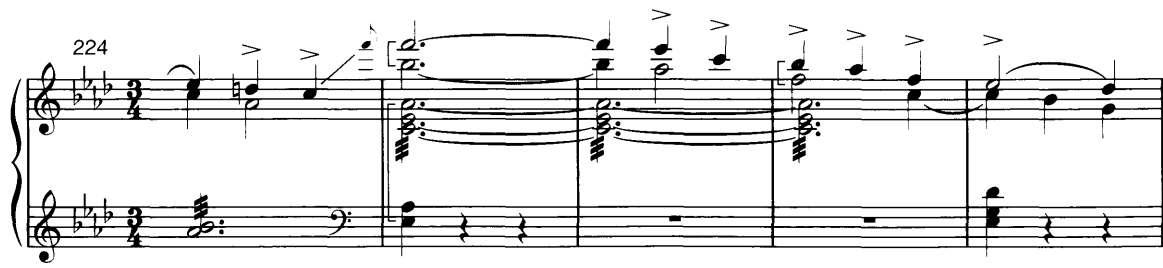
Example 35.16



Adding both a major 6th and major 9th to a major triad (C E G A D, or I^{add6,9}) produces a harmony with a distinctly *pentatonic* flavor. Study the two excerpts from Mahler's *Das Lied von der Erde* in Example 35.17.

Example 35.17

A. MAHLER: *DAS LIED VON DER ERDE*. I

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6 (add 6 and 9) 7

Ab: (V⁷/V) V

7 B. MAHLER: *DAS LIED VON DER ERDE*, V

571

The climactic harmony in the second measure of Example 35.17a is an $A\flat_4^6$ chord to which is added a 9th ($B\flat^5$) and a 6th (F^6) in the upper voices; both resolve stepwise to the chordal $A\flat$ and $E\flat$ by parallel 5ths in the following measure, only to reappear once more before the A_4^6 eventually moves to the V_7^6 in the last bar. Although both the 9th and the 6th may be explained as dissonant embellishing tones, their extended length gives them a kind of chordal status. Since this colossal five-movement work continually shifts be-

Summary of Extended Tertian Sonorities

1. Harmonic sonorities involving appendages of thirds beyond seventh chords (such as ninth, eleventh, and thirteenth chords) are typically found in five- (or more) voice texture and tend to feature root position, with the higher “partials” occurring in the upper voices.
2. The harmonic function of these chords is largely dependent on the presence or absence of a tritone in their makeup. Those containing a tritone normally function as some form of dominant (such as V_7^9), while those lacking a tritone tend to have a tonic or pre-dominant function (such as $I^{9(M7)}$ or ii^{11}).
3. The preparation and resolution of the upper dissonances (such as the 9th or 11th) are often dependent on the historic style of the music in question.
4. In commercial chord symbols 9 = major 9th, $^{-9}$ = minor 9th, and $^{+9}$ = aug 9th. Thus a Dm^9 is D F A C E, where the “m” stands for the type of triad and the 9 for a major 9th; a $m7$ th is always assumed unless otherwise indicated.
5. Adding a major 6th (add6) or a major 9th (add9) or both (add6,9) to a major tonic triad imparts a distinctive pentatonic flavor.

tween the key centers of A minor and C major, it is not surprising to find that the last movement's final C-major triad (Example 35.17b) contains an added 6th (A). This may be Mahler's attempt to reconcile both keys into one chord—C E G and A C E.

While some composers from the late-nineteenth to the mid-twentieth century, especially in the field of jazz, continued to exploit more complex altered versions of extended tertian sonorities, other composers abandoned the tradition of building chords by thirds altogether and substituted other intervals as their principal components.

Terms and Concepts for Review

extended tertian sonorities
ninth chords
dominant ninth chords
non-dominant ninth chords
preparation and resolution of
ninth chords

eleventh chords
the suspended 4th in eleventh
chords
thirteenth chords
6-5 or 5-6 in V^7 chords
added 6ths and 9ths

A BRIEF REVIEW SELF-QUIZ

1. Analyze the harmonies in the following passage, first providing appropriate Roman numerals in the two keys that are marked.

Example 35.18

The musical score for Example 35.18 consists of two systems of music. The first system is in B-flat major (one flat) and the second system is in A-flat major (two flats). The melody is in the right hand, and the accompaniment is in the left hand. The left hand features a steady bass line with chords. Brackets under the left hand indicate the key signatures: Bb for the first system and Ab for the second system.