APPLIED MUSIC THEORY FOR THE OBOIST

by

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PREFACE

In his book, Sound in Motion, David McGill states, “Depth of expression is not a talent. The real talent that leads to musical expression is intelligence. The development of expression is the development of the intellect.” When I learned that music theory could help me make musical choices, it completely changed the way I approached phrasing and performance. My aim with this document is to provide a path by which oboe players can acquire theoretical knowledge, develop their intellect, and immediately apply that knowledge to performance and musical expression.

While piano methods tend to cover music theory fairly extensively, oboe methods never manage to get past basic notation and fundamental concepts, such as intervals and scales. Even when students begin a formal study of music theory in college or conservatory, musical exercises are often removed from familiar performing experiences, and musical examples are often derived from piano or string repertoire. This method will give oboists the resources to apply music theory to their own playing and their own repertoire. It will provide a solid basis for a college-bound student preparing to take music theory and aural skills classes, and it will greatly enhance the experience of a student taking theory concurrently. Additionally, any oboe player may enjoy going through examples and enhancing their existing theory and ear-training skills using repertoire familiar to them.

Since the oboe is a melody instrument, the study of harmony in a private lesson setting can be challenging. However, there are activities and exercises that are completely appropriate and instructional in this regard. Through this method, oboists will learn how harmony supports melody and begin to recognize when and how notes in the melody are functioning harmonically through the use of familiar repertoire, analysis, performance, listening, composition, improvisation, and practice; their experience as musicians and performers will be enhanced as their understanding of music theory matures and as they develop the associated aural skills. This document is formatted as a method book, but will be used as a departure point for future books, videos, interactive websites, etc. It is not intended to stand alone as a theory text.

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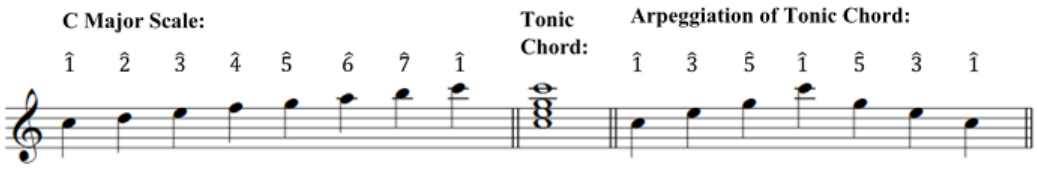
Chapter 1: Tonic and Dominant Chords

1.1 Concepts and Exercises

The building blocks of tonal harmony can be found within the diatonic scale. This collection of seven scale degrees includes tones that denote stability, and tendency tones that suggest departure and a potential to return to stability. Movement between sets of tones creates a progression, and these progressions underly every piece of diatonic music. Understanding the relationships between these sets of tones or chords gives an artist the ability to make expressive decisions to highlight the function of the harmony.

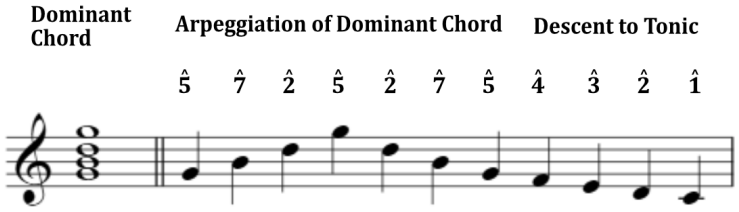
The first chord we will study is the tonic chord. It is defined as the triad, or three-note stack of thirds, that arises from the tonic note in the scale, or scale degree 1, denoted $\hat{1}$. We refer these three notes as the root, third, and fifth of the chord. In Exercise 1.1, you can see that the tonic chord is made up of $\hat{1}$, $\hat{3}$, and $\hat{5}$. Play both the scale and the arpeggio and notice how the arpeggio feels like a stable representation of the key of C major.

Exercise 1.1: A Major Scale and an Arpeggiation of the Tonic Chord



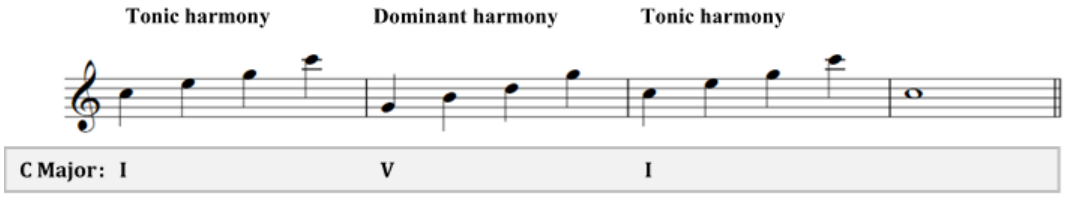
To create a contrast to this stability, we introduce the dominant chord. This chord is the triad based on scale degree $\hat{5}$, and consists of scale degrees $\hat{5}$, $\hat{7}$, and $\hat{2}$. In Exercise 1.2, you will arpeggiate this dominant chord.

Exercise 1.2: An Arpeggiation of the Dominant Chord and a Descent to the Tonic



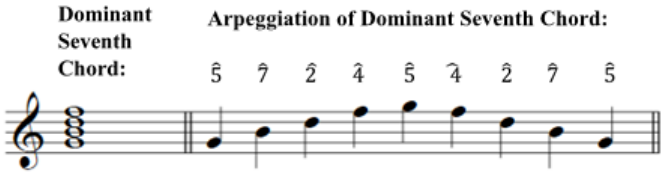
Notice that on its own, the dominant chord is very similar to the tonic chord. Both are major triads, containing a major third in the bottom and a minor third on the top. The context of the key brings the dominant harmony's potential to light. $\hat{7}$ and $\hat{2}$ in the dominant chord are tendency tones. $\hat{7}$ is sometimes know as the leading tone because it leads so strongly to the tonic, $\hat{1}$. $\hat{2}$ has the tendency to move either up to $\hat{3}$ or down to $\hat{1}$. Finally, although $\hat{5}$ is a stable tone in the key, it does not feel stable serving as the root of the chord and moves to $\hat{1}$. The inclination of dominant harmony to move to the more stable tonic chord is the basis for all harmonic progressions. Play through these simple arpeggiations in Exercise 1.3 and notice how the context of the tonic harmony gives the dominant harmony a feeling of departure. Then notice how moving from the dominant harmony back to the tonic harmony feels like a return. Note that the harmonies and chords are denoted with Roman numerals based on the scale degree in the root of the chord.

Exercise 1.3: An Arpeggiation of I - V - I



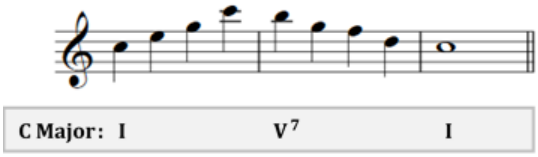
Often, the dominant harmony is strengthened and expanded by the use of a seventh in the harmony, adding $\hat{4}$ to the array, as seen Exercise 1.4. As you play this arpeggiation, notice the instability created by the 2nd between $\hat{4}$ and $\hat{5}$ and by the tritone created between $\hat{7}$ and $\hat{4}$.

Exercise 1.4: An Arpeggiation of the Dominant Seventh Chord



Even without the context of the key, this chord wants to resolve. With the context of key, the resolution is inevitable and satisfying. Try the following simple arpeggiation in Example 1.5 that outlines the movement from tonic harmony to dominant harmony and back again. You'll notice that the notes of the dominant harmony are not in the same order as they have been presented previously, nor is the G even the lowest note. The character of the harmony does not change with register or note order. Although G is not the lowest note, it still serves as the root of the chord because if the chord were rearranged into a stack of thirds, the G would be at the bottom. Also, note how the analysis of the dominant seventh uses a super-script to denote the 7th, V^7.

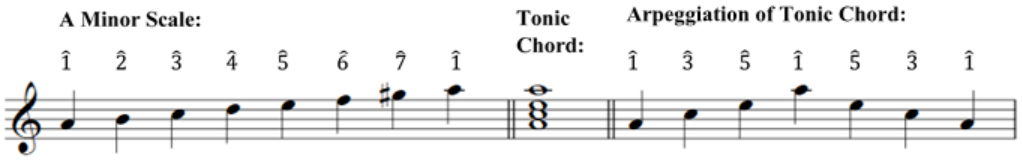
Exercise 1.5: An Arpeggiation of I - V^7 - I



I recommend transposing Exercise 1.3 and Exercise 1.5 in a few major keys to teach your fingers to find tonic and dominant harmony. Hearing the progression in different keys will also help establish the role of dominant and tonic harmony in your ear, independent of C Major.

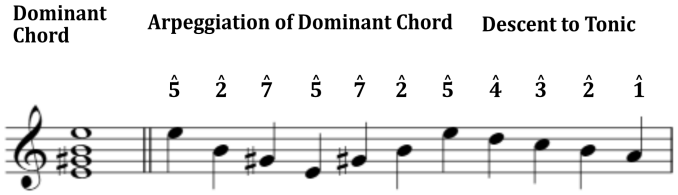
In minor keys, the relationship between tonic and dominant works largely in the same way with one important exception. We begin by establishing the tonic key with a scale and the arpeggiation of the tonic chord in Exercise 1.6. Notice that the minor scale leads to a minor tonic chord.

Exercise 1.6: A Harmonic Minor Scale and an Arpeggiation of the Minor Tonic Chord



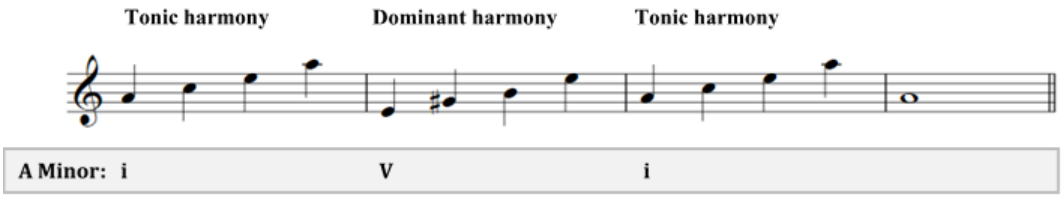
In contrast, the dominant chord is a major chord, a result of raising the $\hat{7}$ in the harmonic minor scale. Play the dominant harmony of A Minor in Exercise 1.7:

Exercise 1.7: An Arpeggiation of the Dominant Chord and a Descent to the Tonic in the Minor Mode



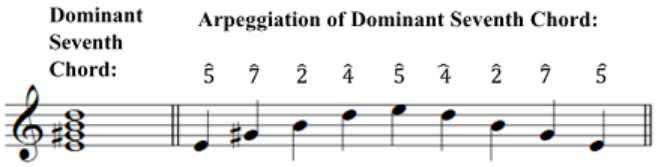
The juxtaposition of minor and major harmonies in the tonic and dominant harmonies, respectively, adds to the distinct character of music written in the minor mode. In Exercise 1.8, explore the relationship of tonic and dominant in the minor mode. Note that the harmonies are denoted with Roman numerals, as before, however the minor harmony is signaled with a lowercase numeral, i. The dominant harmony is always major, so it remains a capital V.

Exercise 1.8: An Arpeggiation of i - V - i



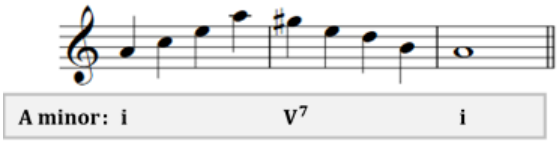
As with major keys, the dominant can be expanded and intensified with a seventh above the bass. Exercise 1.9 arpeggiates the dominant seventh in the minor mode:

Exercise 1.9: An Arpeggiation of V^7



Exercise 1.10, similar to Exercise 1.5, moves from tonic harmony, to the dominant seventh chord, and then back to tonic:

Exercise 1.10: An Arpeggiation of i - V^7 - i

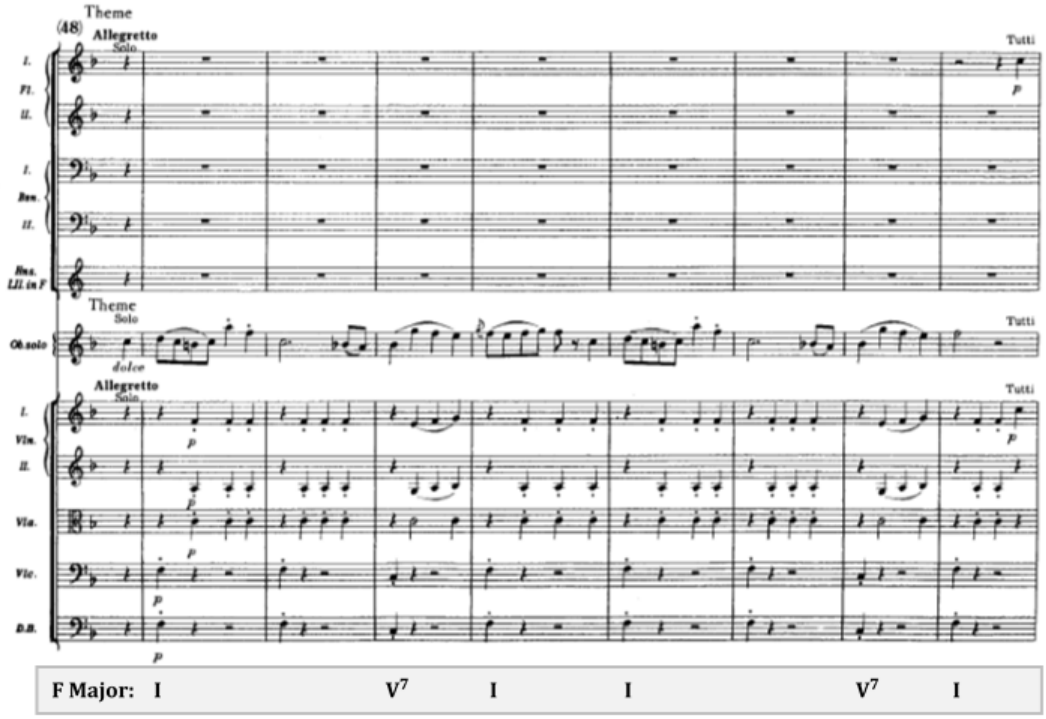


As before, I recommend playing through Exercise 1.8 and 1.10 in a few minor keys to teach your fingers to find the tonic and dominant harmonies and to teach your ear to hear the function of the two chords independent from A Minor.

1.2 Musical Examples

Exercises are great for learning to hear the different harmonies, but music is never as straightforward or sterile as an exercise. To fully understand how composers use tonic and dominant, we have to play and analyze their music. The following excerpts demonstrate tonic and dominant harmony. Before playing each excerpt, establish the key in your mind by playing the appropriate scale, then by playing Exercise 1.5 (for major) or 1.10 (for minor) in the appropriate key. My harmonic analysis can be found below each staff of music. A brief explanation of the analysis will follow each excerpt.

Excerpt 1.1: Johann Nepomuk Hummel—Introduction, Theme and Variations, Op. 102 (mm. 49-56)

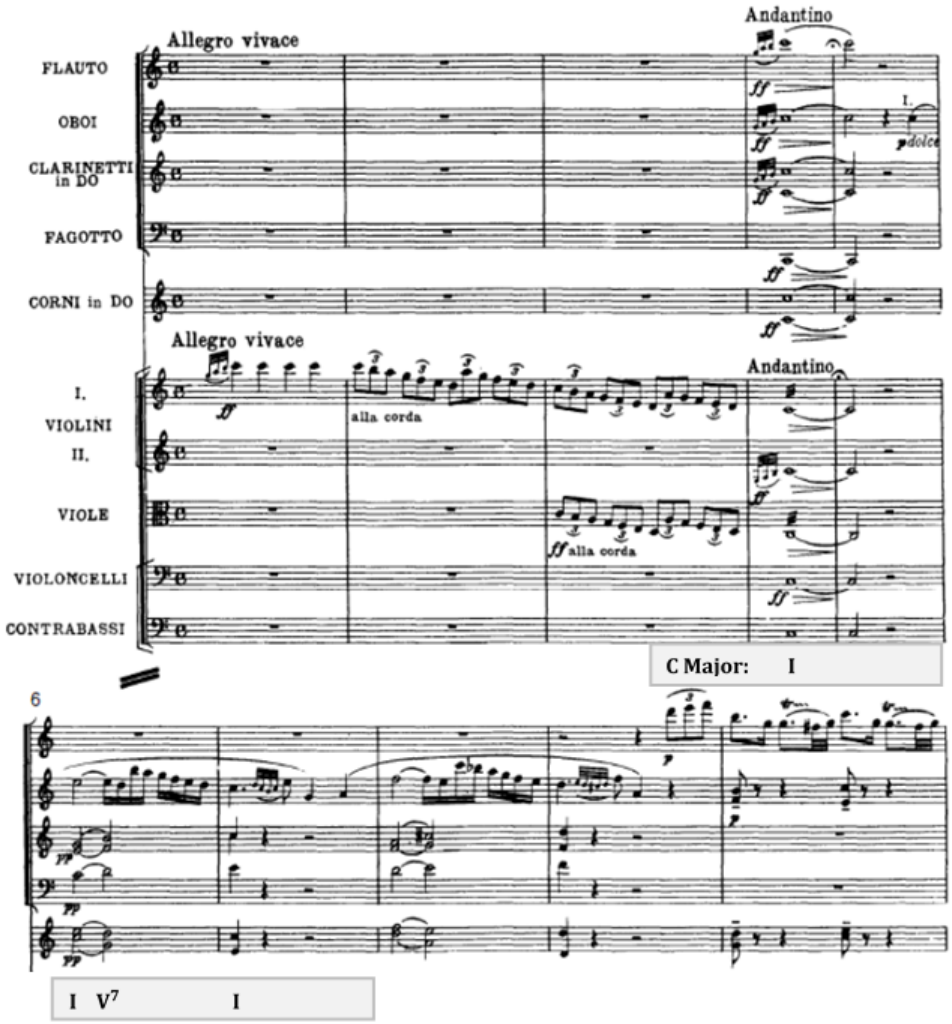


This first example is from the Theme of Johann Nepomuk Hummel's Introduction, Theme and Variations, Op. 102. It demonstrates the important melodic principles of tension and release. Notice that the accompaniment largely stays true to the scale degrees found in the appropriate harmonies. The solo part, however, moves away from true chord tones in a way that seems quite free, by using *non-chord tones*. These are melodic tones that do not belong to the underlying harmony, but decorate tones of the chord. The

main types of non-chord tones in this example are *passing tones*, which move between two different chord tones, and *neighbor tones*, which move by step away from a chord tone and back again.

In measure 49, the oboe begins on a D, moves through the C down to a B-natural, and then back through the C before outlining the tonic chord arpeggio from A down to C. The D is functioning as an accented upper neighbor tone and the B-natural serves as a lower neighbor tone. Both are used to decorate the C which is part of the tonic harmony. In the pick up to measure 51, the A is a lower neighbor to the $B^{\flat}$. Then in measure 51, the F serves as a passing tone between G and E. In measure 52, the G and E sere as neighbor tones decorating the tonic, F. These non-chord tones allow the composer to create interesting melodies with color and momentary dissonance. Knowing how the melody relates to the harmony can lead us to make some important decisions in the way we play the music. For example, the D in measure 49 is a dissonant note occurring on a strong beat that resolves to a C on a weak beat. Accented dissonance should be emphasized because it increases the listener's anticipation of the resolution. It follows that the resolution of such dissonance should then be resolved gently with a diminuendo, thus accentuating the feeling of tension and release. In our example the D should be brought out and the C should then be treated carefully with a tasteful diminuendo. In addition, knowing that the harmony is largely tonic through this entire line of music makes the moments of dominant harmony particularly important. The V^7 in measure 51 should feel like a departure, like a large-scale dissonance, that resolves and returns in the following measure. The return of tonic should be gently resolved, as a release from the tension created by the dominant harmony.

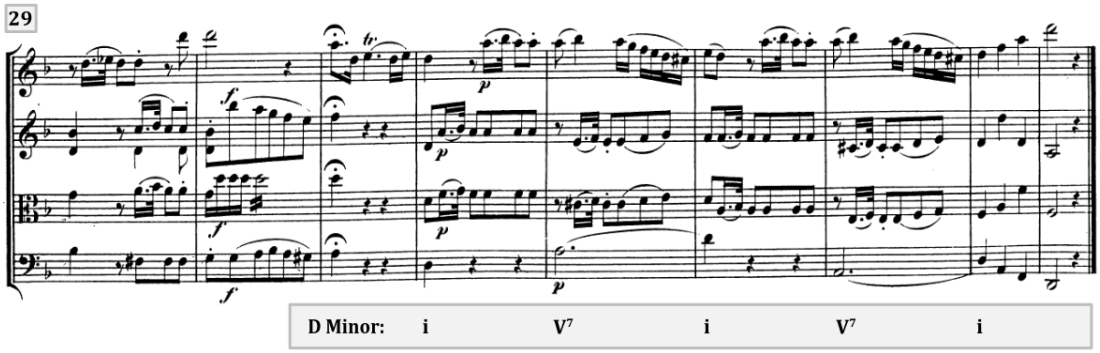
Excerpt 1.2: Giochino Rossini—Overture to La Scala Di Seta (mm. 1-10)



This excerpt comes from the Overture to Giochino Rossini's opera, *La Scala Di Seta* and continues the conversation of melodic tension and release with the introduction of a new non-chord tone. The solo is preceded by scales in the strings and a full orchestra unison C to clearly indicate the key of C Major. Our solo begins with a C pick-up to an E. The E is the third of the tonic chord and is supported by a tonic chord in the accompaniment. However, as the E is held through the tie, the accompaniment moves to a dominant seventh harmony and the function of the E changes mid-note, from chord tone to a suspension. A *suspension* is another type of non-chord tone, in which a chord tone is held over into a new new chord with which it is dissonant. An informed artist can take this change in harmonic function and run with

it—perhaps with a crescendo into the dissonance and a flicker of vibrato marking the moment of the change. The E resolves down to D (a chord tone in the dominant harmony) and then reaches up to high B, another moment packed with expressive potential. The resolution from E to the D must be a carefully treated with diminuendo, but the D turns around in a moment to leap up a 6th to the high B, requiring an infusion of energy to support the interval. The interval from D to B is mirrored as the B moves in linear progression down back to D. This motion from D up to B through leap and back down to D through linear progression respects and highlights the dominant harmony played in the accompaniment. As the line crosses to the next measure, the D moves to C, a classic motion of $\hat{2}$ to $\hat{1}$ so often found in the upper voice in resolutions of dominant harmony to tonic harmony. The solo line takes the C through a decorative turn and then outlines the other chord tones of the tonic chord, E and G. These decorations and chord tones expand the tonic harmony, but do not add harmonic significance and can be "thrown off," thus keeping the motion to $\hat{1}$ as the most significant moment of the phrase in the ear of the listener. Indeed, if brought to its barest essence, the entire excerpt is merely the motion of $\hat{3}$-$\hat{2}$-$\hat{1}$. The oboist must find a way to add nuance to this motion with all the intervening notes without distracting from it. In a mere two measures, a study of harmony and melody can demand quite a bit of flexibility, but making choices using theory gives the music coherence and depth.

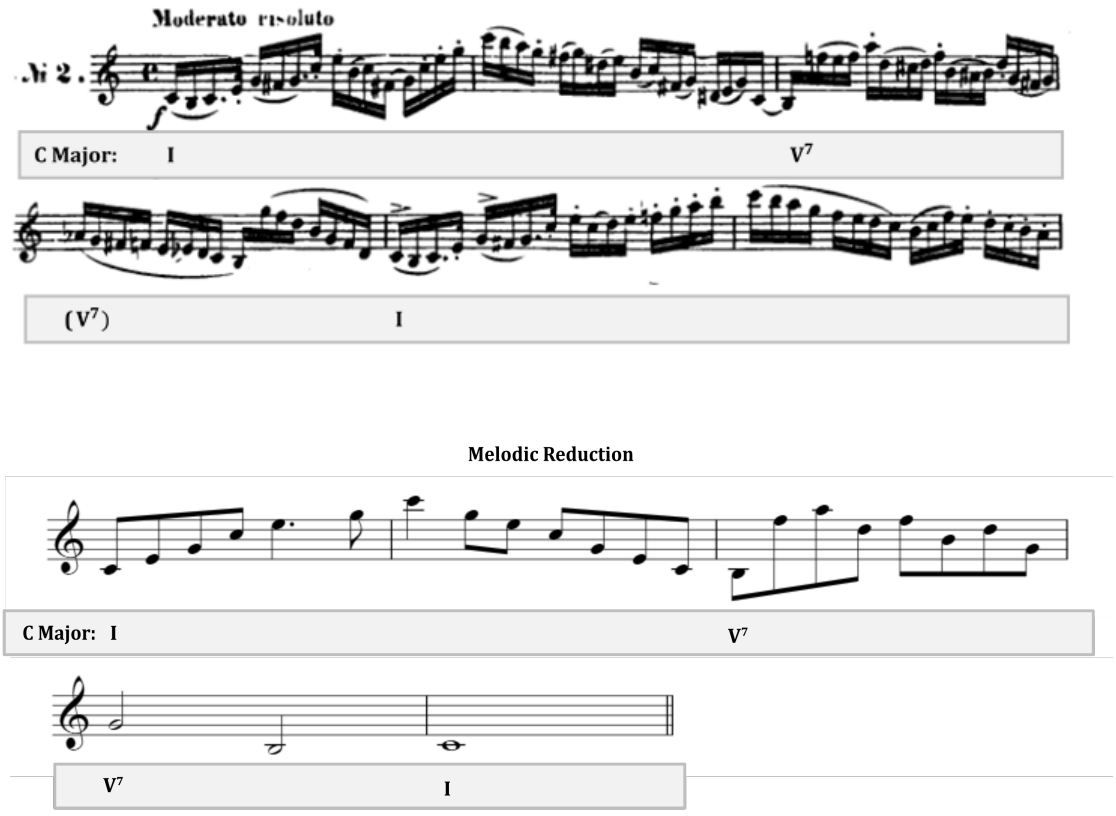
Excerpt 1.3: Wolfgang Amadeus Mozart–Quartet in F Major, K. 370, movement 2 (mm. 29-37)



This excerpt comes from Wolfgang Amadeus Mozart's Quartet in F Major, K. 370 and demonstrates how even repeated notes can have an evolving role when the harmonic and melodic context is considered. It will also introduce a new non-chord tone. As the top line comes out of the fermata in measure 31, D minor is confirmed with a trill over V and a resolution to i in measure 32. The final cadence of the movement repeats this motion from V to i twice more. The high A half-way through measure 32 functions as 5th in the tonic chord with the B$^{\flat}$ serving as an upper neighbor tone. Because the B$^{\flat}$ is a dissonant tone, the player should lean into it and then come away in the resolution back to A. As the line crosses into the next measure, the A changes function to the root of the dominant chord. Although the A remains, the change in function is an opportunity to express something new through a change in color or vibrato. Even the A preceding the new bar can be used to reach up toward the A's new "resting point," preparing the listener's ear for the change in harmony. The movement up to the B$^{\flat}$ in measure 33 is similar to the upper neighbor motion in the preceding bar, however the added length gives it added emphasis. As the player leans in to the high B$^{\flat}$, the ensuing wail is reminiscent of the motive that has pervaded the entire movement. The scale downward from A to C$^{\sharp}$ is a linear progression outlining the root and third of the dominant chord that then reaches up to the E, and resolves down to the tonic, D. The E is an *appoggiatura*, an accented non-chord tone that is approached by skip and resolves. As with all dissonances, this one should be emphasized and then resolved with a gentle diminuendo, in fact, the term *appoggiatura* literally

means ”to lean upon.” At the end of the piece, the oboe plays the entire tonic arpeggio up to high D, but the harmonic motion occurs between measure 35 and 36. The most “important” D is the first one—the arpeggio is an extension of this arrival.

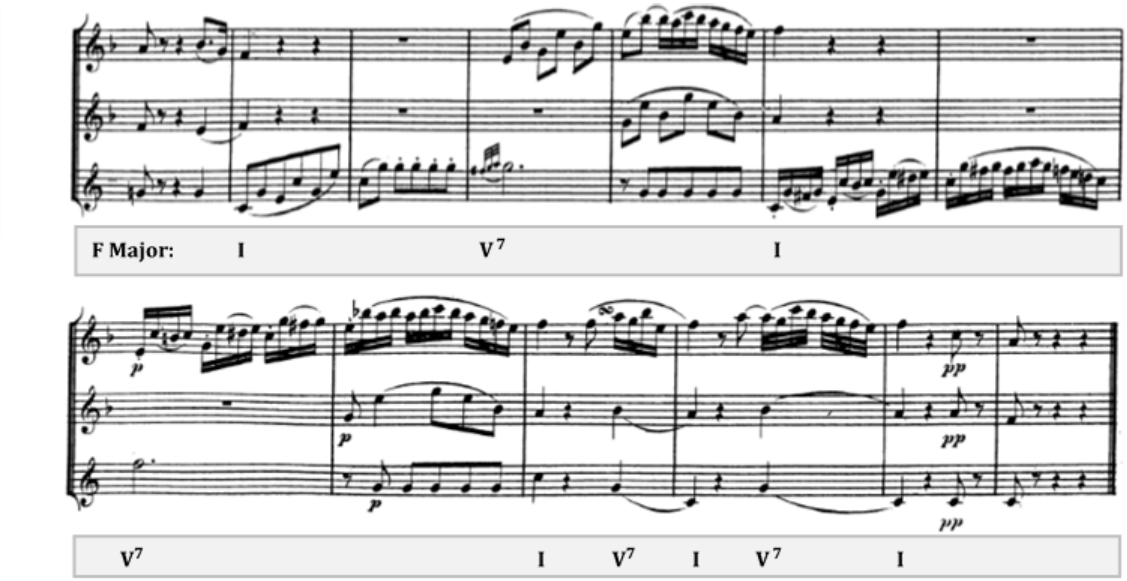
Excerpt 1.4: Franz Wilhelm Ferling–Etude No. 2 (mm. 1-6)



This excerpt comes from Ferling Etude No. 2 and demonstrates how even unaccompanied music is driven by the principles of harmony. With no accompaniment, it can be challenging to sort out the differences between chord tones and non-chord tones, but context usually provides enough information. In measure 1 of this etude, the first note of each beat outlines the tones of the tonic scale and this is our first clue that the first measure contains tonic harmony. In the first beat, the chord tone is decorated with a lower neighbor (sometimes chromatic) and a return to the chord tone. This lower neighbor figure as a unit can be simplified to represent just the chord tone, leaving C and E as the only contributing harmonic figures in the first beat (see melodic reduction). The second beat can be similarly analyzed, giving us a complete arpeggio from C-E-G-C through the first two beats and finally to E in the beginning of the third beat. In the third beat, the B serves as an incomplete lower neighbor to the C and the F♯ serves similarly for the G in the fourth beat. The measure finishes with a clear tonic arpeggio up to the C in beat one of the second

measure. The second measure begins with a linear progression from C down to G, two tones of the tonic harmony. The next three beats are filled with chromatic notes on strong beats—however closer examination reveals they are each an appoggiatura, decorating the weak beats that clearly outline tonic harmony. The third measure is similar to the first measure, though offset by a sixteenth note. Each neighbor figure and staccato note outlines the dominant harmony (with the exception of the A, which can be interpreted as the 9th of the dominant chord). The fourth measure of the etude begins with a mostly chromatic scale from Ab down to B. The chromatic tones suspend the current dominant harmony until it is picked up again in the second half of the measure, where the dominant arpeggio cascades down to the return of tonic in the beginning of measure 5. This excerpt is an excellent example of how a analysis of non-chord tones can vastly change interpretation. If the player leans into the three-note neighbor figures, emphasizes all appoggiaturas and incomplete neighbor tones, and treats linear progressions as suspensions of harmony, an incredible “rhythm” can be brought out of this melody of incessant sixteenth notes. The moments of stress and release change within each measure and even within each beat, and combined with the changing articulation, create a kaleidoscope of constantly evolving interest.

Excerpt 1.5: Ludwig von Beethoven–Trio in C Major for 2 Oboes and English horn, Op. 87, movement 2 (mm. 70-82)



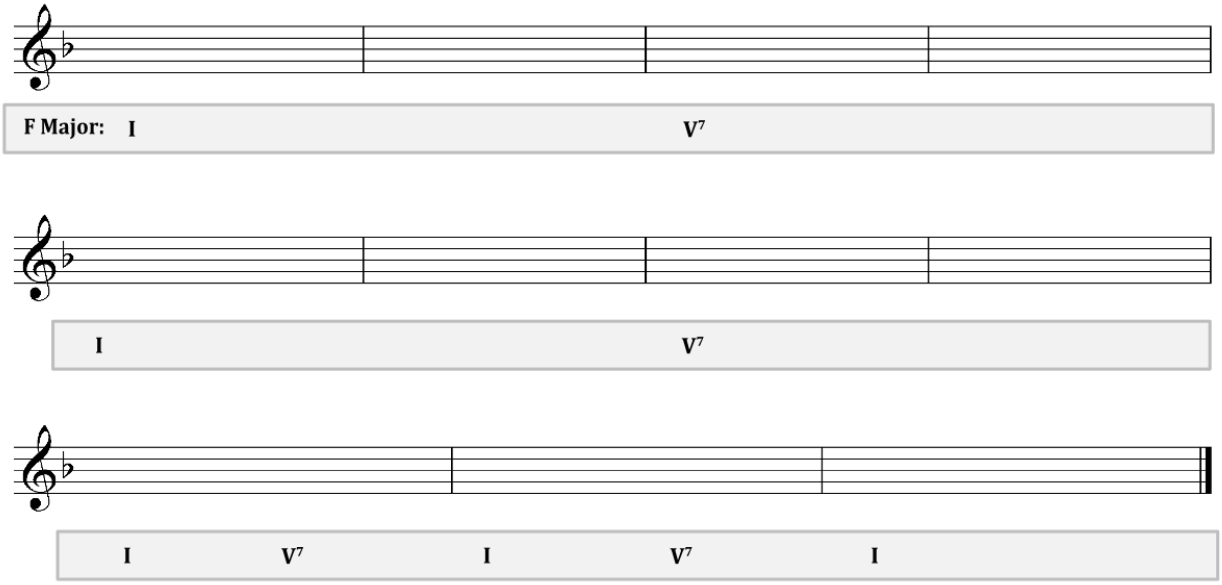
The final excerpt for this chapter is from the second movement of Ludwig von Beethoven's Trio in C Major, Op. 87. This excerpt is simple and straightforward but is a fun one to play through if you have a partner. Note that the English horn is a transposing instrument, so although the piece sounds in F Major, the English horn will be playing in the key of C. The English horn carries the melody in measure 71 and 72 using clear tonic harmony. The oboe imitates the line in measures 73 and 74 with dominant harmony that resolves to the tonic and elides with another English horn melody in the tonic. This melody uses lower neighbor figures very similar to the ones we found in the Ferling etude and they should be treated as such. The oboe responds, again in imitation and with dominant harmony which resolves to the tonic in measure 79. From here, the harmonic rhythm speeds up and the oboe keeps the melody. On beat three in measure 79, the accompaniment clearly moves to dominant harmony as the English horn plays $\hat{5}$. The oboe's A is an appoggiatura that resolves down to G and then arpeggiates the dominant harmony before all three parts resolve to the tonic on beat one of measure 80. The harmonic and motivic motion of the previous measure is repeated again on beat three with another appoggiatura in the oboe part which resolves and decorates the dominant harmony with clear dominant accompaniment before all parts resolve to the tonic. The final two notes reiterate the tonic.

1.3 Improvisation and Composition

To put your knowledge of tonic and dominant harmonies to the test, the final exercise will be to compose or improvise a melody over the chord progression in the previous excerpt.

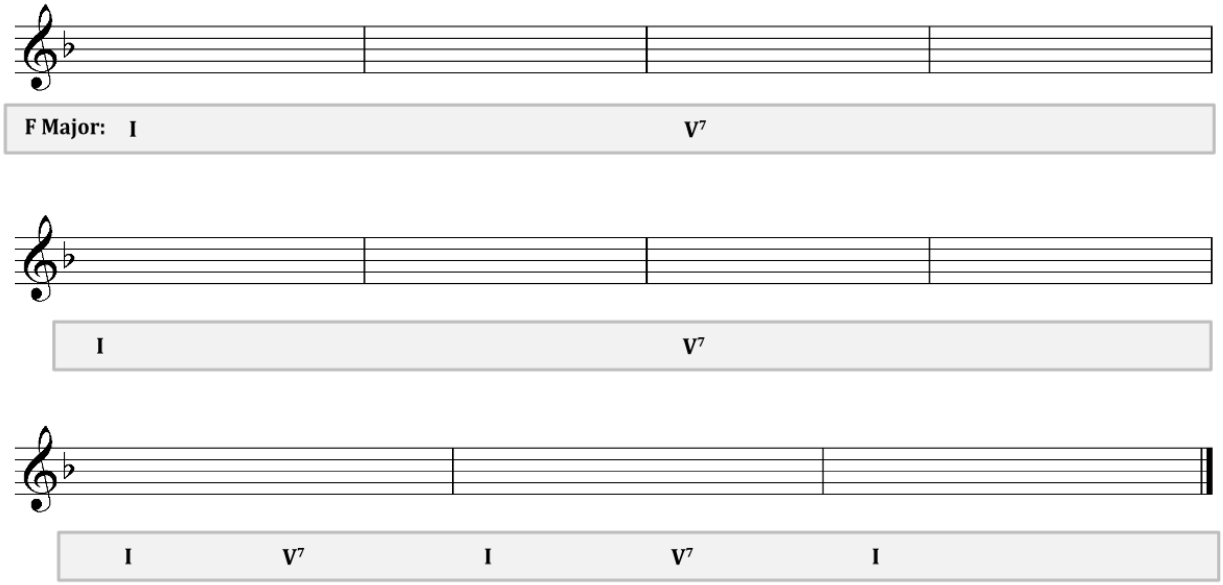
- Start simply, perhaps with only one or two chord tones per measure

Exercise 1.11: Improvisation A



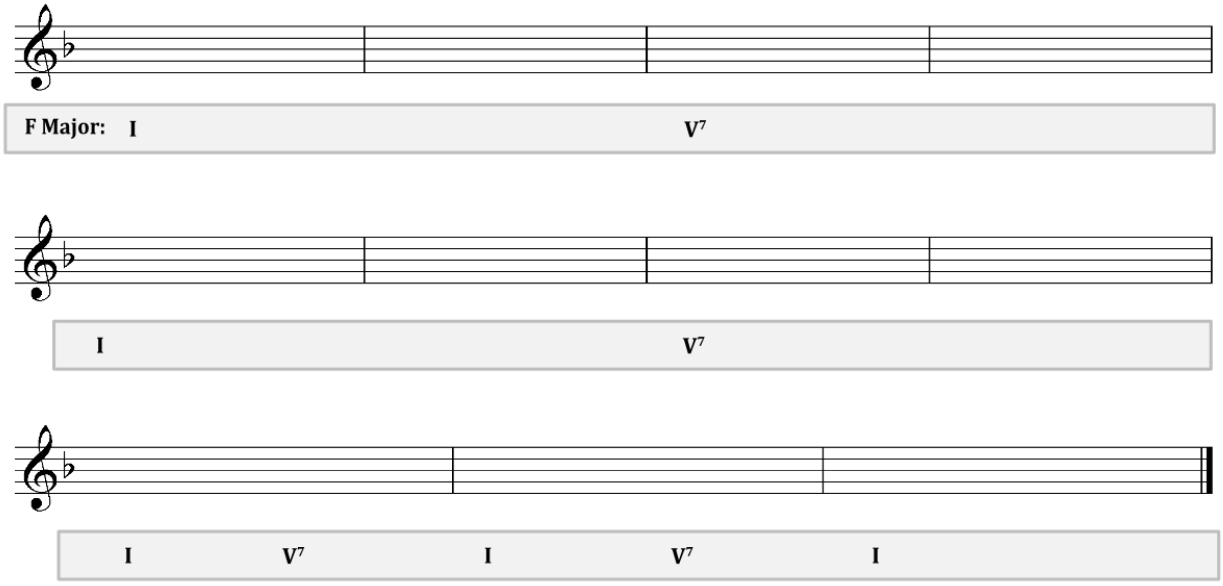
- Slowly add complexity by including arpeggiations or linear progressions to fill in the notes you used before.

Exercise 1.12: Improvisation B



- Finally, add passing tones, neighbor tones, and appoggiaturas to embellish your melody further.

Exercise 1.13: Improvisation C



Chapter 2: PREDOMINANT CHORDS

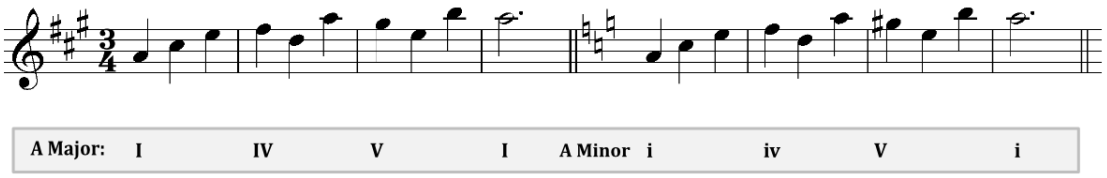
2.1 Concepts and Exercises

Although complete musical ideas can be composed with tonic and dominant harmonies, most phrases include intervening harmonies that intensify the motion to the dominant. In fact, the classic phrase model found in much of Western music is:

$$\text{Tonic} \rightarrow \text{Predominant} \rightarrow \text{Dominant} \rightarrow \text{Tonic}$$

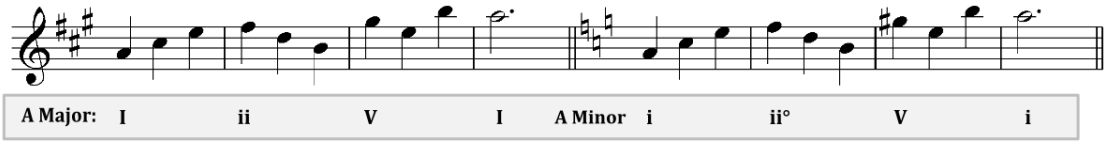
The first predominant chord is the subdominant chord: IV in the major mode and iv in the minor mode. The root of the IV chord is a fifth below the tonic chord, so motion from I to IV is harmonically favorable. In addition, since the IV chord has no tones in common with the V chord, the movement from IV to V is melodically favorable.

Exercise 2.1: Arpeggiation Through the Phrase Model Using IV, iv



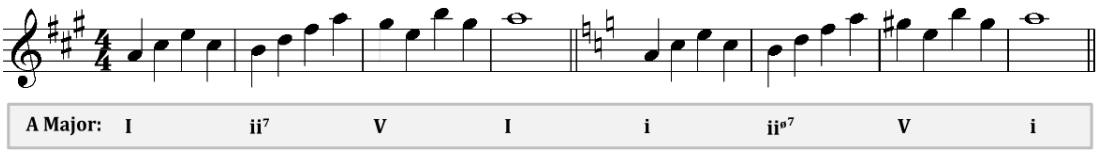
The second predominant chord is the supertonic chord. In the major mode, the chord is a minor triad, denoted, ii. In the minor mode the chord is a diminished triad, created when two minor thirds are stacked, denoted ii°. The ii chord shares no common tones with I, so motion from I to ii is melodically favorable. The root of the ii chord is one fifth above the root of the V chord, so motion from ii to V is harmonically favorable.

Exercise 2.2: Arpeggiation Through the Phrase Model Using ii, ii°



Like the V chord, the ii chord often appears as a seventh chord, or contains a seventh appearing above the bass in addition to the root, third, and fifth. In the major mode, this chord is a minor seventh chord because the seventh falls a minor seventh above the bass, denoted ii^{7}. In the minor mode, this chord is called a half-diminished seventh chord, denoted ii$^{\varnothing 7}$, because although the main triad is diminished, the seventh is a minor seventh.

Exercise 2.3: Arpeggiation Through the Phrase Model Using ii^{7}, ii$^{\varnothing 7}$

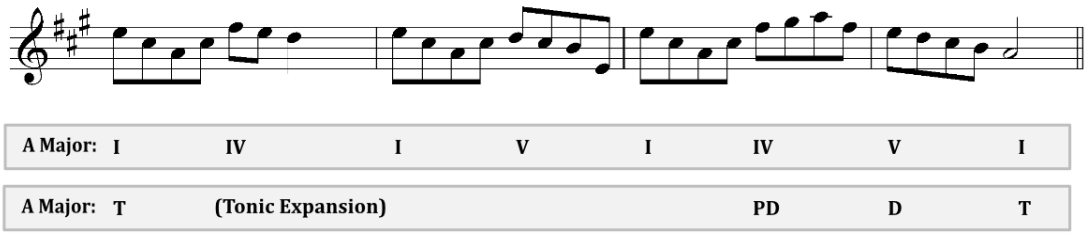


The first inversion of the ii chord (that is, the version of the chord in which the third of the chord appears in the bass instead of the root) is commonly used as a predominant chord because it combines the strong harmonic motion of the movement from ii to V with the melodic pull in the bass line from $\hat{4}$ to $\hat{5}$. In the minor mode, the ii$^{\circ 6}$ is more stable than the root position chord and thus much more common, because it downplays the tritone created between the root and the fifth of the chord. The use of inversions does not generally affect work we do in interpreting melody, however the ii^{6} and especially the ii$^{\circ 6}$ are used so commonly in the literature that it is worth noting.

Phrases in Western literature sometimes follow a progression as simple as those outlined above, but often the phrase model of T-PD-D-T is elaborated. Notice how in the following melody, the harmony

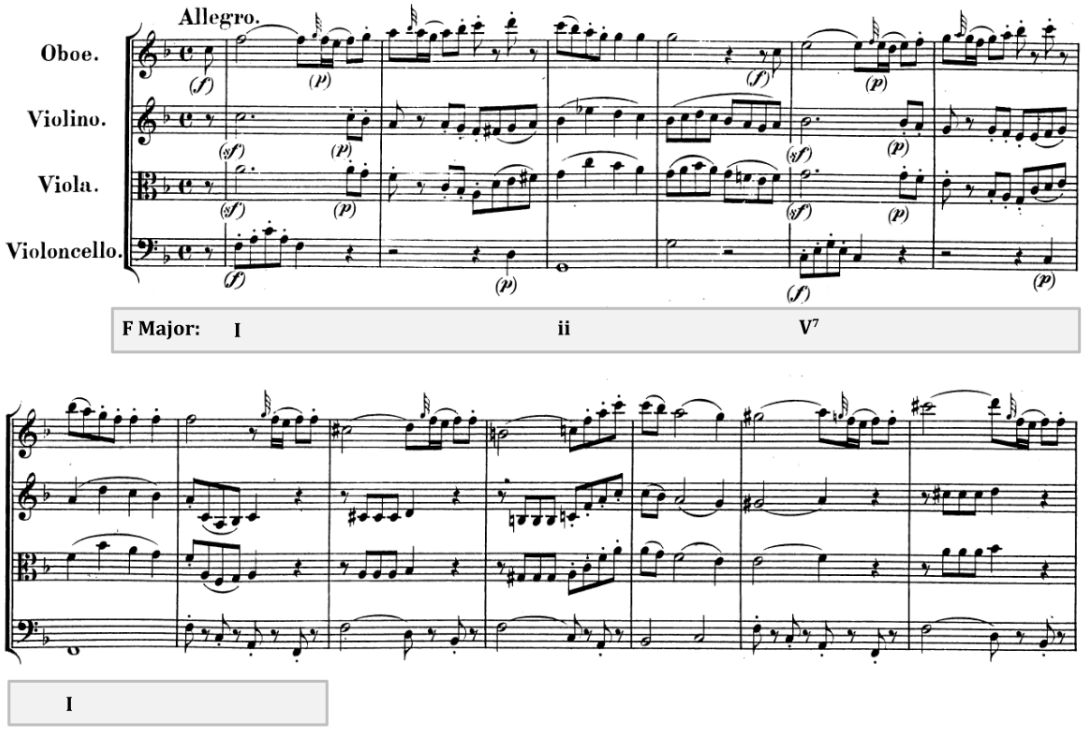
moves away from and then back to the I chord using both IV and V chords. V and IV can be used to expand the tonic function of the beginning of the phrase. When the IV chord comes back toward the end of the phrase and leads to the V chord, then the IV and the V chords serve in their predominant and dominant functions, respectively. It is important to look at the whole phrase and the function of each chord before assuming that it is performing a certain role. It is normal for the progression through the predominant, dominant, and tonic to occur toward the end of the phrase–the harmonic rhythm leading up to a *cadence*, or harmonic resting point, is traditionally faster than at the beginning of the phrase. Types of cadences will be explored in the musical examples later in this chapter.

Exercise 2.4: Arpeggiation Through the Phrase Model with Tonic Expansion



2.2 Musical Examples

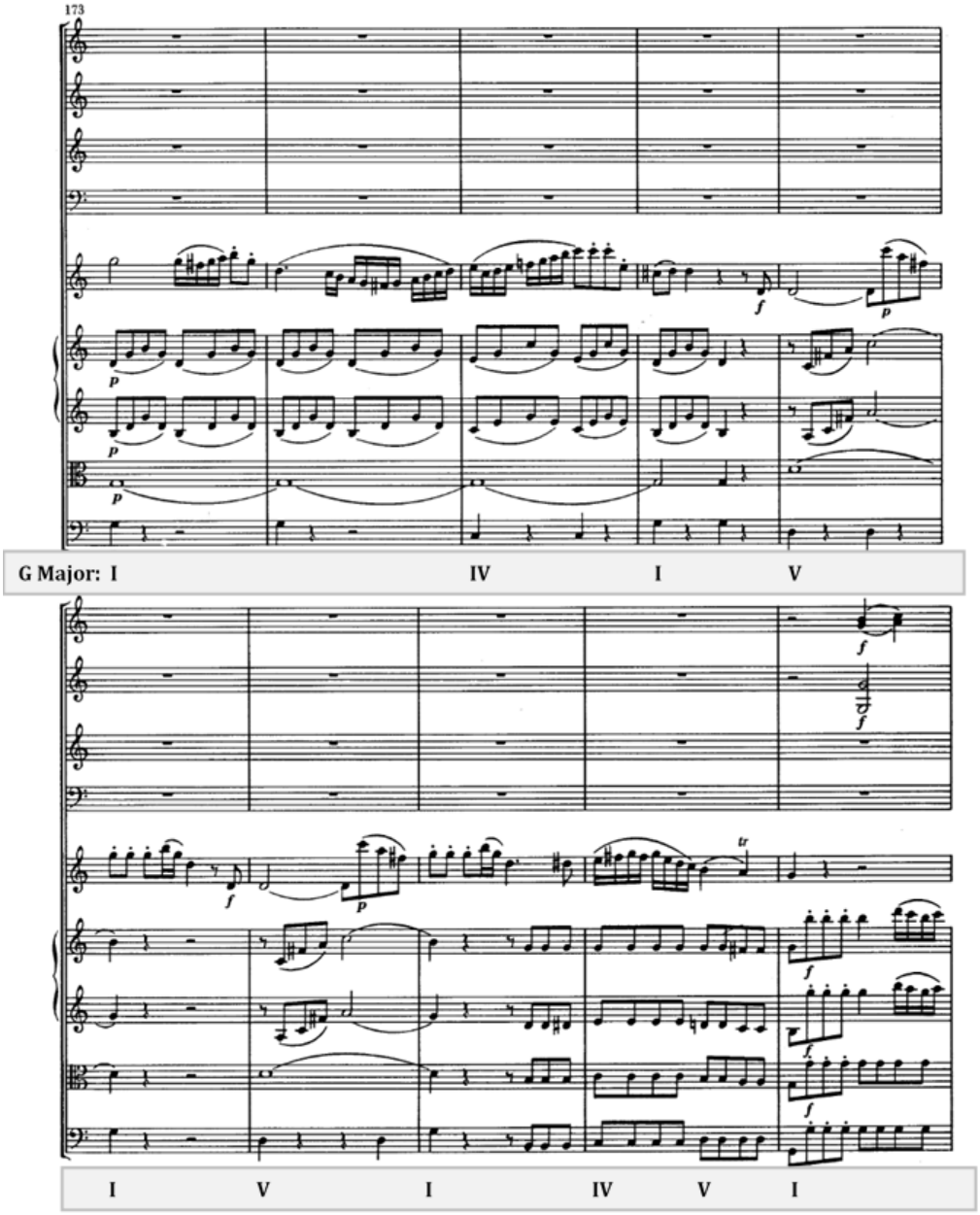
Excerpt 2.1: Wolfgang Amadeus Mozart–Quartet in F Major, K. 370, movement 1 (mm. 1-8)



This excerpt comes from the opening of Wolfgang Amadeus Mozart's Quartet in F Major, K. 370 and shows a simple progression through the phrase model, I-ii-V^7-I. The melodic principles discussed in the last chapter still apply here. Unaccented non-chord tones are extensions of the harmonic tones they decorate, such as the turns in measures 1 and 2, and in measures 5 and 6. Accented non-chord tones should be emphasized and resolved with diminuendo, as in the first two beats of measure 3 and measure 7. The important structural moments in the phrase come at the chord changes. Knowing that I moves to ii in measure 3 can lead the player to treat the scale up to the high D right before the harmonic motion with more anticipation, to give the moment of motion more gravity, and to play the descent down to G as an important arrival. The second half of the phrase mirrors the first half, with the melody presented down a step, signaled by the movement from ii to V. Similar interpretation choices can be made at the motion from V^7 to I as were made at the motion from I to ii. This time, the arrival of the tonic chord carries even more

weight, as it is a return of the original harmony. With this return of the tonic harmony, we reach a *cadence* or harmonic resting point. This particular cadence is called a *perfect authentic cadence* because the bass motion is from a root position V chord to a root position I chord and because the solo line ends on $\hat{1}$.

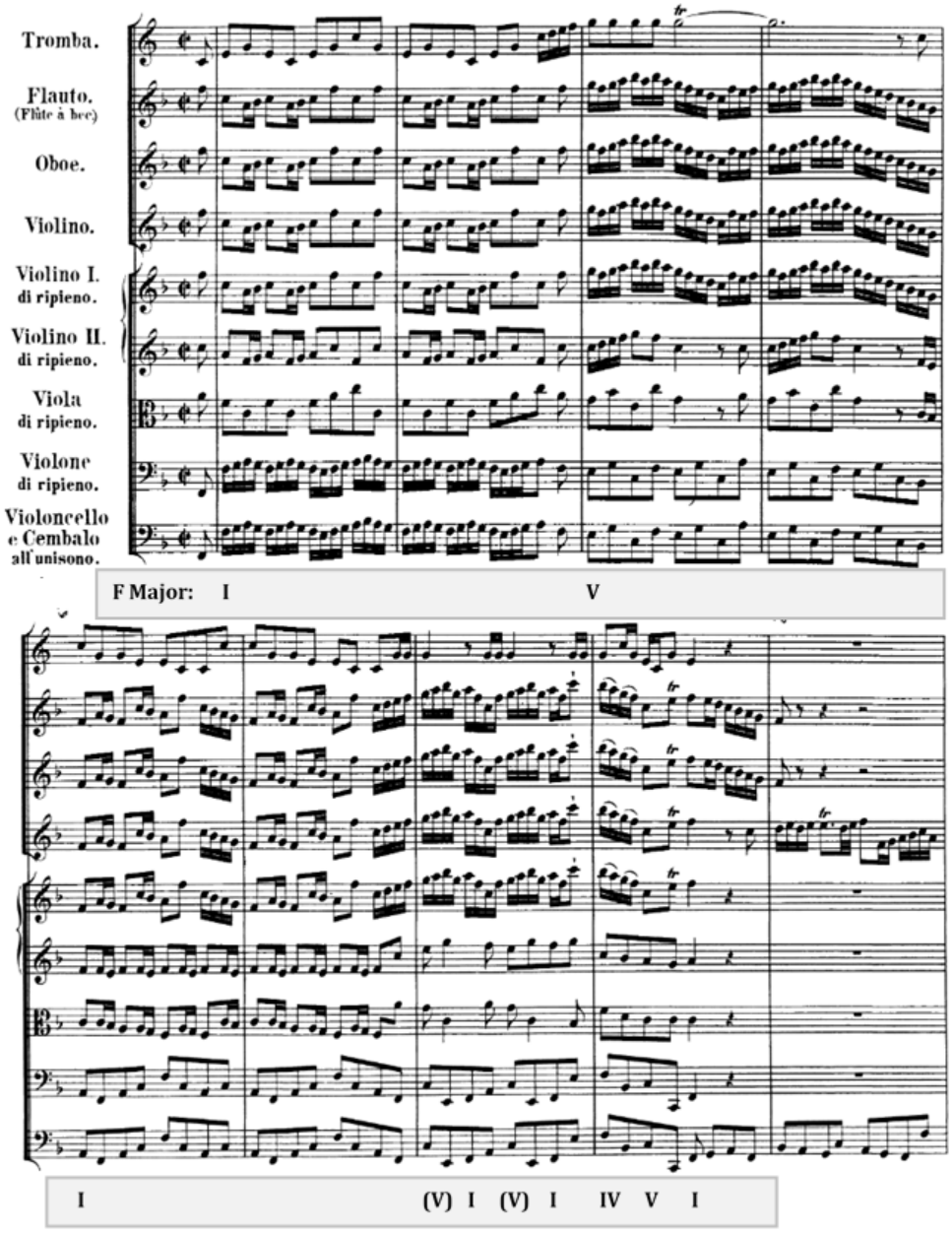
Excerpt 2.2: Joseph Haydn–Concerto for Oboe (attr. Ignaz Malzat), movement 1 (mm.173-182)



This excerpt comes from the first movement of the Concerto for Oboe attributed to Franz Joseph Haydn. It demonstrates movement through the phrase model with extensive tonic expansion preceding the lead up to the final cadence. The oboe line moves virtuosically using neighbor tones and scales to decorate the tonic harmony. In the third measure, the harmony moves to IV, a neighbor chord. The common tone of G in the accompaniment makes this neighbor motion favorable, and the fact that this held tone is the tonic

solidifies the expansion of the tonic function through the first four measures. The fifth measure begins on the V chord, though it quickly resolves down to the I chord. This gesture is repeated in the following two measures. These resolutions are moments of tension and release, and the motion between V and I is very favorable as we have established previously. However the V chords are decorating and expanding the tonic function. In measure 9 we finally move into the predominant function with a IV chord, which quickly moves through the V chord in the second half of the measure and into the I chord in the final measure of the phrase. Knowing that the tonic function is expanded for eight measures before entering the cadential motion through predominant and dominant can change the way this phrase is played. The extensive scales, arpeggios and leaps are not harmonically significant, thus this melody should ”float,” never ”landing,” but rather anticipating the real harmonic motion that occurs in measures 9 and 10. Note that this excerpt comes to rest with a *perfect authentic cadence*.

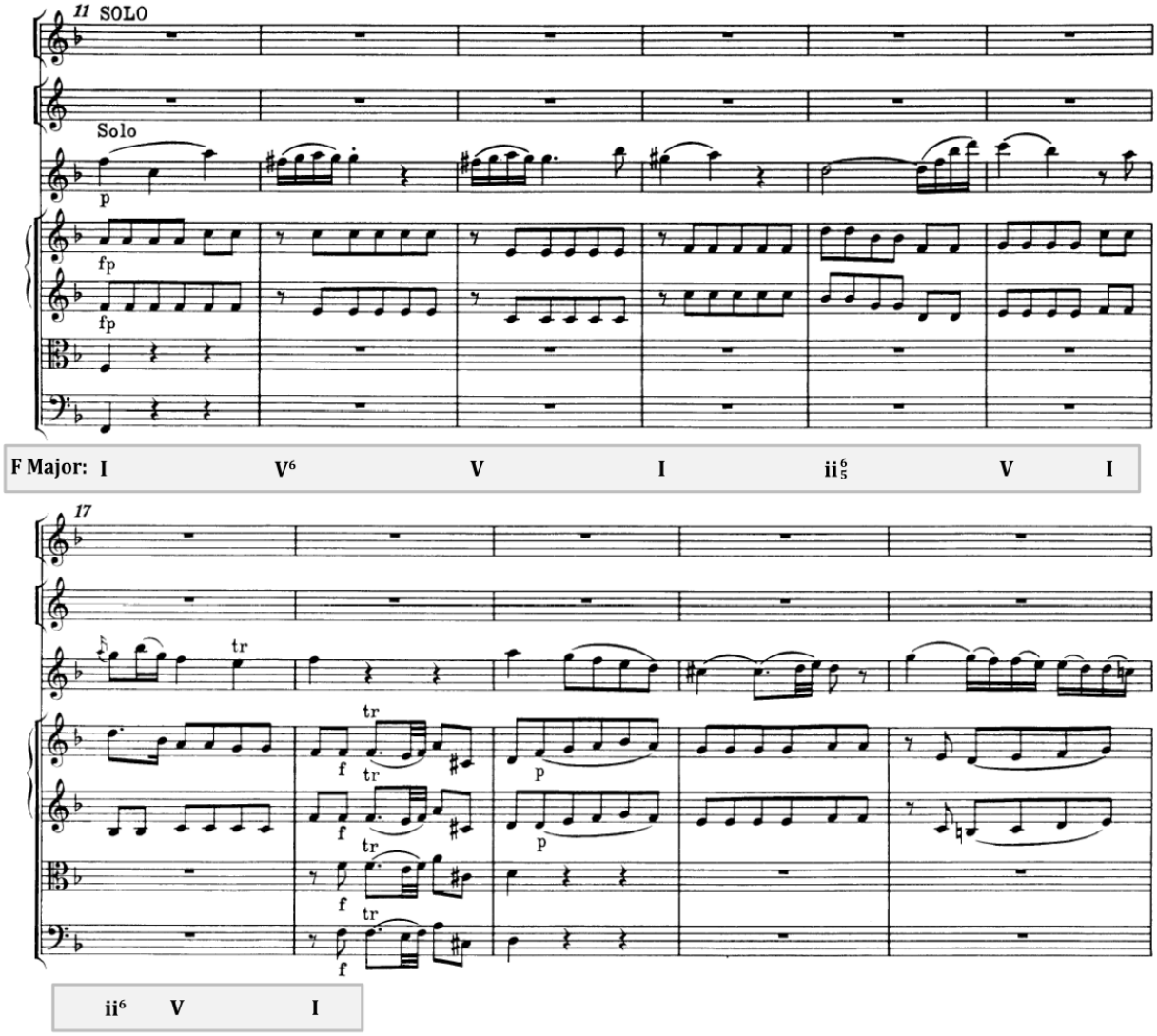
Excerpt 2.3: Johann Sebastian Bach–Brandenburg Concerto No. 2, movement 1 (mm.1-8)



This excerpt is from the opening of Johann Sebastian Bach's *Brandenburg Concerto No. 2* and continues the discussion on expansion of the tonic functional area. The harmony is not hard to discern simply from the melody as it obviously outlines the harmony with arpeggiations and passing tones. The harmony changes from I to V in the third measure, and then returns to I in the fifth measure. The motion from V to I is repeated in diminution (at a faster rate) in the seventh measure. In the final measure, the

harmony moves by beat from IV to V to I (predominant, dominant, tonic). Sometimes players struggle to find meaning in the endless churning of baroque figuration, but the harmony makes it clear that most of the figures in this stretch of music are not harmonically significant and thus most of the notes should not be brought to the forefront. All of the figuration and preliminary teasing motion between V and I is driving toward the final cadence, which feels like a moment of arrival because the dominant harmony is prepared by a predominant IV chord before its resolution to I. Note that this excerpt also comes to rest with a *perfect authentic cadence*.

Excerpt 2.4: Wolfgang Amadeus Mozart–Concerto in C for Oboe, K. 314, movement 2 (mm.11-17)

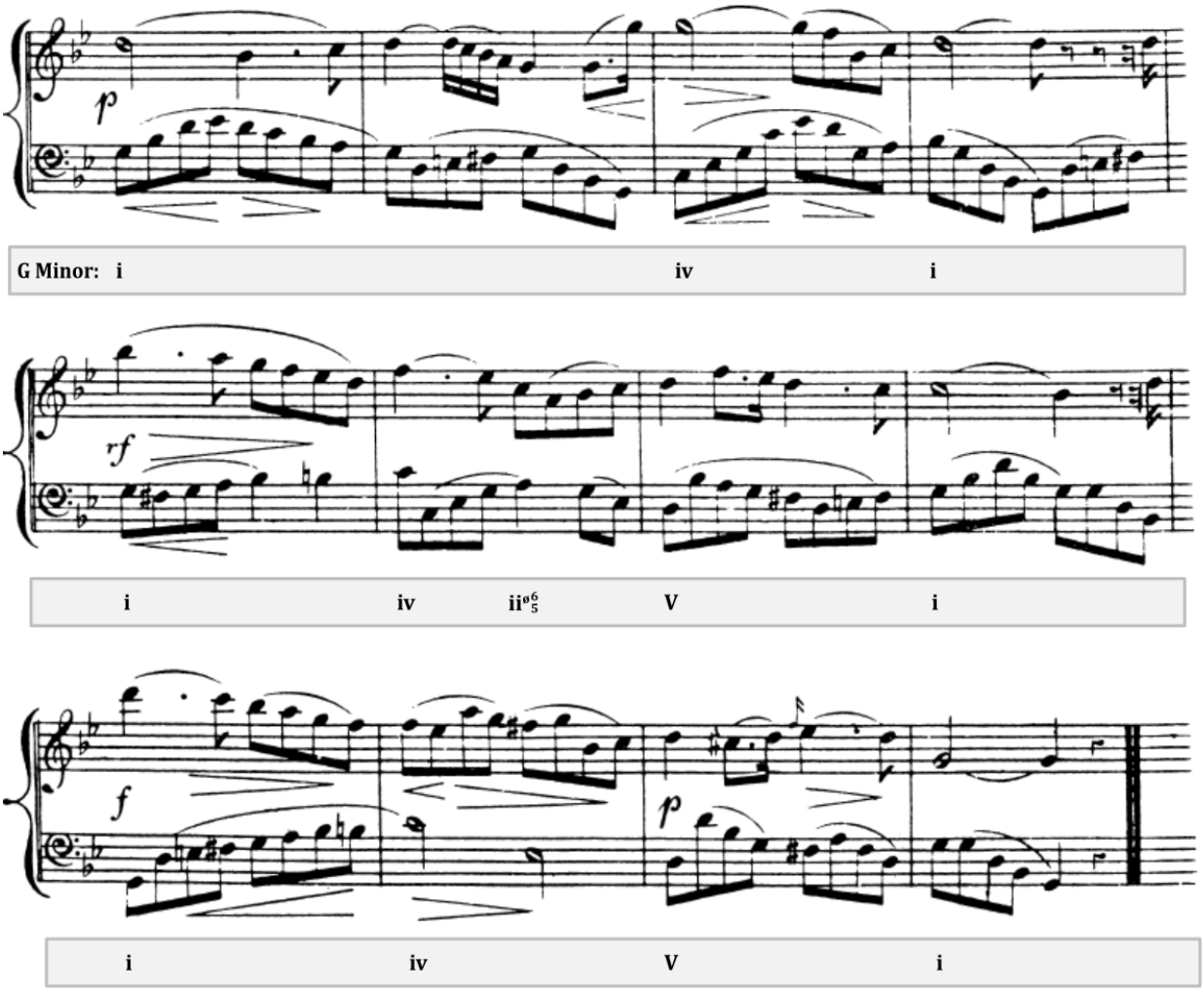


This excerpt comes from the second movement of Wolfgang Amadeus Mozart's Concerto for Oboe and shows how the V chord can be used to expand the tonic, demonstrates use of the ii^6 chord, and illustrates the relative strength of two types of cadences. If we look at the first four measures, we see a short phrase that moves from I to V and back to I. The first measure of the oboe solo moves in large leaps between chord tones, which means each note needs to lead seamlessly to the next until the harmony changes to V in the second measure. The second measure is characterized by its accented non-chord tones that resolve to

the G. The third measure continues the dominant harmony and the motive of the previous measure is repeated and extended into the fourth measure with an appoggiatura that resolves into the tonic harmony. The second phrase immediately departs from the tonic and moves to the predominant realm. The fifth measure arpeggiates through the chord tones of the supertonic harmony before relaxing into the dominant harmony in the sixth measure. This dominant harmony is interrupted by a brief tonic pick-up that then leads us through ii and V harmonies again, though this time, we arrive at the tonic in the eighth measure. It may seem that these two phrases are unrelated, but knowing the patterns of tonic, predominant and dominant chords allows us to create an overarching framework for all eight measures. In the first sub phrase, the V chord appears as a neighbor chord to I. Locally, it may be a pleasing harmonic departure, but in the context of the larger phrase, it is an expansion of the tonic function. In the second sub phrase, the V chord appears in the sixth measure, but does not return to I, thus the phrase is left open and unresolved. The most significant harmonic motion occurs in the seventh and eighth measures–the harmonic rhythm accelerates as the predominant harmony of the ii^6 moves to the dominant harmony halfway through the measure, and finally to the tonic in the final measure of the phrase. This deeper level of analysis allows the performer to understand which harmonic moments are significant and which are only local expansions of other harmonies. For example, the resolution of V to I in measures 3 and 4, is assuredly a resolution, but the arrival of I is not as significant as the arrival of I in measure 8 after a complete cycle through predominant and dominant harmony.

Analyzing the cadences in this excerpt adds to our argument. The first four bars come to a harmonic resting place and because the motion moves from V to I, it is considered an *authentic cadence*. However, in this *imperfect authentic cadence*, the bass motion is not in root position, and the solo line does not come to rest on $\hat{1}$. The final cadence is a *perfect authentic cadence*, thus giving the phrase a sense of finality that was lacking with the first cadence. When we interpret the first four bars as a tonic expansion and then see them come to a rest on an imperfect authentic cadence, it is easy to see that they are only the beginning of a larger phrase shape.

Excerpt 2.5: Apollon Marie-Rose Barret–Melody No. 6 (mm. 27-38)



This excerpt comes from the end of Barret Melody No. 6 and uses the iv chord both to expand tonic and to prepare the dominant. This excerpt also demonstrates some important principles regarding cadences. The first four bar phrase moves from i to iv and back to i. Since this is a complete idea or phrase, some might label this cadence a *plagal cadence*, or a cadence that resolves from iv to i. The next phrase moves through the complete phrase model: T-PD-D-T. It is interesting to note that the iv chord transitions into the stronger predominant chord, $ii^{\varnothing 6}_{5}$ with the movement from G to A in bass, thus expanding the predominant functional area. Since this phrase resolves from V to i, it is considered an *authentic cadence*, a stronger

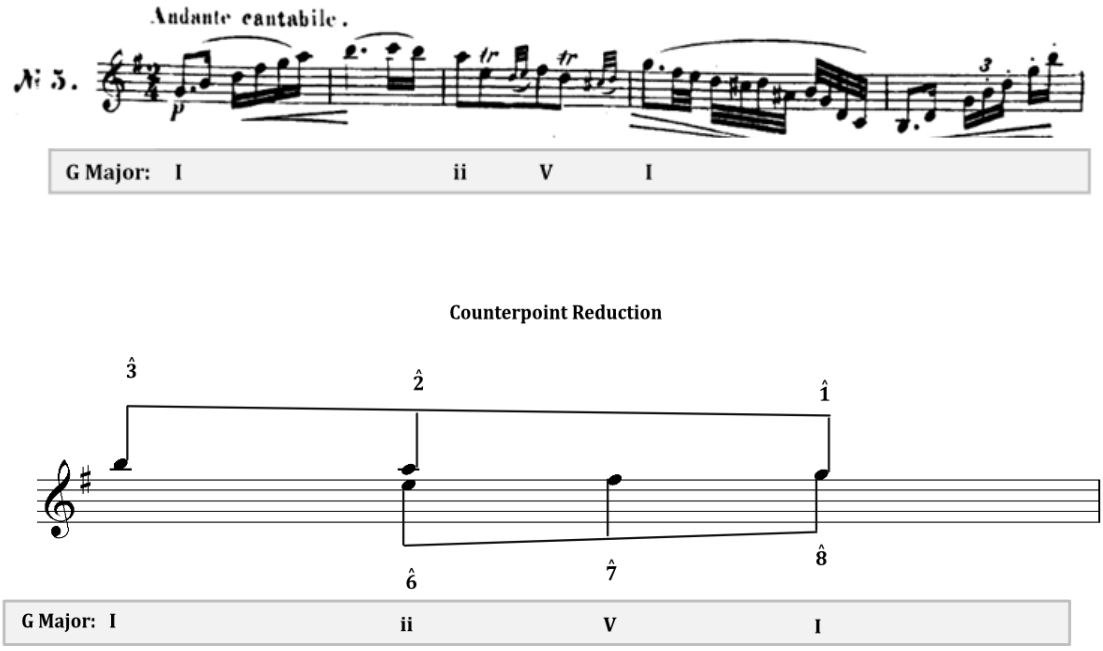
cadence than a *plagal cadence*, and since the top line resolves down to $\hat{3}$ instead of to $\hat{1}$, we further categorize it as an *imperfect authentic cadence*. The last line follows the same harmonic structure as the previous line, but the melody plays an important role in strengthening the cadence for the final iteration of this harmonic statement. In the final resolution of V to I, the oboe melody comes to rest on $\hat{1}$, thus creating a *perfect authentic cadence*. This is the strongest form of cadence because it returns to tonic both harmonically and melodically.

The relationship between these three phrases and the drive toward the final phrase can be seen on several levels. The strength of the cadences increases with each line–plagal, imperfect authentic, and finally perfect authentic. As we've seen in previous excerpts, the first phrase can be described as an expansion of the tonic. The second phrase does prepare the dominant with a predominant chord and resolves to the tonic, but as stated previously, this cadence is not strong because the melody does not return to $\hat{1}$. The final phrase ends in a strong perfect authentic cadence. If we were to analyze the entire three-phrase excerpt, we could consider that the final line contains the "true" harmonic motion through predominant, dominant, and tonic and that the previous lines, even the second line, are expansions of the tonic. Another interesting relationship arises when we examine the melody of these three lines, particularly the highest and lowest points in each. The first line rises up to a G and comes to rest on a D. The second line peaks almost immediately a third higher than the previous line at a high $B^{\flat}$, but comes to rest a third lower than the previous line at a mid-line $B^{\flat}$. The final line peaks a third higher than the first, completing the outline of the ascending tonic triad, and then finally comes to rest at the tonic, a third lower than the previous line, thus completing the outline of a descending tonic triad. Each line expands outward, adding to the increased strength of each line.

When we consider the cadences, harmonic progression, and even the melodic contour of each line, it is clear that these phrases are not individual events, but successive moments in one story. The player can take this insight into consideration when interpreting this etude. The silence at the end of the weaker cadences can be filled with anticipation for the coming stronger cadences, the weight of the perfect authentic

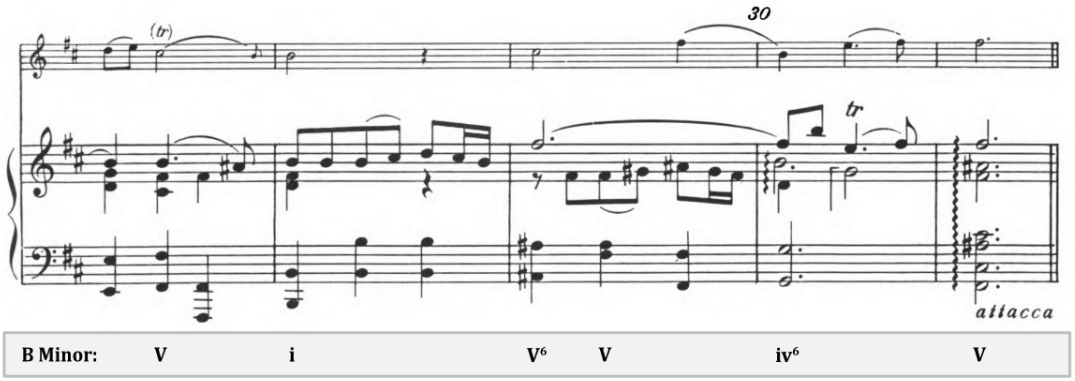
cadence and its harmonic and melodic underpinnings can be highlighted as the most significant moments of tension and release, and the contour of each line can be brought to the forefront, particularly, the successive leaps upward.

Excerpt 2.6: Franz Wilhelm Ferling–Etude No. 5 (mm.1-4)



This excerpt is from the opening of Ferling Etude No. 5. It follows the typical phrase outline, but also demonstrates how even a simple melody can contain complex harmonic information. The first measure follows the ascending tonic triad with a few passing tones to arrive on a high B. The B reaches toward the upper neighbor before coming back down the scale to rest on A, $\hat{2}$. The motion from B to A uses the strong melodic tie between the I chord and the ii chord. The A then moves down to the chord tone E, $\hat{6}$. It then moves up a step to the F♯, $\hat{7}$, using the strong melodic tie between the ii chord and the V chord. The F♯ skips down to the chord tone D, $\hat{5}$, which moves up to G, $\hat{1}$, upon resolution to the tonic chord, a classic harmonic motion. It is interesting that even with a melody instrument that can play only one note at a time, motion through the phrase can support two distinct lines: the motion from $\hat{3}$ - $\hat{2}$ - $\hat{1}$; and the motion from $\hat{6}$ - $\hat{7}$ - $\hat{8}$. This counterpoint that points toward the tonic strengthens the harmonic motion through the phrase.

Excerpt 2.7: Tomaso Albinoni–Concerto for Oboe in D Major, Op. 7, No. 6

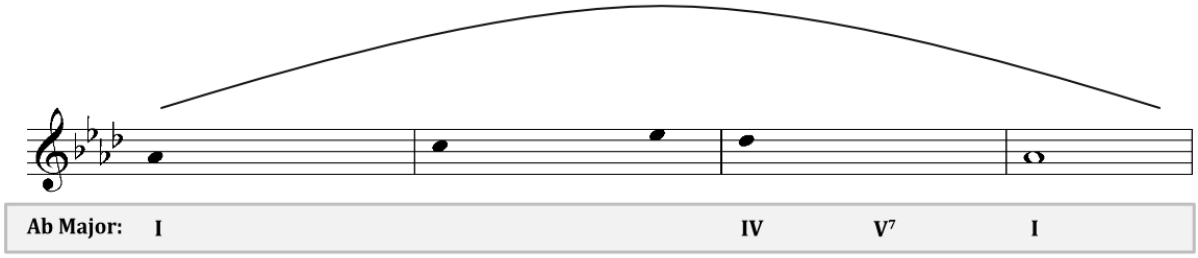


This excerpt comes from the second movement of Tomaso Albinoni's Concerto for Oboe in D Major, Op. 7, No. 6, and demonstrates a very specific kind of *half cadence*, called a *Phrygian cadence*. This cadence gets its name because the half step movement downward in the bass line is reminiscent of ♭ii-I motion, common in sixteenth century music written in the Phrygian mode. This kind of cadence was a popular trope in Baroque music, and often signaled the end of a slow section that would move on *attacca* to a new faster section. In this case, it is used after the final perfect authentic cadence of the slow movement. The half cadence effectively delays our feeling of return or rest, thus preparing our ear to hear the next movement.

2.3 Improvisation and Composition

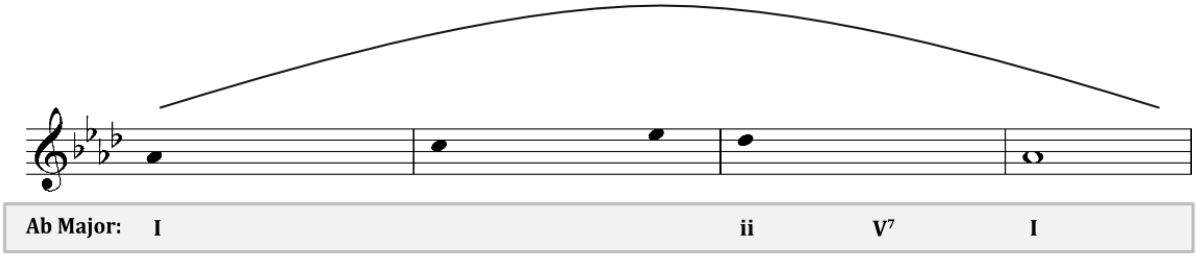
- Complete this melody following an arc contour. Embellish the melody, but be sure that a melodic reduction supports the progression through the given harmonies.

Exercise 2.5: Improvisation A



- Alter the melody slightly so that it outlines ii harmony instead of IV harmony.

Exercise 2.6: Improvisation B

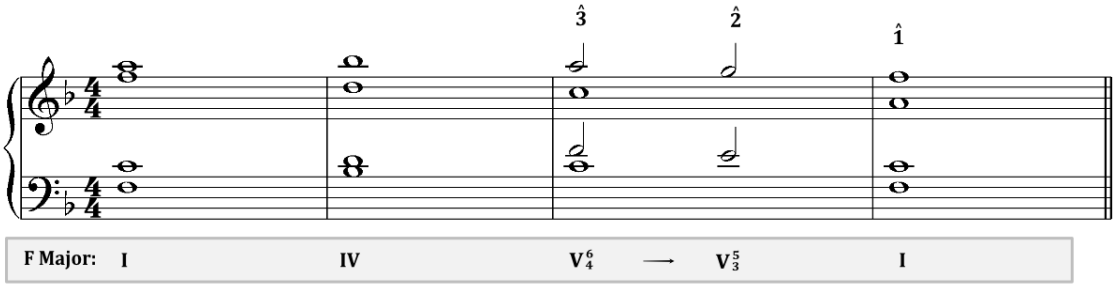


Chapter 3: The Cadential Six-Four Chord

3.1 Concepts and Exercises

We've discussed how the tonic area of a phrase can be expanded to bring variety and interest to the music. The dominant area can also be expanded, and the most common expansion comes from the tradition of a 4-3 suspension (or a suspension of the third of the chord) over the V chord at strong cadential moments. In the following example, notice how the V chord arrives in the bass, but the arrival of the 3rd and 5th of the chord is suspended until later. If you can, play through the exercise on the piano, noticing how the arrival of the V chord is suspended in the third measure. Then play the top line on the oboe and try to play the first note of the third measure as a non-chord tone, which resolves later in the measure.

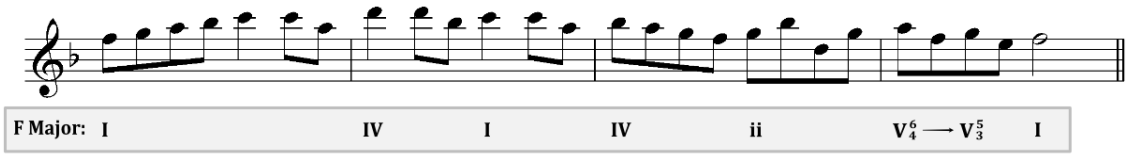
Exercise 3.1: Chord Progression with Cadential Six-Four



The chord that occurs during the suspension is labeled a V_4^6 chord because it is created by placing notes a 6th and a 4th above $\hat{5}$. Although it looks like a tonic chord in second inversion on its own, it sounds and functions as a dominant chord with two non-chord tones ($\hat{3}$ and $\hat{1}$) that resolve over that same bass. Therefore, we label it as a V. It is often called the *Cadential Six-Four Chord* because of its common occurrence at strong cadences. The motion of $\hat{3}$ - $\hat{2}$ - $\hat{1}$ in the top line at the end of the phrase is both characteristic of a cadence that uses the cadential six-four, and also a demonstration of its melodic potential. A step-wise descent to the tonic is a favorable melodic cue for the end of a phrase. The cadential six-four chord almost always occurs on a strong beat, as it technically contains two accented non-chord tones.

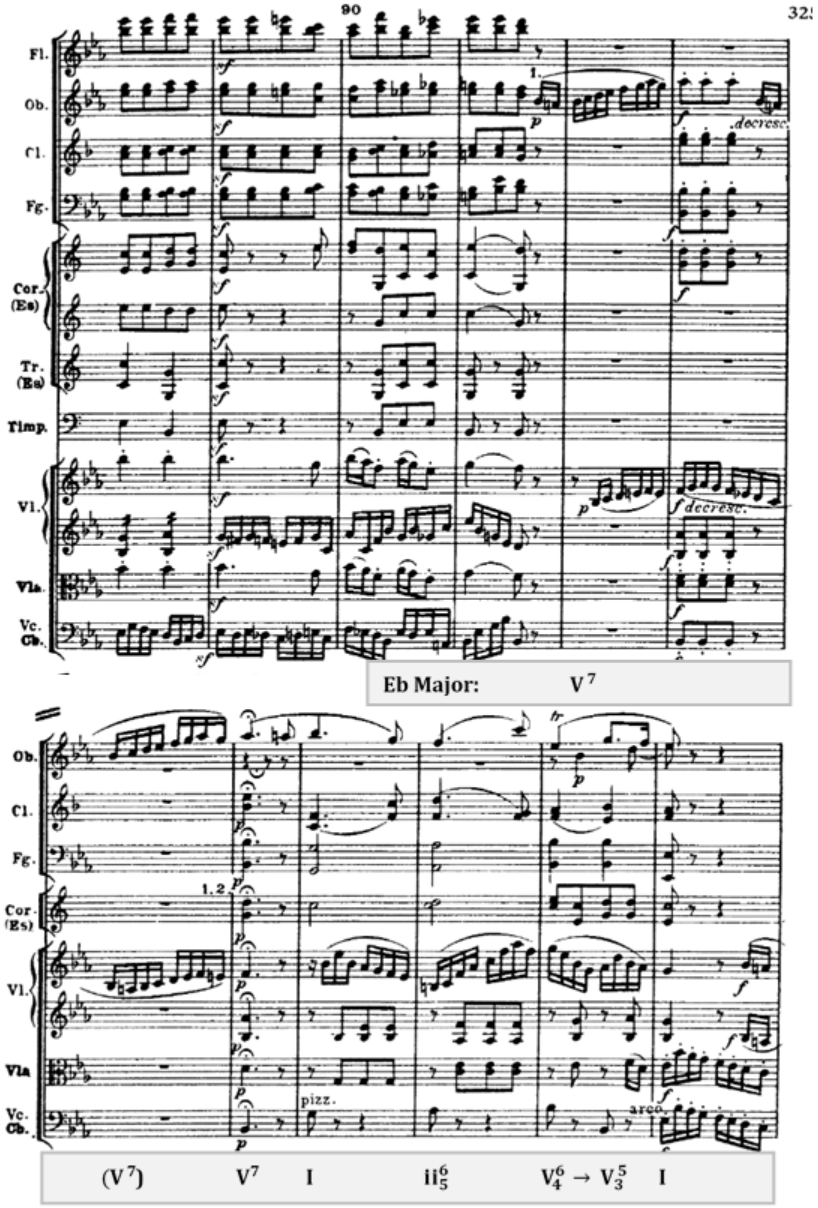
In this next exercise, you will play through a phrase that includes a cadential six-four chord. Notice that the step-wise resolution of the 6th and 4th above the bass to the 5th and 3rd is obfuscated slightly in a more broken texture in the first half of measure 4. Still, the suspension remains and the function of the chord maintains its role as an extension of the dominant harmony.

Exercise 3.2: The Cadential Six-Four Chord in a Simple Melody



3.2 Musical Examples

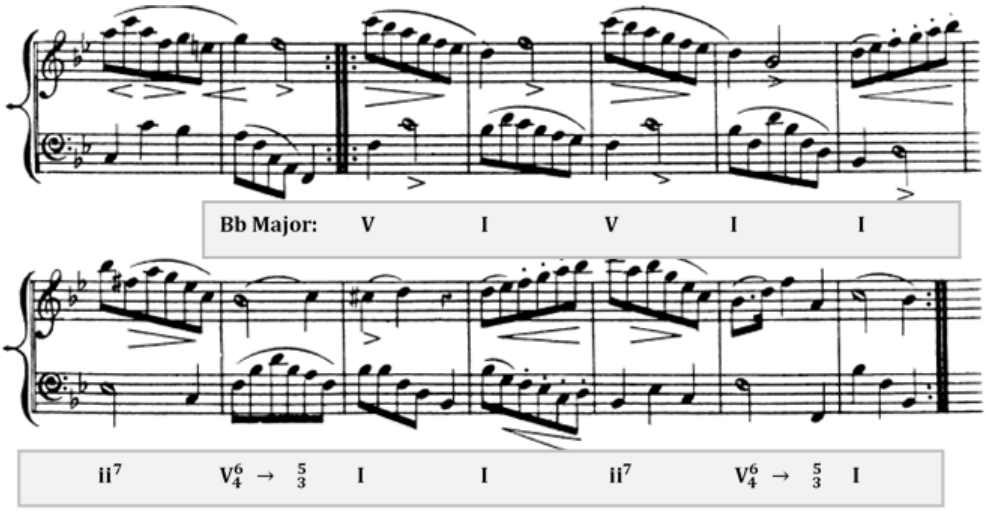
Excerpt 3.1: Ludwig von Beethoven–Symphony No. 3, movement 4 (mm. 91-99)



The solo from the last movement of Beethoven's Symphony No. 3 shows the use of a cadential six-four chord in a simple phrase. In measure 92, the oboe soloist plays scales over a V^7 chord for four measures, finishing on a held high $A^{\flat}$, or $\hat{4}$. The suspension of the V chord is broken after the fermata with a chromatic passing tone that leads to the tonic chord. The I chord leads to a ii^6_5 chord which prepares the

dominant in the following measure. Measure 99 is our measure of interest–the first beat contains a cadential six-four chord. The E and the G in the oboe solo line are the 6th and the 4th above the bass. The G is of particular interest to us because its resolution down to F over the V chord and the following resolution down to E$^{\flat}$ over the I chord show a descent of $\hat{3}$ - $\hat{2}$ - $\hat{1}$. And if we include the high A$^{\flat}$ held in the fermata before, we have an overall descent from $\hat{4}$ down to $\hat{1}$ that ties these two sub-phrases together. This descending line is the structural backbone for the melody that is especially well-supported by the harmonic motion from cadential six-four to dominant to tonic. A player that recognizes the melodic framework can emphasize the melodic descent, and can use the suspension created by the cadential six-four chord to strengthen the effect of the cadence.

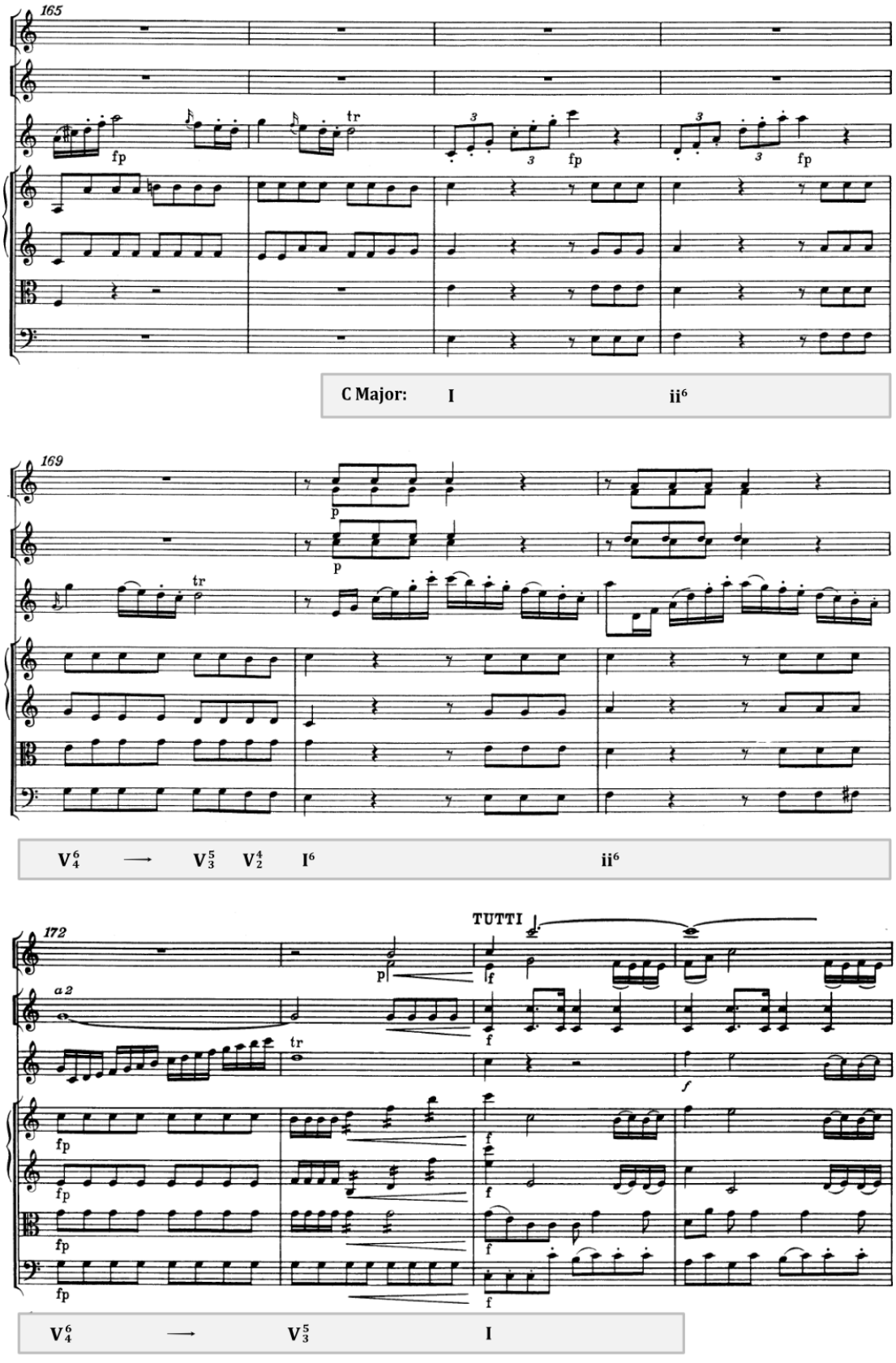
Excerpt 3.2: Apollon Marie-Rose Barret–Melody No. 5 (mm. 9-20)



This excerpt comes from the second strain of Barret Melody No. 5 and shows the use of two cadential six-four chords, one in an imperfect authentic cadence, and one in a stronger perfect authentic cadence. The first four measures after the repeat sign alternate between dominant and tonic harmonies. The linear progressions over the V chords complete the interval between chord tones C and E♭ and then smoothly resolve into the third of the tonic chord. The first time this happens, the third bounces up to the fifth of the I chord. The second time it bounces down to the more stable root of the chord, creating a stable end to a four-bar phrase. This phrase does not create much harmonic interest as the V chords function more as local sources of tension than as an important structural goals. The following phrase holds much more harmonic interest as it moves quickly from tonic to supertonic and into the dominant functional area. The tonic chord is strongly insinuated in the 7th measure with both the $\hat{1}$ in the oboe line and tonic arpeggiation in the bass, however, with $\hat{5}$ appearing in the bass on the strong beat and the context of a predominant chord preparation, this first beat of the measure can be analyzed as a cadential six-four chord that resolves to the dominant on the third beat. It is interesting that the characteristic step-wise downward descent is absent in the oboe voice. The constraints of two-part writing can hide the usual qualities of suspension, but the function of the suspension (to express dominant harmony in the bass line while suspending that harmony in the upper voices) is maintained. The dominant harmony resolves to the tonic, however $\hat{1}$ is not used in the

solo line, so the cadence is weak, imperfect. The phrase begins again in a similar manner, this time reaching much higher in the oboe solo line during the predominant preparation for the dominant. This time, when the cadential six-four chord suspends the dominant harmony, the descent of the 6th and the 4th is more discernible. In the oboe part, the B$^{\flat}$ and D in the first beat are the 6th and the 4th, and they are resolved downward, somewhat indirectly, in the A in beat 3 of the same measure and the C appoggiatura in the final measure. Awareness of the cadential six-four chord in these twelve measures gives the performer vital information. The growing strength of each successive cadence ties the three four-bar phrases into one long idea. Each could be played as a stand-alone phrase, but when each is played with the anticipation of continuation and growth, the music moves forward.

Excerpt 3.3: Wolfgang Amadeus Mozart–Concerto in C for Oboe, K. 314, movement 1 (mm. 167-173)

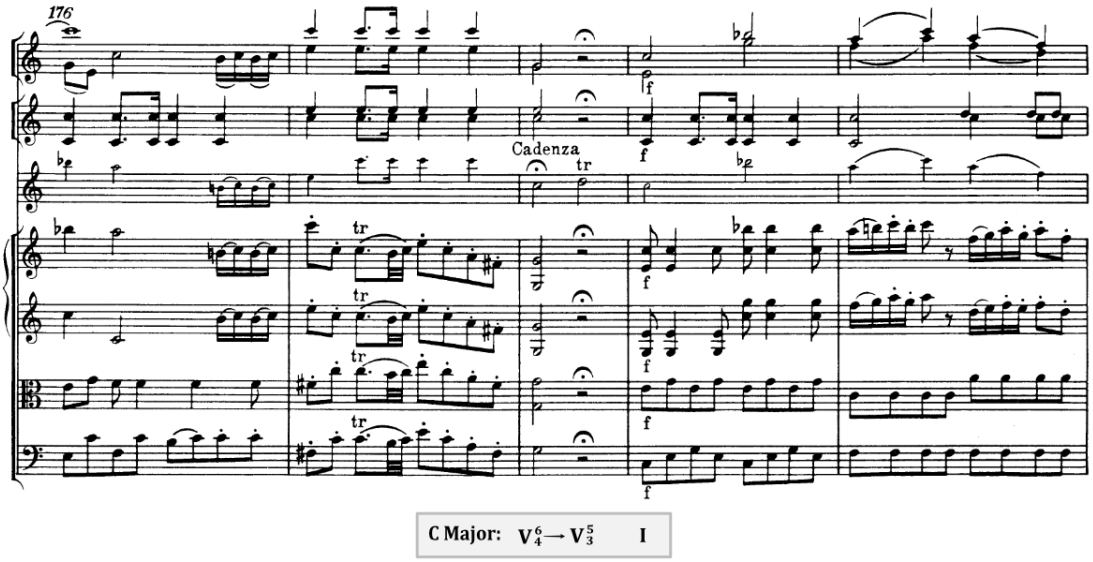


This example is from the first movement of Mozart's Concerto for Oboe. It demonstrates the first strong cadence in C major since the piece modulated to G major in the exposition. It is an important structural moment in the piece, so the use of the cadential six-four chord is especially apt as it intensifies the movement from V to I. The phrase begins with an arpeggiation of the I chord followed by an arpeggiation of the ii chord in the oboe line. The predominant moves into the dominant area with a cadential six-four chord in measure 169. The bass line arrives at the V chord, but the upper accompanimental voices hold the 6th and 4th above the bass until the end of the measure. The oboe line does not descend directly from $\hat{6}$ to $\hat{5}$ or from $\hat{4}$ to $\hat{3}$, but the effect of playing the linear progression from G down to C over a G held in the bass line has the effect of delaying the motion to V. The trill in beat 3 encapsulates the movement from the cadential six-four chord to the dominant harmony–the implied appoggiatura (E) corresponds with the suspension, and the written chord tone (D) corresponds to the dominant chord. Incidentally, the role of the appoggiatura in the resolution of the cadential six-four chord is a good argument for beginning trills on the upper note and leaning into the dissonance, even in post-Baroque repertoire. The D then resolves to the C, though only in the accompaniment. With the absence of a resolution to the tonic in the solo oboe line and a last minute movement to the V^4_2 in the bass, the cadence turns the corner for "one more time around," and the phrase restarts.

The arpeggiations through the I chord and the ii chord are repeated and move into the cadential six-four chord in measure 172. This time the suspension of the V chord is extended to a whole measure. The solo line plays a C major scale over the $\hat{5}$ in the bass, thus suspending the dominant harmony. The accompanimental upper voices move down step-wise into measure 173 as the oboe holds a trill. As before, the implied appoggiatura of the trill (E) is the 4th of the V^6_4 chord and moves into chord tone D, the 3rd of the V^5_3 chord. This time the oboe solo line resolves into the tonic chord for the first strong cadence in the original key of C major since the exposition.

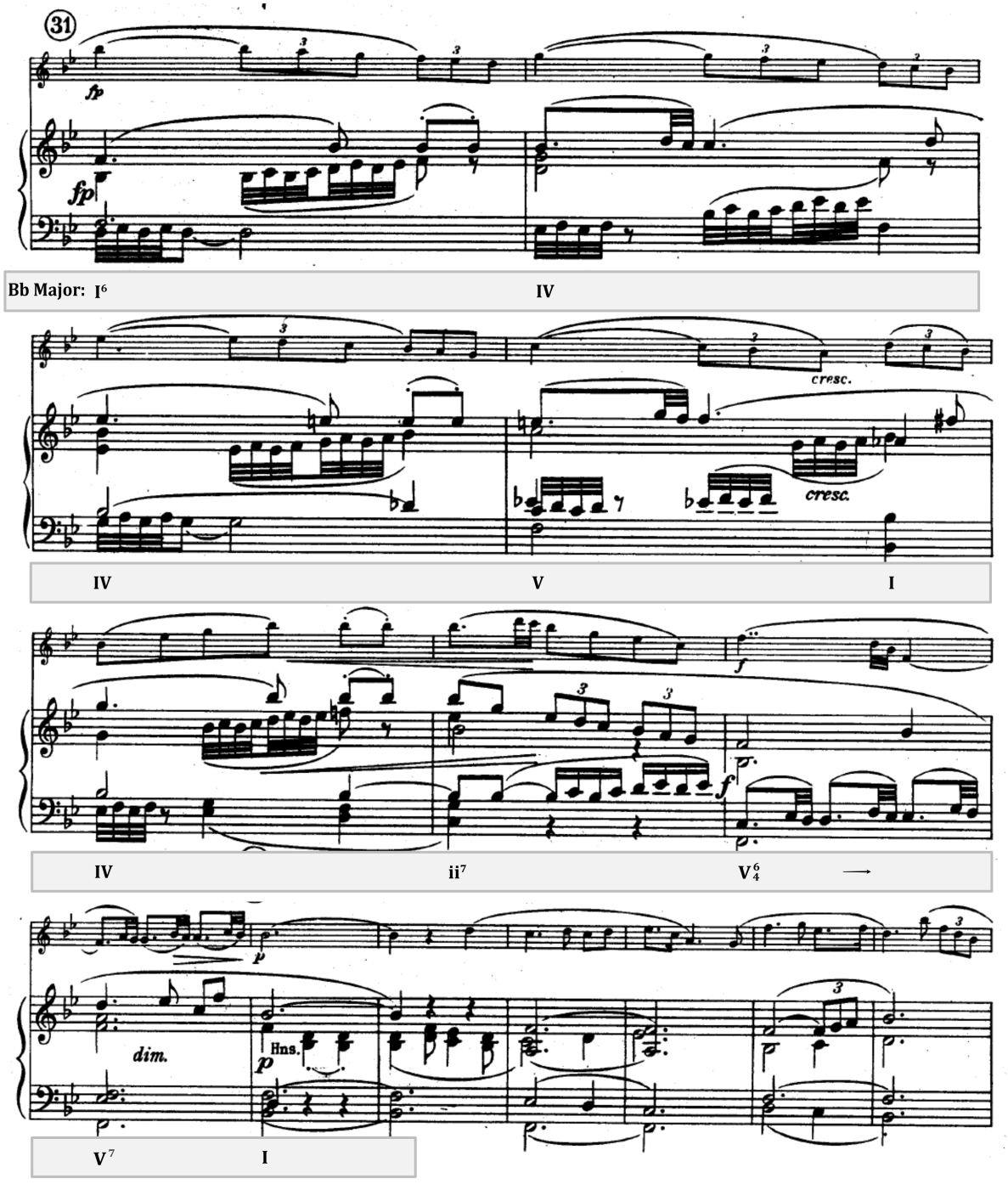
The oboist can use these cadential six-four chords to great advantage. The first one, in measure 169, cues a strong cadence, and the oboist can use the cadential cue to feint resolution to the tonic. After the first cadence ”fails,” the second cadential six-four chord and all that it insinuates can take its full effect, bringing the release of a true resolution to tonic.

Excerpt 3.4: Wolfgang Amadeus Mozart–Concerto in C for Oboe, K. 314, movement 1 (mm. 178-179)



Just a few measures after the previous excerpt, the orchestra stops on a cadential six-four chord before the soloist improvises their cadenza. The cadential six-four chord is the classic chord for preparing a cadenza. The suspension over $\hat{5}$ in the bass creates an atmosphere of tension over which the cadenza can modulate through various themes and motives from the concerto. The suspense inevitably returns to a trill over the V chord and a resolution to the tonic. In a way, the entire cadenza is a further extension of the dominant functional area, set up by a cadential six-four chord and finalized with a dominant chord resolving to the tonic chord.

Excerpt 3.5: Richard Strauss–Concerto for Oboe, movement 2 (mm. 320-329)

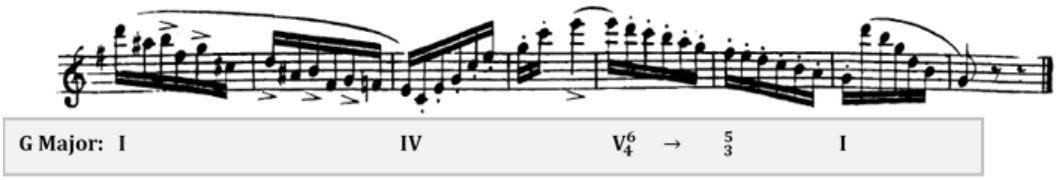


This excerpt comes from the second movement of Richard Strauss' *Concerto for Oboe*. The first four bars cycle through a normal phrase structure– I - IV - V - I, although the resolution to I is fleeting and unsatisfying as it immediately moves on to a IV chord in the fifth measure. The IV chord then moves to a ii

chord rather seamlessly in the sixth bar. The oboe solo in that sixth bar arpeggiates the ii chord, and this arpeggio should seem familiar because it has been hinted at in the oboe solo since the beginning of the excerpt–the high point at the beginning of each measure has moved from B$^\flat$ to G to E$^\flat$ to C to B$^\flat$. In fact, the entire first five bars could be interpreted as a melodic lead up to the introduction of the ii chord in the sixth measure, a prelude or expansion of the predominant functional area. It is hard to appreciate in this short excerpt, but Strauss' phrase development is full of expansion and suspension, every functional area is lengthened and augmented for maximum effect. Locally, the first four bars of the excerpt show movement from tonic to predominant to dominant and finally back to tonic. But in the larger scheme of the piece, these four bars are preparing the most important cadence of the movement by supporting the predominant harmony. In the seventh measure of the excerpt, the I chord is arpeggiated over the $\hat{5}$ in the bass (a cadential six-four chord), suspending the motion to the V chord which occurs in the eighth measure. Just as an expanded predominant functional area prepares and cues a strong perfect authentic cadence, so does the use of the cadential six-four chord. Even with Strauss' expanded phrases, extended chords, and colorful chromatic harmonies, the cadential six-four chord is still used at this harmonically significant moment.

This knowledge about phrase expansion and cadential cues gives the performer a lot of power. The entire page of music has one goal: to extend the tension of the phrase as long as possible and to finally release through resolution to tonic at the last moment. This has been a theme throughout this chapter and is particularly poignant in this excerpt. The ability of the oboist to create line of music on one line of wind that is uninterrupted by choppy articulation, wobbly vibrato, or inconsistent tone is of paramount importance. If the line "touches down" at any point during this excerpt of music, the harmonic goals and the effect of suspending the resolution are compromised.

Excerpt 3.6: Franz Wilhelm–Ferling Etude No. 6 (mm. 41-48)



This excerpt comes from the end of Ferling Etude No. 6 and demonstrates how to recognize and use a cadential six-four chord in an unaccompanied piece. The first two bars clearly show an arpeggiation of the tonic chord with chromatic lower neighbor embellishments. The third and fourth measures arpeggiate the subdominant chord quite plainly. The fifth and sixth measures are less obvious. The high E is a suspension held over from the IV chord in the previous measure, which resolves down to the high D. From the high D we have a linear progression down to A, a progression that insinuates dominant harmony. This analysis is an acceptable one, however a more nuanced alternative is available. If we divide the scale at the bar line, we could analyze the first measure as a linear progression from D through G (chord tones supporting a cadential six-four chord), and analyze the following measure as a linear progression from F♯ through A (chord tones supporting dominant harmony).

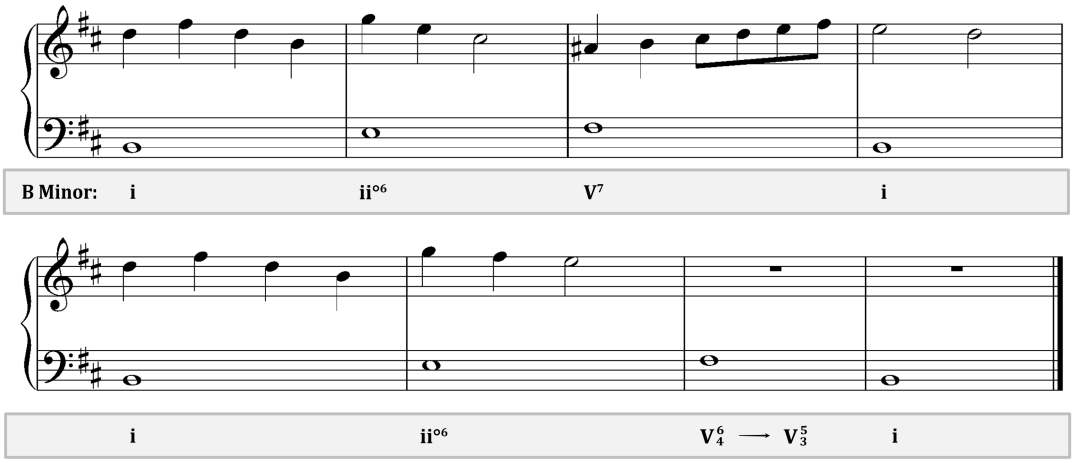
This analysis is favorable from a performance perspective for several reasons. First, the highest point in the melody is held as a suspension into the fifth measure, and thus its intensity must peak across the bar when it becomes a non-chord tone. Second, the use of a cadential six-four chord is a classic cadential cue, and the performer can treat the fifth measure as a suspension to create anticipation for the final cadential resolution. In addition, implying different harmonies in the fifth and sixth measures increases the harmonic rhythm at the cadence, which gives the cadence added strength and a feeling of inevitable motion toward the goal of tonic. If the performer plays each measure as a different chord, by changing tone color or showing a change of inflection at the bar line, the interest around the cadence is intensified. Finally, analyzing using a cadential six four gives an added melodic significance to the notes across the bar line between measures 5 and 6. The G and F♯ are the 4th resolving down to the 3rd above $\hat{5}$, two important

chord tones that define the relationship between the cadential six-four chord and the dominant harmony. The performer can draw the listener's ear to this confluence of melodic motion and harmonic significance at the bar line, a moment that may have been missed if the performer considered the scale from high D to the A as one gesture.

3.3 Improvisation and Composition

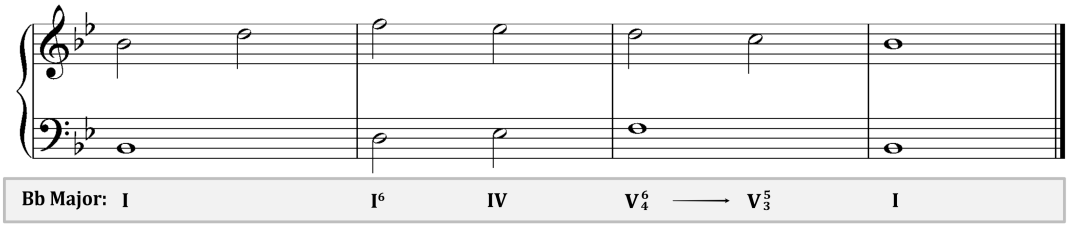
- Play through the first four bars of this phrase that end in an imperfect authentic cadence. Then begin the next phrase as the first began, but improvise a stronger cadence that moves through a cadential six-four suspension, resolution, and perfect authentic cadence.

Exercise 3.3: Improvisation A



- Take this melodic framework and embellish it using neighbor tones, linear progressions, arpeggiations. Use the harmony V^6_4 - $^5_3$ - I to undergird the last three tones in the descending line.

Exercise 3.4: Improvisation B



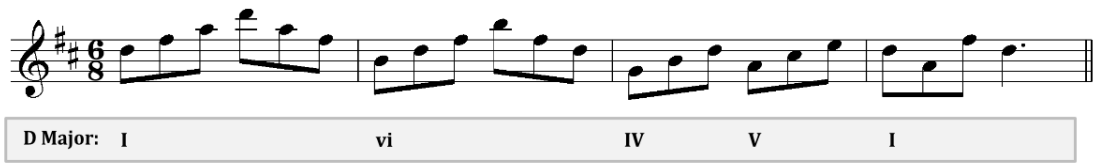
Chapter 4: The Submediant and Related Chords

4.1 Concepts and Exercises

The submediant chord is the triad based on the sixth scale degree, $\hat{6}$. The chord shares two tones in common with the tonic chord and two tones in common with the subdominant chord, so it is unsurprising that its function is most closely related to tonic and predominant function. It contrasts with these two chords in one important way, it is always in the opposite mode: in major keys, the submediant is minor, vi; in minor keys, it is major, VI. Its specific use in harmonic progressions is best illustrated using common favorable bass motion.

The first motion we will discuss is in descending thirds: I - vi - IV. Play through the following arpeggiation which moves through a descending thirds progression.

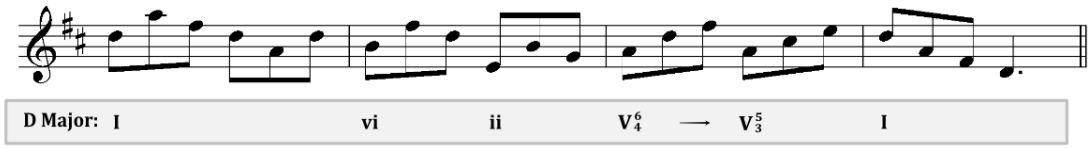
Exercise 4.1: vi in Descending Thirds from I: Bridge Between Tonic and Predominant



In this scenario, the vi chord forms a bridge between I and IV, between the tonic and predominant functional areas. This bridge is achieved through bass arpeggiation and common tones between chords. The fact that the vi chord brings a different color with its minor mode adds interest and color to the chord shift.

The next motion we will discuss is descending fifths: vi - ii - V - I. Play through the following arpeggiation that moves through a descending fifths progression.

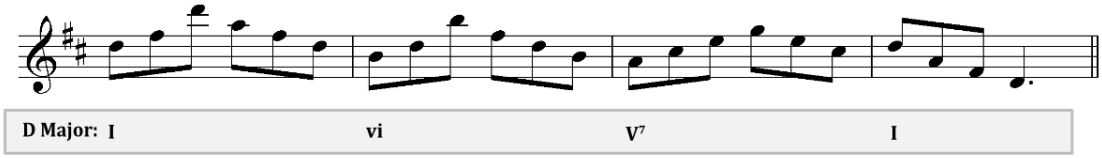
Exercise 4.2: vi in Descending Fifths to ii: Expanding Predominant



We have already established the movement from ii to V to I is a strong progression because the root moves down a fifth. Adding vi before the ii adds another root motion by fifth to the cycle. In this scenario, the submediant chord again serves as a bridge between the tonic and predominant areas of of the phrase.

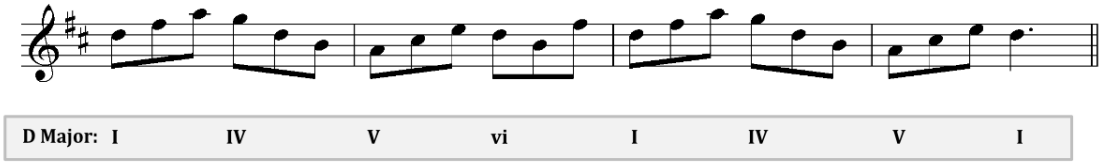
Sometimes the submediant chord can function as a predominant chord on its own, approaching V from above. This bass motion has less strength than a ii - V or a IV - V progression, but it is melodically favorable since the two chords share no common tones. The following arpeggiation demonstrates a progression from vi to V.

Exercise 4.3: vi Approaching V From Above: Predominant Function



The vi chord can also serve in a quasi-tonic function. Since the submediant and the tonic share two tones, the dominant can resolve to the vi (or VI) in what is called deceptive motion. In some cases, the resolution from V to vi feels enough like a resting point that it is called a deceptive cadence. The following arpeggiation demonstrates a progression with deceptive motion.

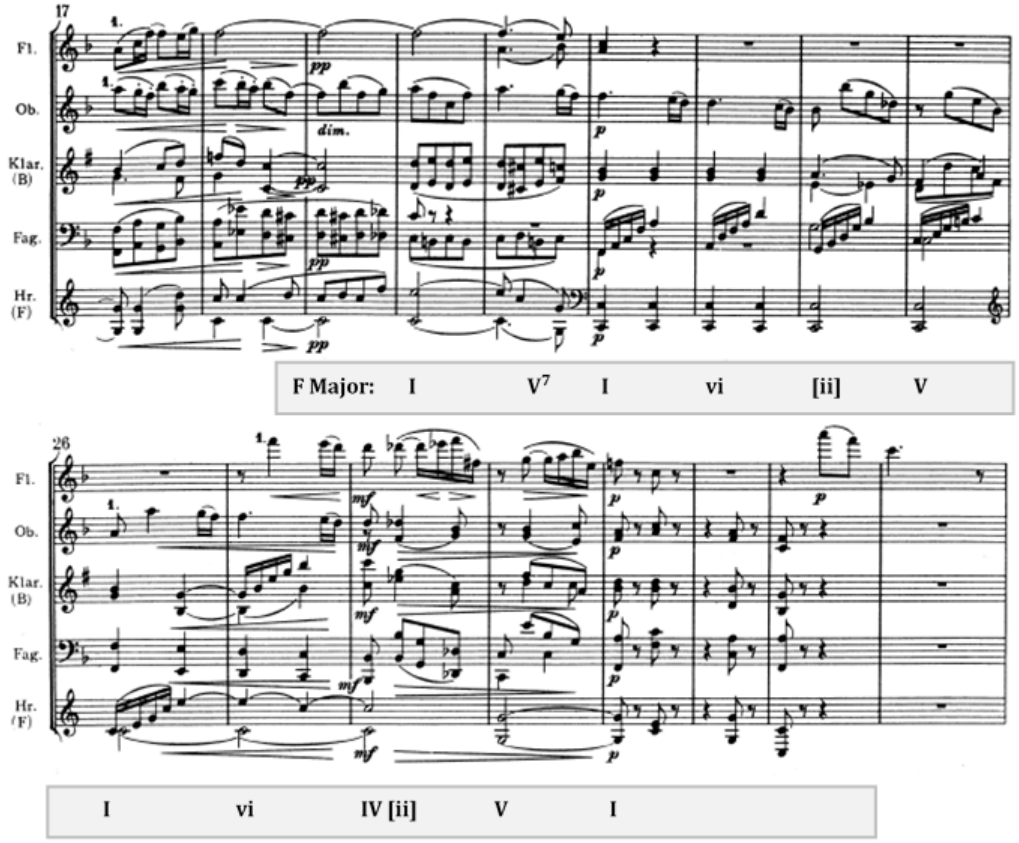
Exercise 4.4: vi in Deceptive Motion Within Phrase



In this progression, notice how the minor mode of vi chord affects the ”deceptive” feel of the resolution. It is almost as though the first two bars show a ”failed” cadence which then restarts and is completed in the following two bars. This type of treatment is common for deceptive motion and deceptive cadences.

4.2 Musical Examples

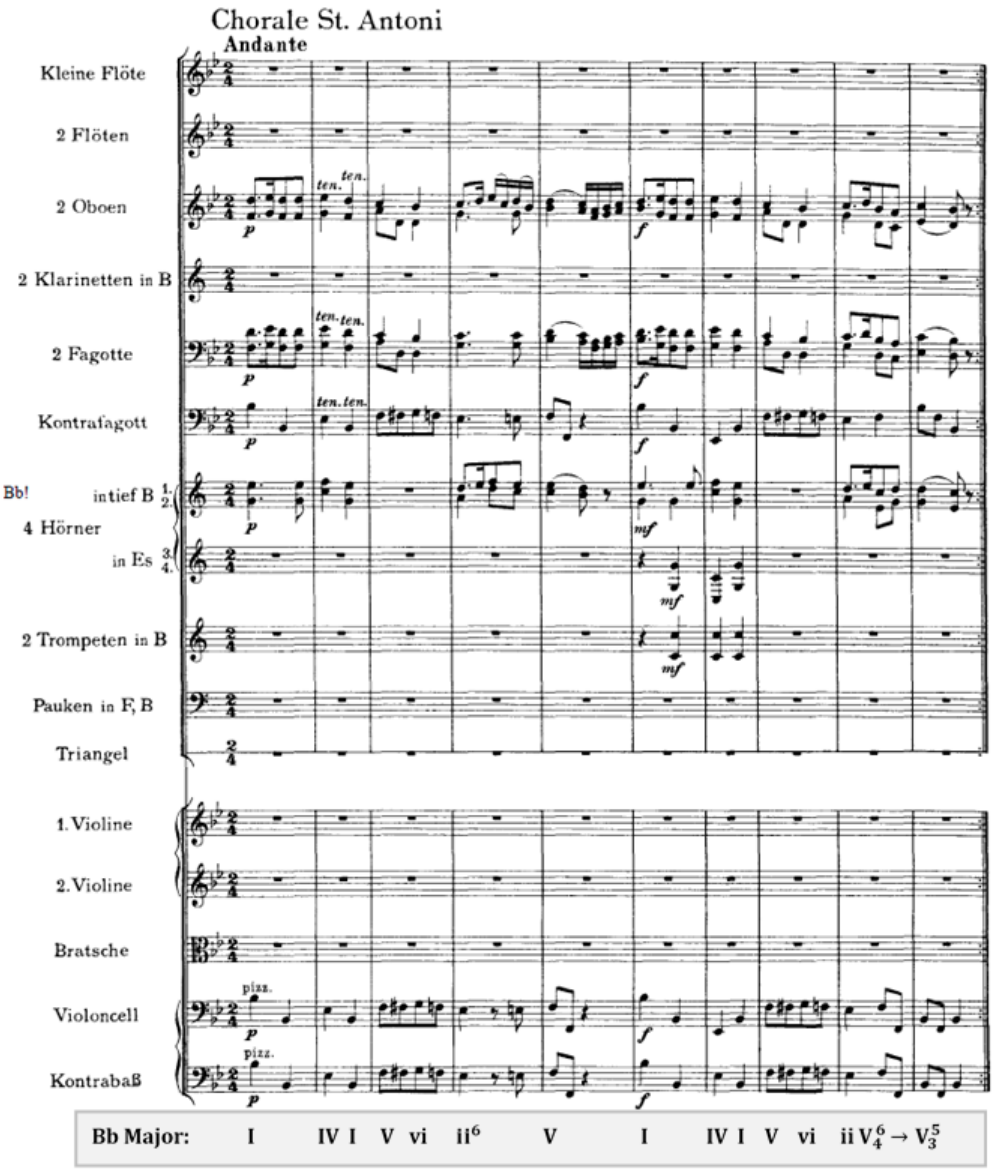
Excerpt 4.1: Johannes Brahms–Concerto for Violin, Op. 77, movement 2 (mm. 20-32)



This excerpt comes from the end of the famous oboe solo at the beginning of the second movement of the Brahms *Concerto for Violin*. It demonstrates how the submediant chord can serve as a bridge between tonic and predominant functions. The section of interest begins in measure 20: the opening theme is reapplied over a cadential six-four chord, which then resolves to the dominant at the last minute before resolving to the tonic chord in what should be a strong cadential resting point. However, the resolution is elided, or interrupted, using the very motives in the solo line and accompaniment that set up the ”failed” cadence. The tonic chord reaches forward instead of resting, and as the motives are repeated a third time, the melody moves to a submediant chord. This chord, with its shift to the minor mode, moves the melody away from tonic, but does not set up a convincing predominant functional area, thus extending the feeling that the

melody is not ready to rest. From the vi chord, the music finally moves through traditional predominant-dominant-tonic progression, however the cadence is elided a second time. As the phrase restarts, the chord progression repeats, though the melody is presented a third higher. The vi chord still expresses a reticence to rest, but this time, the movement through predominant-dominant-tonic phrase areas that ensues is ”successful.” The multiple phrase elisions coupled with the use of the vi chord to stretch out the movement through each phrase gives the overall melody in this excerpt the ability to float and extend, never landing or sitting still, until final cadence was ready to resolve.

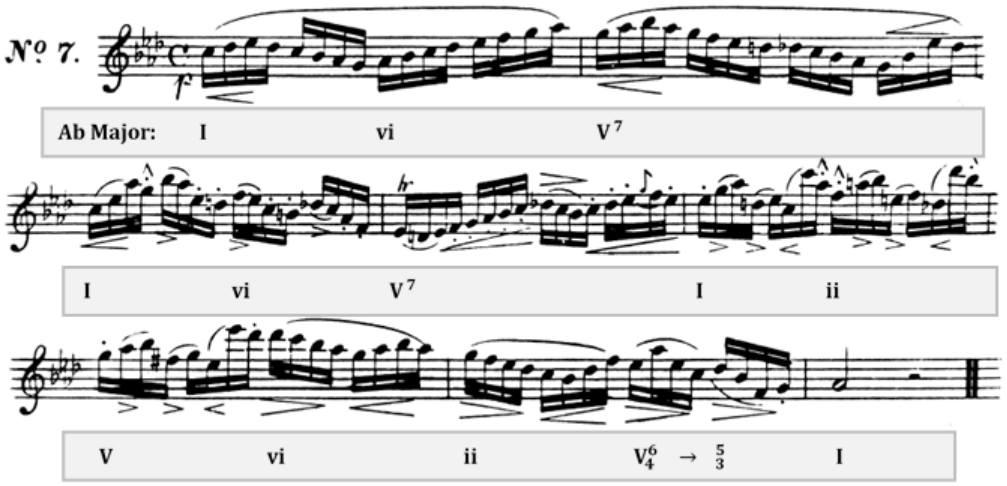
Excerpt 4.2: Johannes Brahms–Variations on a Theme by Haydn, Op. 56 (mm. 1-10)



This excerpt comes from the theme of Brahms' *Variations on a Theme by Haydn* and demonstrates the vi chord being used in a combination of deceptive motion and falling fifths motion. The piece begins with very fast harmonic motion. The tonic moves toward and away from a IV chord that expands the tonic, and then on to a V chord which resolves up to a vi chord instead of to the tonic. This motion to vi is considered deceptive motion because it feels like a resolution because the vi chord is so similar to the I chord, but it is in the "wrong" mode. The deceptive motion doesn't have a chance to settle, however. The vi chord moves

down a fifth (in root motion) to the ii chord, which then moves down a fifth to rest on the V chord for a half cadence. The second phrase mirrors the first, however this time the ii chord leads to to a cadential six-four which resolves to the dominant and finally the tonic chord. We consider these two phrases related because of their parallel openings. The first is an antecedent phrase because it uses a weak and open-ended half cadence. The following consequent phrase answers the half cadence with a strong perfect authentic cadence. This type of relationship between phrases is common, but this pair of phrases are interesting and unique because each is 5 measures long. Brahms uses the deceptive motion to move the course of the phrase away from a ”normal” progression, thus achieving the long extended phrase of the Romantic aesthetic.

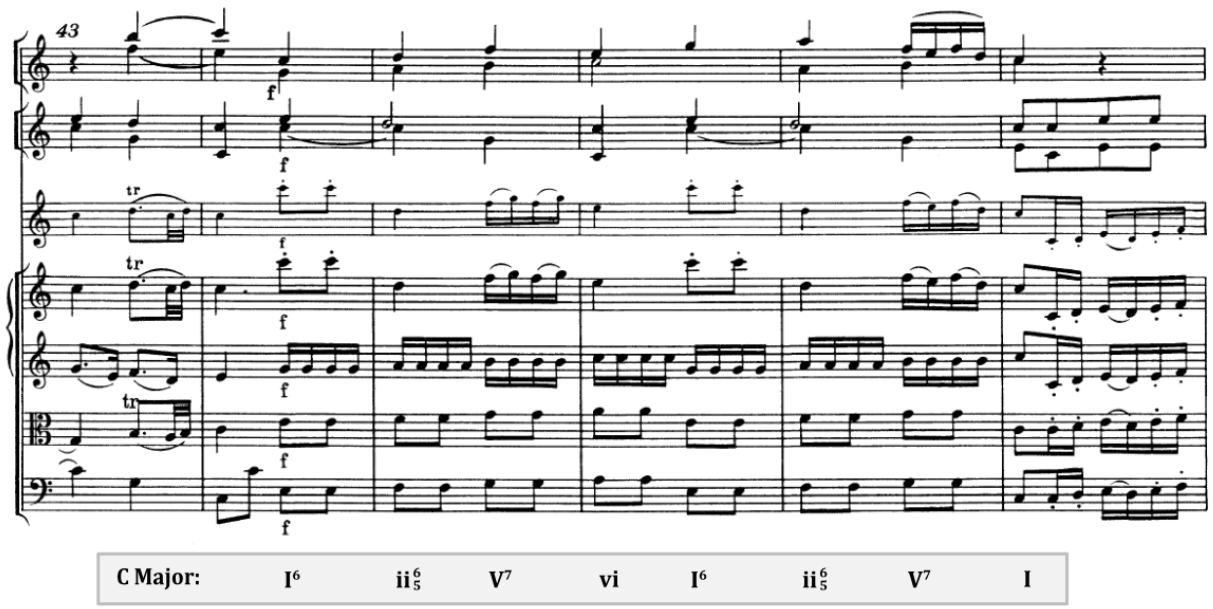
Excerpt 4.3: Apollon Marie-Rose Barret–Articulation Study No. 7



Barret Articulation Study No. 7 offers a glimpse at how the vi chord can serve as a predominant chord on its own in addition to demonstrating deceptive motion. It also includes the opportunity to creatively interpret harmony using cadential quality and metric context to build an interesting phrase. As we have discussed previously, the harmonic foundation of an unaccompanied melody can be subjective. For example, the duration of the first measure of this exercise could be interpreted as tonic harmony. However, if you wanted to get creative with harmonization, a vi chord would fit the melody in the second half of the measure and add nuance to an otherwise static harmony. A player could add depth, color and direction by imagining a chord change to the vi chord at the half bar. This chord change lifts the I chord to a new place and allows for a more interesting path to the V chord in measure 2. After moving through the V^7 chord, the harmony resolves to I but immediately restarts again without a real cadence. At this point, a similar scenario unfolds: the second half of measure 3 can be harmonized with submediant harmony for great effect. As before, after moving through the V^7 chord, the harmony resolves to I and doesn't stay. For this third "start" the harmony moves to a true predominant area with a ii chord, but after reaching this third V^7, the harmony moves to a new chord halfway through measure 6. Again, this chord could easily be interpreted as a I chord. However, deceptive motion with a vi chord fits the personality of this moment–the

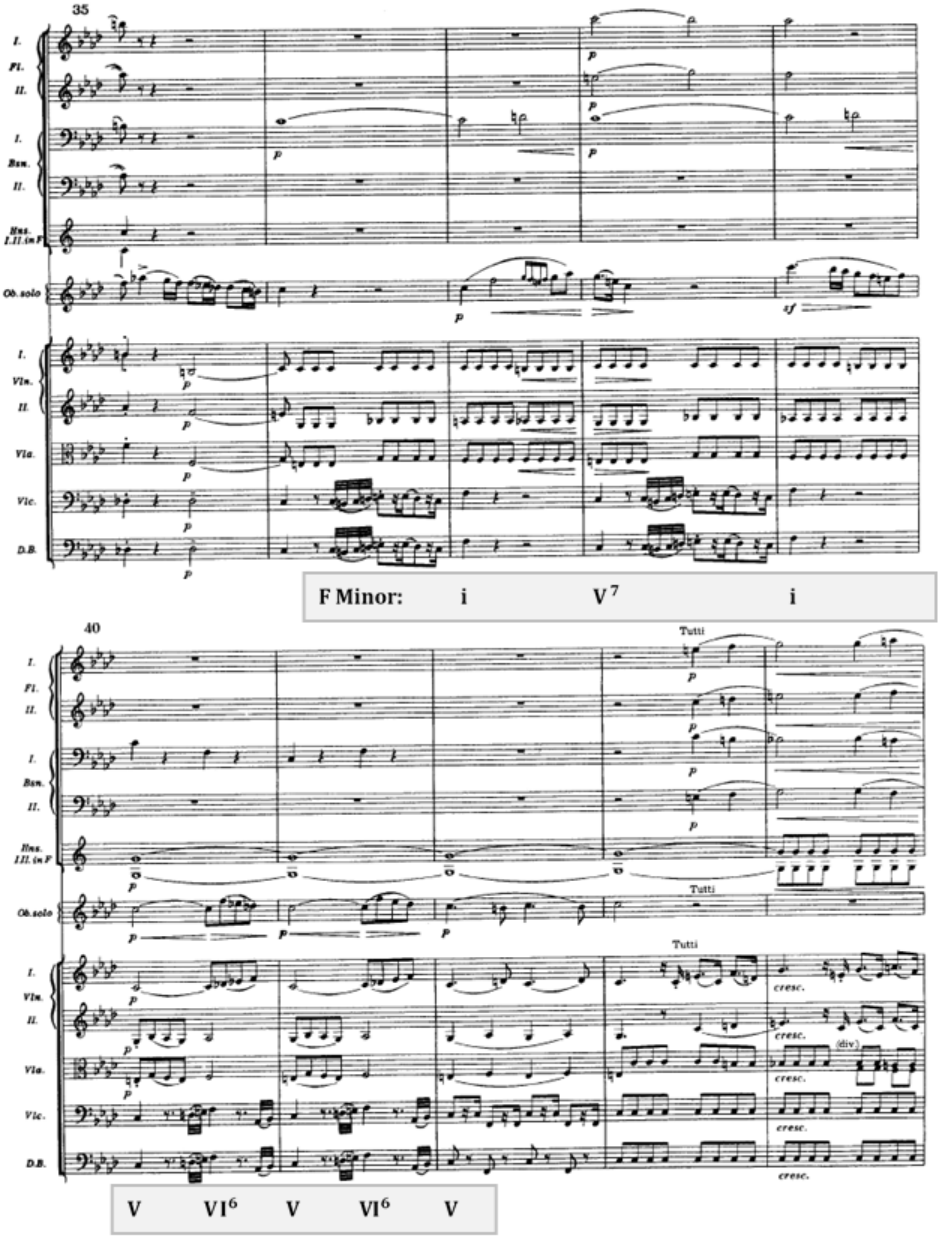
resolution happens on a weak beat and the melody immediately churns on for a fourth ”start.” This start finally results in a complete iteration of the phrase structure with tonic - predominant - dominant - tonic and a perfect authentic cadence. There are 4 V^7 chords in this larger phrase and their ranked strength can be determined both by what happens before and what happens after each one. The first two are weak. They are preceded by vi chords that serve as weak predominant chords and after each resolution to I the melody moves on immediately. The third one is stronger with ii - V motion indicating a stronger cadential motion, however the resolution is deceptive and awkwardly placed in the middle of a measure. The final V^7 chord is preceded by a ii chord again but this time it moves to a cadential six-four, the ultimate signal of cadence strength, which of course resolves to V and then to I. The character of the vi chord plays a large role in the narrative of the exercise as a whole.

Excerpt 4.4: Wolfgang Amadeus Mozart–Concerto for Oboe, movement 3 (mm. 44-48)



This short excerpt comes from the third movement of the Mozart *Concerto for Oboe*. It doesn't illustrate any new concepts, but it does show a simple scenario where knowing the harmonic foundation of the melody can drastically change how it is interpreted by the performer. This excerpt moves quickly through a very standard harmonic progression: the tonic moves to the predominant, the predominant moves to the dominant. However, the dominant resolution is deceptive as it moves to a quick vi chord. The phrase begins again using almost the same chords and melody, but this time, the phrase ends with a perfect authentic cadence. When performing, this moment moves past so quickly. But the vi chord buried in the middle is an incredible moment to show a flash of character. The performer could make the E♮ of the deceptive cadence feel sly or humorous, especially since we continue on to an authentic cadence.

Excerpt 4.5: Johann Nepomuk Hummel–Introduction, Theme and Variations, Op. 102 (mm. 37-42)



This final excerpt comes from the opening of Hummel's *Introduction, Theme and Variations* Op. 1-2 and demonstrates one final use of the vi chord. Sometimes the vi chord can be used non-functionally, that is as a neighbor chord expanding tonic, predominant, or even dominant harmonic function. In this piece, the introduction begins in the minor mode in a dramatic operatic style. This introduction comes to a climax on a dramatic half-cadence, which then pivots abruptly, tongue and cheek, to a completely different mode

and style. Our excerpt prepares the dramatic half-cadence. The tonic chord in measure 37 moves to a dominant in measure 38 for a quick half cadence. Then the melody begins again on the tonic and moves to the dominant, though this time the melody begins an octave higher and finishes an octave lower, the register indicating an escalation of what came before. In addition to this registral escalation, the arrival of the V chord in this second half cadence is reiterated twice more with intervening VI^6 chords serving as neighbor chords. These VI chords are not forming a bridge between tonic and predominant, they are not really serving as independent predominant chords, and though they occur after V chords, they are not really deceptive resolutions either. Their role is simply to expand the dominant and extend the effect of the half cadence.

4.3 Improvisation and Composition

- Improvise arpeggios that move through these progressions:

  a.) Descending Thirds

  I - vi - IV - ii - V - I

  b.) Descending Fifths

  I - vi - ii - V - I

  c.) Deceptive Motion

  I - ii - V - vi - I - ii - V - I

- Play through a Barret melody of your choosing, and change all the cadences to deceptive cadences.

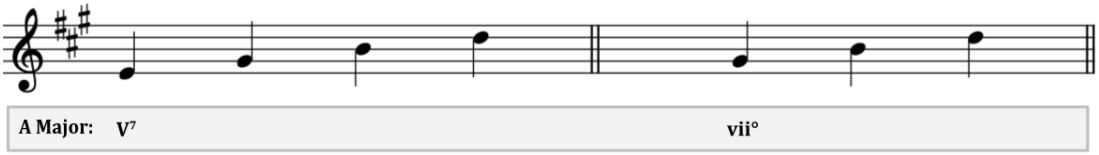
  You may have to arpeggiate the resolution to hear the full effect.

Chapter 5: Leading Tone Chords

5.1 Concepts and Exercises

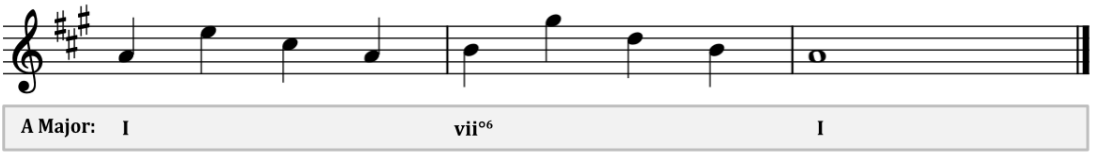
In major keys, the triad based on the leading tone or $\hat{7}$ is a diminished triad. It shares three of the four tones of the V^7 chord, including the tritone. Here is an arpeggiation of both chords to demonstrate their similarities.

Exercise 5.1: V^7 and vii°

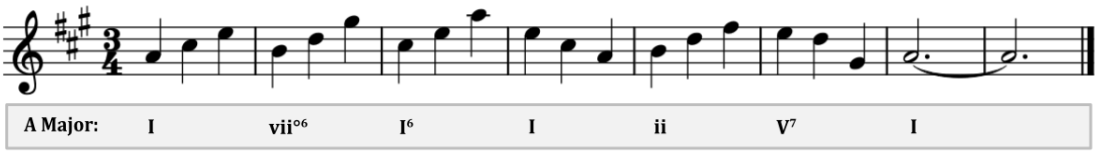


It is not unsurprising that this "leading tone" chord shares functionality with the dominant chord. It is frequently used to expand or even replace dominant harmony. Because it is melodically adjacent to the I chord, the leading tone chord and its first inversion can serve as a neighbor chord to the tonic chord, or as a passing chord between inversions of the tonic chord. Here are a few arpeggiations demonstrating these relationships. Play them as written, and then transpose them by ear in other keys.

Exercise 5.2: $vii^{\circ 6}$ as a Neighbor Chord to I

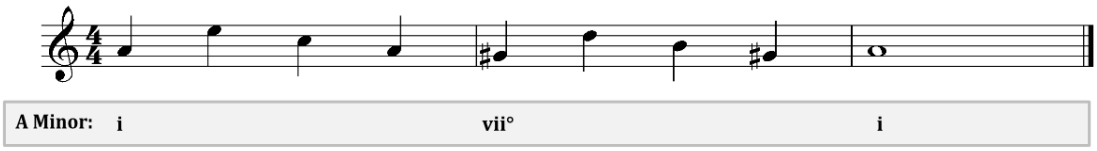


Exercise 5.3: $vii^{\circ 6}$ as Passing Chord Between I and I^6

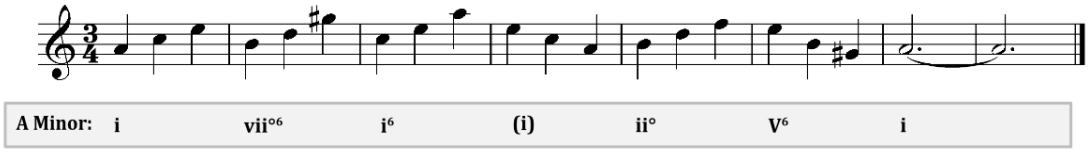


Since the minor scale has multiple versions, there are two possible triads that can be built from the two possible seventh scale degrees in minor keys. The triad based on $\hat{7}$ of the natural minor scale is a major chord, VII. We will discuss this chord in the next chapter because it is used most often in conjunction with III chords. The triad based on the leading tone, or raised $\hat{7}$ of the harmonic minor scale, is a diminished triad, vii°. It is used in a similar manner to the correlating chord in a major key: it can be a passing chord or neighbor chord to the i chord and its inversions and it can expand or replace dominant harmony. As before, play through these arpeggiations as written and then transpose them by ear to other keys.

Exercise 5.4: vii°as a Neighbor Chord to i

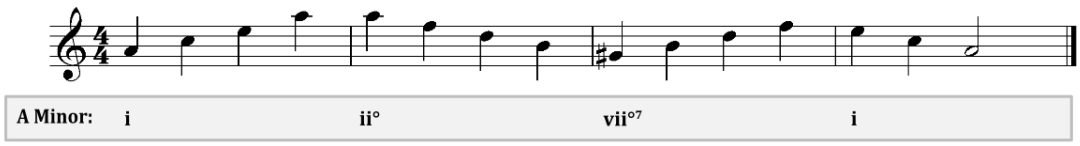


Exercise 5.5: vii°^{6} as a Passing Chord Between i and i^6



In minor keys, this chord also often appears with a seventh above the bass, vii°^{7}. The vii°^{7} is considered a fully diminished chord because it is built entirely of minor thirds, which results in a diminished fifth between the $\sharp\hat{7}$ and $\hat{4}$ and a diminished seventh between the $\sharp\hat{7}$ and $\hat{6}$. With all minor thirds, there are two tritone pairs instead of just one, which makes it a very dynamic chord. Because of the tension created between the pairs of tritones, it is used frequently to expand or replace dominant harmony, as in the following arpeggiation:

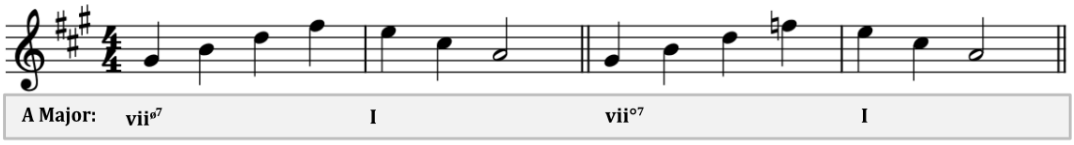
Exercise 5.6: vii$^{\circ 7}$ as a Replacement for the V at a Cadence in a Minor Mode



In Exercise 5.6, notice how the vii$^{\circ 7}$ chord manages to convey dominant function; the tritone between the G$^{\sharp}$ and the D provides tension that is released when it resolves to $\hat{1}$ and $\hat{3}$. In addition, the diminished seventh between the G$^{\sharp}$ and the F also provides tension that is released when the F resolves down to the E, $\hat{5}$. This melodic drive toward the tonic is what gives the vii$^{\circ}$ and vii$^{\circ 7}$ their ability to masquerade as dominant chords. However, vii$^{\circ}$ - i motion does lack the harmonic strength of V - I motion; an ascending second bass line is weaker than a falling fifth bass line.

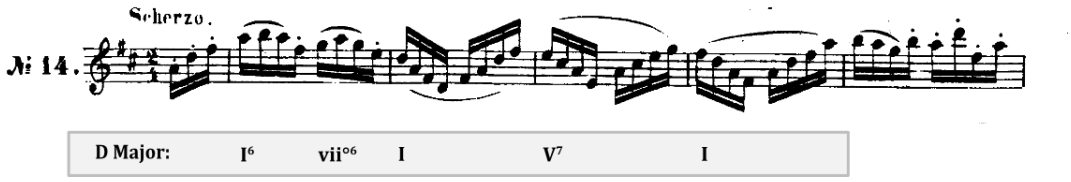
In major keys, the leading tone seventh chord is a half-diminished chord. It is less common than its minor counterpart because its resolution to the tonic triad is weaker than the resolution of a fully diminished seventh chord. In fact, its minor mode counterpart is often borrowed in a major key, altering $\hat{6}$ to $^{\flat}\hat{6}$. The exercise below compares the resolution of a vii$^{\varnothing 7}$ to the resolution of a vii$^{\circ 7}$ in the major mode.

Exercise 5.7: Comparing the Resolution of a vii$^{\varnothing 7}$ to the Resolution of a vii$^{\circ 7}$ in the Major Mode



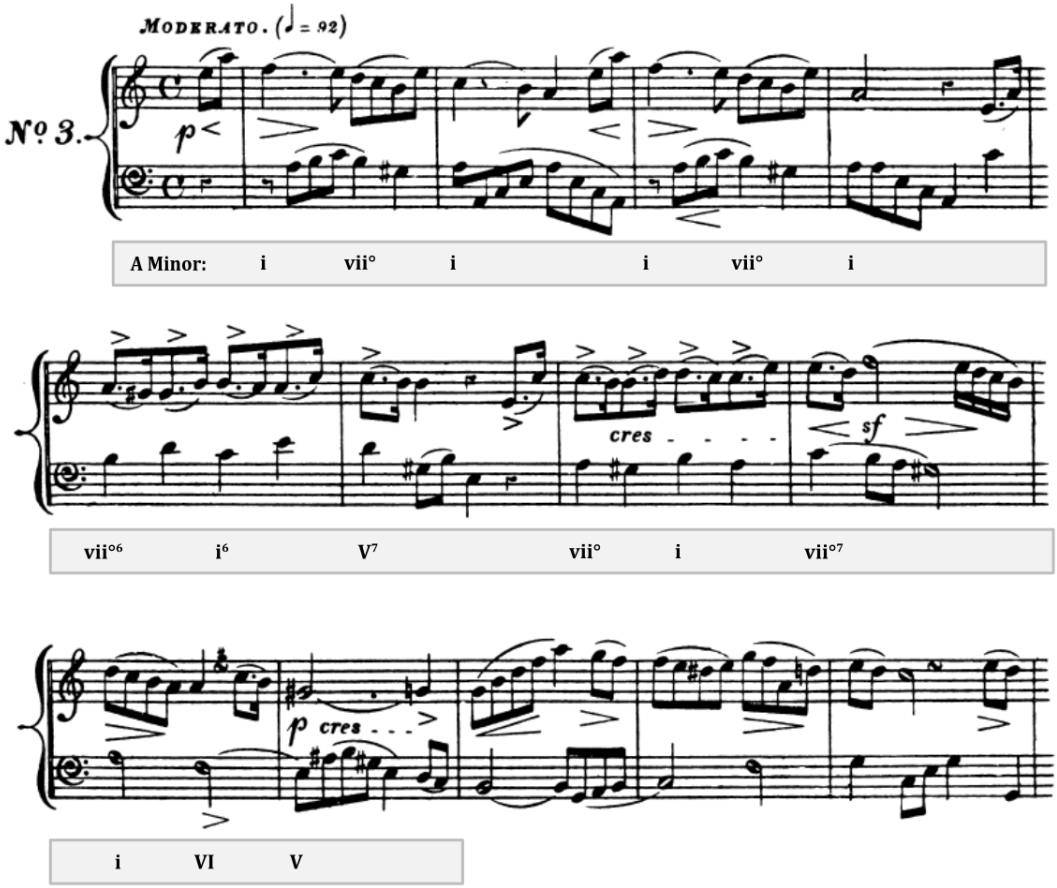
5.2 Musical Examples

Excerpt 5.1: Franz Wilhelm Ferling–Etude No. 14 (mm. 1-4)



The opening of Ferling Etude No. 14 demonstrates how the vii$^{\circ 6}$ can serve as a passing chord between inversions of the tonic chord. After an ascending tonic arpeggiation, the etude begins with an upper neighbor figure decorating a I chord. The figure is repeated a step down using a leading tone chord, and then resolves to the tonic on the downbeat of measure 2. We can consider the ”bass line” of the progression to be the descending line, F$^{\sharp}$ - E - D. This bass line and the use of repeated figures demonstrates the melodic potential of a tonic expansion that moves to and from the vii$^{\circ 6}$ chord with an imagined root of C# on the second beat of the first measure. This progression makes more sense than the alternative interpretation of E as the root for the second chord–the ii chord is too strong of a predominant chord to progress back to the tonic. In addition, because of its relationship to the dominant chord, this leading tone chord feels like a departure that can resolve back down to the tonic. The chord adds color and tension to the tonic area without moving strongly to the dominant. When the dominant does arrive in measure 3, it feels deeper and stronger because of the contrast to the more gentle leading tone chord before. A player aware of the these harmonies can expand the tonic tonal area while simultaneously indicating the descending bass line into the second complete measure. The player can swiftly change colors on the half bar, while never landing too hard on any one harmony, thus suspending the tonic functional area. Then, when the dominant chord arrives in measure 3, the player can play it like it is a true departure that resolves to the tonic in the fourth measure.

Excerpt 5.2: Apollon Marie-Rose Barret–Melody No. 3 (mm. 1-10)



The beginning of Barret Melody No. 3 demonstrates how the leading tone chord can expand both tonic and dominant functional areas. In the first two measures, the harmony moves from i to vii°and back to i. As the leading tone chord serves as a neighbor chord, it expands the tonic functional area by lending harmonic support to the embellished linear progression from E down to the tonic A. The following two measures repeat the same melody and harmony, though this time, the arrival of the tonic is more definitive, as it lands on the strong downbeat of measure 4. Awareness of this four measure tonic expansion allows the player to advance through this series of chords, coloring each one, without landing on any of them. The suspension of the tonic harmony is realized with effective neighbor chords and the linear progressions they support.

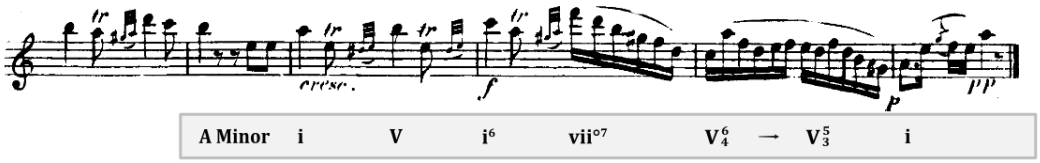
In the next four bars, the progression expands dominant harmony. Measures 5 and 6 move from $vii^{\circ 6}$ to i^6 to V^7. The harmonic roles have reversed, compared to the first line, as the tonic now serves as the

supporting chord. In the melody, each half-bar is marked with an appoggiatura that resolves with a dotted rhythm, but the chord tones outline a linear progression, G♯ - A - B. This progression is supported by dominant harmony. Measures 7-8 move through a similar progression, though this time, the V^7 is replaced by an inversion of the leading tone chord: vii$^{\circ 6}$ to I to vii$^{\circ 6}_{5}$. In this iteration of the progression, the bass line joins the melody with appoggiaturas every half- bar, creating a parallel 10ths between the bass line and the melody. The linear progression in these two bars continue where the previous two bars left off: B - C - D. If we add the two progressions together, they move from G♯ to D, the tritone characteristic of both leading tone chords and dominant seventh chords.

This harmonic and melodic information gives the player an array of tools for creating an atmosphere of tension and suspense in measures 5-8. First, the line begins with a leading tone chord, which is unstable and wants to resolve, but harmony never rests on tonic, only moves through it to more dominant-related chords. The player can use their air and vibrato to create a phrase that never touches the ground. Second, the melody is full of appoggiaturas and dotted rhythms that denote dissonance and an urgency to move forward. When the appoggiaturas in the melody are joined by appoggiaturas in the bass line, the effect is intensified. The player can lean into each dissonance and put energy into each snappy dotted rhythm to move the phrase forward. Third, the measure 8 does not complete the phrase as we might expect; the fully diminished seventh chord contains two volatile tritones without the harmonic promise of resolution–the perfect chord for creating an atmosphere of suspense. The player can milk this suspenseful mood, reaching up toward the F, the highest point in the line, and lean in as the bass falls to rest on the leading tone.

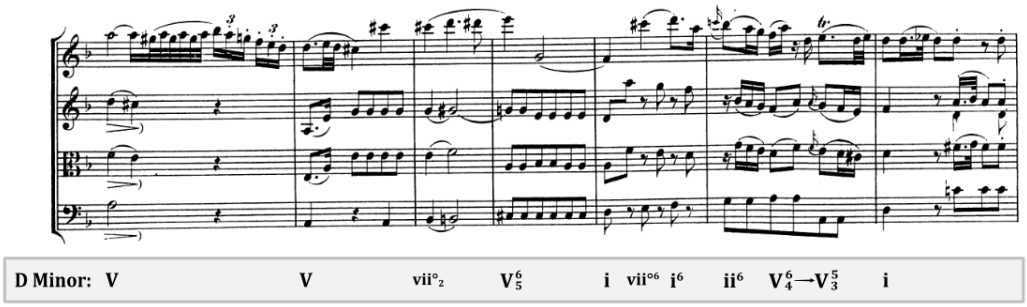
From this suspenseful measure 8, the leading tone chord resolves to a fleeting i chord in measure 9. Then, a VI chord serves as an unusual predominant to a strong dominant arrival, a half cadence. This phrase extension was made possible because the leading tone chords in measures 5-8 were effectively stalling the arrival of a true dominant chord.

Excerpt 5.3: Franz Wilhelm Ferling–Etude No. 3 (mm. 29-32)



The ending of Ferling Etude No. 3 provides another demonstration of how the leading tone chord can expand the dominant area. Since this excerpt comes from the end of the etude, it is preparing for the final resolution. The excerpt begins with two E pick-ups that lead to a tonic and dominant harmony held over that same E, a dominant pedal. A pedal note is a note that is held in the bass while the harmony changes over it. In this case, the $\hat{5}$ is a chord tone with both tonic and dominant, so the I chord could be analyzed as an inversion, however the fact that the melody falls down to the same E and even emphasizes it with a trill indicates that this tone (the dominant) is significant. After the pedal, the harmony briefly moves to i, but quickly moves on to a vii$^{\circ 7}$ chord. The leading tone chord provides a way for the harmony to evolve and progress without straying from the dominant function. In addition to harmonic interest, the chord provides a framework for an incredible moment in the melody. The arpeggiation from the high F down to the D contribute both the highest and the lowest notes of the phrase up to this point. Both the harmonic and melodic intensity of this moment suspend the resolution. Finally, the melody moves through standard cadential six-four chord suspension and resolution to the dominant, followed by the long-awaited resolution to tonic. Through the course of this short excerpt, the player can use the dominant pedal, the leading tone chord, and a cadential six-four suspension to expand the dominant area, delaying and building tension so that the final resolution to the tonic holds the gravity it deserves.

Excerpt 5.4: Wolfgang Amadeus Mozart–Quartet for Oboe and Strings, movement 2 (mm. 22-28)



This excerpt from the slow movement of Mozart's Oboe Quartet shows several leading tone seventh chords. The first occurs in the third measure of the excerpt, immediately after a V chord over which the oboe has played a short melismatic solo. As the oboe line moves to the third measure, the bass line changes to accommodate a leading tone chord. Then all voices slide up a half step via passing chord, which resolves to the dominant chord in the fourth measure. Through small changes in each voice, Mozart has achieved an incredible slight of hand–making the dominant in the fourth measure feel like the arrival of a whole new chord. The leading tone chord and the subsequent passing chord suspend resolution, allowing the dominant to stay fresh and relevant for as long as possible. A player aware of these small harmonic changes and their harmonic significance can reach farther for each note in the third measure with their air support, ultimately arriving at the downbeat of the fourth measure with a release of vibrato.

The second leading tone chord serves as a passing chord between a i chord and a i^6 chord. It would be hard to guess the harmony by just looking at the oboe part: a jump from a low F to a high $C^\sharp$ does not usually denote passing chord motion. While the other voices in the quartet follow normal voicing, the oboe reaches over an octave for the leading tone. As disjunct as the jump to the high $C^\sharp$ may seem, it functions as an incomplete lower neighbor to the tonic in the next beat. So while the melody and the harmony may not match in form, they are unified in function: decorating the tonic functional area.

5.3 Improvisation and Composition

- Arpeggiate I - vii$^{\circ 6}$ - I^{6} in several keys

- Choose a piece in a minor key. Play through it, but before every authentic cadence, pause and arpeggiate the vii$^{\circ 7}$ chord, thus ”prolonging” the dominant functional area.

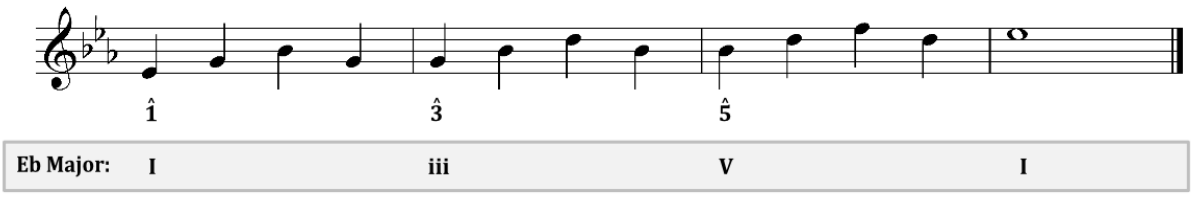
Chapter 6: MEDIANT AND SUBTONIC CHORDS

6.1 Concepts and Exercises

The mediant chord, or the triad built on the third scale degree is a minor triad in major keys, iii, and a major triad in minor keys, III.

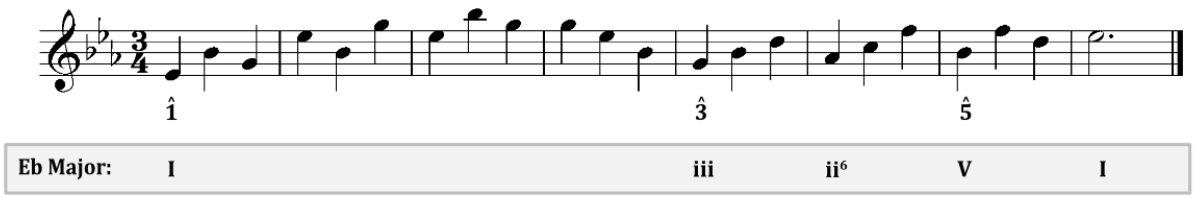
In major keys, iii is a relatively weak harmony, so it is fairly uncommon. It shares two tones with the tonic chord, so moving to iii from I feels more like a prolongation of tonic harmony. It also shares two tones with dominant harmony, so it can function only weakly as a predominant chord. Sometimes it is exploited as a structural midpoint in bass arpeggiation between I and V as in the following progression.

Exercise 6.1: iii Forming the 3rd in a Bass Arpeggiation



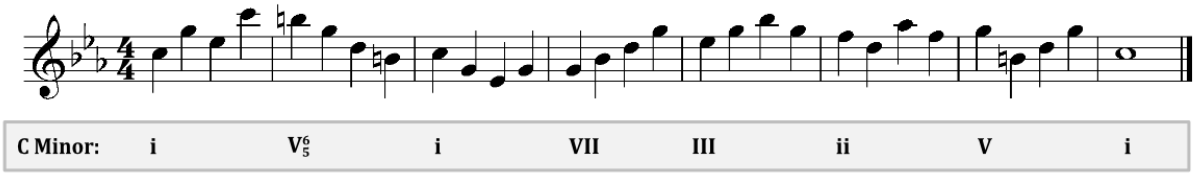
If iii is used directly between I and V, it weakens the arrival of V, so other chords frequently intervene between the tonic and mediant or between the mediant and dominant chords, as in exercise 6.2. Notice that the iii chord still provides a structural midpoint between I and V, however a stronger predominant chord intervenes to prepare the dominant. The iii chord actually functions like a substitute for a I^6 chord, expanding the tonic functional area.

Exercise 6.2: Using a iii Chord in a Bass Arpeggiation with an Intervening Predominant Chord



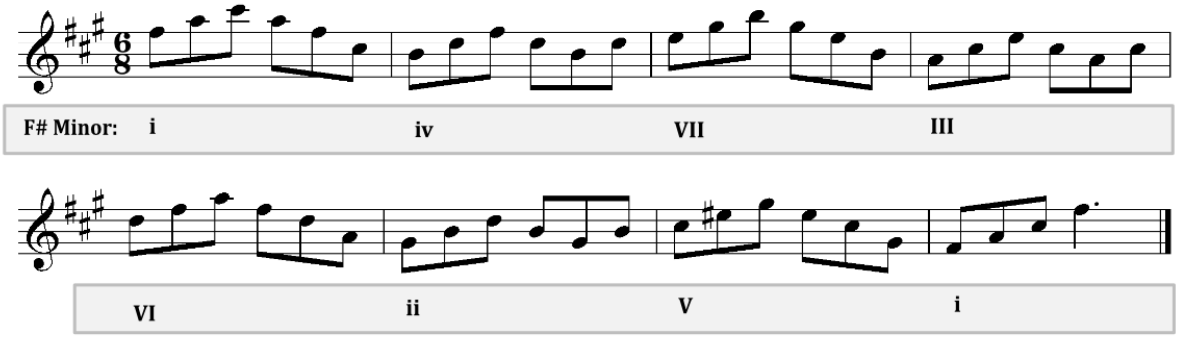
The III chord is much more common in minor modes, where the harmony can actually pull toward III. III is the relative major key, so within the diatonic scale collection, the tritone between $\hat{2}$ and $\hat{6}$ wants to resolve to III. This motion to III is particularly favored when the subtonic chord is used. The submediant chord or VII chord is the triad based on natural $\hat{7}$ in minor keys. Its root is a fifth above the root of the III chord, so it can act like a local dominant of III, making the III seem like an arrival point independent of the tonic. In exercise 6.3, notice that although the phrase moves through a V - I progression eventually, the III feels like a natural arrival point on the way to V.

Exercise 6.3: VII Prepares III in a Minor Progression



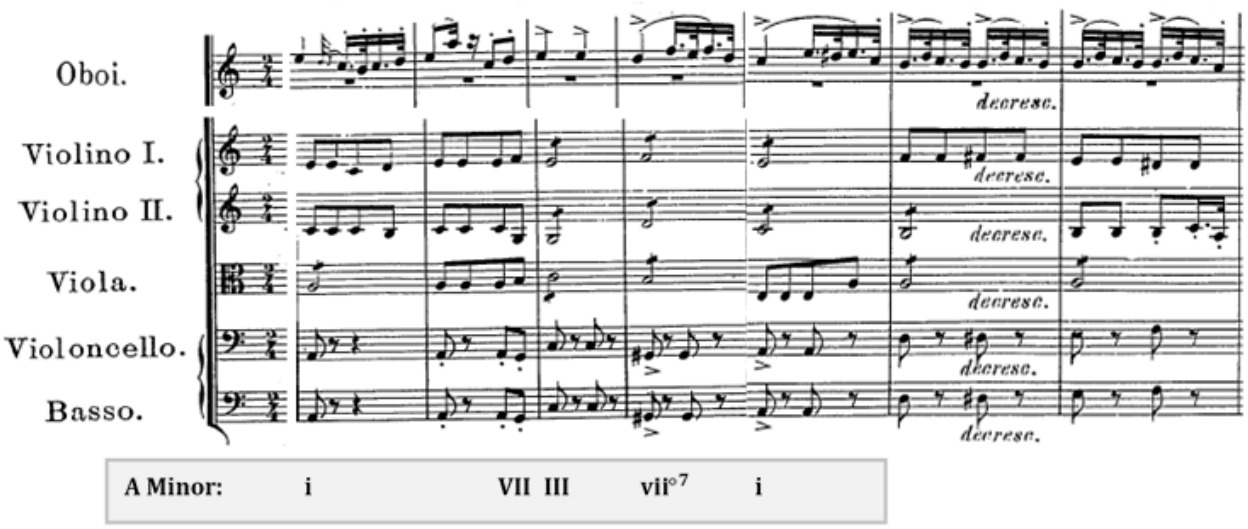
With iii (III) and VII (vii°) completing the collection of diatonic triad vocabulary, we can utilize a complete falling fifths progression, beginning and returning to tonic harmony, I. See the progression i - iv - VII - III - VI - ii° - V - i in exercise 6.4.

Exercise 6.4: Falling Fifths Progression



6.2 Musical Examples

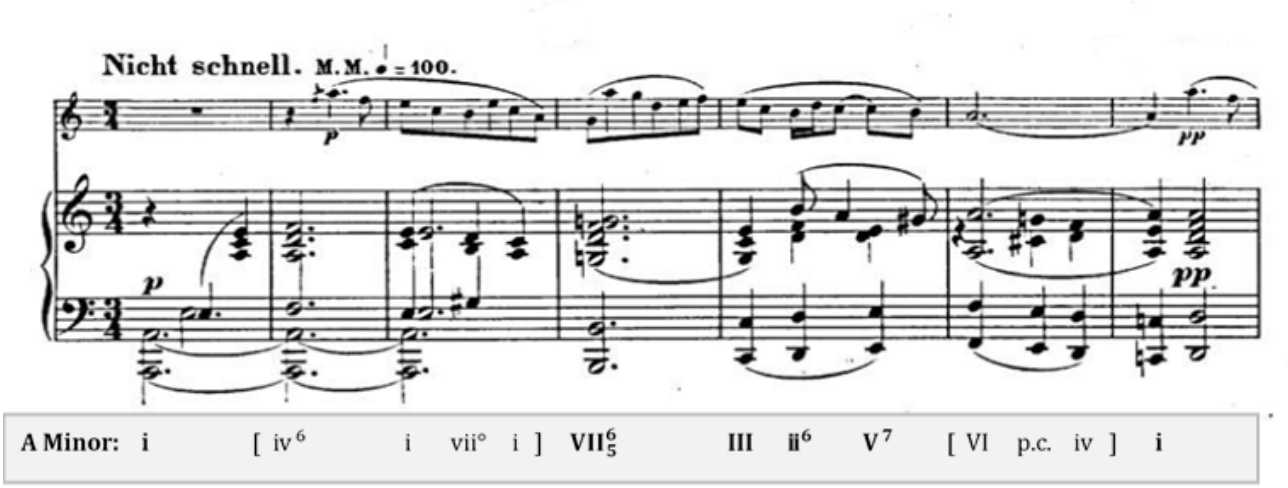
Excerpt 6.1: Franz Schubert–Symphony No. 9, D. 944 "The Great," movement 2 (mm. 8-12)



This short example comes from the second movement of Schubert's Symphony No. 9, D. 944 "The Great," and demonstrates the difference in function between VII and vii$^{\circ 7}$ chords. The solo begins in tonic harmonic space, but moves to VII on the fourth eighth note of the second measure, preparing for the arrival of III on the downbeat of the third measure. The VII lifts the harmony out of the minor mode, and efficiently points it in a new direction. The following measure moves to the vii$^{\circ 7}$ chord, the chord based on $\sharp\hat{7}$. This chord reorients the listeners ear to the tonic with its tritones that resolve so readily into the tonic chord. In quick succession we are able to hear the stark difference in function between the chords based on $\hat{7}$ and $\sharp\hat{7}$. One gravitates toward III, while the other pulls toward i.

The player aware of these relationship can be sure to draw out the VII and vii$^{\circ 7}$ chords and take care to resolve each. The oboe's D over the VII chord is much more than a passing tone–it must re-energize the melody and lift it into the C Major space. The oboe's D over the vii$^{\circ 7}$ creates a tritone with the bass note, and this D, though decorated over the course of the fourth measure, must resolve down to the C, or the third of the tonic chord.

Excerpt 6.2: Robert Schumann–Three Romances for Oboe and Piano, Op. 94, movement 1 (mm. 1-7)

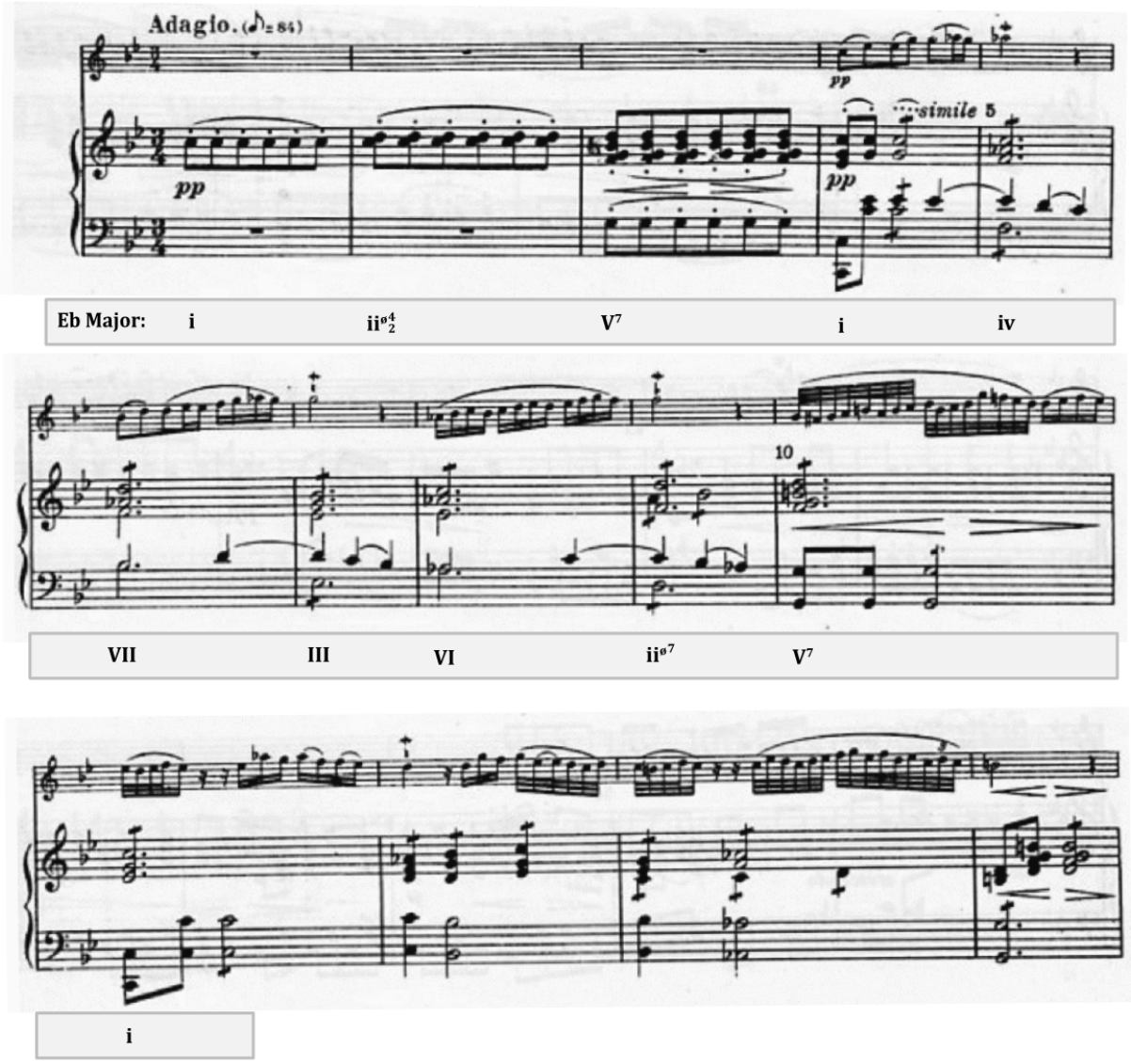


This excerpt comes from the first of Schumann's Three Romances for Oboe and Piano, op. 94, and shows how the relationship between VII and III can contribute to the motion from I to V in a phrase. The first notes of the piano signal A minor, the tonic. Right before the oboe enters, the harmony moves to iv over a tonic pedal, giving the feeling that the harmony is unstable, in flux. And indeed, as the oboe moves through the eighth note arpeggios the tonic chord is expanded with a diminished seventh passing chord before arriving at VII^7 on the fourth measure. For the first time since it began, the piano stands still while the oboe explores the sonority of this dominant seventh chord, which moves beautifully into the III chord on the down beat of the fifth measure. Because the harmony has moved so quickly from the start, the time granted the VII^7 gives the III more gravity that usual and it almost seems that C Major was the arrival we had been waiting for. However, the harmony, moves quickly from III to ii^6 to V^7 and then deceptively to VI. Even this deceptive motion to VI does not last, the harmony moves down by step in the accompaniment until it reaches a stable inversion of the tonic chord. This constant searching for a place of harmonic rest can be utilized by the performer to great effect. When the player enters over iv harmony, the sound should be immediately spinning forward, searching for the tonic. It is amusing that $\hat{1}$ appears so fleetingly at the end of the third measure, but is immediately interrupted by the motion from VII to III. The player can exploit this motion, emphasizing the dominant seventh chord quality of the VII to cue cadential rest, a

diminuendo into the III chord. Those expectations can then be subverted with a renewal of melodic energy after the III moves to the predominant and then dominant. Expectations of a speedy resolution to I can also be exploited as the VI chord intervenes, only to relax into the i chord after a measure of delay. The A over the VI chord should be a new color, matching the surprising harmony underneath, and the color of the note should continued to transform until it ”matches” the tonic harmony at the beginning of the seventh measure. Each time the player sets up expectations, the interruption or subversion of those tropes is an opportunity to change directions and move the phrase forward.

It is interesting to note that the bass line from the opening to the down beat of the 6th measure is an ascending scale from $\hat{1}$ through $\hat{6}$. For a minor key, VII and III are excellent choices for realizing this step-wise motion. The ascent in the bass is set against the more subtle descent in the oboe part. The oboe begins on a high A and falls to a low A by the end of the phrase. An oboist aware of this relationship can play off of the bass line and bring out the descent in the solo line, suspending notes that don’t contribute to the descent.

Excerpt 6.3: Allesandro Marcello–Concerto for Oboe, movement 2 (mm. 1-12)

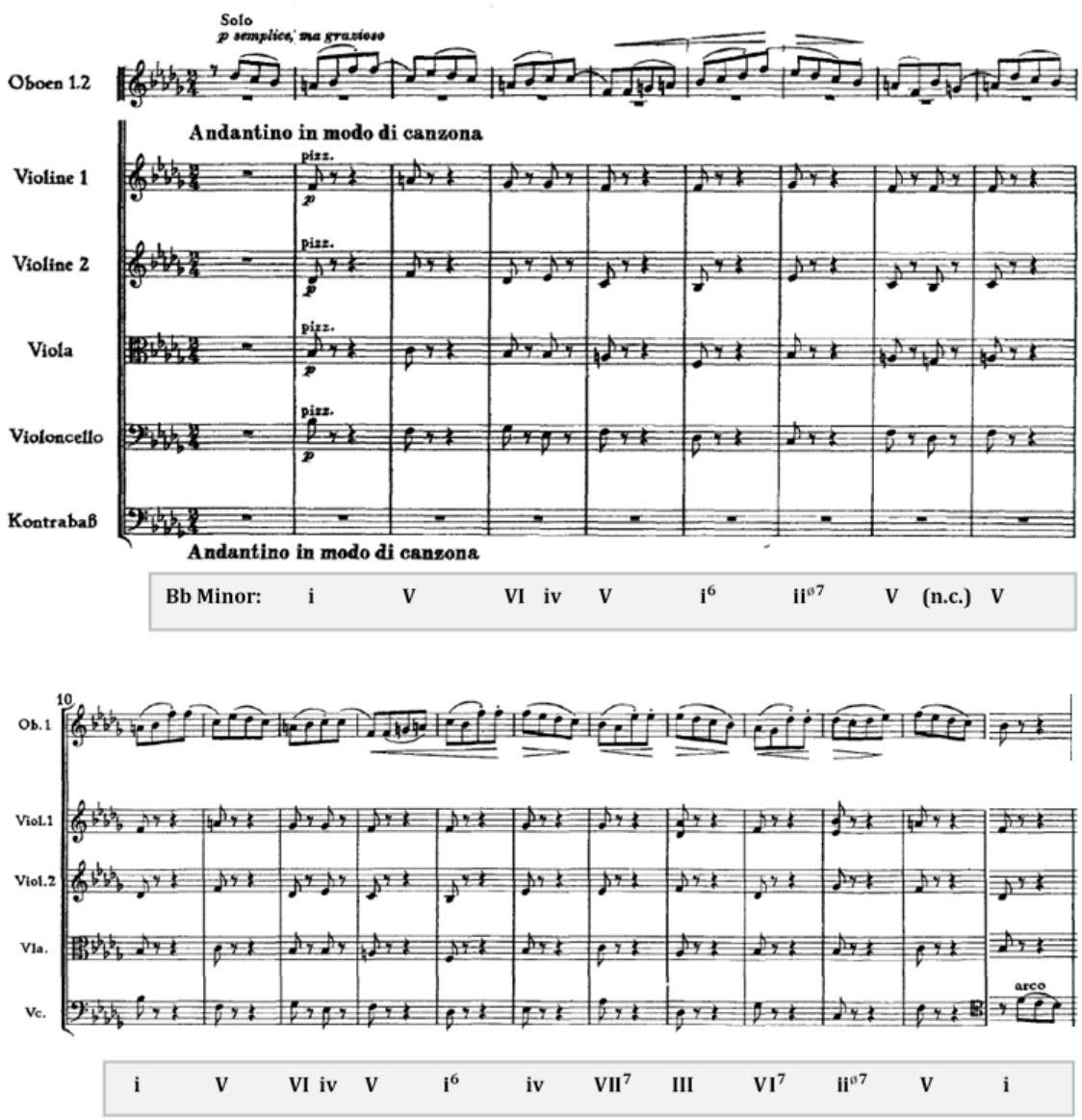


This excerpt comes from the second movement of Marcello's Concerto for Oboe and demonstrates how the III chord can serve as both an arrival point in the melody, and a structural midpoint in bass arpeggiation. The solo line begins in measure 4 with an ascending arpeggio in the oboe part over tonic harmony. The arpeggio leads to $\hat{4}$ over iv harmony. Then this material is repeated down a step: an ascending arpeggio over VII leading to $\hat{3}$ over III. This iteration feels more like an arrival because of the dominant-tonic relationship between VII and III that does not exist between i and iv. The material is repeated a third time,

again a step lower: an ascending arpeggio over VI that leads to ii°. This relationship is also relatively weak because although the VI could be a dominant, the diminished sonority of the ii° shatters this illusion, and indeed prepares the arrival of V in the final iteration of the pattern: an ascending arpeggio over V which leads to $\hat{1}$ over i. This reiteration of material in a ascending or descending pattern is called *sequence*. In this case, we refer to it as a falling fifth sequence because the root of each successive chord descends by fifth.

The fifth relationship between VII and III does more than serve as one of many stepping stones through the sequence. It occurs at the midpoint of the phrase, provides a strong arrival point, and the $\hat{3}$ in the bass completes the arpeggiation between $\hat{1}$ and $\hat{5}$. The performer can bring appropriate gravity to the arrival of the III in many ways: through the VII chord and leading up to the G, the arpeggio and ensuing embellishments can have a greater crescendo into the III than the previous iteration of the melody; and then as the harmony resolves, the player can use a bit of rubato delaying the G, pull back the dynamics, and relax the vibrato.

Excerpt 6.4: Pyotr Ilyich Tchaikovsky–Symphony No. 4, movement 2, (mm. 1-21)

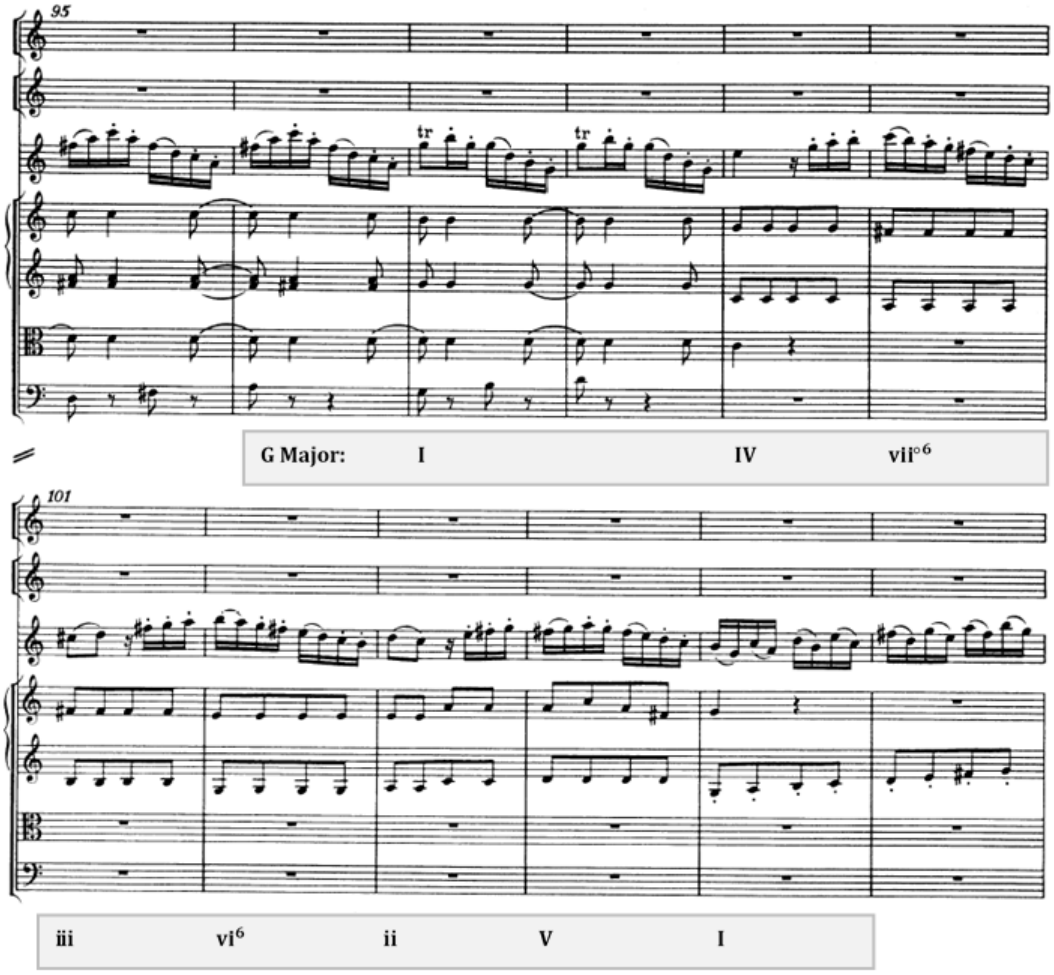


This excerpt comes from the second movement of Tchaikovsky's Symphony No. 4 in F Minor, Op. 36, and demonstrates the use of the falling fifth sequence in a larger phrase structure. The first four bars constitute the first sub-phrase: i moves to V, which moves deceptively up to VI, which settles into iv which prepares V for a half cadence. The next sub phrase of four bars moves more directly to V: i to ii to V. These eight bars together form the first phrase, and although the second sub-phrase's cadence is stronger, both are half-cadences and neither feel stable or resolved. The second phrase begins identically to the first, however

when the second sub-phrase begins, it is replaced by a full falling fifths sequence. This time, the movement through the fifths bring the harmony through the full circle back to V and then i. This pair of phrases are considered a *parallel period*. *Parallel* because the phrases begin in the same way, and *period* because the phrases have an antecedent and consequent relationship–the antecedent phrase ends with a question in the form of an unresolved half cadence and the second consequent phrase resolves that question with a stronger authentic cadence.

The player can make use of this sequence at two levels. First, in the context of the entire period–the player can keep in mind that there is no true resolution until the after the harmony completes the sequence in the 20th bar–the line must stay suspended on the wind all the way through. The half-cadences provide fleeting repose and require subtle acknowledgments by the player: the slur down to the F in measure 5 and the corresponding one in measure 13 must be a diminuendo, tucked into the phrase. The slur up to the C♮ in measure 9 must be treated similarly, though this one at the more significant 8 bar mark (if the first measure is treated as a pick-up), should feel like a question. So although the A should be "ghosted," it has have enough vibrato and body to ask the antecedent question. When the final resolution happens in the final two bars of the excerpt, the linear progression over the V needs to be filled with energy and gravity, leading into the resolution in the long-awaited tonic. In the context of the sequence itself, the player can exploit the two-measure repetitions that occur in mm. 14-20. Each should be a different color and reach in a different direction. The first ends on a predominant chord, so it should reach up toward the dominant. The second interrupts that reaching with a new color–VII to III can feel like an arrival in major mode in contrast to what came before it. The third iteration moves into predominant territory, so it will resume the reaching toward V, this time successfully. The final two bars finally allow the V chord to truly resolve for the first time to the tonic.

Excerpt 6.5: Wolfgang Amadeus Mozart–Concerto for Oboe, movement 3 (mm. 97-105)

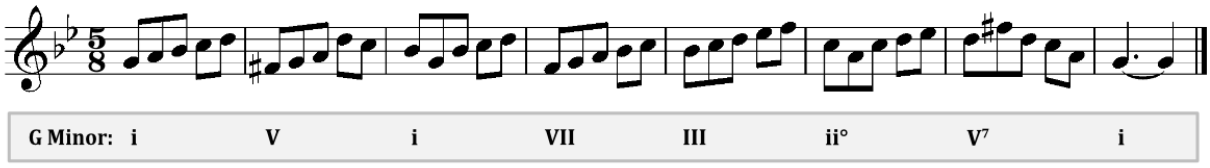


This excerpt comes from the first movement of Mozart's Concerto for Oboe and shows the falling fifth sequence, but in the major mode. The analysis begins at the end of sub-phrase to show how it lands rather humorously on IV. From there, a sequence ensues: a three note ascending pickup followed by a descending scale, and then an accented non-chord tone that resolves. This pattern occurs over the harmonies vii$^{\circ 6}$-iii, and then again over vi^{6}-ii. From the ii chord, the harmony moves through V and finally to I. Notice that the relationship between vii° and iii is not as strong as the relationship between VII and III in a minor key because there is no dominant-tonic relationship. However, in a quick sequence of falling fifths, the chords can be used effectively to quickly move through a series of harmonies.

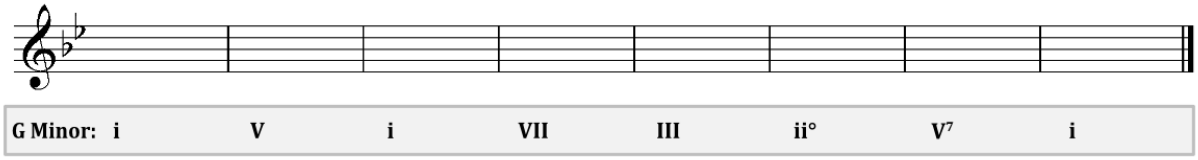
6.3 Improvisation and Composition

- Play through this melody that uses VII to move to III in a minor mode. Then use the same progression and improvise your own melody.

Exercise 6.5: Improvisation A

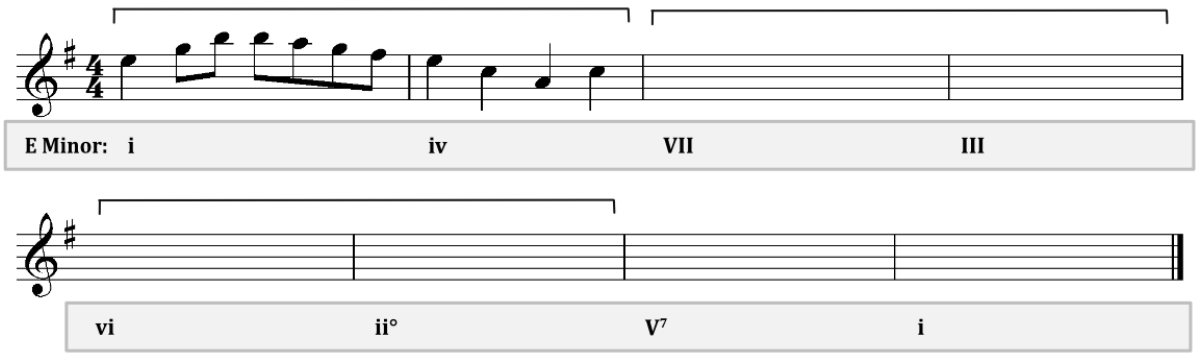


Exercise 6.6: Improvisation B



- Use the first two measure given as the template for a sequence. Repeat them twice at a lower pitch level each time. Improvise a V-I cadence for the final two measures.

Exercise 6.7: Improvisation C



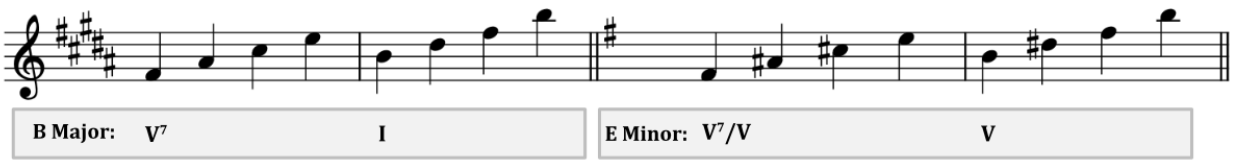
Chapter 7: Applied Chords

7.1 Concepts and Exercises

Thus far, our theory discussion has stayed within the realm of the diatonic harmony. That is, all of the chords and progressions we have used have been built using tones that are members of the diatonic scale associated with the key signature. Except for raising the $\hat{7}$ in minor keys or the occasional chromatic passing or neighbor chord, we have used no accidental tones. Sometimes composers want to use a more colorful vocabulary than the diatonic collection allows, and sometimes they want to move to a new collection of notes entirely. For these instances, a study of chromatic harmony is required. The last 5 chapters of this document will discuss the most common topics of chromatic harmony.

Applied chords are chords that are borrowed from the key of a diatonic chord in a phrase to emphasize the function of that chord. The most common applied chords are *secondary dominants*. These are chords that function diatonically as the V or the vii$^{\circ 7}$ in the key to which the chord is applied. In the exercise below, the first arpeggiation shows the dominant (F$^{\sharp 7}$) moving to the tonic (B) in the key of B Major. The second arpeggiation shows the same chords but written in the context of E Minor. In E minor, the B Major chord is the dominant chord, and the F$^{\sharp 7}$ is a secondary dominant applied to the B Major triad. Notice that accidental markings are required to alter the quality of the chord. We denote the applied chord as V^7/V and read it as V^7 of V.

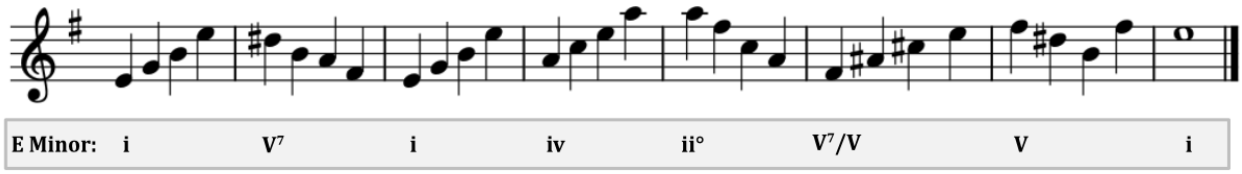
Exercise 7.1: A Dominant Chord Applied to B Major Triad



Secondary dominants are most commonly applied to the V chord. In the exercise below, the phrase moves predictably from tonic to predominant, but before the dominant chord (B Major triad) is played, our

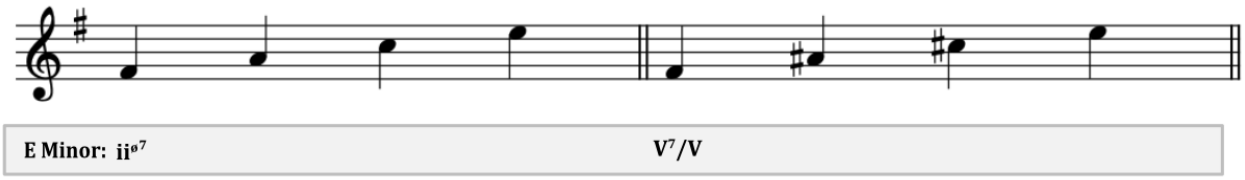
secondary dominant appears–the dominant chord applied to the dominant. Play through the arpeggiations below and notice how the applied chord prolongs the dominant functional area–the dominant is not only a destination as a chord but as a key with its own collection of notes to explore.

Exercise 7.2: Phrase with V^7/V



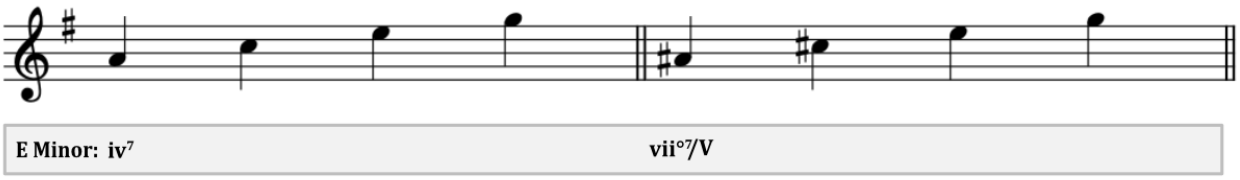
You may have noticed that V^7 is very closely related to the $ii^{\varnothing}7$ chord in the measure before it appeared in the exercise. Applied chords can be considered altered versions of the predominant chords, as demonstrated below.

Exercise 7.3: $ii^{\varnothing}7$ is Related to V^7/V

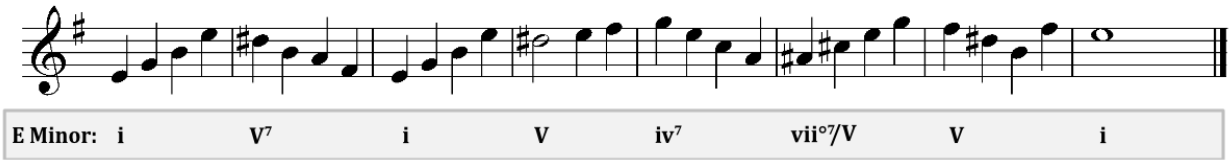


V^7 is the most commonly used applied chord, but $vii^{\circ 7}$ chords are also used frequently. They appear as altered versions of the IV or iv chord, as seen below.

Exercise 7.4: iv^7 is Related to $vii^{\circ 7}/V$

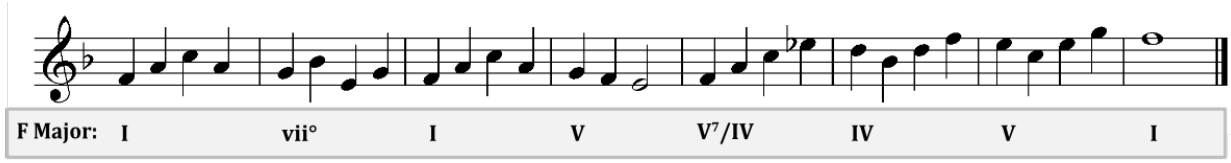


Exercise 7.5: Phrase with vii$^{\circ 7}$/V



Applied dominants can be applied to more than just the V chord. When they are applied to predominant chords (IV, II, or VI) they prolong predominant functional harmony, as in this example.

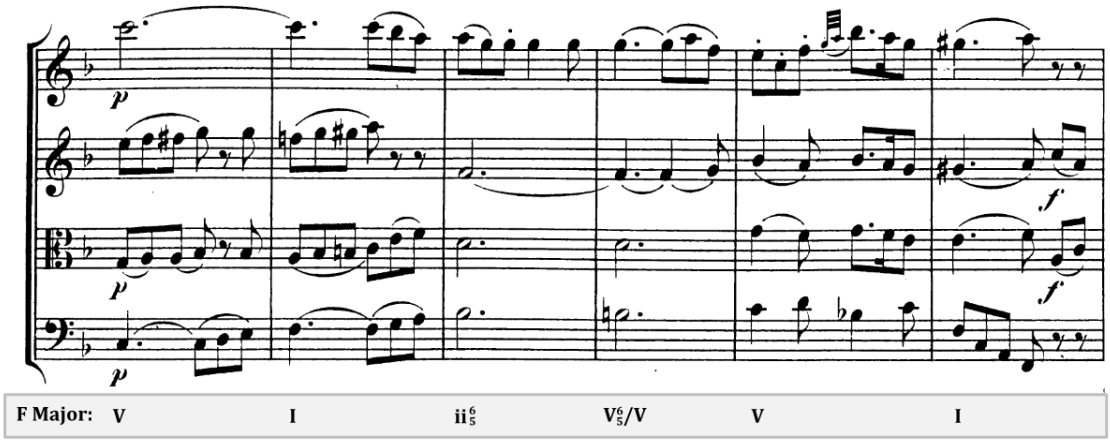
Exercise 7.6: Secondary Dominant Applied to IV



As with diatonic dominant and leading tone chords, secondary dominant can appear in inversion, as we shall see in our first musical example.

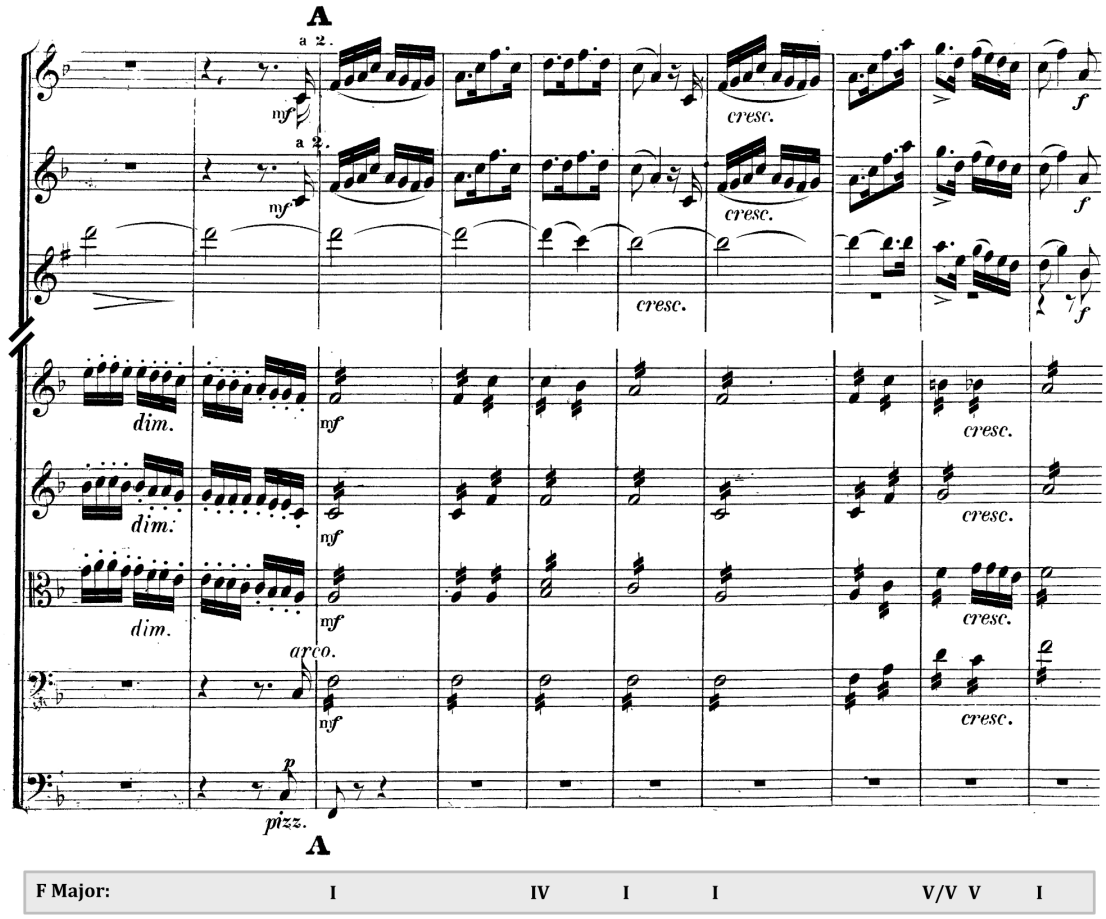
7.2 Musical Examples

Excerpt 7.1: Wolfgang Amadeus Mozart–Quartet for Oboe and Strings, movement 3 (mm. 13-18)



This example comes from the third movement of Mozart's Oboe Quartet and demonstrates the use of V^7/V in a phrase. The phrase begins with the oboe holding a high C while the harmony moves from V to I. The oboe then descends to a G over a ii^6_5 chord. From this third measure to the fourth measure, only one note changes in the accompaniment–the B♭ in the bass moves up a half step to a B♮, changing the harmony from a ii chord to a secondary dominant of V, V^6_5/V. From here, the harmony moves predictably to V and then resolves to I. Although the oboe player stays on a G for the majority of measures 3 and 4, the chord change requires a new color, an intensification of the pull toward V.

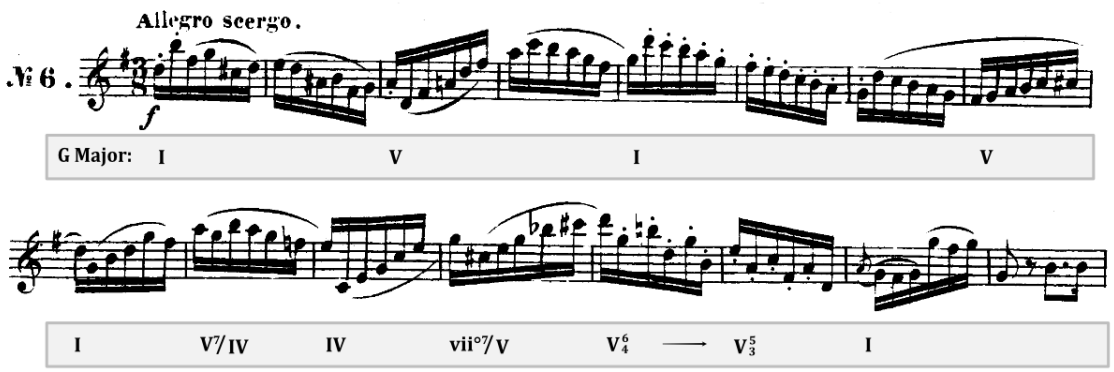
Excerpt 7.2: Felix Mendelssohn–Symphony No. 3, movement 3 (mm. 33-40)



This excerpt comes from the third movement of Mendelssohn's Symphony No. 3 and demonstrates an example of a secondary dominant entirely replacing predominant function. This excerpt uses so much tonic harmony that it is important for the performer to be aware of the moments when the harmony reaches up or pulls away. The first two measures of A are entirely tonic, with arpeggiations and a few passing tones. The third measure reaches up away from tonic for a brief moment with a IV chord, but falls back down to tonic fairly quickly. The player should play this entire excerpt with lightness, but the measure with the IV chord should feel like a lifting up, followed by a falling back down in the next measure. At the fifth measure of A, the pattern repeats again with two measures of tonic harmony. This time, instead of lifting up to the IV chord, the secondary dominant of V and its resolution to V occur in quick succession, followed by a

resolution to I in the 8th measure. The reach toward the secondary dominant is paralleled by a more literal reach in the contour of the melody. As the harmony shifts to its most distant harmonic space, the melody reaches up to its highest range in the melody so far. The oboe player can highlight this travel by filling the A pick up with energy and upward lift. The G, marked in the part with an accent, should be filled with emphasis, using vibrato and a full round tone. Compared to the previous measure, the final measure with its resolution to I should be more relaxed.

Excerpt 7.3: Franz Wilhelm Ferling–Etude No. 6 (mm. 1-16)

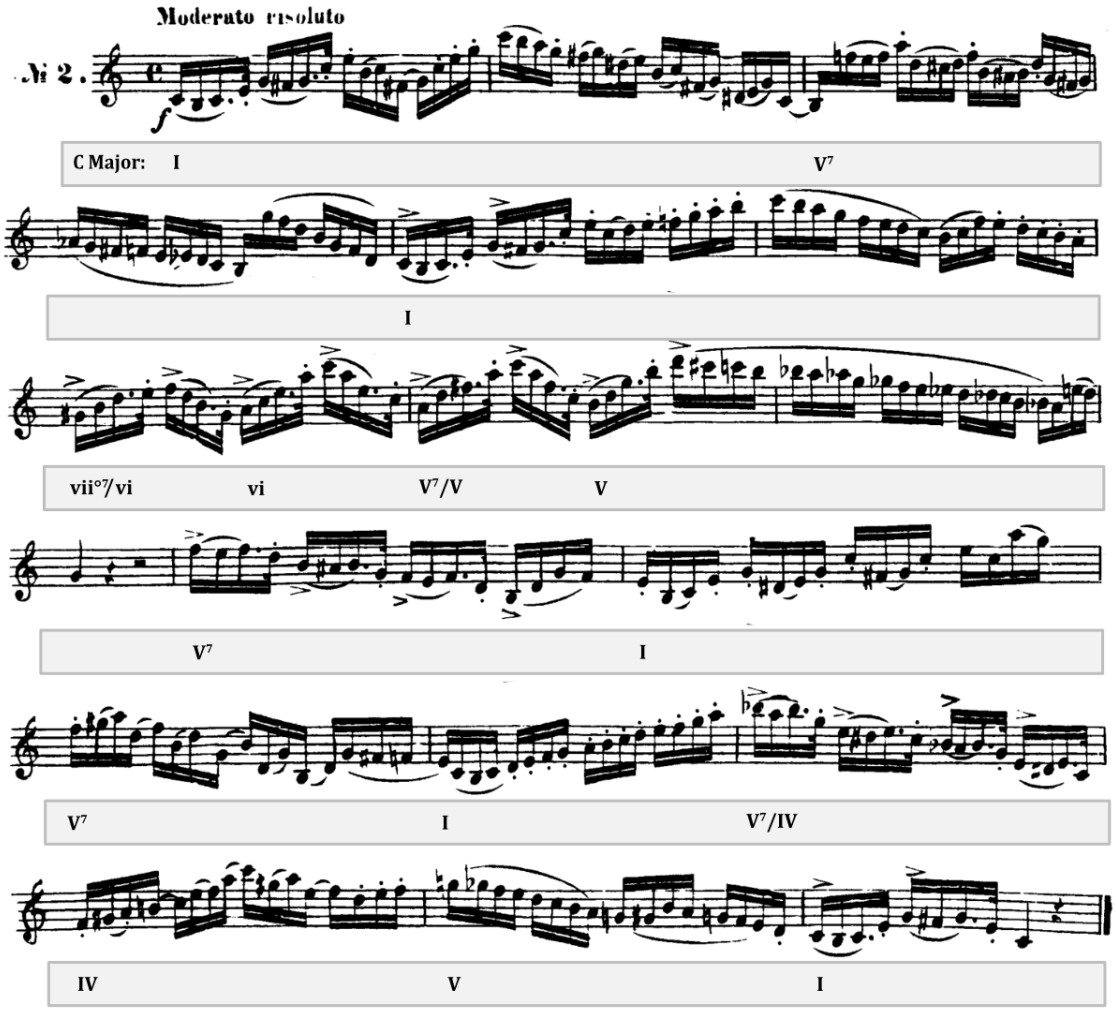


This example comes from Ferling Etude No. 6 and demonstrates a secondary dominant applied to a predominant chord and the use of the vii$^{\circ 7}$ as an applied chord. The first 8 bars of the excerpt use tonic and dominant harmony to establish the key. As usual, the player should keep the line elevated while harmonies are prolonged and change directions or colors with their support and tone when harmony changes occur. They should lean into accented non-chord tones like the E on the downbeat of measure 2 and downplay individual notes in linear progressions like the one from F♯ to C♯ in measure 8. The harmonic rhythm begins to speed up in the second 8-bar phrase. Measure 9 is tonic harmony. Measure 10 begins with tonic harmony, but the F♮ at the end of the measure suddenly shifts its function from tonic to secondary dominant of IV. As such, that F♮ should be played with the intention of intensifying the movement to IV. The IV harmony in the 11th measure should begin reaching toward the dominant, and in fact, the melody itself literally reaches upward. The reaching is thwarted when the IV does not move to V, but rather to a more chromatic version of itself, the vii$^{\circ 7}$. This diminished seventh chord takes us to the most chromatic harmonic space up until this point, preparing us to hear the V - I cadence. Expectations are subverted one more time as we hear not the V chord but its suspension–a cadential six-four chord in measure 14. After moving through the cadential six-four, we finally reach the dominant in measure 15 and can relax into the tonic in measure 16. Each measure in this 8-bar phrase extends the harmony and plays with our expectations. The oboist can play along, adding intensity through rubato, dynamics, and color. Be careful

not to simply press through every note, however. When we bring out every note, nothing comes through.

Apply the same principles of melodic playing from the first 8 bars of the excerpt to the last 8 bars.

Excerpt 7.4: Franz Wilhelm Ferling–Etude No. 2



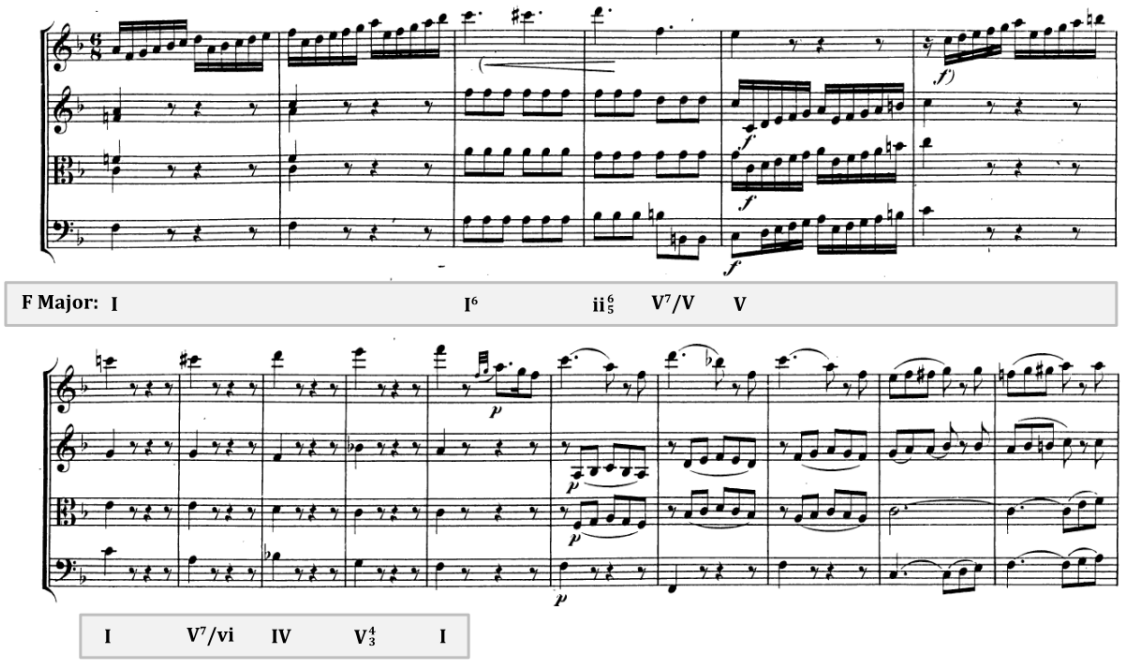
This example is Ferling Etude No. 2 in its entirety. We analyzed the first 5 measures in the first chapter–they are all tonic and dominant harmony, establishing the key. From there, the harmony begins its journey away from this tonic-dominant cradle.

The first step away is a diminished seventh chord in measure 7, a vii$^{\circ 7}$ applied to vi. Halfway through the bar, the move to vi feels like a local resolution, but ultimately it serves as a predominant chord, preparing dominant harmony. We don't get the dominant immediately because V^7/V intervenes in measure 8. The dominant harmony is finally introduced halfway through through the bar and suspended through the chromatic scale in measure 9 and through to the downbeat of measure 10 for a half cadence.

Measure 11 continues the V^7 harmony of the previous phrase and it moves to I in measure 12, though $\hat{3}$ appears on the downbeat instead of $\hat{1}$, so the resolution is less strong. This harmony repeats again in measures 13 and 14 with different embellishments, and again the resolution to I is unsatisfying as it arrives with $\hat{3}$ on the downbeat instead of $\hat{1}$. You'll notice that the contour of the line during these motions from V^7 to I follows the energy of the harmony. At the beginning of the V^7, the range of the melody is high, and the harmony is tense. As the melody comes down in range, the harmony relaxes with a resolution in I. The player should follow the cues from the contour and the harmony with coordinating dynamics. After 4 bars of bouncing from dominant to tonic, the harmony moves through its final cadence. Measure 15 begins with a $B^{\flat}$, heralding the secondary dominant of IV. It is worth pointing out that this measure has two different kinds of accidentals. The $B^{\flat}$ is harmonically functional–it is the seventh of the dominant seventh applied to the IV chord. As such, it should be brought out as a significant structural moment. The $D^{\sharp}$, on the other hand, is non-functional. It is a chromatic lower neighbor and should be leaned into as a dissonance that is resolved in the third sixteenth of the beat. Both chromaticisms bring color and interest to the piece, but one is harmonic color and the other is melodic color. To tell the difference between them, look for accidentals that participate in a pattern of thirds, (triads or seventh chords). These accidentals are harmonic in nature. Accidentals that decorate those triads and seventh chords are melodic coloration. From the V^7/IV in measure 15, the harmony resolves into IV, the predominant. The predominant harmony reaches for the dominant, which resolves finally to the tonic and a satisfying arrival of $\hat{1}$.

In looking at an entire piece of music, we can see how applied chords added to the overall arc of the harmony. They were largely absent in the first 4 bar phrase as tonic and dominant were established. Then over the next 6 bar phrase, two secondary dominants were used, one applied to vi and one applied to V, in quick succession to build up to a half cadence. In the next four bars, dominant harmony is repeated but each time "fails" to reach a satisfying resolution. In the final four bars, the secondary dominant is applied to IV to intensify motion to the predominant and incite the final cadence. The predominant then successfully progresses to dominant and finally tonic harmony.

Excerpt 7.5: Wolfgang Amadeus Mozart–Quartet for Oboe and Strings, movement 3, (mm. 108-118)



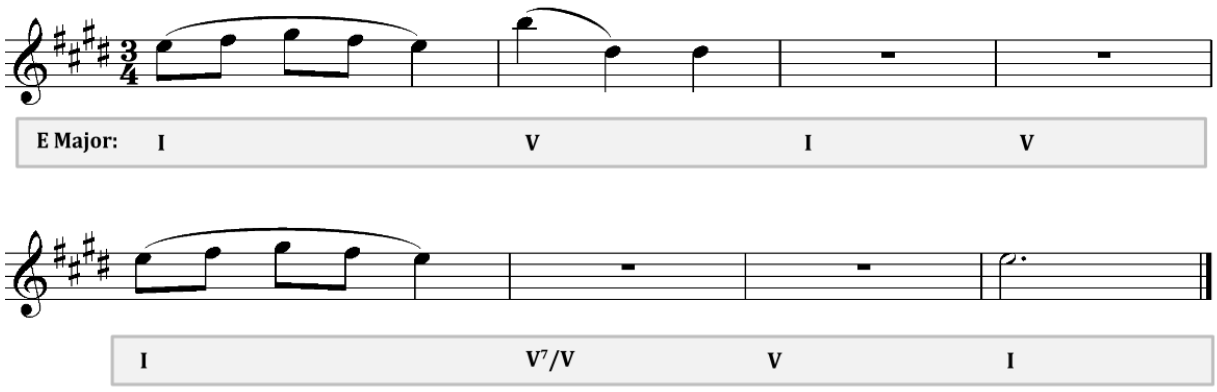
This excerpt comes from the third movement of Mozart's Quartet for oboe and shows an example of a standard-use applied dominant, and also a more humorous example. In the first phrase, the oboe plays scales over tonic harmony for two measures before landing on a high C. The oboe line reaches up chromatically through $C^{\sharp}$ to D over ii harmony. The scale upward then falters and falls down to an F over a V^7/V, intensifying the movement to the half cadence in the following measure.

The oboe then tries again. The scale from the beginning of the previous phrase is repeated with a slight change–this time the B♭ is replaced with a B♮, preparing the ear for the C Major chord, the dominant, in the next measure. The arrival dominant harmony instead of tonic harmony indicates that this cadence will follow a different trajectory than the last. The dominant does not simply resolve to tonic, but moves unexpectedly to the secondary dominant of vi. Then, instead of resolving to vi, the harmony moves deceptively to IV (the VI of vi!). From the IV chord, we can finally move through a V - I cadence. Over all this subversive harmonic motion, the oboe has the harmonic structure to support an ascending scale that reaches all the way to high F ($\hat{1}$) when tonic harmony arrives, thus closing the phrase left open at the half cadence in the fifth measure.

7.3 Improvisation and Composition

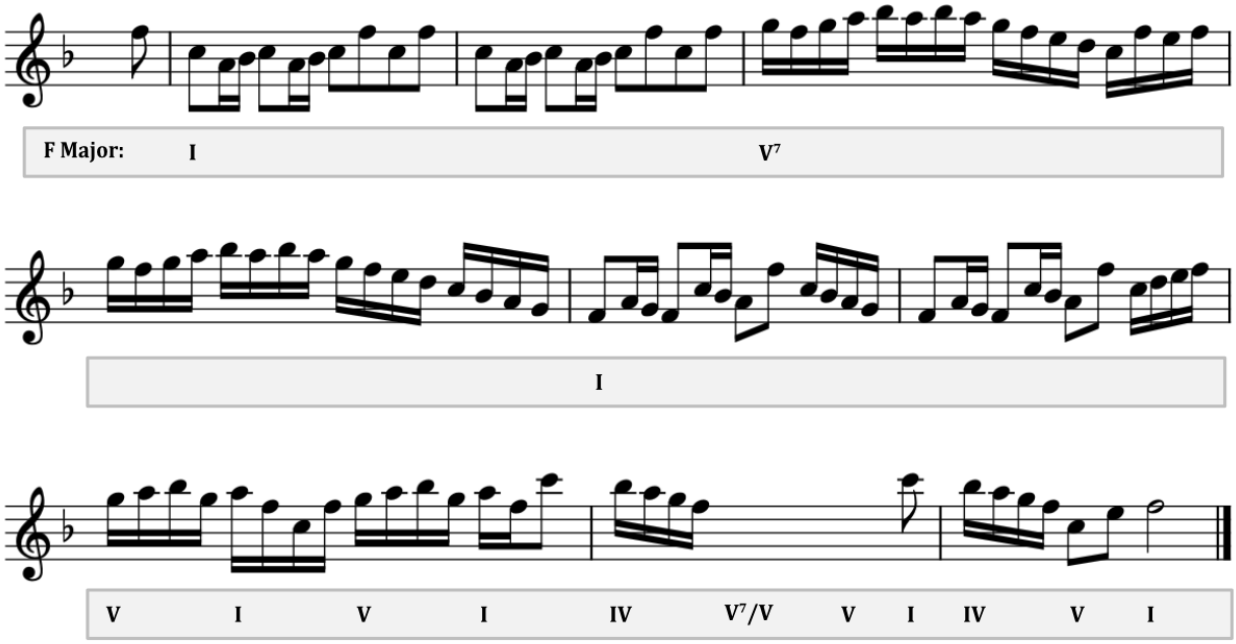
- improvise the missing pieces of this melody following the given harmony. The first four bars will end in an open half cadence. The second four bars will begin a parallel phrase that will move to a PAC through a secondary dominant.

Exercise 7.7: Improvisation A



- Play this excerpt of the Brandenburg Concerto No. 2, but instead of finishing the cadence as originally written, improvise a half cadence prepared by a secondary dominant. Then finish the phrase as written.

Exercise 7.8: Improvisation B



Chapter 8: MODULATION

8.1 Concepts and Exercises

In Chapters 6 and 7, we discussed how a chord might function as a local ”destination” when its dominant is applied to it. In minor keys, the VII chord functions as the V of III and is often used to point the harmony toward III as a point of rest on in the progression toward V and I. In any key, applied dominants can orient the harmony momentarily toward a dominant or predominant harmony. These moments are called local tonicizations because the chord the harmony moves toward feels like the tonic. Sometimes a tonicization can be more substantial and last for many measures. We call this a modulation. While a tonicization only lasts a moment or two, a modulation is usually long enough to have a strong cadence in the new key. Modulations can be categorized in two ways: the key to which they move and the method by which it is achieved. We will discuss key first.

The most common modulation in major keys is to V, and in minor keys to III. After these two common modulations, there are other closely related keys to which a harmony could modulate. Closely related keys can be defined as keys for which the tonic chord is diatonic in the original key. So, for major keys the closely related keys are: ii, iii, IV, V, and vi. For minor keys, the closely related keys are: III, iv, V, VI, VII. So, for example, the keys closely related to C Minor would be $E^{\flat}$ Major (III), F Minor (iv), G Major (V), $A^{\flat}$ Major (VI), or $B^{\flat}$ Major (VII). Sometimes, harmony can move past a closely related key into something unrelated altogether. Modulation to these distantly related or remote keys tends to be more jarring and is less common.

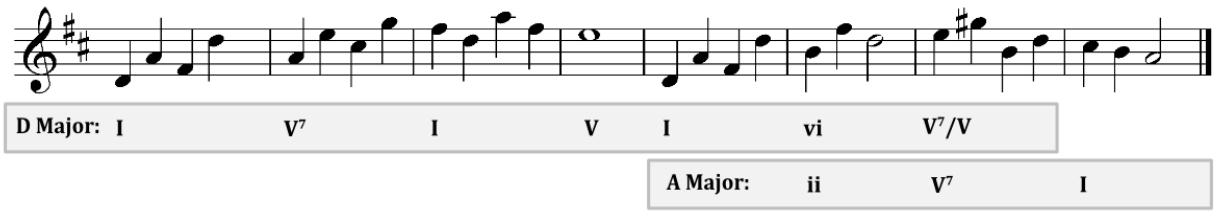
Modulation can be achieved in a few ways. In a *pivot chord modulation*, the change of keys is bridged using pivot chords, or chords that are shared between the two keys. Possible pivot chords can be determined by charting the chords shared by two keys like so:

Exercise 8.1: Potential Pivot Chords to Modulate Between D Major and A Major

D Major:	**I**	**ii**	**iii**	**IV**	**V**	**vi**	**vii°**
	D	**Em**	**F#m**	**G**	**A**	**Bm**	**C#°**
	D	**E**	**F#m**	**G°**	**A**	**Bm**	**C#m**
A Major:	**IV**	**V**	**vi**	**vii°**	**I**	**ii**	**iii**

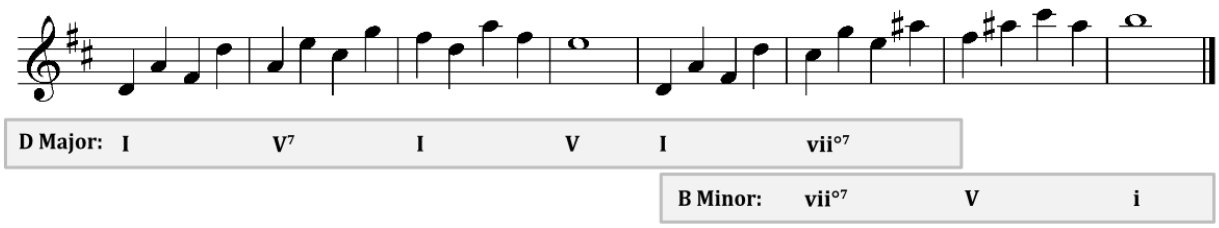
In this example, the D Major I, iii, V, or vi chords are both potential pivot chords because they occur in A Major as well. The B minor chord is especially favorable because it functions as a predominant in both keys. In the following example, the vi chord is used as a pivot chord to move from D Major to A Major. Notice how the secondary dominant easily follows the pivot chord, allowing for a cadence in the new key.

Exercise 8.2: Modulation Using a Pivot Chord



In an *enharmonic spelling modulation*, a chord presents as one chord but is reinterpreted with a different spelling. It is very similar to a pivot chord, but applies only to two kinds of chords: fully diminished seventh chords and German Augmented Sixth chords. Because the vii$^{\circ 7}$ chord is completely symmetrical (a stack of minor thirds for which any tone could serve as the bass note), the same chord serves as the leading tone chord for four different keys. Although the chord sounds the same in each key, it is spelled differently to fit each diatonic scale. It can present in one key, but resolve as though it was in another, like in this example:

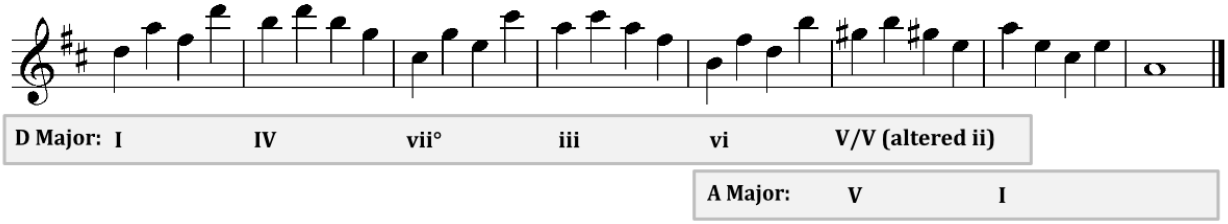
Exercise 8.3: Modulation Using an Enharmonic Spelling of the Diminished Seventh Chord



When the vii$^{\circ 7}$ appears in D major, the C$^{\sharp}$ functions as the bass and we would expect it to move on to the V chord of D Major (A Major) or resolve to the I chord (D Major). However, the vii$^{\circ 7}$ is reinterpreted as the leading tone chord of B minor with A$^{\sharp}$ as the root, and moves on to the V of B minor (F$^{\sharp}$ major) instead. A cadence in B Minor follows.

With a *chromatic sequence modulation*, a diatonic sequence is altered chromatically to modulate to a new key. One chromatic inflection pushes the sequence to spin toward a different key than the one in which it started. In the following example, the ii chord in a falling fifths sequence is altered to become the V/V in A Major. Instead of moving through the entire falling fifths sequence to reach V and then I, the V/V sets up A Major as the destination.

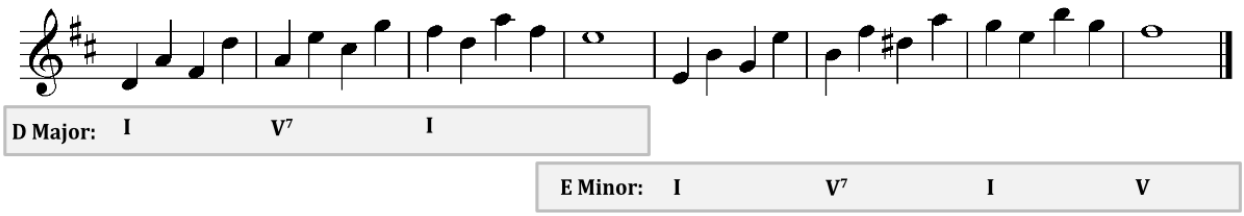
Exercise 8.4: Modulation Using a Chromatic Sequence



In this example, we could analyze the modulation with a pivot chord, but because the sequential melodic pattern is followed through the pivot chord and the secondary dominant, it warrants mention in analysis.

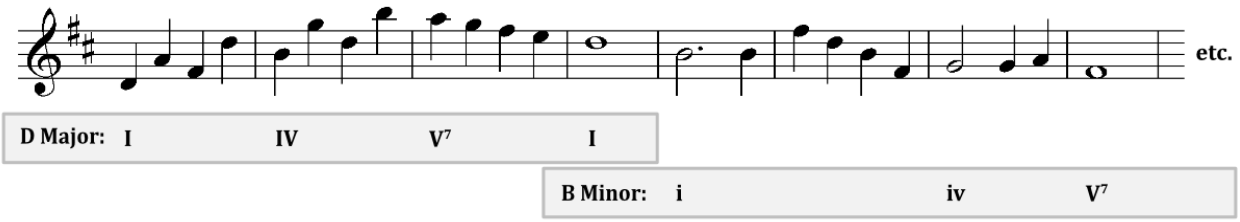
In a *sequential modulation*, an entire phrase is repeated at a different pitch level. It almost always returns immediately back to the original key, the entire modulated phrase serving as a sort of extended neighbor chord. In this example, the phrase is repeated a step up.

Exercise 8.5: Sequential Modulation



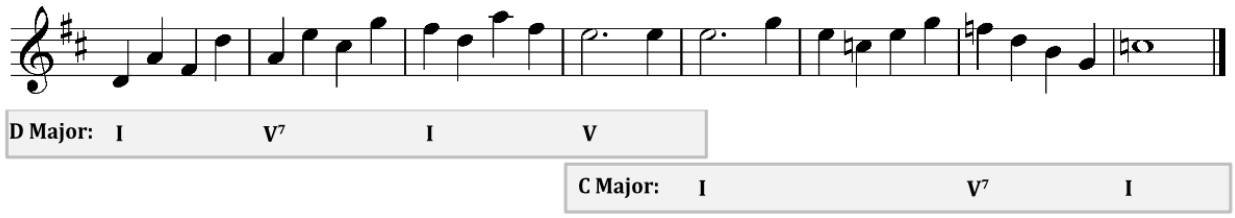
In a *phrase modulation*, a phrase begins in an entirely new key without any transition, as in the following example. This kind of modulation is also sometimes called an *abrupt modulation*, or *direct modulation*.

Exercise 8.6: Phrase Modulation



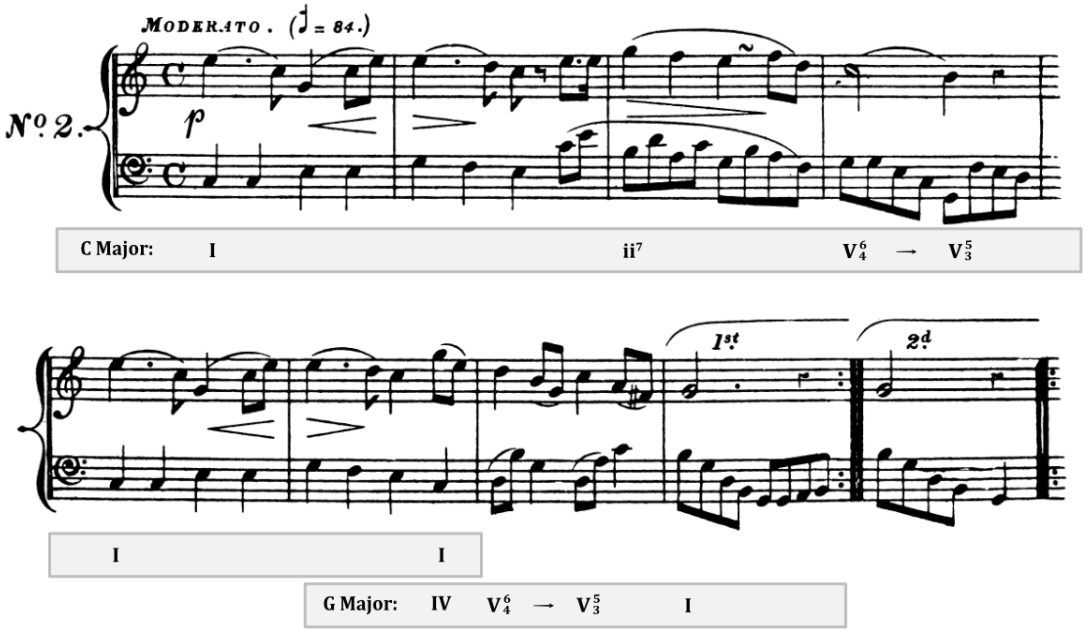
In a *common-tone modulation*, a single tone is held through the transition from one key to the next, with the harmony shifting underneath it. Since only one tone is held, the keys can be more distantly related than with common chord or pivot chord modulations. In the following example, the harmony shifts from an implied A Major chord (V in D Major) to a C Major chord (I in C Major). If you struggle to audiate the harmony while you play, try quickly arpeggiating each harmony at the end of measure 4 and the end of measure 5 to orient yourself.

Exercise 8.7: Modulation Using a Common Tone



8.2 Musical Examples

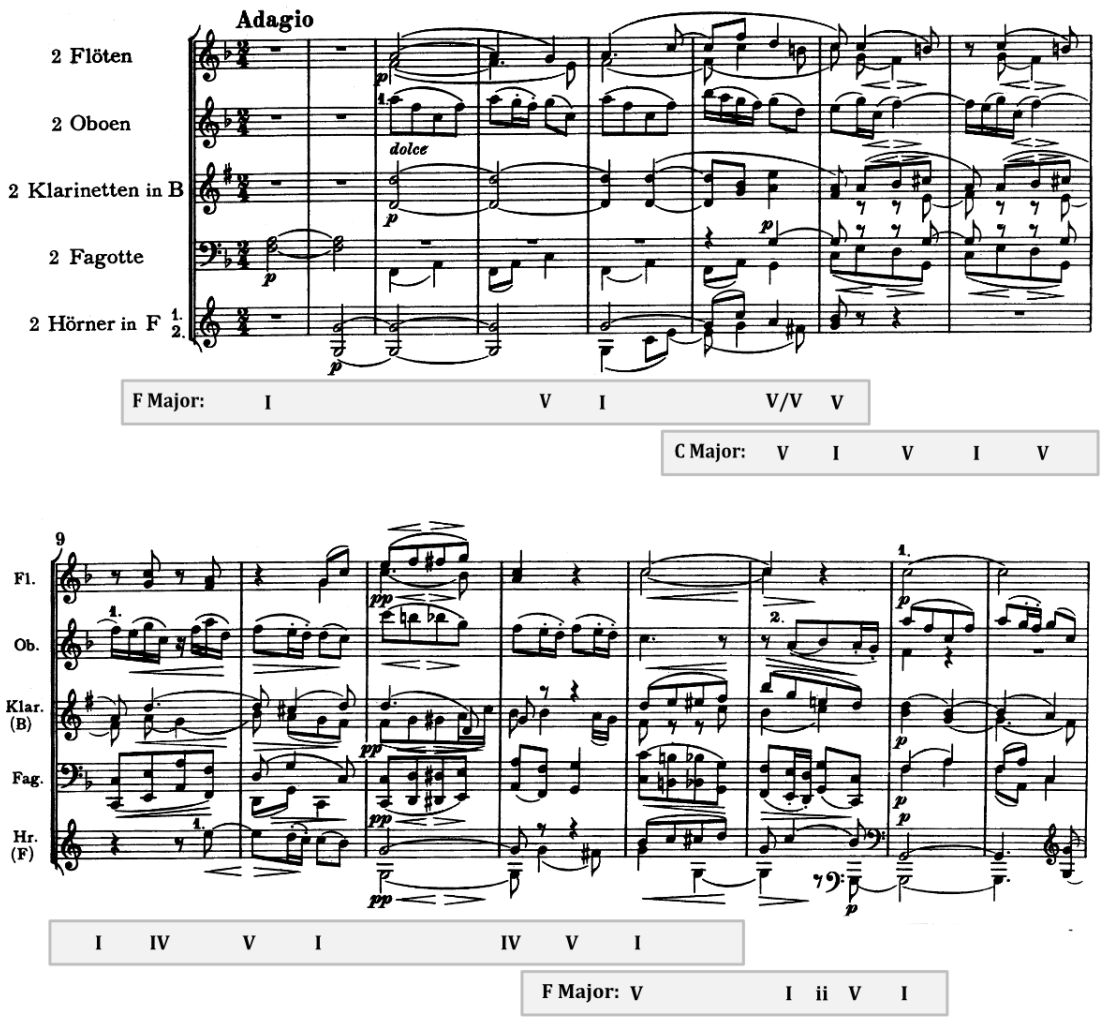
Excerpt 8.1: Apollon Marie-Rose Barret–Melody No. 2 (mm. 1-8)



This excerpt comes from the opening of Barret Etude No. 2 and demonstrates a small-scale modulation to V using a pivot chord and an applied chord. The first four bars of the melody end in a half-cadence, creating an open-ended antecedent phrase. The parallel consequent phrase begins in the same way as the first, and though the phrase finishes with V harmony again, it has been tonicized so strongly that it is a perfect authentic cadence in V, not a half cadence. The C Major chord of measure 6 serves as a pivot chord because it is common to both C Major (as a I chord) and G Major (as a IV chord). Following the pivot chord, the cadential six-four and dominant of V appears and tonicize V. Many Barret melodies follow this pattern: antecedent phrase with weak cadence followed by consequent phrase that modulates to a strong cadence in a new key. Even in short Barret melodies, modulation is the main driver behind the narrative of the piece as a whole. A phrase may move from tonic to dominant and back to tonic, but a piece of music is more than a series of phrases. Knowing where the pivot chord appears and recognizing the secondary dominant allows the player to engage with this narrative. Using phrasing and color and rubato and vibrato

to guide the listener through the modulation will bring the ”story” of the piece to life and change the music from a series of phrases into a narrative progression. Playing a simple pedagogical piece can become an engaging experience.

Excerpt 8.2: Johannes Brahms–Violin Concerto, Op. 77, movement 2 (mm. 1-15)



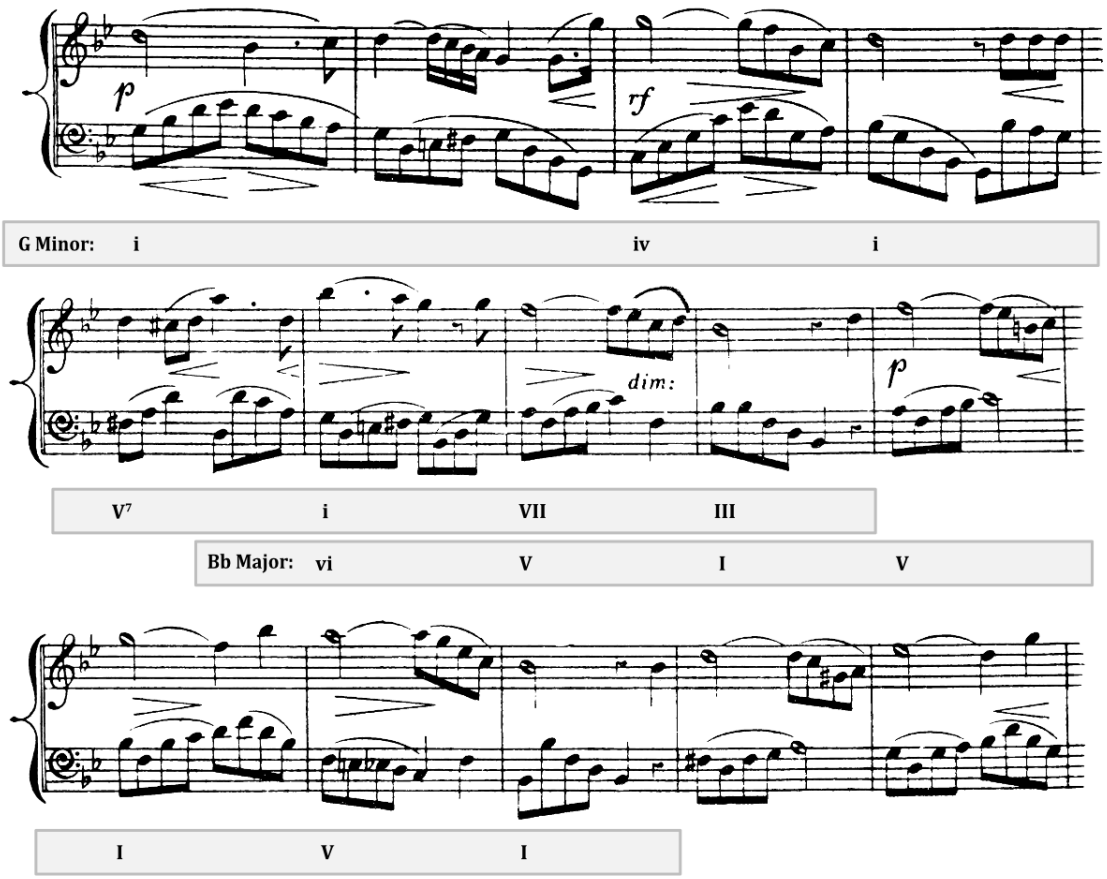
This excerpt is from the second movement of Brahms' *Violin Concerto* and shows a long tonicization of V that could be considered a short modulation. The movement opens with bassoon and then horn holding an F Major chord, the tonic chord. Over this, the oboe soloist enters, playing a tonic arpeggio. In the second beat of the fourth measure, the harmony shifts briefly to V over the tonic pedal, but returns to I repeating the arpeggio of the opening. This repetition must have more energy as it reaches higher in the 6th measure to a B$^{\flat}$ appoggiatura. In the second beat of measure 6, the G reaches down to a D instead of a C as in measure 4, supporting the V/V harmony played by the orchestra. This eighth note is an important pivot

point and it goes by so quickly that the player can easily miss the opportunity to highlight the shift in harmonic space from F Major to C Major. The D should be dripping with meaning–tucked into its phrase, so as not to stick out and chop up the melody, but at the same time filled with awareness of its role as the dominant of a new key. The following measures clearly stay in the key of C Major, bouncing between V and I, and then even completing two progressions through tonic-predominant-dominant-tonic resolution. In measure 14, the second oboe plays its short solo and in that measure and the following downbeat, retonicizes F Major.

This subtle change in harmonic space defines the character of the moment. The teetering between tonic and dominant harmony at the beginning of the C Major section (mm. 7-8) is softened both by the melody and the bassline: In the melody, the oboist's line centers around the motion from $\hat{3}$, E, and $\hat{4}$, F. These notes support I and V^7 harmony in C Major, but they can sound like the leading tone and tonic of F Major. In the bass, the vague harmonic implications of the melody in measures 7 and 8 are intensified when the root of the V^7 chord comes in late–the last eighth of the measure. In addition, the only time the harmony rests fully on a C Major chord in a perfect authentic cadence is at the very end of the section in measure 13.

An unaware oboist might be oblivious to the modulation altogether. Without the accompaniment, it is tempting to play the Fs in measures 7 and 8 as the tonic, and there are no accidentals in the oboe part until the B♮ in measure 11, which can appear to be a chromatic passing tone without careful examination. An unaware interpretation will sound obtuse and insensitive. An awareness of a subtle change in perspective can lift the interpretation into something more sophisticated. The Fs in measure 7 and 8 are an excellent example. They can be played like the tonic of F Major, but this does not reflect the underlying harmony and leaves the note feeling uninspiring and static. On the other hand, if the player understands that this F is the seventh of the dominant chord in C major, and therefore a dissonance that needs to resolve, the note becomes more dynamic and charged with forward energy.

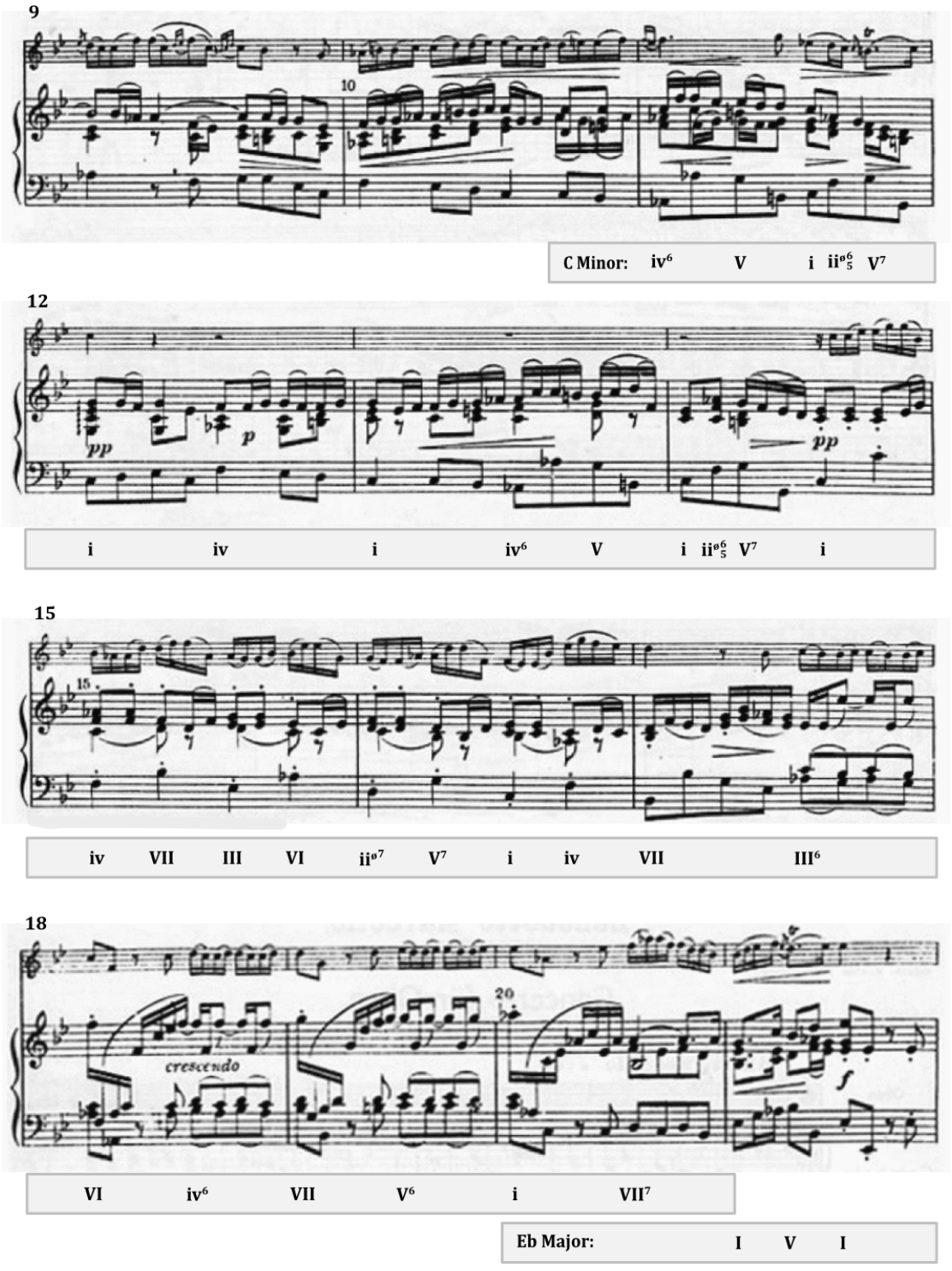
Excerpt 8.3: Apollon Marie-Rose Barret–Melody No. 6 (mm. 9-20)



This excerpt is from Barret Melody No. 6 and demonstrates a small scale modulation to III in a minor key using VII as a pivot chord. In previous chapters, we've discussed how the VII chord can act as a local dominant and briefly tonicize III. Sometimes, that tonicization can be extended to a full modulation. This example is simple: The first four bars expand the tonic space of G Minor, moving briefly to iv in the third bar before returning to i. The next four bars include the modulation. The harmony begins with a dominant seventh, which resolves to i. The VII chord is used in the following measure, acting as the dominant of the following harmony, III in the final measure of the phrase. In minor modes modulating to III, it can often be tricky to determine the pivot chord since the two keys share nearly every chord. However, it is good practice to use the predominant chord before strong dominant harmony to pivot. The cadence of these four bars is a perfect authentic cadence, much stronger than a passing tonicization as in previous examples of

VII taking the harmony toward III. The final four bars of the excerpt solidify B♭ Major by moving back and forth between dominant and tonic harmony. Interpreting this modulation is most interesting at the pivot chord. The player who recognizes that the harmony in the sixth measure can be analyzed as a predominant chord can use the G in the third beat to reach toward the F in the following bar with anticipatory vibrato in the release. As a member of tonic chord, that G would be a finished thought. As a member of the predominant chord, it can reach forward.

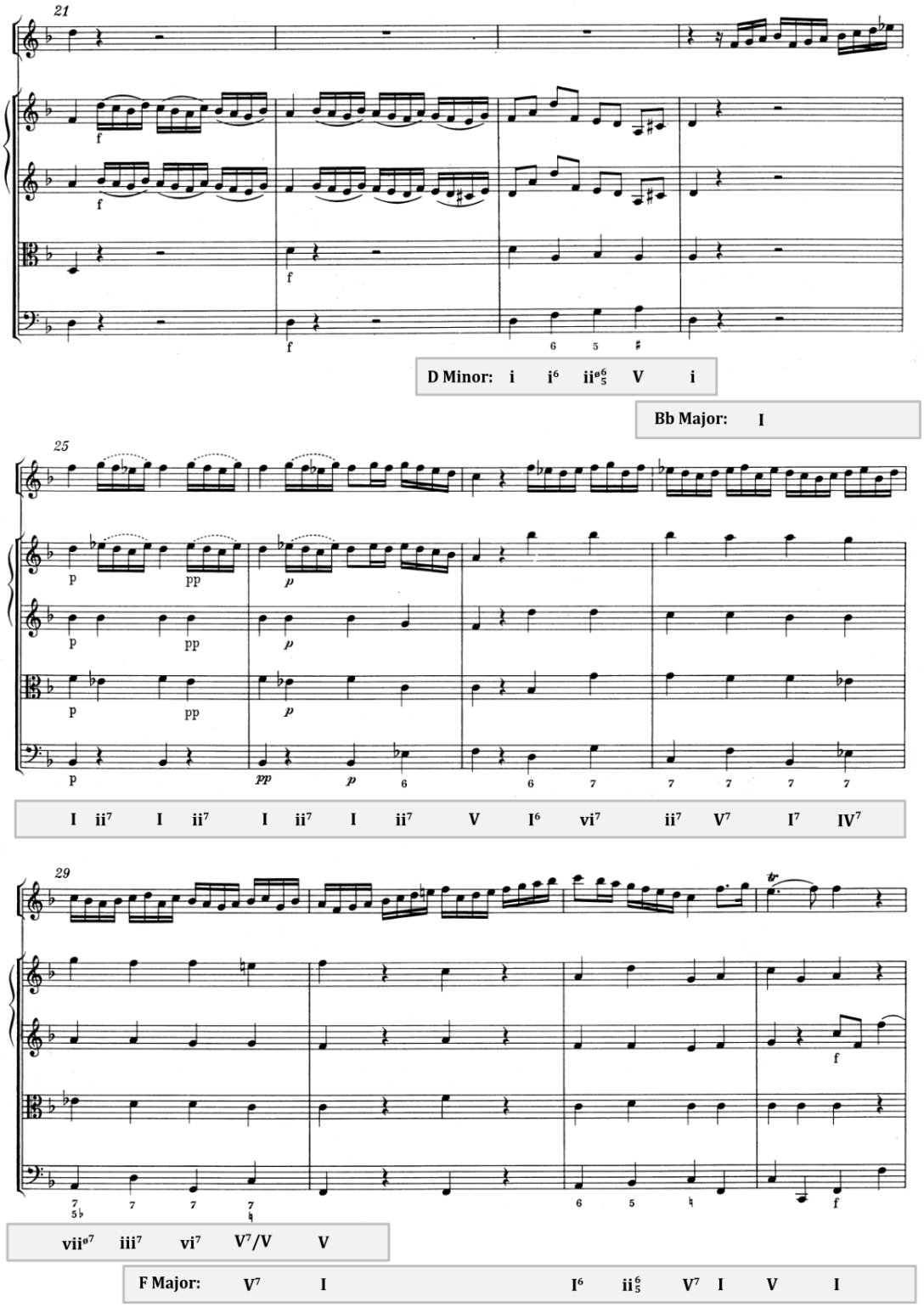
Excerpt 8.4: Alessandro Marcello–Oboe Concerto, movement 1 (mm. 11-21)



This excerpt comes from the first movement of the Marcello concerto and shows a larger scale modulation to III using VII as a pivot chord. The analysis begins with the end of the previous phrase to orient us in the original key of C Minor. The cadence moves through a conventional progression and comes to rest with a perfect authentic cadence. The orchestra then repeats the cadence without the soloist. The oboist then enters in measure 14 with sixteenth note figures over a classic falling fifths sequence that begins in the tonic space. The sequence makes a full cycle but continues past the arrival of i to land instead on VII in what feels like a half cadence on the downbeat of measure 17. A new cadence begins halfway through measure 17, this time beginning on III, E♭ Major. This time, the sequence uses first inversion chords on every other harmony to create a bassline that moves up by step and finally finishes with a perfect authentic cadence in E♭ Major.

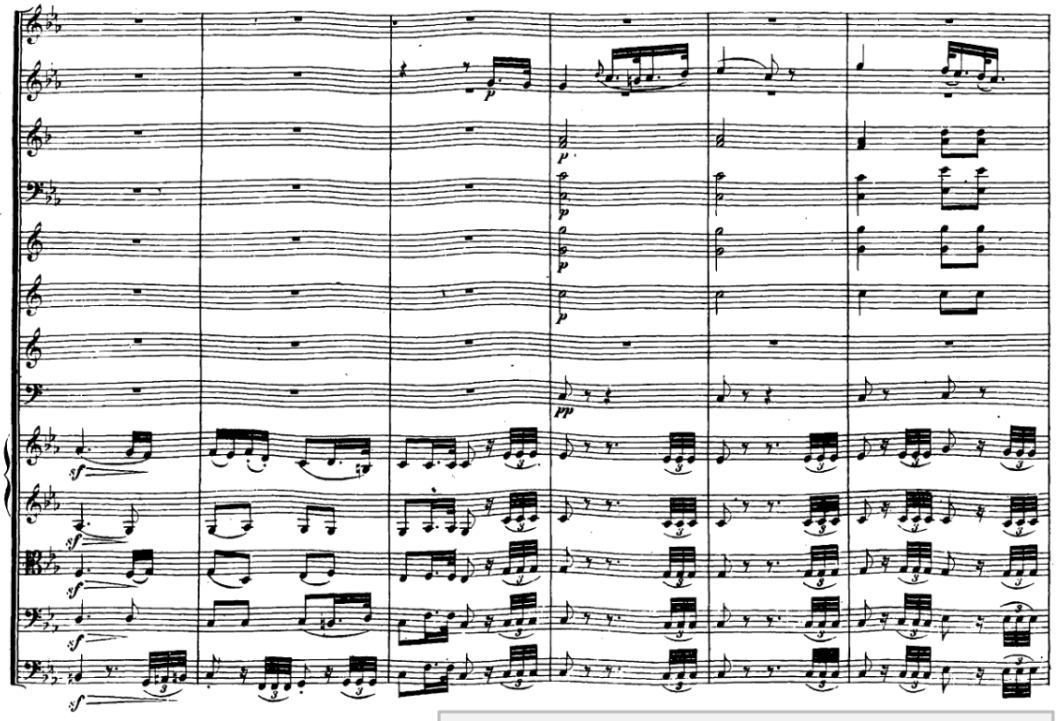
The use of sequence to achieve modulation is highly common in Baroque music. The player can use the quick harmony changes to shift colors, careful not to come down hard on any one of them. In the beat leading up to the half-cadence in measure 17, the player can use the change in sixteenth-note pattern to open up and reach toward the D. This moment is important because although we have not fully tonicized E♭ yet, the use of VII like an arrival has made a modulation to E♭ inevitable. The player can also use the ascending motion of the second sequence to build anticipation for the final perfect authentic cadence in E♭ Major. The change in sixteenth-note figure at the end of measure 20 can again be used to signal the end of the sequence–the player can open up and reach toward the high A♭, then relaxing into the resolution to I as the arpeggio comes back down.

Excerpt 8.5: George Frideric Handel–Concerto No. 3 G Minor, HWV 287, movement 2 (mm. 23-32)

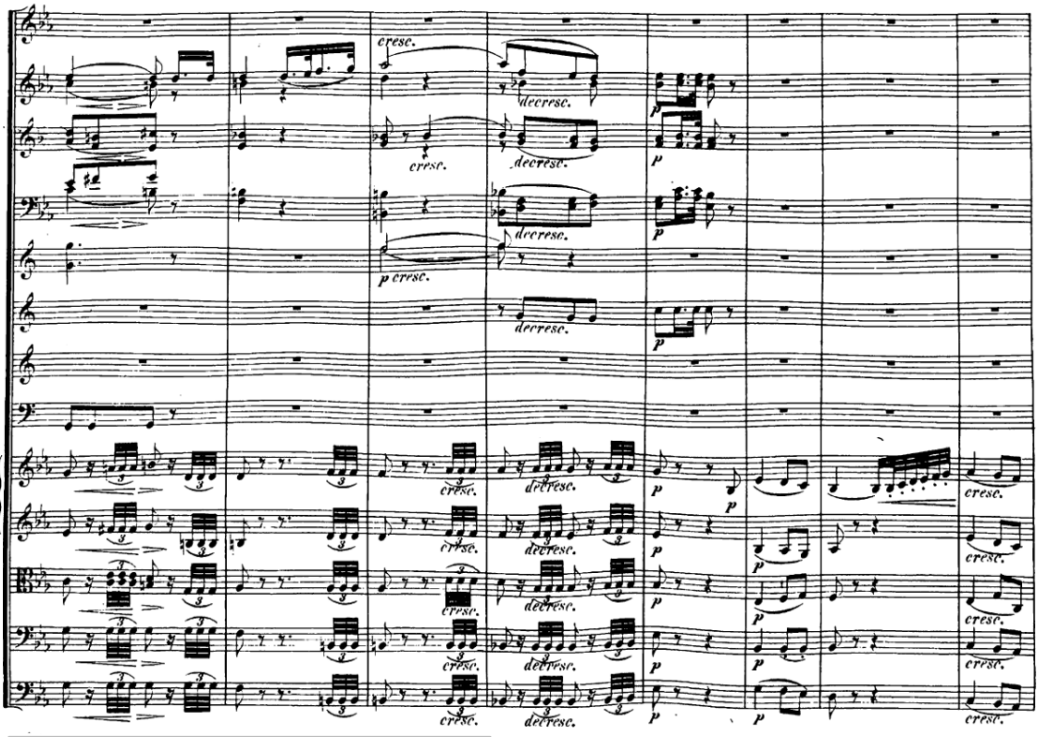


This excerpt is from the second movement of the Handel G Minor Concerto which modulates from III to VII using a chromatic sequence. At the point of this excerpt, the movement has already modulated to D Minor, v, so the analysis here begins with a cadence in D minor. The solo line enters in the completely new key of B♭ Major, a phrase modulation. After a tonicizing flourish in measure 24, the following two measures expand tonic harmony, with an inversion of the ii^7 chord acting as a neighbor chord that eventually leads to a half cadence on the downbeat of measure 27. Halfway through that measure a sequence begins. The first chord is a first inversion I chord, which moves to vi^7. From the vi^7, the sequence follows a strict falling fifths sequence with seventh chords. The harmony moves past I and then in the final beat of measure 29, a chromatic note in the violin shifts what would be a ii^7 to a V^7/V. This chromatic coloration makes this a chromatic sequence and allows the harmony to shift toward a new harmony, in this case toward V, F Major. Measure 30 is entirely F Major harmony and then mm. 31-32 move through a standard progression through tonic-predominant-dominant-tonic. Although the chromatic alteration of E♭ to E♮ does not occur in the solo part until measure 30, the oboist can still show that the final beat of measure 29 as the inflection point. A change in color can lift those four sixteenth notes out of the sequence and point them toward the resolution to F Major in the following bar.

Excerpt 8.6: Ludwig van Beethoven–Symphony No. 3, Op. 55, movement 2 (mm. 9-16



C Minor: i

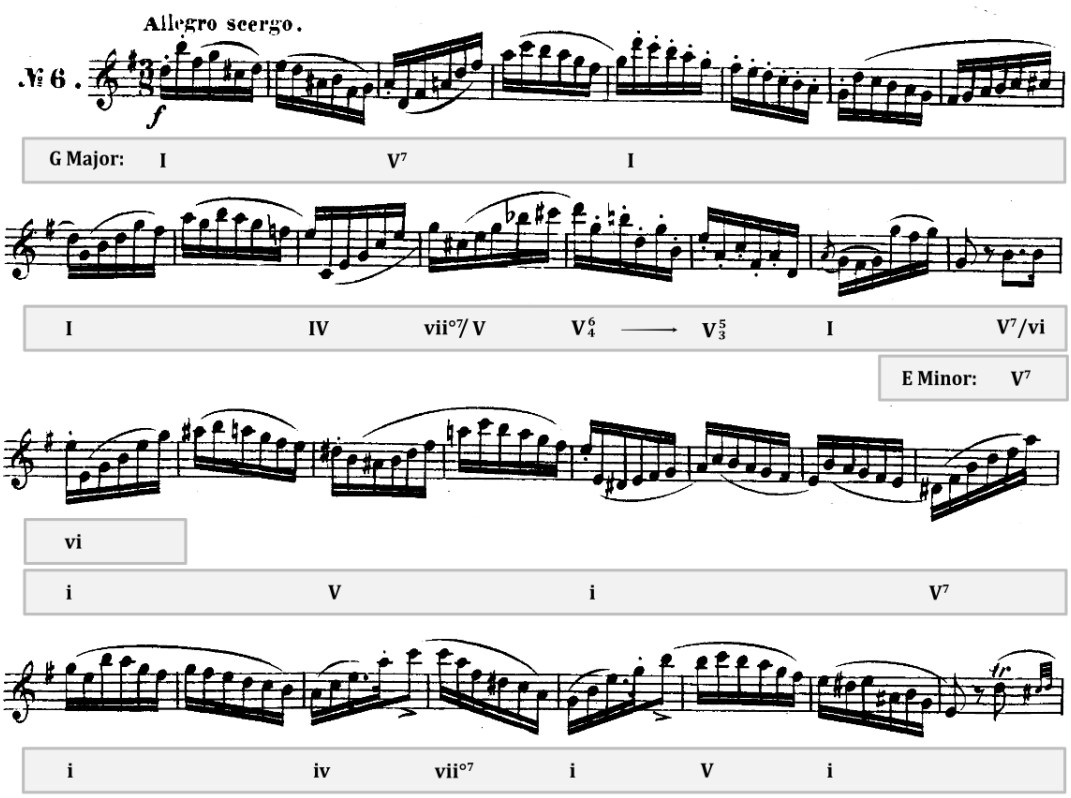


$V_4^6 \longrightarrow V_3^5$ vii^{o4}_3 vii^{o7}

Eb Major: $vii^{o}{}_2$ V^7 $V_4^6 \rightarrow V_3^5$ I

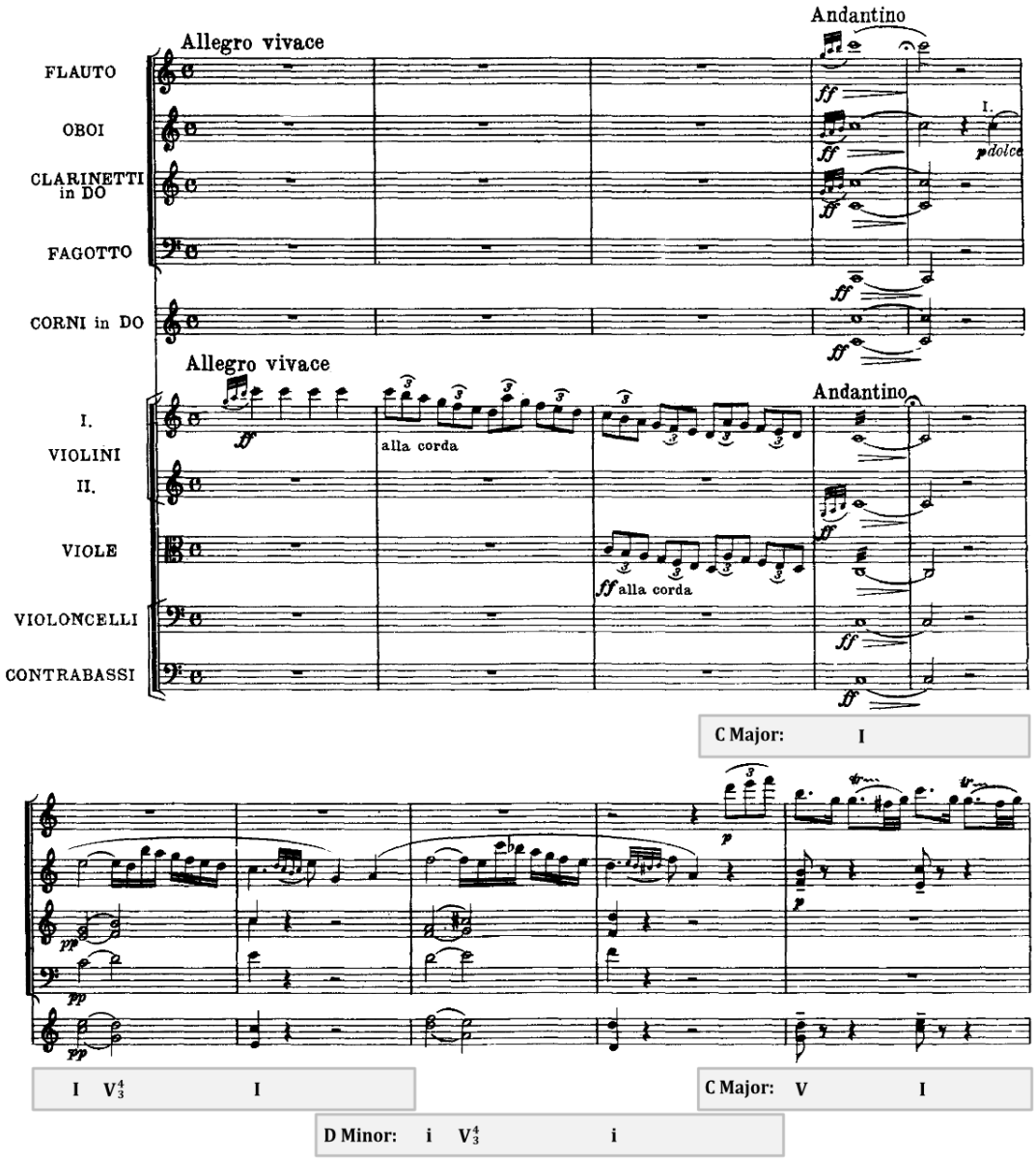
This excerpt is from Beethoven Symphony No. 3 and demonstrates a modulation to III in a minor key using a reinterpretation of a vii$^{\circ 7}$ chord. The oboe melody begins by decorating the tonic arpeggio for three measures. The harmony then moves to a cadential six-four chord, with the two oboists holding the 6th and 4th above the bass on the downbeat and resolving down to the V chord on the second beat for a half cadence. After the half cadence, the oboe line moves up the scale to rest on an A$^{\flat}$. During these two measures, the harmony stays on the diminished seventh chord–switching inversions only. This chord is disorienting because it is entirely symmetrical and any of the four pitches could be reinterpreted as the root–in this case, it could serve as the vii$^{\circ 7}$ in both C Minor and E$^{\flat}$ Major. As the next chord arrives, the ear is prepared to hear it as the V of E$^{\flat}$ Major because of the potential for diminished seventh chord reinterpretation. Not only does the diminished seventh chord function in both keys, but it is also an excellent voice leading choice–the chord shares three pitches with the dominant chord of each key. As the oboist holds the high A$^{\flat}$, they can imagine that although the harmony underneath them is stable, its direction is shifting, preparing the arrival of a new key. The way the A$^{\flat}$ builds and arrives on the downbeat of the 10th measure of this excerpt can aid in this goal–vibrato, dynamics, and color can all add to this subtle harmonic shift.

Excerpt 8.7: Franz Wilhelm Ferling–Etude No. 6 (mm. 1-32)



This excerpt is from Ferling Etude No. 6 and demonstrates a modulation to vi in a major key using phrase modulation. The first 16 measures move through a traditional progression through tonic, predominant, dominant, and finally tonic resolution all in the key of G Major. The next phrase begins abruptly in E Minor, the vi of the original key. This key is closely related (the relative minor), and the easiest minor key to modulate from the major mode. This kind of modulation is called a phrase modulation because it begins without any kind of transition. The interpretation of this kind of modulation is fairly simple–dive right in, aware of the function of the first ”surprise” chord, in this case it is the V of the new key. The player should play the B-E interval as a V chord resolving to the tonic and establish immediately the new harmonic space.

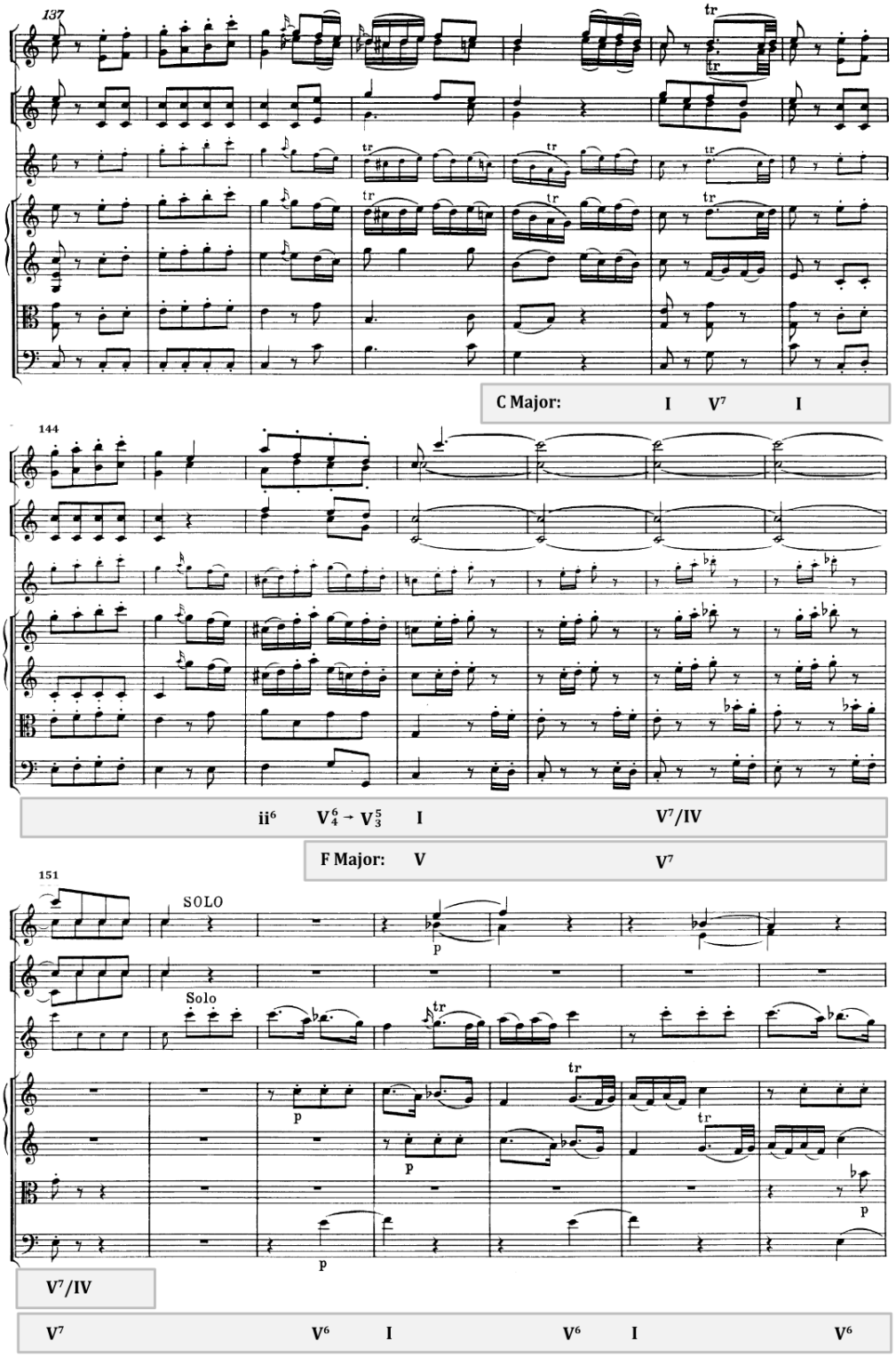
Excerpt 8.8: Gioachino Rossini–Overture to La Scala di Seta (mm. 1-10)

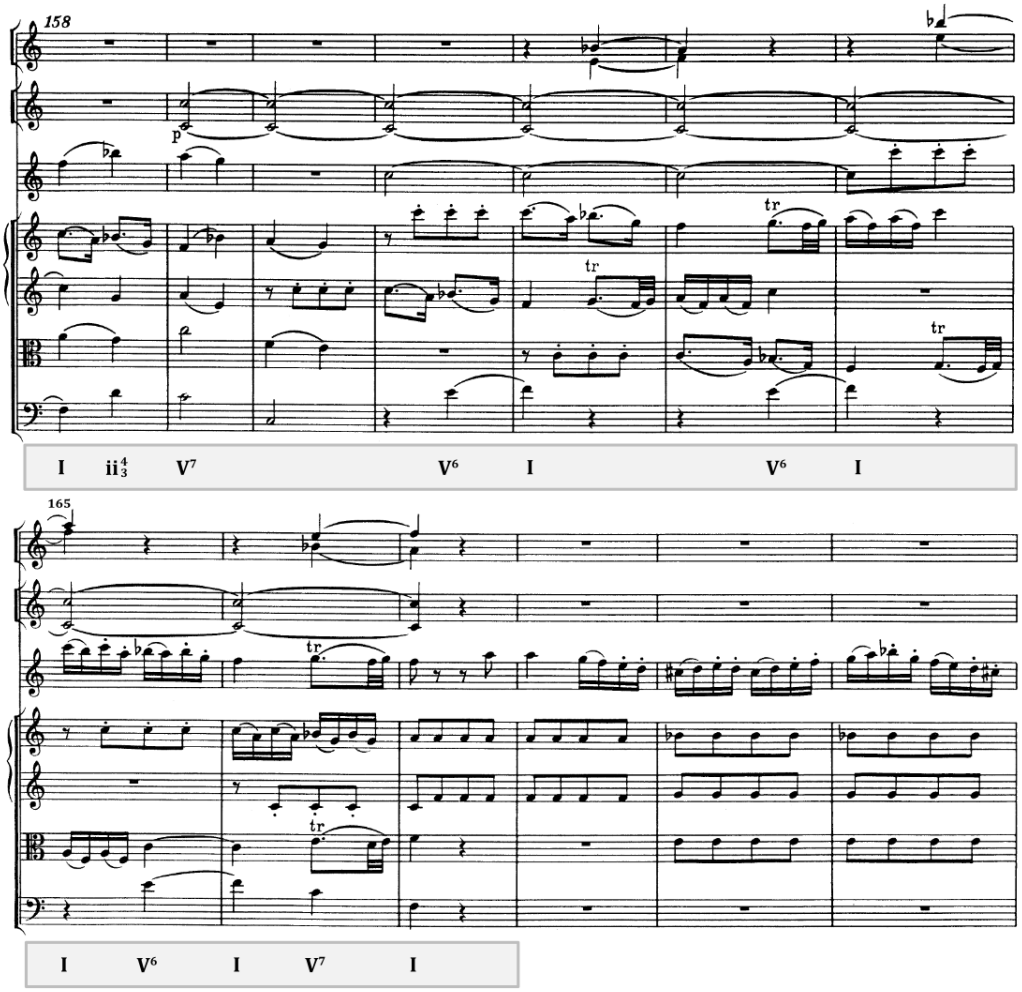


This excerpt comes from the opening of Rossini's La Scala di Seta and shows a modulation to ii using a sequential modulation. In this excerpt, the oboe moves from tonic to dominant and back to tonic in the the first two measures of its solo (mm. 6-7). Measures 8 and 9 repeat the same melody up a step in the key of D Minor. this kind of modulation is like a phrase modulation in that it occurs with no transition, but it repeats the previous phrase material exactly in the new key. Just as a neighbor tone decorates a single note,

and a neighbor chord decorates a single chord, a sequential modulation acts like a ”neighbor phrase,” expanding on and decorating the opening idea. In this way, it functions like a tonic expansion, even though it shares no harmonies with the tonic. After the phrase is repeated at this new pitch level, the harmony returns to C Major space. Just like a player would lean into a neighbor tone, they can also lean into this sequential modulation–bring out abrupt change and embrace the higher energy that comes with starting on and reaching for higher pitch levels.

Excerpt 8.9: Wolfgang Amadeus Mozart–Concerto for Oboe, Op. 314, movement 3 (142-167)





This excerpt comes from the third movement of the Mozart Oboe Concerto and demonstrates a modulation to IV, a common modulation for a later episode in a Rondo movement. The analysis begins at the tail end of the orchestra's repetition of the Rondo theme which cadences in C Major on the downbeat of measure 147. The C is held in the high winds as the orchestra repeats tonic harmony for two measures. Then in measure 149, a B$^\flat$ enters the mix, shifting the I chord to a dominant seventh of F Major. It is over this chord that the oboist enters in measure 52. Through this entire episode, the C remains an important note, heralding back to the C Major harmony space of the Rondo, but also suspending the resolution of the dominant in a perfect authentic cadence. This long awaited cadence does not arrive until the downbeat of measure 167. The oboist should be aware that their melody should decorate and not distract from this high C–the figures should be on one line of wind, never letting down until that final descent through the scale

down to F in measure 165 and the final cadence in measures 166-167.

8.3 Improvisation and Composition

- Choose two consecutive articulation studies from pages 54-56 of the original Barret Book that are in closely related keys (for example, No. 2 (C Major) and No. 3 (G Major)). Compose a short interlude that modulates from the key of one to the key of the next. Use the progression: I - IV - V/V.
- Play the first four measures of Barret Melody No. 4 transposed to the parallel minor mode. Then improvise a consequent phrase that modulates to III using VII to tonicize the new key.
- Play the first four measures of Barret Melody No. 6 transposed to the major mode. Improvise a consequent phrase that modulates to V using a secondary dominant to tonicize the new key.

Chapter 9: MODAL MIXTURE

9.1 Concepts and Exercises

Up to this point in our study, we have seen chromatic notes used in passing or neighbor figures, and we have seen them as part of applied dominant chords. This chapter will discuss another class of chromaticism in which notes are ”borrowed” from parallel modes. This kind of chromaticism is found most often in the major mode. The chart below shows the diatonic major mode chords on the top row and the chords in the parallel minor mode available to be borrowed on the second row.

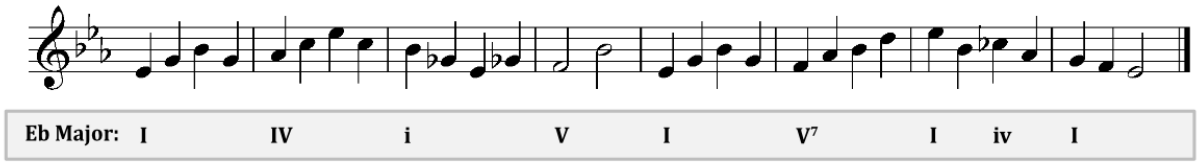
Exercise 9.1: Chords from the Parallel Minor Mode Available for Borrowing

Diatonic Chords of Major Mode	**I**	**ii** ii^7	**iii**	**IV**	**V**	**vi**	**vii°** $vii^{ø7}$
Chords Available to Borrow from Minor Mode	**i**	**ii°** $ii^{ø7}$	**♭III**	**iv**	**(V)**	**♭VI**	**(vii°)** $vii^{°7}$ **♭VII**

Note that most of these appear in analysis with just a change in chord quality–I becomes i, ii becomes ii°, etc. iii and vi are different because the root of the chord changes with the mode. A flat sign precedes the roman numeral to indicate that the root itself is altered: $^{\flat}$III and $^{\flat}$VI.

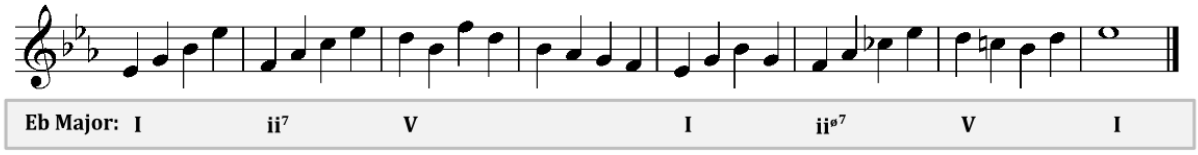
The following exercise borrows the i and iv chords from the minor mode. Notice how the half cadence extends the feeling that the harmony has moved to the minor mode, since the V^7 chord functions in both modes. Also notice the plagal motion (I-iv-I) at the end of the exercise. This is a very common use of borrowed iv.

Exercise 9.2: Borrowing i and iv



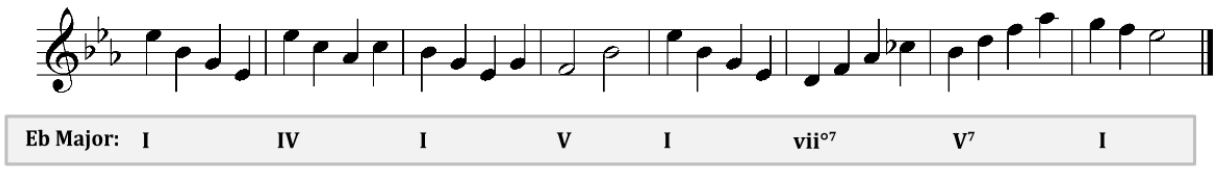
The next exercise uses borrowed ii$^{\varnothing 7}$. Notice that the first four bars use a ii^{7} from the native major mode. In contrast, the ii$^{\varnothing 7}$ adds a different color and more dissonance stemming from the tritone between $\hat{2}$ (F) and $^{\flat}\hat{6}$ (C$^{\flat}$).

Exercise 9.3: Borrowing ii$^{\varnothing 7}$



The next excerpt takes the vii$^{\circ 7}$ from the minor mode to expand the dominant functional area. The vii$^{\circ 7}$ from the minor mode has much more functionality than its parallel vii$^{\varnothing 7}$ because its double tritone creates such an effective suspension of tonic harmony.

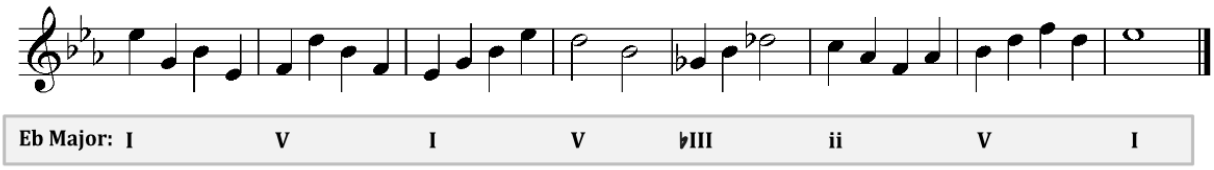
Exercise 9.4: Borrowing vii$^{\circ 7}$



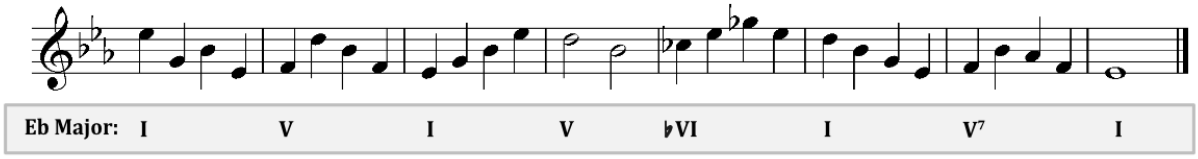
$^{\flat}$III and $^{\flat}$VI often appear as replacements or expansions of tonic harmony, as they do when they appear

in their diatonic form. In both of the following examples, they appear as a sudden color change after a half-cadence. This tonicizing use of ♭III and ♭VI is very common in the German Lied tradition (Romantic art songs) because the drastic harmonic shift can mirror the expressive nature of the text.

Exercise 9.5: Borrowing ♭III

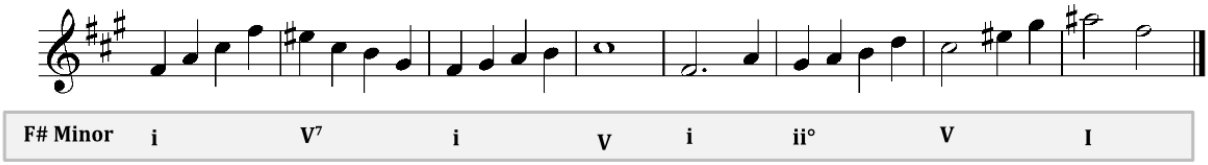


Exercise 9.6: Borrowing ♭VI



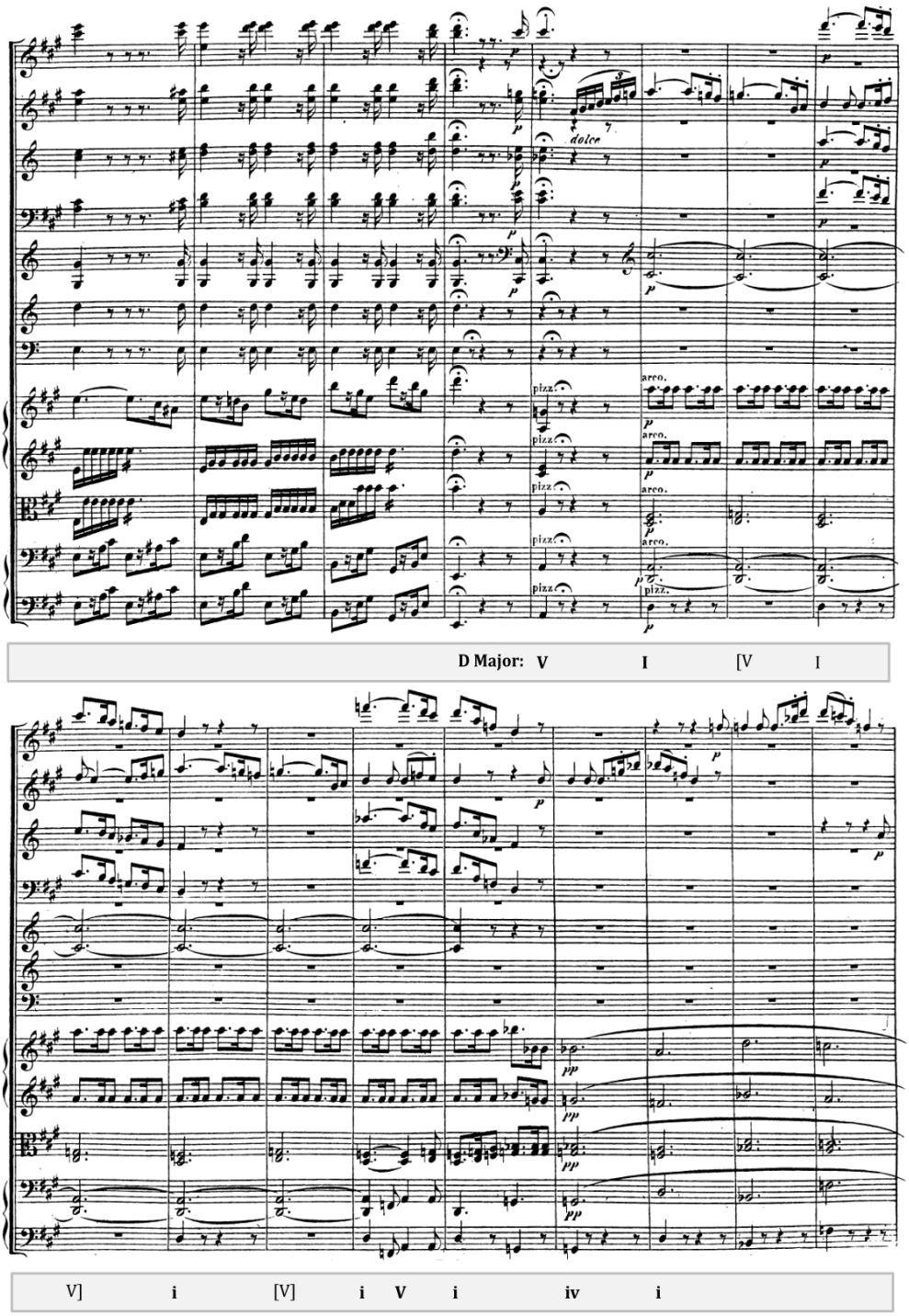
It is also possible for the minor mode to borrow chords from the major mode. The most common occurance is the use of I in the final resolution of a minor piece. This was popular in the Baroque Era and is called the Picardy Third (for the raised $\hat{3}$).

Exercise 9.7: Borrowing I from the Major Mode: Picardy Third



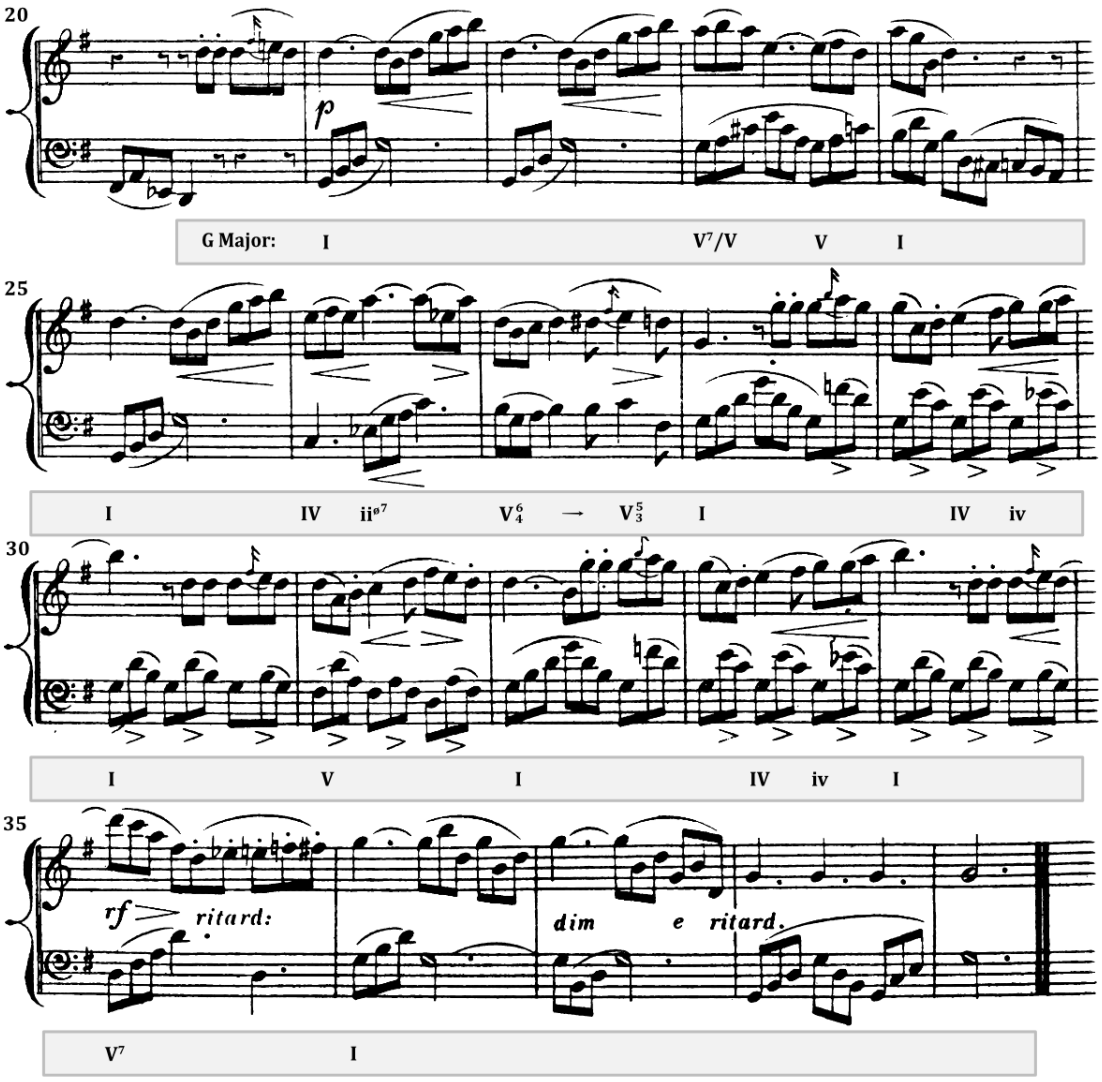
9.2 Musical Examples

Excerpt 9.1: Ludwig von Beethoveen–Symphony No. 7, movement 1 (mm. 100-110)



This excerpt is from the first movement of Beethoven's Symphony No. 7 and demonstrates extended modal mixture. After the orchestra pauses at the fermata over dominant harmony, the oboe breaks free with a solo that bounces happily back and forth between I and V chords in D Major. After the fourth bar, the harmony resolves to i instead of I. It continues in this vein, moving between V and i, and the solo closes with plagal motion–the harmony reaches up toward iv and comes to a rest on i. No pivot chords or other modulatory techniques are required to create this effect–the parallel modes occupy the same space and most importantly, share their dominant harmony. The I and i chords can be used interchangeably to great effect. The performer can easily bring out this modal effect by changing color when they arrive on the A in the fifth bar after the fermata. The A is not the same A from the first measure. The F♮ later in the fifth measure gives away the modal change, but the harmony in the accompaniment changes on the downbeat, and the interpretation should reflect that fact. The plagal cadence in the 9th and 10th bars after the fermata present a great opportunity to showcase the modal shift. Not only is the B♭ on the downbeat of the 10th measure an accented non-chord tone, but it is a modal note, granting it added dramatic effect.

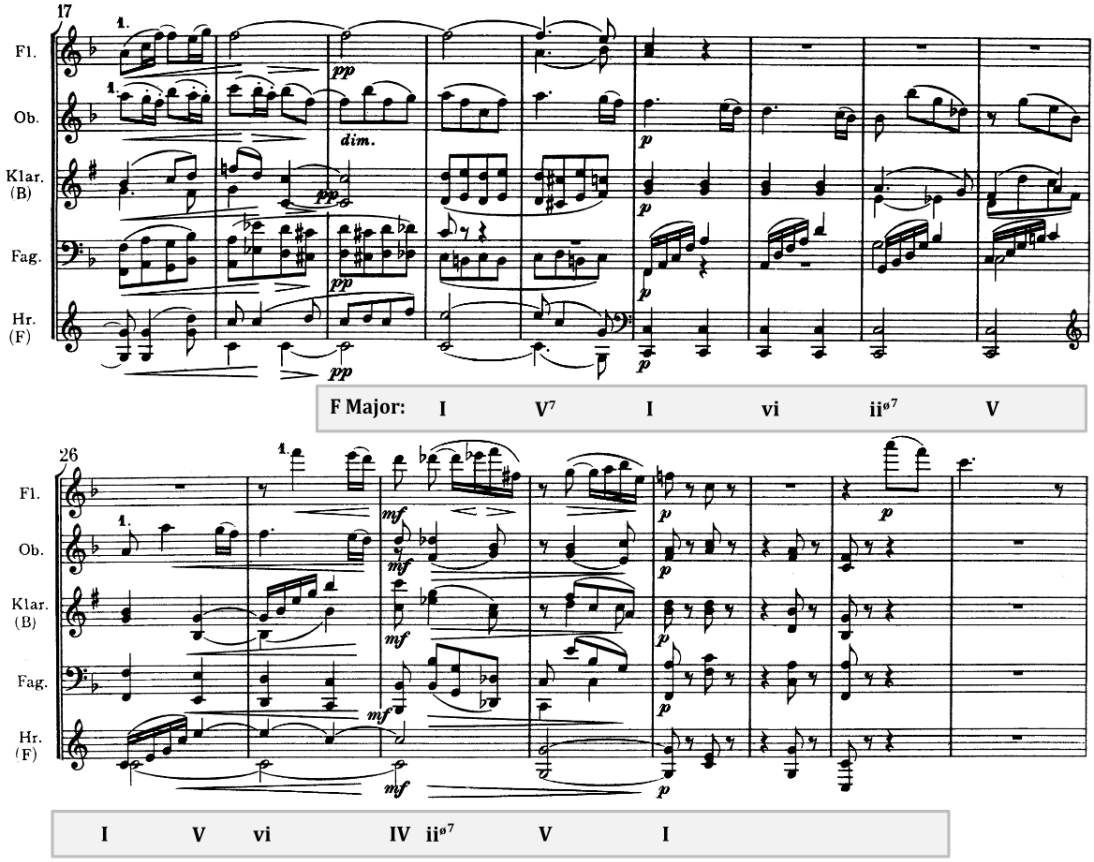
Excerpt 9.2: Apollon Marie-Rose Barret–Melody No. 8 (mm. 20-39)



This excerpt comes from the end of Barret Melody No. 8 and demonstrates the borrowing of both ii$^{\circ 7}$ and iv chords from the minor mode. Measures 21-24 move from tonic to dominant and back to the tonic through an applied dominant chord. The second phrase starts with tonic harmony, which moves to a IV chord in measure 26. On beat two of that measure, the accompaniment shifts to a borrowed ii$^{\circ 7}$ chord. The oboe player can take advantage of the color and interest brought by the color tone, E$^{\flat}$–the note is a surprise and the approach by tritone (A-E$^{\flat}$) can be flaunted. From the ii$^{\circ 7}$ chord, the harmony moves through a cadential six-four chord, dominant, and final tonic, for a weak cadence. The new phrase begins with I

moving to IV, though in the last beat measure 29, the $E^{\flat}$ comes through again, this time altering the harmony to iv. The oboe line does not have the color tone this time, but the player should be aware and play off of the change in the bass. The harmony returns to I before moving through another weak cadence. The final phrase begins with a literal repetition of the phrase before, but measure 35 leaps up an octave higher over a V^7 chord which resolves satisfyingly to I with a perfect authentic cadence. The final three bars reiterate tonic harmony. This excerpt demonstrates how modal mixture brings an array of color options, allowing for interest and contrast as each phrase unfolds.

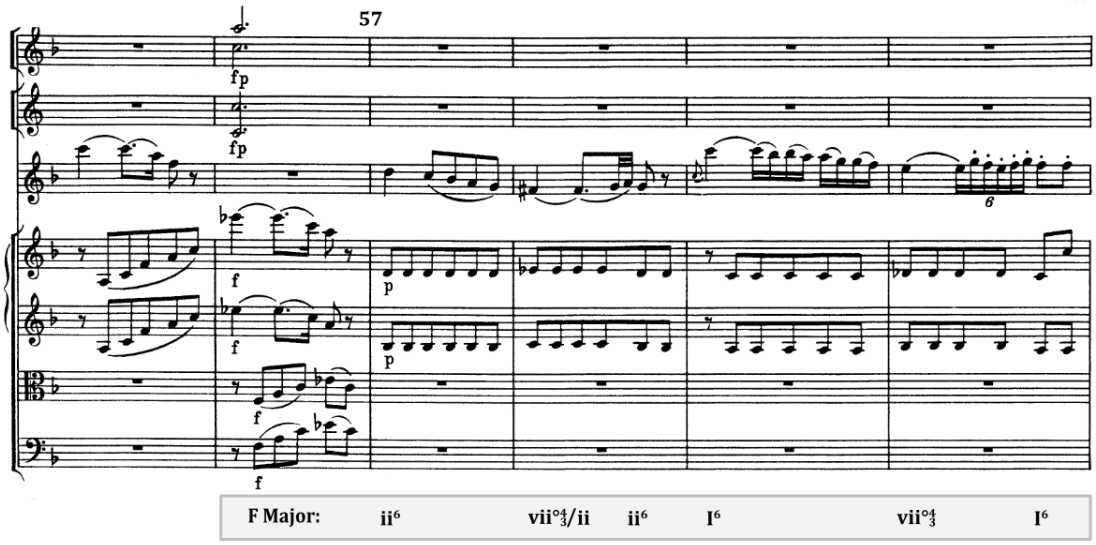
Excerpt 9.3: Johannes Brahms–Concerto for Violin, movement 2 (mm. 20-32)



This excerpt comes from the end of the oboe solo that opens the second movement of Brahms' Concerto for Violin. The opening theme has been repeated and seems to relax into a perfect authentic cadence on the downbeat of measure 22. However, the bassoon figure pushes the melody onward: in measure 23, the harmony slides down into a vi chord, changing the feeling of resolution to something more somber. Then in the following measure, the oboe reaches up and arpeggiates down the ii$^{\varnothing}$, coming to a pause on D$^{\flat}$. This chord, borrowed from the minor mode, brings a tension that has not occurred thus far in the entire solo. The arpeggiated figure is repeated, but with dominant harmony in measure 25 and the arpeggiation ends on $\hat{3}$ over tonic harmony. This resolution is weak, but also short-lived. The theme from the first attempt at resolution found in measure 21 interrupts this second attempt in measure 26. Similar harmonic and melodic motions ensue until measure 28 when the IV harmony shifts to ii$^{\varnothing 7}$, forcing the D

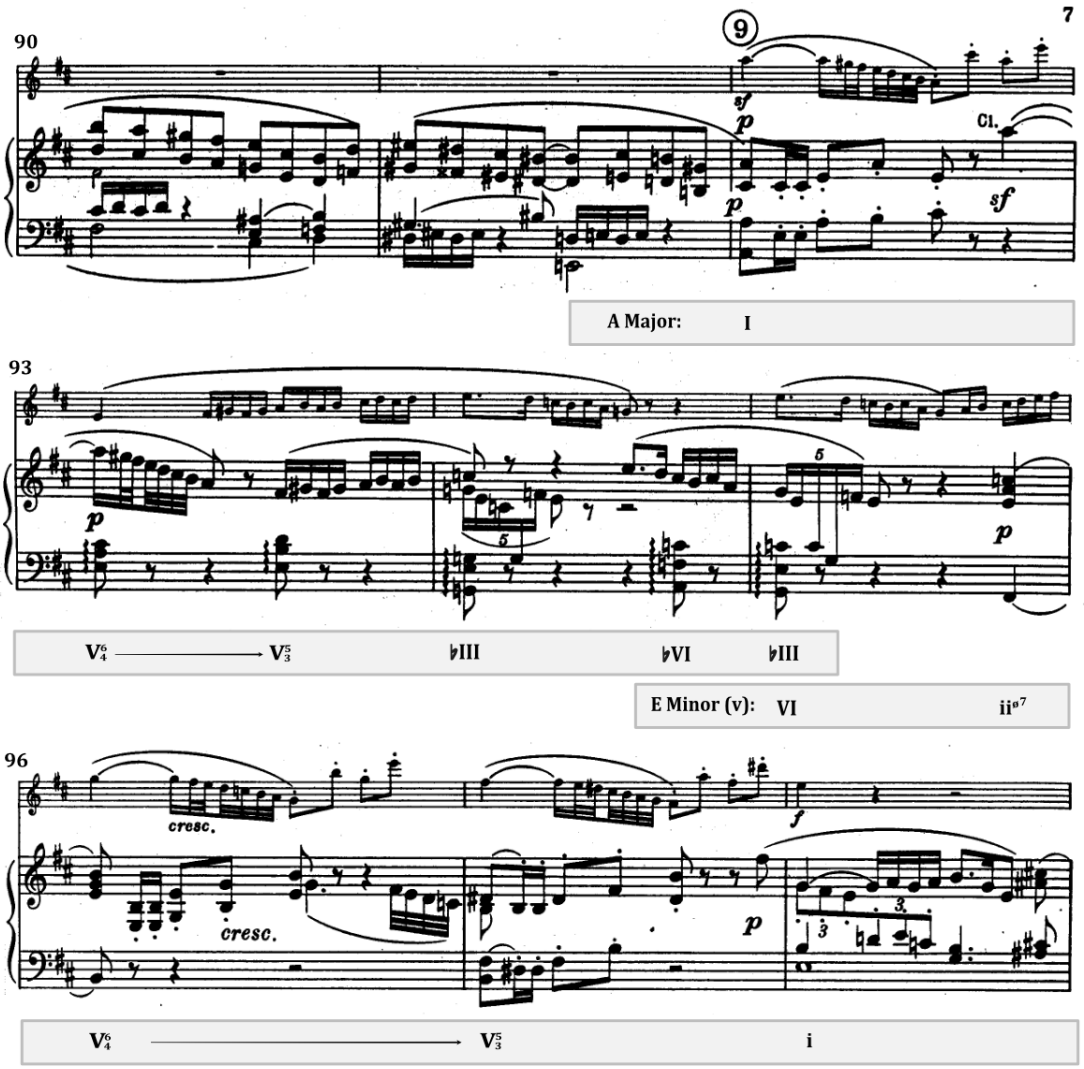
and the $D^{\flat}$ into stark contrast in the oboe solo itself. This time, the borrowed predominant harmony moves effectively to dominant and resolves softly into tonic. This entire excerpt of the solo is all about prolongation–there are several ”failed” attempts at resolution and even the arrival of $\hat{1}$ in the final resolution is delayed for two measures after the tonic harmony arrives. The borrowed chords help contribute to this narrative–they add tension and color, urging us to stay a little longer before we finally resign and return home to the tonic.

Excerpt 9.4: Wolfgang Amadeus Mozart–Concerto for Oboe, movement 2 (mm. 57-60)



This short example comes from the second movement of the Mozart Concerto for Oboe and demonstrates the use of vii$^{\circ 7}$ in a major key. The excerpt is comprised of two mini phrases. In the first two measures, the ii chord is tonicized using an applied vii$^{\circ 7}$ chord. The oboe line uses a descending linear progression over the ii chord, which continues into the F$^{\sharp}$ on the downbeat of 58 over the vii$^{\circ 7}$ chord. This F$^{\sharp}$ is not a non-harmonic tone, but the whole chord is dissonant, so it is appropriate to lean into it and treat the G on the third beat of measure 58 as a resolution. The next two measures repeat the melodic and harmonic material a step down (and up the octave, for the oboist). The oboe solo moves through another descending linear progression, this time ornamented with appoggiaturas on the half-beat, all over the I chord. The progression continues down into an E on the downbeat of measure 60 over a vii$^{\circ 7}$ borrowed from the minor mode. It is less stark as some borrowed chords, partially because it was prepared in the previous phrase with another fully-diminished seventh chord. Still, a player aware that the chord underneath the E is borrowed from the minor mode can bring color and tension to the chord and thus a sweeter release when the chord resolves to I in beat three of measure 60.

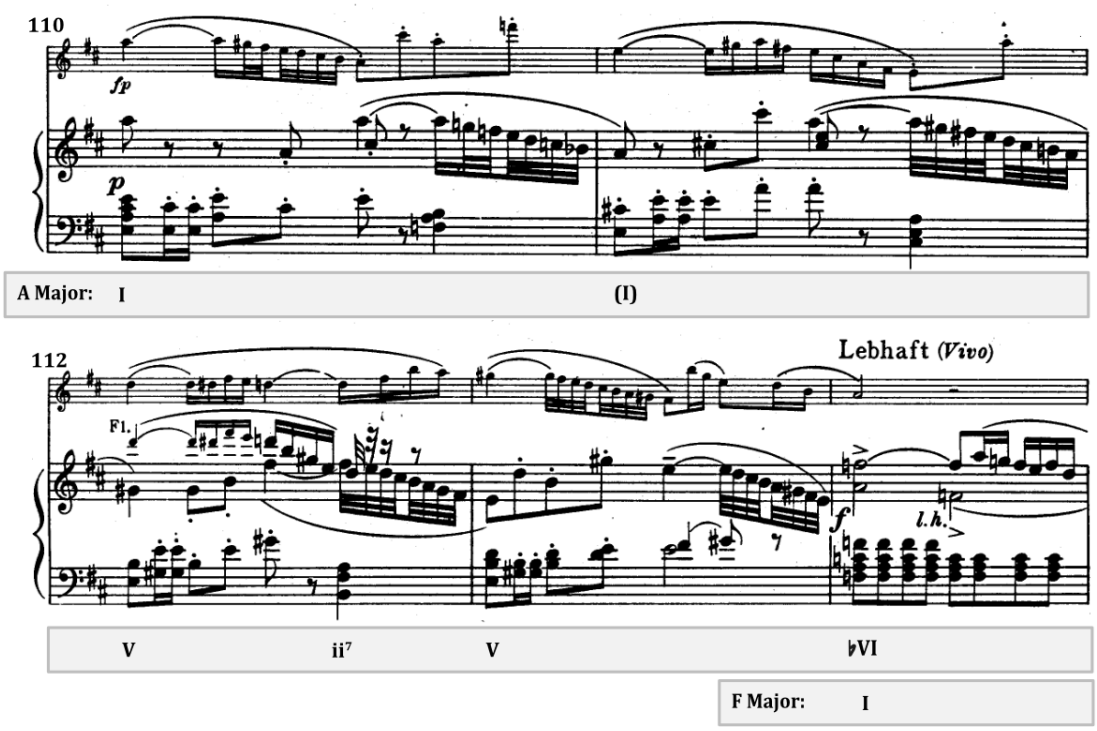
Excerpt 9.5: Richard Strauss–Concerto for Oboe, movement 1 (mm. 92-98)



This excerpt comes from the first movement of Strauss' Concerto for Oboe and demonstrates the use of ♭III and ♭VI, including how their use can broaden the possibilities for pivot chords in modulations. The first two bars of the excerpt move through tonic and then a cadential six-four suspension and resolution to the dominant. However, instead of moving to the tonic after the dominant, the harmony shifts gears and moves to ♭III. A new soundscape emerges with this new harmony, and in this new space, the ♭VI in the last beat of measure 94 feels more like a IV chord in C Major than an altered chord in the original A Major. As the harmony continues, the ♭III chord serves as a pivot chord as the tonal center shifts toward the minor v. The

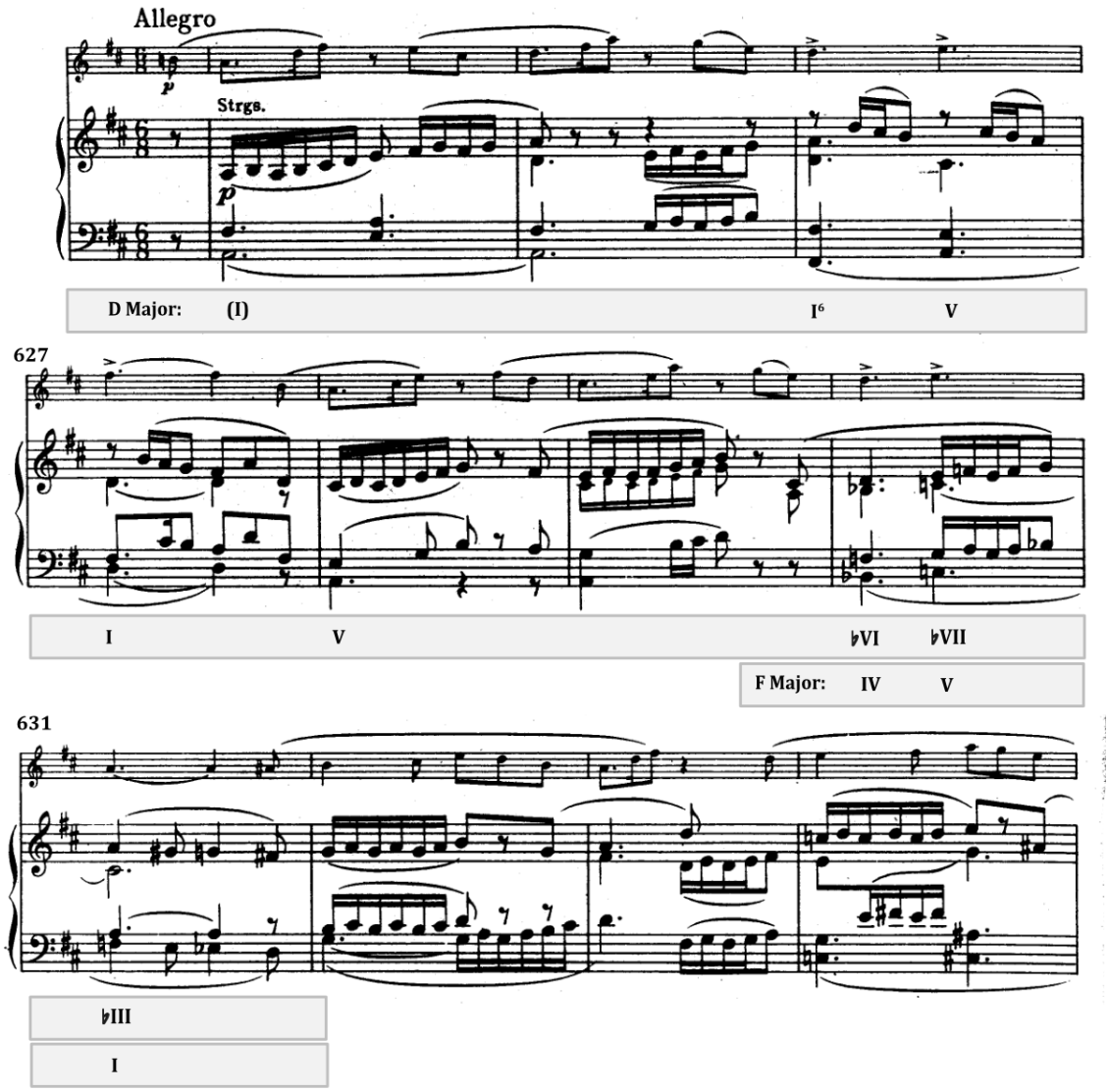
final chord of measure 95 is a ii$\varnothing^7$ of v, and it is followed by a cadential six-four, dominant, and then tonic in E minor (v). The use of v in this context plays into common late-Romantic practices: the phrase moves from I to $\flat$III to v, highlighting third relationships in the bass line. The shift away from fifth relationships in the bass lines and the use of modal mixture over diatonic chords lends this music a colorful and flowing tide of sonorities that have the potential to take the listener to more distant harmonic places. This ability is enhanced when the player is engaged with this narrative and recognizes the significance of these shifting harmonic notions.

Excerpt 9.6: Richard Strauss–Concerto for Oboe, movement 1 (mm. 110-114)



This short excerpt is also from the first movement of Strauss' Concerto for Oboe, a few measures after the previous excerpt. The point of interest is the cadence. After moving through a tonic expansion for a few measures, the predominant at the end of measure 112 leads to the dominant in measure 113. Then, instead of moving to I, the harmony moves to ♭VI, for a "doubly" deceptive cadence. This is a common use of ♭VI because it is even more of a surprise resolution than vi. In this case, the harmony fully commits to the deception and the next section continues in F Major. Modal mixture gives F Major a relationship to A major, allowing for this sectional modulation to a "distantly related key."

Excerpt 9.7: Richard Strauss–Concerto for Oboe, movement 4 (mm. 625-632)



This final excerpt comes from opening of the last movement of the Strauss Concerto for Oboe. The first four bars begin with tonic expansion followed by movement through I - V - I, characterized in the oboe part by the accented notes D - E - F. The phrase begins again, repeating the same melody, though with slightly altered harmony (More dominant than tonic). This time, the accented notes in the oboe part are altered slightly: D - E - A. Under that changed melody, the harmony moves through ♭VI - ♭VII - ♭III. The ♭VI is almost like a deceptive resolution the dominant, however, it pivots to become the IV chord in a short F Major tonicization: IV - V - I. It is interesting that all of this happens without a single accidental in the

oboe part. The oboe player must be aware of the dramatic harmonic shift that has happened underneath them, or the moment will pass unacknowledged.

9.3 Improvisation and Composition

Improvise arpeggiations that move through the following diatonic progressions. Then repeat them, altering the indicated chord with a chord borrowed from the parallel mode:

- *I - IV - V - I -* **IV** *- I* (replace with iv)
- *I - V - I - I -* **ii**^{7} *- V - I* (replace with ii$^{\circ 7}$)
- *I - V - I -* **V** *- I* (replace with vii$^{\circ 7}$)
- *I - IV - V -* **I** *- II - V - I* (replace with $^{\flat}$III, then replace with $^{\flat}$VI)
- *i - VI - ii*$^{\varnothing 7}$ *- V*^{7} *-* **i** (replace with I)

Play through a Barret Melody and replace predominant chords with versions borrowed from the parallel mode.

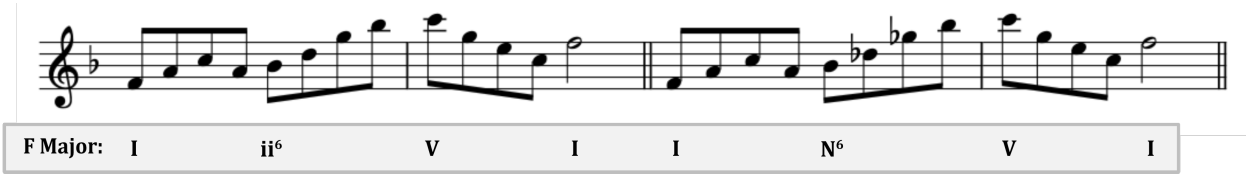
Chapter 10: The Neapolitan Chord

10.1 Concepts and Exercises

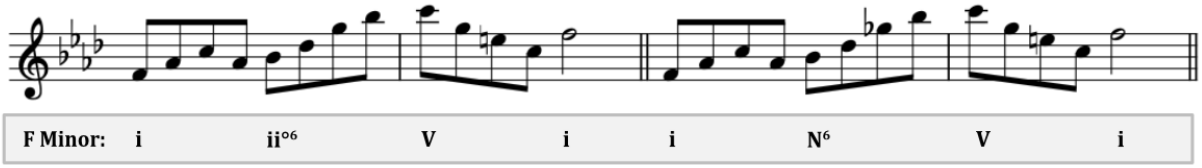
The Neapolitan Chord is a Major triad built on $\flat\hat{2}$. It usually appears in first inversion, and $\flat\hat{2}$ often appears in the soprano line, making it fairly easy to identify in a melody. The Neapolitan can be interpreted as an altered ii^6 or $ii^{\circ 6}$ chord.

Because of its similarity to the supertonic triads, the Neapolitan serves a predominant function, and is especially prevalent in minor keys. Arpeggiate through the following progressions to hear how the Neapolitan can intensify motion to V. Notice that the Neapolitan chord is often abbreviated as N^6.

Exercise 10.1: Comparing ii^6 with N^6 in a Major key

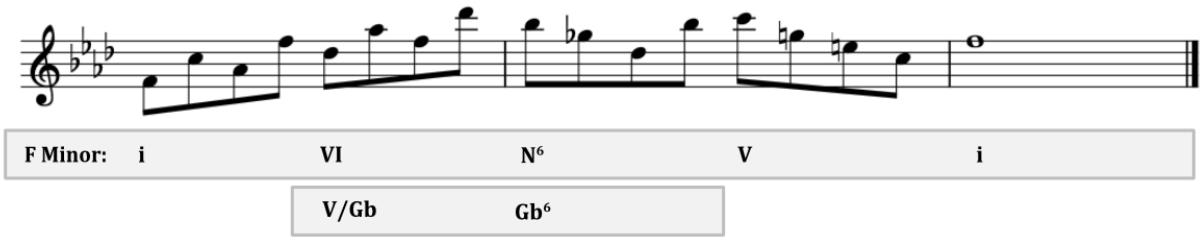


Exercise 10.2: Comparing $ii^{\circ 6}$ with N^6 in a Minor key



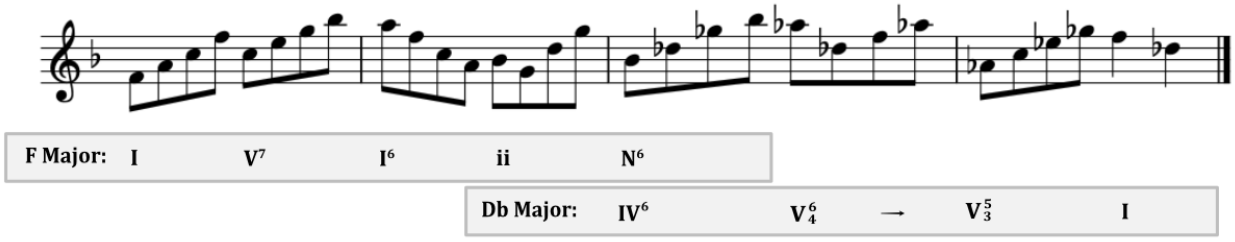
Like any other chord, the Neapolitan chord can be tonicized, sometimes with a simple secondary dominant, other times more extensively. In a minor mode, the dominant of the Neapolitan chord is the VI chord. In a major chord, its dominant is the ♭VI chord. Use this arpeggiation to explore how the VI chord can tonicized the Neapolitan.

Exercise 10.3: Tonicizing the Neapolitan Chord



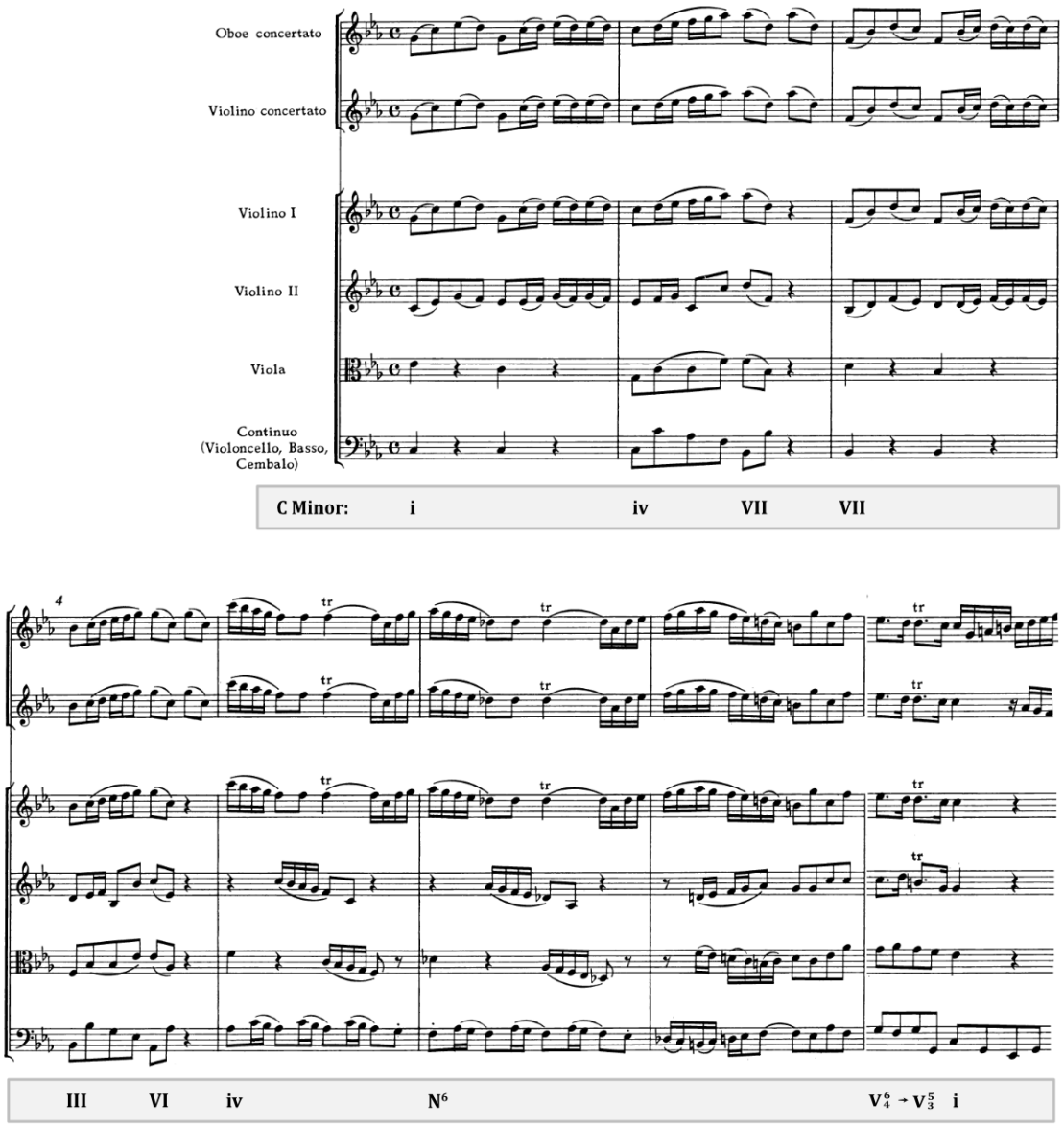
Sometimes, the Neapolitan chord is used as a pivot chord in a modulation. As a Major triad, the N^6 could pivot to or from IV^6 in a major mode or VI^6 in a minor mode. The following example shows a modulation from C minor to A♭ using the Neapolitan chord as a pivot chord.

Exercise 10.4: The Neapolitan Chord as a Pivot Chord



10.2 Musical Examples

Excerpt 10.1: Johann Sebastian Bach–Concerto for Violin and Oboe, movement 1 (mm. 1-8)

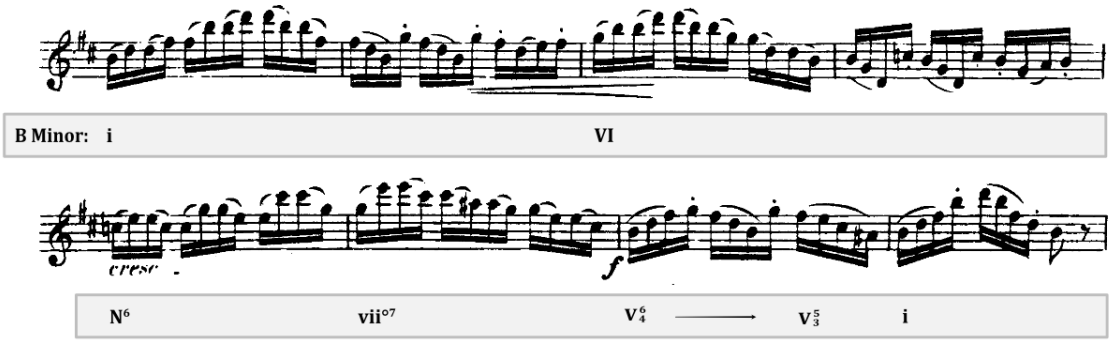


This example comes from the opening of the Concerto for Violin and Oboe by Johann Sebastian Bach and demonstrates the Neapolitan chord intensifying the movement to V. The phrase begins with the bass moving down by fifth for the first four measures. At Measure 5, we land on predominant harmony, the iv chord. This predominant harmony is then expanded as the melody descends into the D♭ over a Neapolitan

chord. From the Neapolitan, the harmony moves on to dominant harmony and finally the resolution to the tonic.

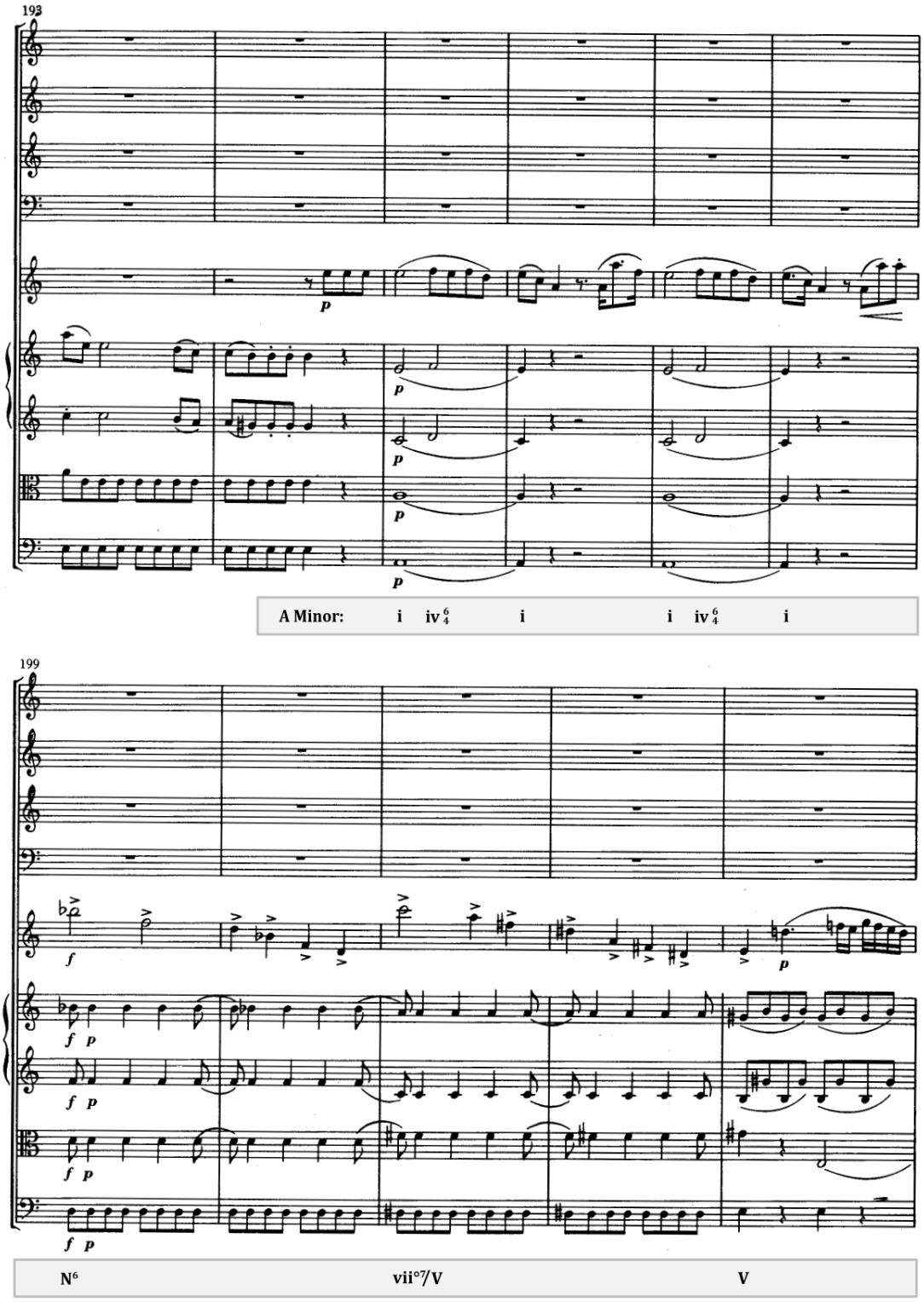
It is interesting that the motivic material of the melody shifts every time the harmonic function shifts. The opening section is expository, expanding tonic rather elaborately, but never moving to a true predominant function. These four bars are characterized by pairs of notes in slurs reaching upward or lilting downward, and by slurred with arpeggios and scales, or repeating neighbor figures. When the iv chord enters in the fifth measure, the motivic material shifts with harmonic function,–this section is characterized by a scale that reaches downward, initially to sit on $\hat{4}$. Then in measure 6, as the predominant harmonic function is expanded, the associated motivic gesture is also developed, this time reaching downward for $^{\flat}\hat{2}$, giving the chromatic note a place of prominence. As the harmony moves toward dominant function, the motivic material shifts again, this time to ascending and descending scales and leaps that circle around to ultimately find the tonic in the final measure of the phrase. According strict voice-leading patterns, the $^{\flat}\hat{2}$ moves to the leading tone of the dominant chord, which can be observed in this excerpt. In fact, the arrival of the leading tone (slightly ahead of its dominant chord) in measure 7, gives the figuration that precedes it a direction and a purpose. The runs up and down the scales herald particular notes and should not be brought out in their own right.

Excerpt 10.2: Franz Wilhelm Ferling–Etude No. 16 (mm. 9-16)



This example comes from the middle of Ferling Etude No. 16 and shows how the cadential progression in the previous examples can be expanded further. The first two measures of the excerpt arpeggiate tonic harmony in B minor. From there the harmony moves to VI, which creates an interesting effect since the harmony lingers there for so long, reiterating the major mode, G Major. From there, the harmony moves to the Neapolitan chord, a C Major chord. We can hear the VI chord of the previous two bars as sort of diatonic secondary dominant of the Neapolitan chord, softening the effect of the chromatic entrance. Then, instead of moving directly to the Dominant from the Neapolitan, the harmony shifts to the leading tone seventh chord. This motion is commonly used to delay the arrival of the V chord. It should be noted that the intervention of the leading-tone chord changes the voice-leading: the $\flat\hat{2}$ of the Neapolitan chord leads to the $\sharp\hat{2}$ of the leading-tone chord.

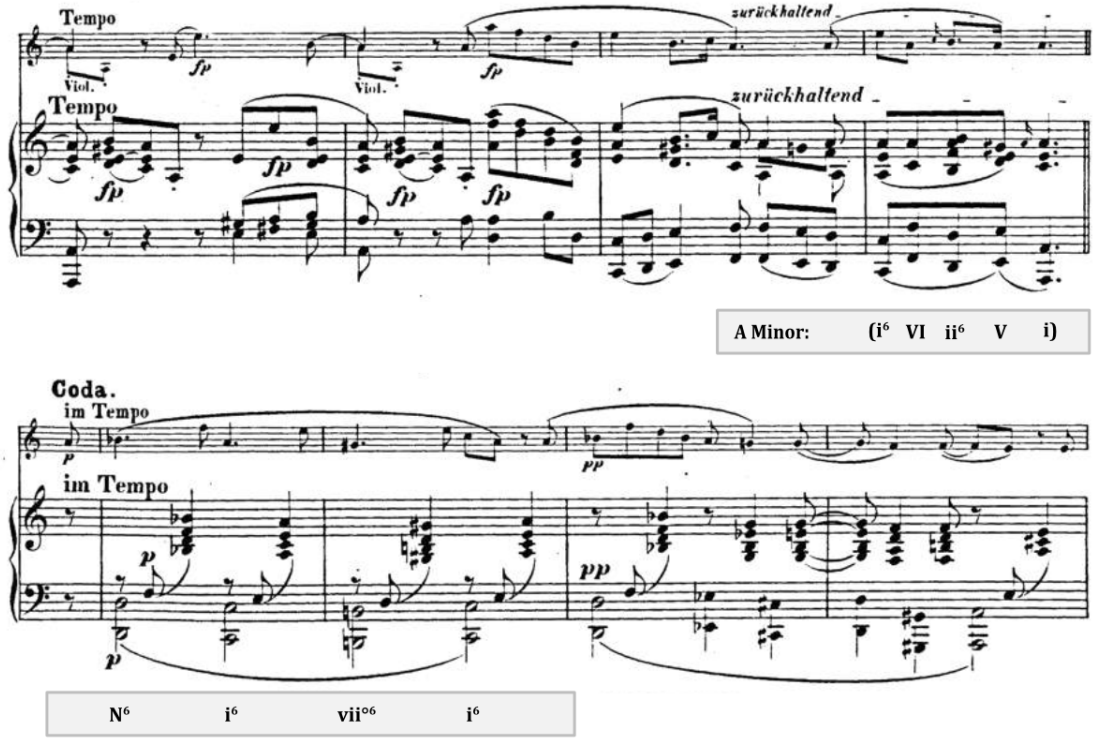
Excerpt 10.3: Franz Joseph Haydn (attr. Ignaz Malzat)–Concerto for Oboe, movement 1 (mm. 195-203)



This excerpt comes from the first movement of the Concerto for Oboe attributed to Franz Joseph Haydn and demonstrates a further alteration to the progression seen in the last example. The excerpt begins in the pick-up to measure 195 with a sleepy pedal iv^6_4 embellishing a tonic chord. This figure is repeated again with a more lively and energetic pickup in measure 197, but the progression stays somewhat subdued. The third pick-up incites yet more energy by repeating the high A,and instead of falling back down to the E, it reaches up to Bb–$^{\flat}\hat{2}$. With full volume, the oboist barrels down the Neapolitan chord arpeggio. Then instead of immediately moving the the dominant chord, the line reaches up farther still to high C to begin the arpeggio pattern again using the leading-tone seventh chord of V. This chord then resolves using the leading tone of V ($D^{\sharp}$) to resolve to the root of the V chord (E) across the bar into measure 203. This motion from N^6 to $vii^{\circ 7}$/V to V is an effective way to intensify the motion to V–the N^6 introduces colorful chromatic tendencies, and the introduction of the leading tone chord not only delays the ultimate motion to V, but twists the harmony even further with additional chromaticism, dissonance, and tendency tones.

Most performers are able to convey this intensity instinctively–the harmony is laid out clearly in the oboe line and although the player may not have the vocabulary to describe the motion exactly, the dynamics and accents guide the ear toward a resolution on E at measure 203. However, knowing the progression can help the performer to emphasize the composer's dramatic decision to introduce a bombastic N^6 chord after a soporific tonic expansion.

Excerpt 10.4: Robert Schumann–Romance No. 3 (mm. 68-69)



This final example comes from the Coda of Schumann's Romance No. 3 and demonstrates a completely different use for the Neapolitan Sixth Chord. Before the Coda, the harmony moves through a standard progression, fully committing to A Minor. The Coda, however, begins with a $B^{\flat 6}$ chord, the Neapolitan chord in A Minor. The N^6 does not lead to V, but instead to a i^6. From the i^6, the harmony moves to a $vii^{\circ 6}$, and then back to the i^6. In this case, the Neapolitan chord is functioning as an embellishing chord to the i^6–it is an accented (occurring on a strong beat) upper neighbor chord while the $vii^{\circ 6}$ serves as an accented lower neighbor chord. As we would expect from neighbor chords, the voice-leading is smooth, though this is not immediately apparent from the disjunct oboe line. The oboe melody is actually jumping between two melodic ideas. The lower voice follows the root motion of the progression: $B^{\flat}$ - A - $G^{\sharp}$ - A. This lower voice moves in parallel sixths with the bass line: D - C - $B^{\natural}$ - D. The upper voice mostly follows the fifth above the root. When playing this melody, awareness of the function of the two neighbor chords can help the player lean into the chromatic dissonances and resolve

them correctly, that is to the ’A’s in the lower voice and not across the leaps up to the upper voice.

10.3 Improvisation and Composition

- Improvise a melody with two parallel phrases: a + a'. For the first phrase, move through arpeggiations and linear progressions of tonic and then us a ii^6 chord to approach a half cadence over dominant harmony. For the second phrase, repeat the melody of your first phrase, but change the ii^6 chord to the Neapolitan, which will then move through the Dominant chord to the Tonic Chord. Try to embed the melodic fragment $\flat\hat{2}$ - $(\sharp)7-\hat{1}$

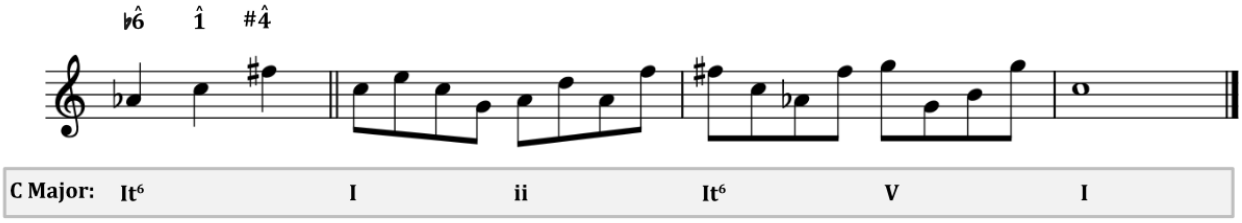
Chapter 11: Augmented Sixth Chords

11.1 Concepts and Exercises

The *Augmented Sixth Chords* are a class of chromatic predominant chords that share a specific voice-leading pattern. As the name suggests, they include the interval of an augmented sixth, created by $\flat\hat{6}$ in the bass and $\sharp\hat{4}$ in one of the upper voices. The augmented sixth usually resolves outward to an octave on $\hat{5}$, harmonized by a dominant or dominant seventh chord. These chords do not function diatonically in any key, but the $\sharp\hat{4}$ does function like a leading tone to $\hat{5}$. They are can be proceeded by any predominant or altered predominant chords.

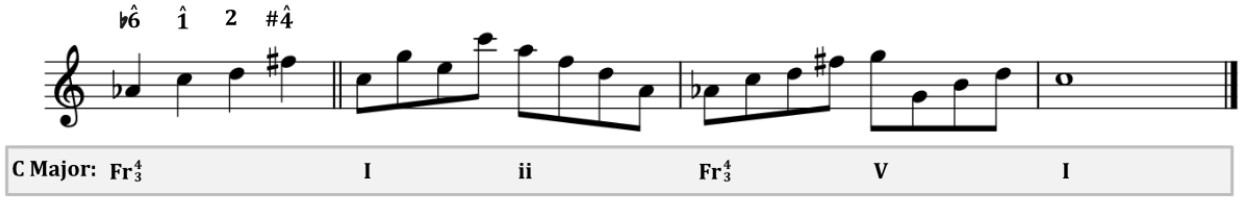
The first type of Augmented sixth chord is the Italian Augmented Sixth Chord, or It^{6}_{3}. It fits well in a more transparent texture and is comprised of $\flat\hat{6}$, $\hat{1}$, and $\sharp\hat{4}$. Here is an arpeggiation of It^{6}_{3} chord followed by a progression that uses it before the dominant harmony.

Exercise 11.1: The Italian Augmented Sixth Chord



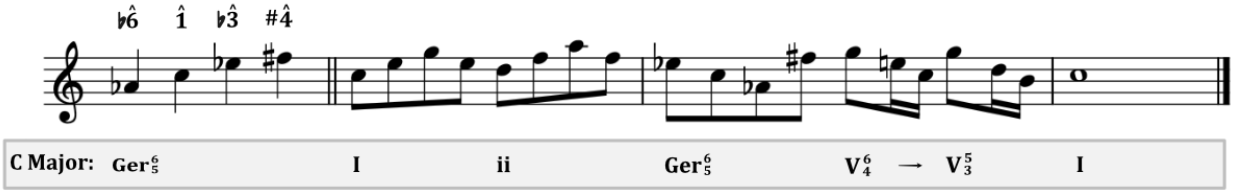
The second type of Augmented Sixth chord is the French Augmented Sixth Chord, or Fr^4_3. This augmented sixth chord is much more dissonant because it includes two tritones. The pitches used in the Fr^4_3 are $\flat\hat{6}$, $\hat{1}$, $\hat{2}$, and $\sharp\hat{4}$. Here is an arpeggiation of the Fr^4_3 chord followed by a progression that uses it before the dominant harmony.

Exercise 11.2: The French Augmented Sixth Chord



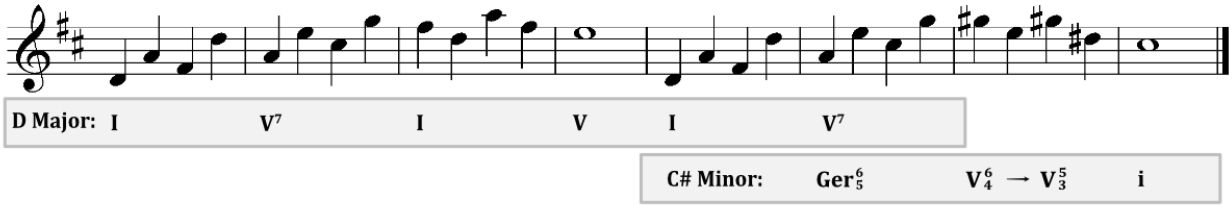
The third type of Augmented Sixth chord is the German Augmented Sixth Chord, or Ger^6_5. It is the most common type of Augmented Sixth chord. It has a fuller texture and is often followed by a cadential $^6_4$ chord. It is comprised of $\flat\hat{6}$, $\hat{1}$ $\flat\hat{3}$ (or just $\hat{3}$ in the minor mode), and $\sharp\hat{4}$. Here is an arpeggiation of the Ger^6_5 chord followed by a progression that uses it before the dominant harmony.

Exercise 11.3: The German Augmented Sixth Chord



The German Augmented Sixth chord is often used in enharmonic spelling modulations. Because it sounds like a dominant seventh chord, it is common for a V7 in one key to be reinterpreted as a German Augmented Sixth in another and resolve as such. In the following example, the V^7 of D Major is presented, but resolves as though it was an Augmented Sixth chord in $C^\sharp$ Minor (A - $C^\sharp$ - E - $F^\times$). The A and the $F^\times$ resolve out to $G^\sharp$ (the V of $C^\sharp$ Minor) and the progression moves through a cadential six-four suspension, resolution, and cadence in $C^\sharp$ Minor.

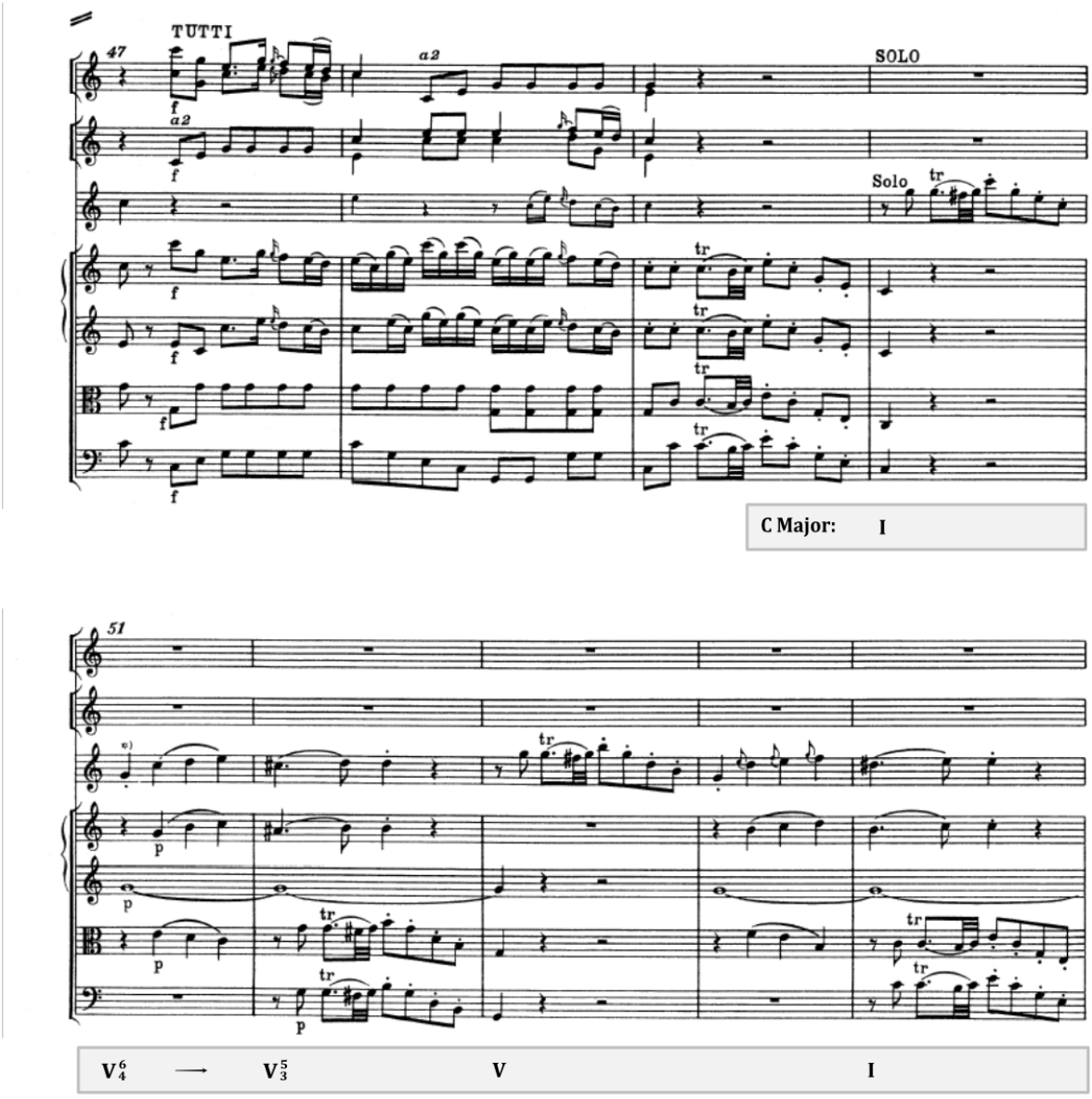
Exercise 11.4: Modulation Using an Enharmonic Spelling of the German Augmented Sixth Chord

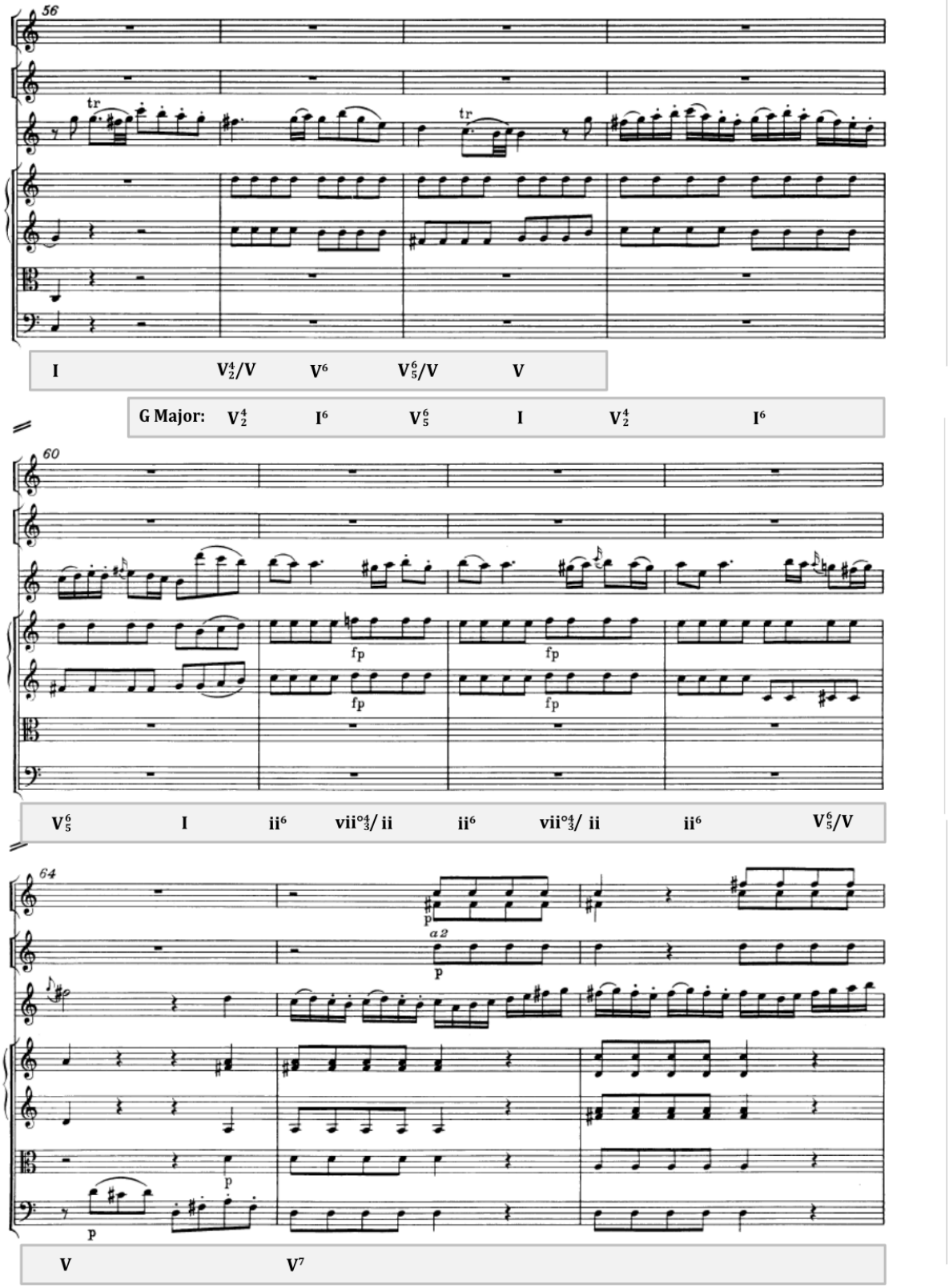


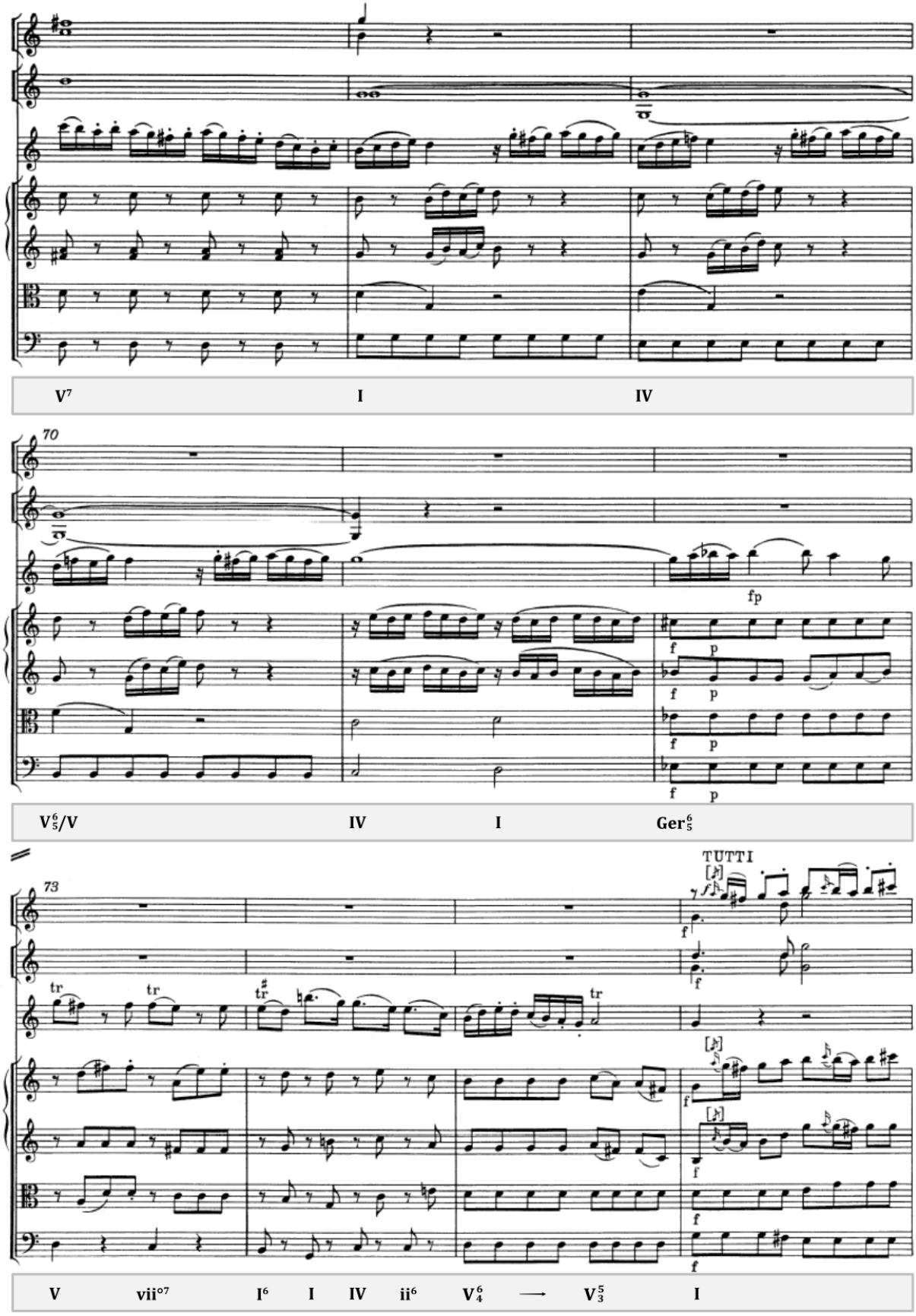
Since these chords lead so strongly to dominant harmony, they are often used in important structural moments of a piece. They can also be used to reorient the listener to hear any major triad as a dominant chord.

11.2 Musical Examples

Excerpt 11.1: Wolfgang Amadeus Mozart–Concerto for Oboe, Op. 314, movement 1 (mm. 50-76




56
tr
tr
I V$_2^4$/V V^6 V$_5^6$/V V
G Major: V$_2^4$ I^6 V$_5^6$ I V$_2^4$ I^6
60
fp
fp
fp
fp
V$_5^6$ I ii^6 vii$^{o4}_3$/ ii ii^6 vii$^{o4}_3$/ ii ii^6 V$_5^6$/V
64
p
a 2
p
p
p
V V^7


V7 I IV
70
fp
V6/5/V IV I Ger6/5
73
TUTTI
V vii°7 I6 I IV ii6 V6/4 → V5/3 I

This excerpt shows the transition section in the exposition of the first movement of the Mozart Oboe Concerto. It demonstrates how the German Augmented Sixth chord can contribute to a large-scale modulation to V.

The transition begins with a rare example of a three-bar phrase unit in measure 50. The antecedent phrase ends in a half-cadence and its parallel consequent phrase returns to I. The phrase repeats again, though this time instead of a descending staccato arpeggio, the phrase features a staccato scale that descends to $\sharp\hat{4}$ on the downbeat of 56, the solo line's contribution to the dominant of V. This secondary dominant quickly resolves to V and the harmony repeats again as the line descends and completes the third iteration of the three-bar phrase. From this point, the harmony is easier to analyze in G Major. It has been oscillating between dominant and tonic for several bars, but with the introduction of the secondary dominant, the balance has tipped toward dominant harmony space. In measure 59, a new sixteenth note figure answers the three bar phrase from before and continues the conversation between tonic and dominant in the key of G Major. Notice that although we have heard the G Major harmony functioning as tonic, we have not heard a strong definitive cadence with predominant preparation and the tonic in both the melody and the bassline–the modulation is not completed yet. In fact, the 3 + 2 bars from measure 56 have been only establishing and expanding G Major as the tonic.

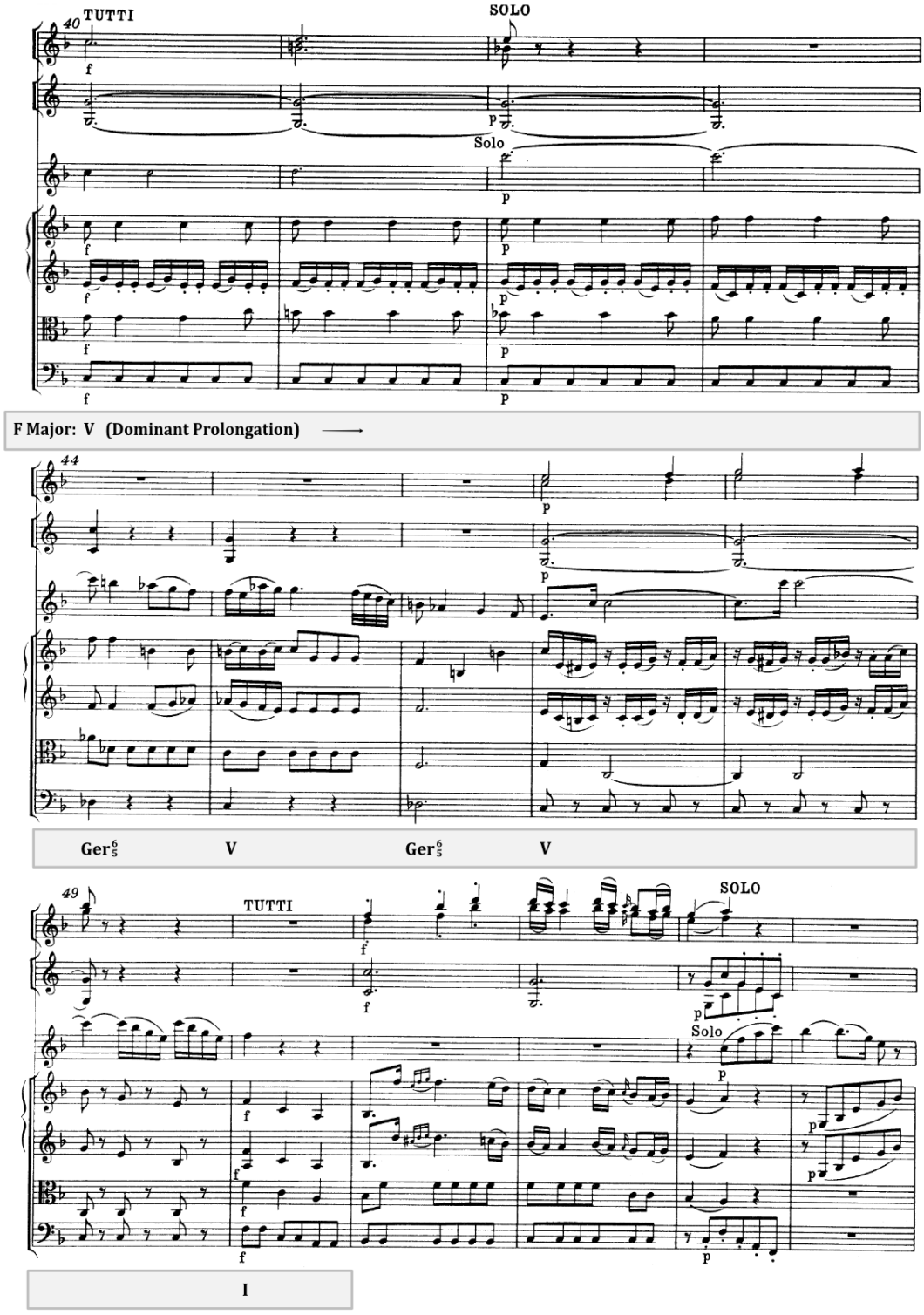
The following four bars expand predominant function: the harmony bounces from ii^6 on the downbeats to applied chords on the 3rd beats for 3 measures, finally moving to V in measure 64. From there, the harmony hangs on the dominant seventh for three bars, the oboe line playing sixteenth note runs to suspend the resolution. The resolution does come on the downbeat of measure 68, but the solo line lands on $\hat{3}$ and the phrase is immediately elided. The harmony "tries again," moving from tonic harmony in measure 68 to predominant, IV, harmony in measure 69. Not only does this harmony function as the predominant, but it is a shadow of the old C Major key area, in fact, Mozart indicates a struggle between F$\natural$s and F$\sharp$s in measure 69, a microcosm of the struggle between C Major and G Major that has yet to be entirely resolved. To take this struggle further, Mozart tonicizes C Major in measure 70 with a secondary dominant, which resolves to

C Major (IV) in measure 71. In that measure, while the oboe holds G, the longest held note since the glorious high C at the opening of the concerto, the harmony shifts underneath it from IV (C Major) to I (G Major), as if asserting that the G in the solo line still has potential in two directions.

Then, to muddy the waters further, the G moves into measure 72 where it becomes part of the most dissonant chord thus far, the German Augmented Sixth chord in measure 72, scrambling any loyalty to C Major and strengthening the case for D Major as the dominant in measure 73. Beginning in measure 74 the harmony can move in the most straightforward manner, from tonic to predominant, through a cadential suspension and resolution, and finally resolve to the tonic with a perfect authentic cadence in G Major.

It is one thing to be vaguely aware that this excerpt is a transition section and moves from C Major to G Major, but there is so much to find in the details of this brilliant modulation that can strengthen a player's interpretation. There are entire harmonic spaces vying for dominion and if the player can capture that struggle by recognizing the characters at play and giving them a voice, then the music will come through with clarity and conviction. Foremost among these characters is the German Augmented Sixth chord, which solidifies G major in the ear of the listener.

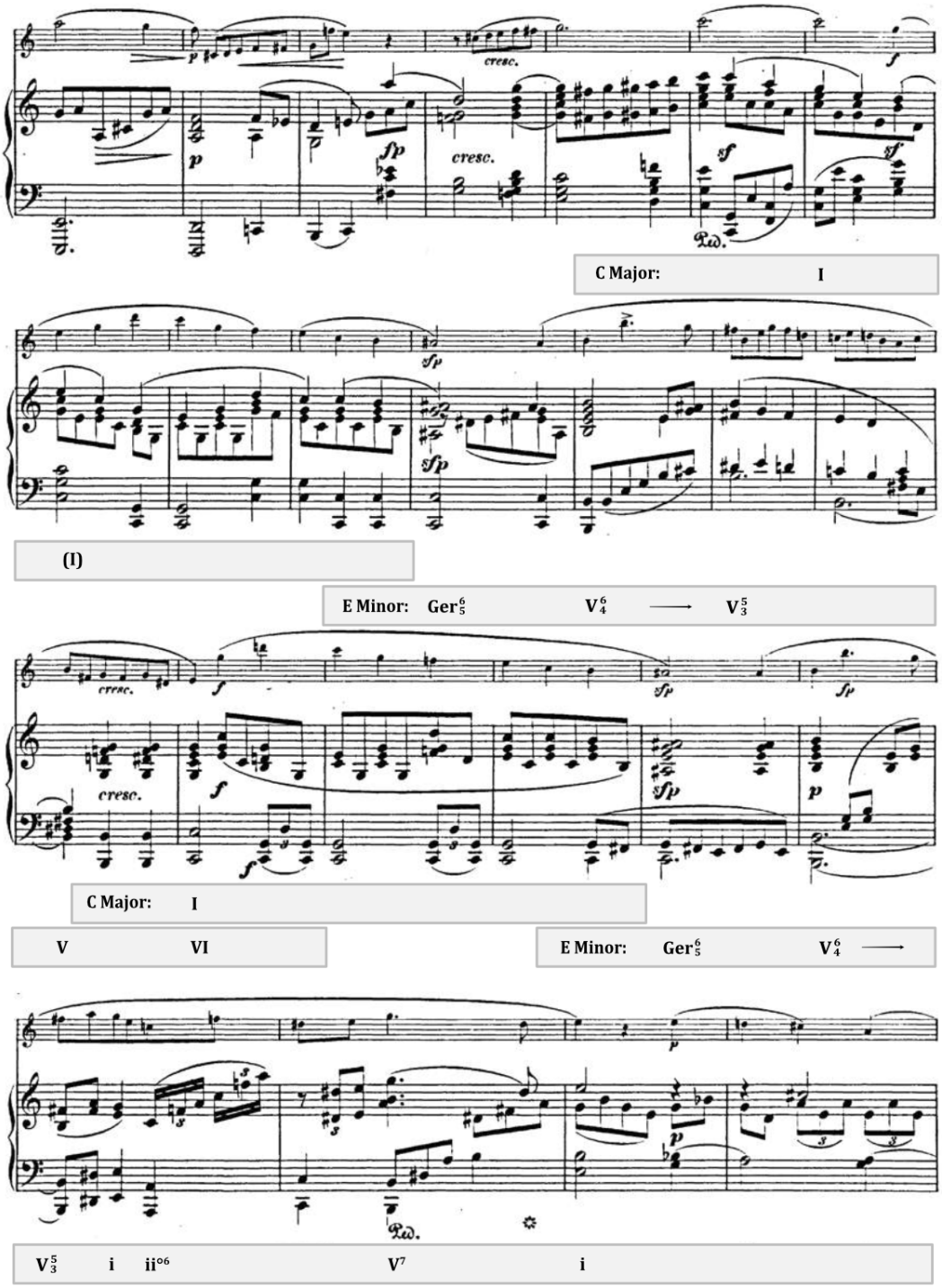
Excerpt 11.2: Wolfgang Amadeus Mozart–Concerto for Oboe, movement 2 (mm. 40-50)



This excerpt comes from the development section of the second movement of the Mozart Oboe Concerto and shows another example of how the German Augmented Sixth chord can intensify and support dominant function. As mentioned, this excerpt comes from the development section of this modified sonata form. One of the main roles of this section is to prepare the return of the opening material in the opening key, in this case, F Major. At the top of the given page, the oboe begins holding a high C while the orchestra prolongs a C^7 chord, the dominant seventh chord in F Major. When the seventh, $B^{\flat}$, appears in measure 42, it shifts the listener's interpretation of the C away from its tonic function in the previous section and toward a dominant function. In measure 44, the German Augmented Sixth chord enters, further establishing the C^7 chord as the dominant. In measure 45, the harmony resolves back to a V^7, before moving returning again to the German Augmented Sixth chord in measure 46. This time, the resolution to the V^7 is more permanent until its ultimate resolution to the tonic, F Major, in measure 50.

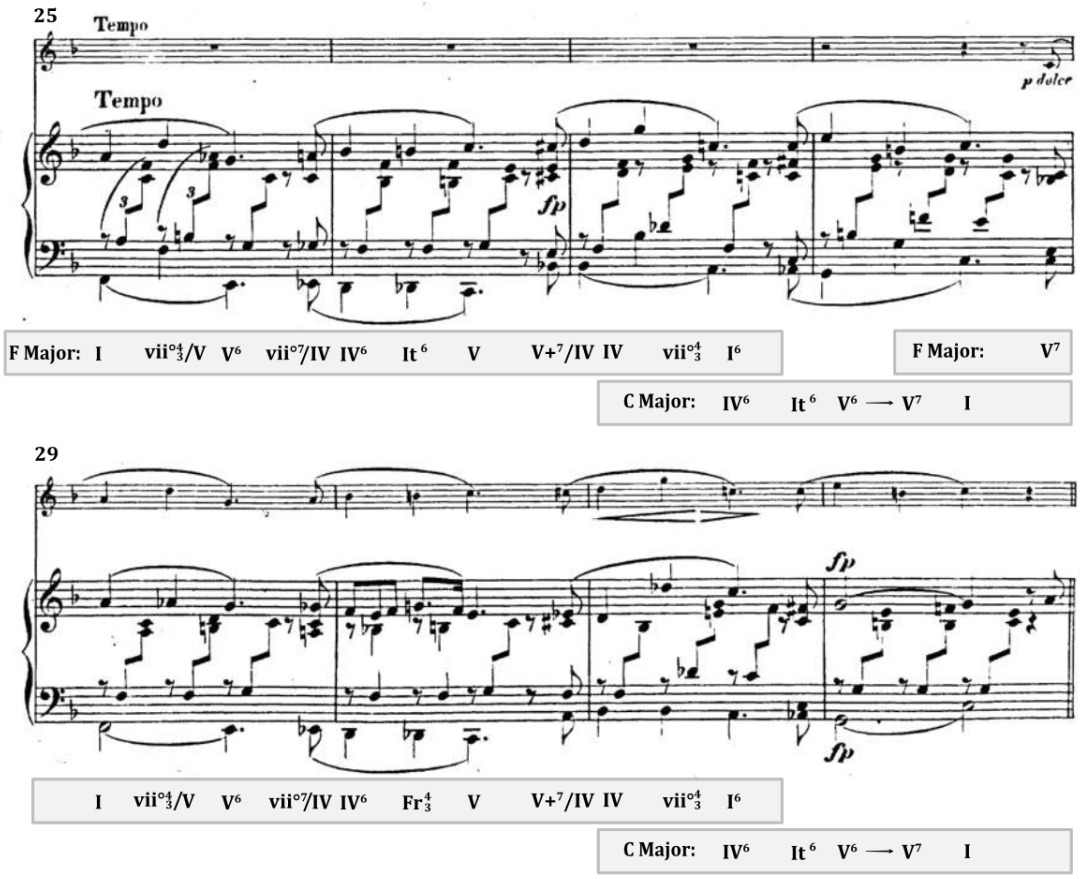
The Augmented Sixth chord serves not just as a predominant chord in this case, but as a neighbor chord, and it contributes several important aspects to this excerpt. First, in the part of the form when we would expect to find the most dissonance and contrast, the German Augmented Sixth chord introduces three chromatic, dissonant pitches, thus providing a feeling of distance from the home key. At the same time, the Augmented sixth chord points the listener's focus toward C, the dominant. The upper and lower chromatic neighbors, $B^{\natural}$ and $D^{\flat}$ resolve not once, but twice into the C. These important resolutions are not obvious with only the solo line in mind. However, a soloist aware of the harmonic and voice leading underpinnings of their line can lean into the $B^{\natural}$s and $A^{\flat}$ in measures 44 and 46, and resolve to the Dominant harmony on measures 45 and 47 with more significance.

Excerpt 11.3: Robert Schumann–Romance No. 1 (mm. 33-50)



This excerpt comes from the B section of Schumann's Romance No. 1 and demonstrates the way a German Augmented Sixth chord can quickly reorient a harmonic center by preparing a new dominant. In measure 33, the oboe arrives on a high C with the new tonal center of of C Major underneath. The C Major key is sustained for five measures until the oboe comes down to rest on an A♯ over a C in the bass. The A♯ becomes ♯4 in E minor while the C, which was the tonic, is reinterpreted as the $\hat{6}$ in E Minor. This augmented sixth resolves outward to a V^{6}_{4}-$^{5}_{3}$ in E Minor. This cadential moment is thwarted with a deceptive motion to the VI chord, which is reinterpreted as the tonic chord, I, in C Major. The pattern repeats, using the German Augmented Sixth chord to pivot from C Major to E minor. This second time, the modulation is "successful" and a true cadence occurs. An oboist, aware that the A♯ is more than a colorful accidental, can use the German Augmented Sixth chord to great effect. The A♯, in conjunction with the bass in the piano, can be played with gravity and foreshadow the inevitable resolution up to the B in the next measure. The B can then be heard clearly as the root of the dominant harmony.

Excerpt 11.4: Robert Schumann–Romance No. 3 (mm. 25-32)



This excerpt comes from Schumann's Romance No. 3 and demonstrates the use of both the Italian Augmented Sixth chord and the French Augmented Sixth chord and is characterized by highly chromatic pick-up and passing chords. It begins with a a four-measure introduction in the piano. In measure 25, the passing chord is an applied diminished seventh chord of V, connecting I to V6. The pick-up to the next measure is also an applied diminished seventh chord, this time of IV. The passing chord in measure 26 is an Italian sixth chord, connecting the IV^6 to the V chord. Because the $\flat\hat{6}$ and $\sharp\hat{4}$ resolve to the root of the V chord, it sets up these first measures to function as the antecedent phrase, the open dominant harmony leaving space for a closed cadence in the assumed consequent response.

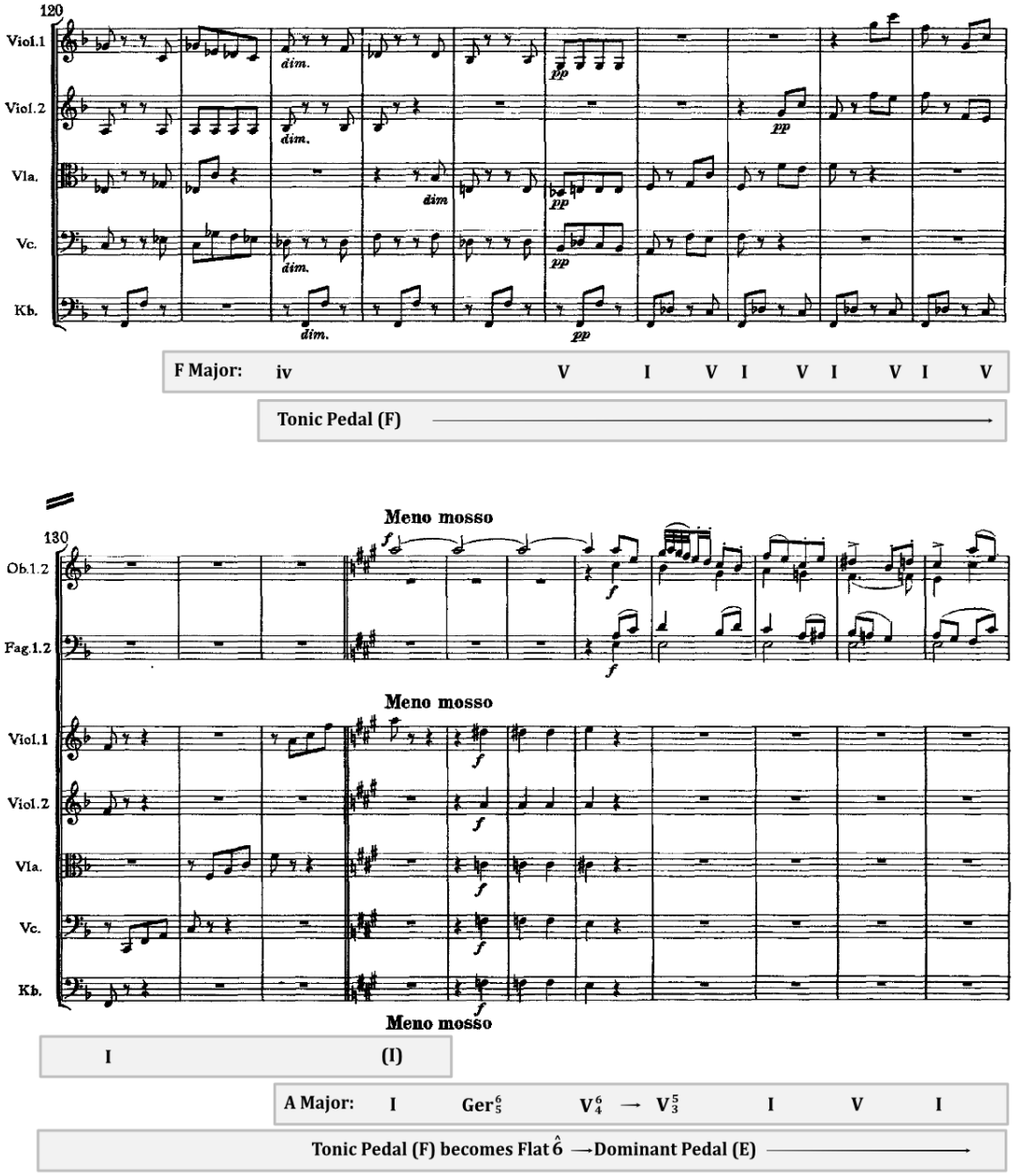
Measure 27's pick up is an interesting chord that is neither an applied chord, nor an augmented sixth chord. It is related to the applied V of IV, however the fifth is raised, creating a leading tone to the third of

the next chord. This chord is sometimes called an augmented seventh chord (because it is a seventh chord with an augmented triad). It resolves, like a secondary dominant of IV, to the IV chord. The passing chord in measure 27 is another leading tone chord which resolves to a I^6. The pick-up to the final sub-phrase is an Italian Augmented sixth chord in the key of C Major. This chord leads as expected to dominant harmony of C Major, and finally to the tonic. This Italian sixth chord functions as a chromatic passing chord as the previous one did, however it also reorients the ear to C Major by encouraging the listener to hear G Major as the dominant.

After the piano introduction, the harmony is repeated almost exactly with the oboe taking over the melody, with one main difference. In measure 30, the associated Augmented sixth chord is altered from an Italian Augmented Sixth chord to a French Augmented Sixth with the addition $\hat{2}$, a G. It is in interesting choice because it shares the double tritone content with the diminished seventh chords pervading this excerpt. However, because it is not derived from the diatonic scale, it feels crunchier, thus intensifying the phrase on the second time through.

The voice-leading in this excerpt is fascinating and demonstrates how well inverted applied chords and augmented sixth chords can contribute to chromatic stepwise bass and internal voice leading. The oboist should be aware of the fact that every other chord in this excerpt is a chromatic dissonance that will resolve, but also that the chord changes in the accompaniment part are incredibly smooth, juxtaposing the large leaps in the solo line.

Excerpt 11.5: Pyotr Ilyich Tchaikovsky–Symphony No. 4, Op. 36, mvt 3 (m. 122-140)



This excerpt bridges the A section and the B section of the third movement of Tchaikovsky's Symphony No. 4 and demonstrates a common tone modulation to a remote key. The beginning of the excerpt is the end of the A section, characterized by light string pizzicato. Although it is colored by D$^{\flat}$s borrowed from F Minor, it is a fairly simple cadence in the key of F Major, bouncing between V and I with a strong presence of F in the bass throughout. As the string section comes to a close, the oboe enters with a high A, the third of the F Major chord, with no context underneath it. As the note is held, the strings come back, this time with a German Augmented Sixth chord that orients us into the new and remote key of A Major, revealing that our A is actually the new tonic. The harmony then shifts back and forth from tonic to dominant in the key of A Major, with a strong presence of $\hat{5}$ in the bass. It is interesting that the pedal at the end of the A section and the pedal at the beginning of the B section can be found in miniature under that high A across measures 135 and 136, as the bassline of the augmented sixth chord moving to V. It is exhilarating to play this solo, and it should be–the oboe soloist must wrest the harmony from F Major and deliver it to the distant A Major; they must transfigure the high A from a rebellious $\hat{3}$ in one key to a triumphant $\hat{1}$ in the next. The vibrato and color must be carefully chosen to achieve this transformation.

11.3 Improvisation and Composition

- Choose a key and begin playing scales and arpeggios in that key to orient your ear. Move through a complete phrase with tonic - predominant - dominant - and tonic again. When you're ready, choose and note (diatonic or chromatic) and reinterpret that note as $\sharp\hat{4}$, resolve up a half step to your new $\hat{5}$ and then move from that $\hat{5}$ to your new tonic.
- Repeat the process beginning in the key at which you arrived. Modulate to a new key by reinterpreting a random note as $\sharp\hat{4}$

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