

APPENDIX II

Cadences

The subject of the cadence runs throughout the current study. Emphasis is placed on its intrinsic metric and harmonic-contrapuntal quality rather than on its function within the structure of a composition. An understanding of this aspect may be provided by structural analysis.

This appendix brings together all the information concerning the cadence that is spread among the different chapters. It starts with the two-part cadence, which consists of two voices that achieve their goal (the tonic) by stepwise motion. Subsequently, the various types of three-part cadence are juxtaposed. An important distinction here concerns the bass that can achieve its tonal goal by stepwise motion or by means of a ⑤–① leap. Finally, the appendix presents the four-part cadence as the completion of the three-part cadence. The fourth voice may be seen as a supplement to the three-part framework, even though the four-part cadence became normative during the course of the eighteenth century.

THE TWO-PART CADENCE

Example II.1 shows a number of two-part *perfect* cadences. “Perfect” implies a close on the tonic in both voices. The figured-bass numerals and the circled numerals label the essential components of the cadences. The following list provides concise descriptions of each cadence; they apply to both major and minor.

EXAMPLE II.1 The two-part perfect cadence

C major

A minor

6 8 3 1 8 7—6 8 3 2—3 1
 ② ① ⑦ ① ① ② ① ① ⑦ ①

6# 8 3 1 6 7—6# 8 1 2—3 1
 ② ① ⑦# ① ③ ② ① ① ⑦# ①

- Simple cadence with 6–8 interval progression (6 \sharp –8 in the minor mode). Traditionally the ②–① step has been attributed to the tenor. In early polyphonic styles up to the sixteenth century, the tenor (from Lat. *tenere*, i.e., to hold) often performs a well-known tune (the *cantus firmus*), which usually ends with a step down to the *finalis*. This cadence pattern is therefore called a *tenor cadence*.
- Simple cadence with 3–1 interval progression. The ⑦–① leading-tone resolution (⑦ \sharp –① in the minor) has traditionally been given to the discant (or soprano). For this reason this type of cadence is called a *discant cadence*.
- Compound tenor cadence with 7–6–8 (7–6 \sharp –8 in minor) progression. Note the suspension pattern in the upper voice.
- Compound discant cadence with 2–3–1 progression. Note the suspension pattern in the lower voice.

EXAMPLE II.2 The two-part imperfect cadence

C major

A minor

1 2–3 3 6 7–6 6 3 2–3 3 6 7—6# 6
 ① ⑦ ① ③ ② ③ ① ⑦# ① ③ ② ③

Example II.2 shows the *imperfect* cadence. “Imperfect” implies an upper voice that closes on $\hat{3}$ or a lower voice that closes on $\textcircled{3}$. The descriptions below apply to both major and minor cadences.

- Imperfect compound cadence ending with interval progression 2–3–3. The upper voice closes on $\hat{3}$. Note the suspensions in the lower voice: this suspension pattern implies a discant cadence.
- Imperfect compound tenor cadence ending with interval progression 7–6–6 (7–6 \sharp –6 in minor). The lower voice closes on $\textcircled{3}$. Note the suspensions in the upper voice. The $\textcircled{2}$ – $\textcircled{3}$ bass step may be seen as a variation of the normative $\textcircled{2}$ – $\textcircled{1}$; both cadences may be considered as tenor cadences.

EXAMPLE II.3 The double cadence

Example II.3 shows two variants of the double cadence. Variant a (C major) shows a simple cadence (3-3) followed by a compound cadence (2-3-1). Variant b (A minor) shows a simple cadence (3 \sharp -4 \sharp -6) followed by a compound cadence (7-6 \sharp -8). Both variants show a twofold leading-tone resolution in the lower voice, indicated by oblique lines.

Example II.3 shows two variants of the *double cadence*, which implies a succession of a simple and a compound cadence. A crucial feature of the double cadence is the twofold leading-tone resolution; see the oblique lines.

- Double cadence with twofold leading-tone resolution in the lower voice. Note that the simple cadence “ends” on $\textcircled{1}$ on a weak beat; this tone is the preparation of the following suspension at the same time.
- Double cadence with twofold leading-tone resolution in the upper voice. The augmented fourth D–G \sharp in bar 2 causes an additional suspension pattern.

THE THREE-PART CADENCE

Roughly speaking, there are two types of three-part cadence. The first is the tenor cadence, based on the $\textcircled{2}$ – $\textcircled{1}$ step in the lowest voice. The second type is based on the $\textcircled{5}$ – $\textcircled{1}$ bass leap, which can be a falling fifth or a rising fourth. All variants can be perfect or imperfect on the one hand, and simple, compound, or double on the other. Let us first focus on the three-part tenor cadence.

EXAMPLE II.4 The three-part tenor cadence

C major

A minor

Example II.4 shows the perfect tenor cadence: both bass and upper voices end on the tonic. The final $\frac{8}{3}$ chord on ① may be considered as an incomplete $\frac{5}{3}$ chord. The penultimate sound of each example is a diminished $\frac{6}{3}$ chord (see Appendix I) in the major as well as the minor mode. This chord is treated as a consonance; see for instance example (b), in which the $\frac{6}{3}$ chord on ② results from the resolution of the preceding $\frac{7}{3}$ chord.

- Simple tenor cadence. The final chord progression is $\frac{6}{3}-\frac{8}{3}$. (The figured-bass numerals label the final chord as an incomplete $\frac{5}{3}$ chord.)
- Compound cadence. Note the suspension pattern in the upper voice. The final chord progression is $\frac{7}{3}-\frac{6}{3}-\frac{8}{3}$.
- Double cadence with twofold leading-tone resolution in the upper voice; see the oblique lines. The final chord progression is $\frac{7}{3}-\frac{6}{3}-\frac{8}{3}$.

EXAMPLE II.5 The Phrygian half cadence

A minor

A particular variant of the three-part tenor cadence is the *Phrygian cadence*, shown in example II.5. This variant occurs exclusively in the minor mode. The closing ⑥–⑤ step is a half tone, which recalls the half-tone step ②–① of the Phrygian mode. Due to its close on ⑤ the Phrygian cadence acts as a *half cadence*. The half cadence ends on the penultimate sound of the cadence, so to speak: the final tonic is missing.

- Compound Phrygian half-cadence, Baroque style. Frequently this variant closes the slow movement of a Baroque sonata, as an “upbeat” to the following fast movement. The step-wise descending motion from ① to ⑤ ends with a compound cadence pattern.
- Compound Phrygian half-cadence, Classical style. The augmented sixth F–D# (*) replaces the major sixth F–D of example (a). The raised sixth (i.e., 4# of the key A minor) causes the augmented $\frac{6}{3}$ chord. The chord creates a powerful close on the dominant, for instance at the end of a transition section.

EXAMPLE II.6 The cadence ending on ⑤–①

C major

a.  b.  c.  d. 

(5) 5 (5) (5) 5 (5) 5 5 5 (5) 5 5 5 (5)
 ① ⑤ ① ① ⑤ ① ① ⑤ ① ① ⑤ ①

A minor

a.  b.  c.  d. 

(5) 5 (5) (5) 5 (5) 5 6 5 (5) 6 (5) 5 (5)
 ① ⑤ ① ① ⑤ ① ① ③ ⑤ ① ③ ① ⑤ ①

In principle, each cadence in example II.6 is based on a ①–⑤–① bass. The bass leap has been highly normative since the end of the fifteenth century; for this reason no distinct term (for instance, “bass cadence”) is used. Complete and incomplete chords alternate. Note that the $\frac{5}{3}$ chord on ⑤ is always complete.

- Perfect simple cadence. The nature of the leaping bass is harmonic rather than melodic: it divides the octave into a fifth and a fourth. For this reason a rising fifth may replace the falling fourth ①–⑤, and a rising fourth the falling fifth ⑤–①: this does not modify the cadence essentially. Note the parallel sixths in the two upper voices.
- Imperfect simple cadence. The minor-mode cadence offers a version that can serve well as an opening gesture because of its energetic upper voice $\hat{1}-\hat{2}-\hat{3}$.

- c. Perfect compound cadence. The ⑤ supports a dissonant $\frac{5}{4}$ and a consonant $\frac{5}{3}$ chord. Note that the two upper voices perform a 7–6–8 interval progression, in accordance with the two-part compound cadence. The 7–6 resolution is a 4–3 resolution on the bass at the same time.
- d. Imperfect compound cadence. The suspension sounds in the middle voice.

EXAMPLE II.7 The compound cadence ending on ④–⑤–①

C major

a. $\frac{5}{3}$ ① $\frac{6}{5}$ — $\frac{5}{3}$ ④ ⑤ $\frac{(5)}{3}$ ① $\frac{5}{3}$ ① $\frac{6}{(3)}$ ③ $\frac{6}{5}$ — $\frac{5}{3}$ ④ ⑤ $\frac{(5)}{3}$ ①

b. $\frac{5}{3}$ ① $\frac{6}{(3)}$ ③ $\frac{6}{5}$ — $\frac{5}{3}$ ④ ⑤ $\frac{(5)}{3}$ ①

A minor

a. $\frac{5}{3}$ ① $\frac{6}{5}$ — $\frac{5}{3\sharp}$ ④ ⑤ $\frac{(5)}{3}$ ① $\frac{5}{3}$ ① $\frac{6}{(3)}$ ③ $\frac{6}{5}$ — $\frac{5}{3\sharp}$ ④ ⑤ $\frac{(5)}{3}$ ①

b. $\frac{5}{3}$ ① $\frac{6}{(3)}$ ③ $\frac{6}{5}$ — $\frac{5}{3\sharp}$ ④ ⑤ $\frac{(5)}{3}$ ①

Example II.7 shows the variant of the compound cadence that is based on the ①–④–⑤–① bass motion.

- a. Perfect compound cadence with $\frac{6}{5}$ on ④. Similar to example II.6(c) the upper voice performs a 7–6 suspension together with the middle voice. The bass step ④–⑤ supports this pattern. Note that the soprano suspension forms a consonant perfect fifth with the bass.
- b. Imperfect compound cadence with $\frac{6}{5}$ on ④. Similar to example II.6(d) the middle voice performs a 2–3 suspension together with the upper voice.

EXAMPLE II.8 The three-part double cadence

C major

a. $\frac{5}{3}$ ① $\frac{6}{(3)}$ ③ $\frac{5}{3}$ ⑤ $\frac{6}{4}$ $\frac{5}{4}$ — $\frac{5}{3}$ $\frac{(5)}{3}$ ①

b. $\frac{6}{3}$ ⑦ $\frac{6}{3}$ ⑥ $\frac{7}{3}$ — $\frac{6}{4}$ ⑤ $\frac{5}{4}$ — $\frac{5}{3}$ ①

simple compound double cadence simple compound double cadence

EXAMPLE II.8 Continued

a. A minor

b.

Example II.8 shows the three-part double cadence, which adds a sustained ⑤ to the two-part framework given in example II.3. The sustained bass acts as a pedal point that supports four distinct sounds. The ascending oblique lines indicate the twofold leading-tone resolutions.

- a. Perfect double cadence. The first stage of the sustained ⑤ is the progression $\frac{5}{3} - \frac{6}{4}$. Since the $\frac{6}{4}$ chord hints at the tonic, the progression suggests a weak simple cadence. At the same time the $\frac{6}{4}$ chord provides the preparation for the next suspension. The second stage is the resolution of this suspension, resulting in the compound progression $\frac{5}{4} - \frac{5}{3}$.
- b. Perfect double cadence with twofold suspension pattern. The “simple” stage of ⑤ includes a first suspension pattern. In C major this results in the resolution of the diminished fifth B–F (*) into the major third C–E, and in A minor in the augmented fourth D–G# (*) into the major sixth C–A. The oblique lines indicate these resolutions. Note that this procedure implies the progression $\frac{7}{3} - \frac{6}{4}$. The seventh is prepared as normal. The “compound” stage of the double cadence is in accordance with example (a).

EXAMPLE II.9 The Galant cadence

a. C major

b.

c.

a. A minor

b.

c.

Example II.9 shows the *Galant cadence*. The two upper voices move largely in parallel sixths or thirds over the ④–⑤–① bass.

- Perfect simple Galant cadence. The upper voices essentially move in parallel sixths. This results in an incomplete $\frac{6}{3}$ chord (with the third missing) on ④. The cadence is simple because of the consonant $\frac{5}{3}$ chord on ⑤.
- Perfect compound Galant cadence. The upper voices move stepwise in parallel sixths. The stepwise motion results in a $\frac{6}{4}$ chord on ⑤. This chord is conceived as a dissonant chord with a double resolution 4–3 and 6–5; see the oblique lines. The $\frac{6}{4}$ chord occurs on the strong beat and the subsequent $\frac{5}{3}$ chord on the weak beat. The fourth and the sixth are accented passing tones.
- Imperfect compound Galant cadence. The parallel sixths of example (b) are inverted into parallel thirds.

EXAMPLE II.10 The Neapolitan cadence

The musical score for Example II.10 is in A minor and consists of three parts: a. Simple Neapolitan cadence, b. Compound Neapolitan cadence, and c. Compound Neapolitan cadence with inverted parallel thirds. The score shows two staves (treble and bass clef) with notes and rests. Below the staff, figured bass notation is provided for each measure, including chord symbols like $\frac{5}{3}$, $\frac{6}{3}$, $\frac{5^b}{3^\#}$, and $\frac{6}{4}$. Measure numbers 1 through 8 are indicated below the figured bass.

The *Neapolitan cadence*, shown in example II.10, is a particular variant of the Galant cadence. Its striking feature is the lowered $\hat{2}$, which recalls the Phrygian mode. The cadence occurs mainly in the minor mode; major-mode occurrences are relatively rare.

- Simple Neapolitan cadence. The “Neapolitan” $\hat{2}$ (the B^b in bar 2) falls by a diminished third to the leading tone (the $G^\#$). This melodic pattern is called the *Neapolitan turn*. Note the chromatic cross relation between B^b in the upper voice and B^\natural in the middle voice.
- Compound Neapolitan cadence. The diminished third B^b – $G^\#$ is filled by the accented passing tone A, which results in the $\frac{6}{4}$ chord on ⑤. Remind that $\frac{6}{4}$ always occurs on the strong beat.
- Compound Neapolitan cadence. The parallel sixths of example (b) are inverted into parallel thirds. Consequently, the Neapolitan turn occurs in the middle voice.

Example II.11 shows the *deceptive cadence*, which means that the penultimate ⑤ does not proceed to the expected ① but to an alternative scale degree. Often this concerns the bass step ⑤–⑥.

EXAMPLE II.11 The deceptive cadence

a. C major

b.

a. A minor

b.

- Deceptive compound cadence. Bars 1–2 strongly suggest a final $\frac{5}{3}$ chord on ①. Instead the bass moves to ⑥. The two upper voices close with a 3–1 interval progression; see the oblique lines. The upper voice has to step down: a step up (D–E in C major or B–C in A minor) would cause parallel fifths with the bass.
- Deceptive compound Galant cadence. The upper voices close with a 6–8 interval progression.

THE FOUR-PART CADENCE

The four-part cadence does not differ essentially from the three-part cadence. All three-part cadences have their four-part equivalents. Evidently, the added fourth voice completes chords and provides a richer sound. Instead of presenting all cadence types again, this section discusses some features that are typical of four-part harmony.

EXAMPLE II.12 The four-part simple cadence

a. C major

b.

a. A minor

b.

An important issue of four-part harmony is the doubling of tones. In the simple cadences exposed in example II.12, all bass tones are doubled.

- a. Perfect simple cadence in close position. All voices perform their most natural patterns: the bass $\hat{1}-\hat{5}-\hat{1}$, the soprano $\hat{1}-\hat{7}(\#)-\hat{1}$ (the discant pattern), the tenor $\hat{3}-\hat{2}-\hat{3}$ (as a variation of $\hat{3}-\hat{2}-\hat{1}$), and the alto the static $\hat{5}-\hat{5}-\hat{5}$. Therefore this cadence may be regarded as the standard version of the four-part simple cadence. Note that all $\hat{5}_3$ chords are complete.
- b. Imperfect simple cadence in open or spread position. The tenor and the soprano have changed places, so the soprano follows the tenor pattern $3-\hat{2}-\hat{3}$ and the tenor the discant pattern $\hat{1}-\hat{7}(\#)-\hat{1}$.

EXAMPLE II.13 The four-part compound cadence

The musical score for Example II.13 consists of two systems, 'a' and 'b', each with two sub-sections. System 'a' is in C major and system 'b' is in A minor. Each sub-section shows a four-part setting with soprano, alto, tenor, and bass staves. Chord symbols and figured bass notation are provided below the staves.

System a (C major):
 Sub-section 1: Chords $\frac{6}{3}$ (③), $\frac{7}{4}-\frac{5}{3}$ (⑤), $\frac{5}{3}$ (①).
 Sub-section 2: Chords $\frac{6}{3}$ (③), $\frac{6}{3}-\frac{5}{3}$ (④), $\frac{5}{3}$ (①).

System b (A minor):
 Sub-section 1: Chords $\frac{5}{3}$ (①), $\frac{5}{4}-\frac{5}{3\#}$ (⑤), $\frac{5}{3}$ (①).
 Sub-section 2: Chords $\frac{6}{3}$ (③), $\frac{6}{3}-\frac{5}{3\#}$ (④), $\frac{5}{3}$ (①).

Example II.13 shows the compound cadence, in which all voices perform their most natural patterns.

- a. Perfect compound cadence with $\frac{5}{4}$ on ⑤. The passing tone (pt) produces a new, stereotypical alto pattern $\hat{5}-\hat{4}-\hat{3}$. This pattern results in a dominant $\frac{7}{3}$ chord on ⑤ and an incomplete $\frac{5}{3}$ chord on ①. The oblique lines indicate the resolution of the augmented fourth into the sixth.
- b. Perfect compound cadence with $\frac{6}{3}$ on ④. The alto follows the pattern $\hat{5}-\hat{6}-\hat{5}-\hat{4}-\hat{3}$; the passing tone appears as a quarter note, which makes the dominant $\frac{7}{3}$ more transient than in example (a).

EXAMPLE II.14 The tenor cadence (a), the discant cadence (b), and the alto cadence (c)

The musical score for Example II.14 consists of three sections, 'a', 'b', and 'c', all in C major. Each section shows a four-part setting with soprano, alto, tenor, and bass staves. Chord symbols and figured bass notation are provided below the staves.

Section a (Tenor cadence): Chords $\frac{6}{3}$ (③), $\frac{7}{3}$ (②), $\frac{6}{3}$ (③), $\frac{5}{3}$ (①).

Section b (Discant cadence): Chords $\frac{5}{3}$ (①), $\frac{6}{4}$ (②), $\frac{6}{3}$ (⑦), $\frac{5}{3}$ (①).

Section c (Alto cadence): Chords $\frac{6}{3}$ (③), $\frac{5}{3}$ (⑤), $\frac{6}{4}$ (④), $\frac{6}{3}$ (③).

EXAMPLE II.14 Continued

Figure 1: Musical score for Example II.14 Continued. The score is in A minor and consists of three parts: a, b, and c. Part a shows a compound tenor cadence with bass notes G3, F3, and E3. Part b shows a compound discant cadence with bass notes G3, F3, and E3, with a suspension on F3. Part c shows a simple alto cadence with bass notes G3, F3, and E3. The figured bass notation below the bass staff is: 6/3, 7/3, 6#/3, 5/3, 5/3, 6/4/2, 6/3#, 5/3, 6/3, 5/3#, 6/4/2, 6/3.

Example II.14 shows three cadence types with different bass patterns. None of these cadences are powerful enough to close a composition or even a section, but they may mark the beginning or end of a phrase or part of it.

- Compound tenor cadence. The bass follows the cadential pattern ③–②–① that is typical of the tenor (compare the tenor in example II.13). The tenor cadence can occur as the (rather weak) end of a phrase.
- Compound discant cadence. The suspension pattern, more typical in the soprano, sounds in the bass (compare the soprano in example II.13). The discant cadence frequently acts as the opening gesture of a composition.
- Simple alto cadence. The bass follows the alto pattern ⑤–④–③ (compare the alto in example II.13). The alto cadence is the weakest cadence type; often it is followed by a more powerful cadence.

EXAMPLE II.15 The deceptive cadence

Figure 2: Musical score for Example II.15 The deceptive cadence. The score is in C major and A minor and consists of two parts: a and b. Part a shows a deceptive compound cadence in C major with bass notes G3, F3, and E3. Part b shows a deceptive Neapolitan cadence in A minor with bass notes G3, F3, and E3. The figured bass notation below the bass staff is: 5/3, 5/3, 6/3, 5/3, 5/3, 6/3, 6b/3, 6/4, 7/3#, 5/3.

Example II.15 shows the four-part deceptive cadence. Both examples end with a ⑤–⑥ bass step.

- Deceptive compound cadence. The passing tone at the end of bar 2 gives rise to a transient dominant $\frac{7}{3}$ chord. The augmented fourth F–B resolves into the minor sixth E–C. Apart from the bass, all the voices follow their most natural patterns. Thus it is only the bass step ⑤–⑥ that makes the cadence deceptive. Note that this procedure results in the doubling of the third in the final chord on ⑥.
- Deceptive Neapolitan cadence. Bar 2 shows the resolution of the $\frac{6}{4}$ chord into the dominant $\frac{7}{3}$. Once more all the voices but the bass follow their natural pattern.