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# An Aural Skills Approach to Context and Modulation in Tonal Music

Timothy S. Cutler

There is a lonely quality to the opening of Scriabin's Prelude op. 16 no. 4 (Ex. 1). The slow tempo, stepwise descending sequence, *sotto voce* marking, and monophonic texture all contribute to this solitary mood. Something else, however, drives the melody forward. It is searching for its own meaning, a *tonal* identity that will be determined retrospectively when the Prelude's tonic is confirmed in m. 3.

In tonal music, the function of any pitch depends on its context. This is particularly relevant to the study of modulation. One of the most fundamental modulatory techniques is the pivot, when a pitch or harmony acquires dual meaning in order to provide a smooth transfer from one key to another.

Typically, the subject of modulation is taught during the later stages of a harmony course. Viewed as one of the more advanced topics in the study of tonal music, an overview of modulatory techniques is withheld until the more "grammatical" aspects of theory are explained: triads, seventh chords, and their inversions; Roman numeral analysis; the syntax of harmonic progressions—structures contained within a single key.

If one wishes to introduce modulatory concepts any sooner, a different route can be sought, one that relies less upon the language of Roman numeral and figured bass analysis. Employing an ear training approach, it is possible—and can be beneficial—to introduce the fundamental ideas behind modulatory techniques to students earlier in their music theory education. Beginning with only major and minor scales, and later adding triads, an ear training approach allows students to ingrain these ideas in their ears well in advance of their theoretical indoctrination to the subject.

Example 1

The musical score for Example 1 is written for piano. It consists of two staves: a treble clef staff on top and a bass clef staff on the bottom. The key signature has five flats (B-flat, E-flat, A-flat, D-flat, G-flat), and the time signature is 3/4. The tempo is marked 'Lento' with a quarter note equal to 44 beats per minute. The dynamics are marked 'p' (piano) and 'sotto voce'. The melody in the treble clef starts with a half note G4, followed by quarter notes A4, B4, C5, D5, E5, and F5. The bass clef staff has rests for the first two measures, followed by a series of chords in the final measure: a triad of G2, B2, D3, and a dyad of G2, B2.

Why is this beneficial? Aural familiarity with music, which includes varying degrees of unconscious mental understanding, naturally precedes conscious intellectual consideration. Some students struggle in theory classes when this order is reversed. These students, who often possess little experience with classical music, find music theory impractical and irrelevant because they lack a reservoir of aural references to connect actual sound with intellectual codification in a musically meaningful way. In general, a young musician has a greater chance of understanding and appreciating theoretical concepts, such as the techniques of modulation, if he/she first gains an aural awareness of them. When the same techniques are introduced later in a more theoretical setting, hopefully the student will react by stating, “I already know what this *sounds* like,” or “Yes, I know what this *feels* like.” The theory will simply place labels on something already in the inner ear of the student. (In this sense, shouldn’t all ear training instruction be one step ahead of its music theory counterpart?) The following exercises stress tonal context and serve as basic preparation for the study of modulatory techniques.<sup>1</sup>

<sup>1</sup>Presently, tonal context is a central topic in aural skills research, but few scholars have extended their ideas to the topic of modulation. For other approaches related to issues of context, with occasional reference to modulatory concepts, see Gene J. Cho, *Melodic, Dyadic, and Harmonic Singing*

## Warm-up

Before beginning the context exercises, students should be fluent with major and minor scales, especially the functional tendencies of each scale degree. (In essence, one should be able to express in some manner what each scale degree *feels* like in various contexts.) As a warm-up, sing major and minor scales, first with scale degree numbers or solfège and then using note names.

Anyone with some knowledge of tonal music can hum a major scale without having to think about it. For most, singing scales with degree numbers or solfège also poses few problems; it merely adds the simplest of labels to the pitches being sung. The purpose of performing scales with note names is to engage the mind concurrently with the ears and voice, especially in keys with numerous sharps or flats. Such mental processes increase the ability to visualize music in one's head. Much like a strong chess player sorts through specific combinations of moves or maps out long-term strategies in his/her mind, a good musician benefits from the powers of visualization in numerous settings: dictation (the ability to translate aural sounds into a notational picture on staff paper); species counterpoint (looking ahead is essential); composition; memorization; and so on. Students should be discouraged from reciting note names by calculating the intervals between adjacent scale degrees. Instead, they should imagine the scale written on a staff and take careful notice of the key signature and accidentals. Consequently, they are training themselves

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(Iowa: Kendall/Hunt Publishing Co., 1989); Gary S. Karpinski, *Aural Skills Acquisition: The Development of Listening, Reading, and Performing Skills in College-Level Musicians* (New York: Oxford University Press, 2000), especially pp. 199-213; William E. Lake, "Interval and Scale-Degree Strategies in Melodic Perception," *Journal of Music Theory Pedagogy* 7 (1993): 55-67; Steve Larson, "Scale-Degree Function: A Theory of Expressive Meaning and Its Application to Aural Skills Pedagogy," *Journal of Music Theory Pedagogy* 7 (1993): 69-84; Michael Rogers, "The Jersild Approach: A Sight-singing Method from Denmark," *College Music Symposium* 36 (1996): 149-161; Joseph P. Swain, "Connections in Modulation," *Journal of Music Theory Pedagogy* 1 (Spring 1987): 13-24; Bruce Taggart, "Sight Singing Schubert: A Study in Solfège," *Journal of Music Theory Pedagogy* 11 (1997): 75-98; Paula Telesco, "Contextual Ear Training," *Journal of Music Theory Pedagogy* 5 (Fall 1991): 179-190. I have found only one major work that focuses specifically on modulation and aural skills, *La modulacion en el solfeo* by Adelino Barrio (Madrid: Musicinco, 1988), but I have been unable to obtain this text.

to see the larger picture rather than merely tying together bits of detail.<sup>2</sup> After some practice, singing with pitch names will become as natural as humming a scale itself.

### The Context Exercise

Acquiring fluency with scales is not an end in itself but a means by which one progresses to a more sophisticated idea: the function of a pitch depends on its context. I like to begin the presentation of this concept by going to the piano, playing a pitch (f-sharp<sup>1</sup>, for instance), and posing a simple question, “What scale degree am I playing?” After an initial chuckle and a little head scratching, most will assume that they are hearing the tonic. The f-sharp<sup>1</sup> can be confirmed as the tonic, but just as easily its function can be radically altered (Ex. 2).

The primary context exercise goes as follows:<sup>3</sup>

- a) The teacher plays or sings any pitch. It is not necessary to identify its note name.
- b) Assign the pitch a scale degree number.<sup>4</sup>
- c) Using scale degrees, the student sings from the starting pitch through the longer part of the scale to the tonic—descend if the scale degree is five or higher, ascend if it is four or lower.
- d) Practice major and all forms of minor scales. Later, actual pitch names can be used to increase the difficulty (Exs. 3a and 3b).<sup>5</sup>

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<sup>2</sup>Essentially, this is the concept of “clumping” or “chunking.” It is easier to recall one piece of information—the number 279,561—than it is to remember seven consecutive non-related digits—2, 7, 9, 5, 6, 1.

<sup>3</sup>In the following exercises, scales should be considered a linear expression of the tonic triad and nothing more. Scale degrees 1, 3, 5, and 8 are stable, and the other degrees function as unstable passing or neighbor notes.

<sup>4</sup>For the remainder of this paper I will refer to scale degree numbers, but the exercises will work equally well with movable do.

<sup>5</sup>A descending harmonic minor scale starting on scale degree 7 is arguably the most difficult scale segment to perform because one is immediately confronted with a descending augmented second. Often, a student will accidentally sing a major third, transforming the initial leading tone into the tonic, and sing the following scale degrees: 8, 6, 5, 4, 3, 2, 1.

**Example 2**

Allegro

etc.

*f* *p* *f* *p*

(1) (3)

etc.

*f* *p* *f* *p*

(5) (7)

**Example 3**

A)

6 6 5 4 3 2 1

B)

2 2 3 4 5 6 7 1

- e) In Ex. 3a, the instructor plays  $b^{\flat 1}$  at the piano (Ex. 3a). This pitch is scale degree six in a major scale. From this pitch, sing down to the tonic using scale degree numbers. In Ex. 3b, the instructor plays  $g^{\sharp}$  at the piano (Ex. 3b). This pitch is scale degree two in a harmonic minor scale. From this pitch, sing up to the tonic using scale degree numbers.

For homework or classroom practice, I organize the exercises similar to the following, promoting the comparison of the same pitches in different tonal contexts (Ex. 4).<sup>6</sup> Throughout the presentation and practice of these exercises, one need not invoke ideas of modulation and pivot chords. It is enough to state, "The function of a note depends on its context." The notion of a pivot is stressed subconsciously by hearing a pitch in two or more successive tonal settings (see Ex. 4, nos. 5-8).

### Solving the Context Exercise

In executing the scale segments, there are two general strategies for solving these musical puzzles. (No matter what, preparation should be done *internally*—never aloud—as it is essential to develop the mind's ear.) The first method is intervallic: By knowing the intervallic configurations of the major and minor scales, one can sing from pitch to pitch with only three intervals in mind—minor, major, and augmented seconds. I recommend avoiding this method or using it only in limited situations. Stringing together a random series of intervals does little to create a context in which each note of the scale acquires unique meaning. Intervallic singing is necessary in certain types of atonal music, but it runs contrary to the whole idea of tonality. The point of this exercise is to appreciate the importance of tonal context; intervallic singing teaches little if anything about context.

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<sup>6</sup>Given a pitch name and scale degree number, I normally ask the students to identify the key before anything else. In Ex. 4 no. 2, there will be no difference between the natural and descending melodic versions of the minor scale.

**Example 4**

- 1) A is scale degree 7 in a major scale. Sing down to the tonic.
- 2) A is scale degree 6 in a natural minor scale. Sing down to the tonic.
- 3) E is scale degree 2 in a major scale. Sing up to the tonic.
- 4) E is scale degree 3 in a melodic minor scale. Sing up to the tonic.
- 5) B $\flat$  is scale degree 5 in a melodic minor scale. Sing down to the tonic.
- 6) B $\flat$  is scale degree 3 in a major scale. Sing up to the tonic.
- 7) B $\flat$  is scale degree 4 in a harmonic minor scale. Sing up to the tonic.
- 8) B $\flat$  is scale degree 7 in a major scale. Sing down to the tonic.

A more beneficial strategy begins by using the starting pitch and its scale degree identification to locate the tonic. The tonic can be determined in various ways, such as internally singing through the short side of the scale, especially when the starting scale degree is 2 or 7. Above all, one should—in the mind’s ear—ground him/herself in the tonic before anything else. This is not necessarily an easy task, for it requires imagining one pitch while hearing another aloud (itself an essential skill for the good musician). When one can firmly feel the tonal center, each scale degree takes on unique tonal characteristics within the context of its key. In Ex. 3a, b-natural<sup>1</sup> functions as a relatively unstable neighbor note to the more consonant dominant scale degree. (See Ex. 20 for an illustration of this effect.)

In doing these exercises, students (and teachers) will discover shortcuts to aid their preparation. One technique involves using a silent head start. In Ex. 3a, determine the tonic above scale degree 6, sing the missing scale degrees 8 and 7 internally, and then “enter” aloud on scale degree six (Ex. 5). Another shortcut involves using a famous melody as a reference. Students who have trouble descending from the dominant to the tonic will be surprised to find they have little or no difficulty beginning the “Star Spangled Banner” on the

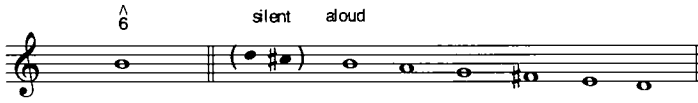


same pitch. To gain tonal orientation when singing a major scale segment from scale degree 3, try hearing “Three Blind Mice.” The first movement of Mozart’s Keyboard Sonata in B-flat, K. 333 serves as an excellent example of a major scale segment that descends from scale degree 6 to 1 (Ex. 6). Because the tonal properties of a scale degree are not affected by transposition, this shortcut works with any starting pitch. Beginning the sonata on a<sup>2</sup> merely transposes the composition to C Major.

This useful aid is borrowed from the traditional method for learning intervals: Memorize a famous melody that features a particular interval, such as the augmented fourth in Bernstein’s “Maria” aria from West Side Story. Although familiar tunes are helpful for the scale segment exercise described above (pitches within a tonal context), it must be noted that there is a serious flaw when using them to remember abstract intervals to be imported into a tonal context. For example, the “NBC” theme is a ubiquitous melody with a prominent major sixth (Ex. 7). A third and unwanted note enters the equation, but more importantly the major sixth represents more than an abstract interval—the two pitches strongly suggest scale degrees 5 and 3 in a major key and imply a tonic triad. What happens when the tune is placed in a different tonal context (Ex. 8)? The function of the “NBC” pitches has changed. The third pitch, G, is now discordant with the underlying harmony. Consequently, the “NBC” tune might be deemed unusable for this excerpt, and the major sixth may go unidentified. The closest thing to the “NBC” theme that fits Ex. 8 is its *minore* variant, f-sharp<sup>1</sup>-d<sup>2</sup>-b<sup>1</sup>, which has no major sixth!

A third technique uses scale degrees other than the tonic as footholds for completing the segments. This works especially well when performing a descending scale, major or minor, that begins on scale degree 6 or 7. After the tonic, the dominant is the most readily recognized and consonant scale degree. Therefore, carefully negotiate from scale degree 6 to 5 or 7 to 5, and the remainder should be smooth sailing. I sometimes find myself slightly accenting the dominant, as if I am stressing a place of momentary repose (both in terms of technical difficulty of the exercise and concordance with the tonic) (Ex. 9).

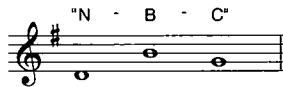
Example 5



Example 6



Example 7



Example 8



## Expanding the Context Exercise

When students are suitably fluent with this exercise, it can be varied in several ways. Here are just a few. The first is a “rapid-fire” version in major and its melodic-minor variant in the opposite direction (Exs. 10a-b). This version of the context exercise is less important than the original and more randomized scale segments (see Ex. 4) because some students may simply memorize the “rapid-fire” melodic patterns and forget about the various contexts created. Nevertheless, it should illustrate how quickly the function of a pitch can change.<sup>7</sup>

One can also add chromatic elements to the scale segment exercise. Rather than beginning solely on diatonic pitches, the instructor can ask a student to begin on chromatic neighbor notes. For example, an ascending C major scale segment might begin on sharp scale degree 2, or a descending C major scale segment could commence with flat scale degree 6. In both these and other instances, one will understand each chromatic element in relation to its more stable diatonic neighbor, thus increasing one’s comprehension of the melodic/ornamental function of chromatic neighbor notes.

### Example 9



<sup>7</sup>See, for instance, mm. 97-108 in the first movement of Haydn’s Symphony no. 83, “La Poule.” In this complicated passage, the pitch G is prominently displayed in the lower voices, first as the dominant of c minor (m. 97), then as a brief tonic in g minor (m. 106), and lastly as the subdominant of d minor (m. 108).

Example 10

A)

B)

Example 10 consists of two parts, A and B, each with two staves of music. Part A is written in treble clef. The first staff has notes G4, A4, B4, C5 with chord symbols G: above the first three notes and F: above the last. Above the first three notes are fingerings: 2, 1, 3, 2, 1. Above the last note is 'etc.'. The second staff has notes E4, F4, G4, A4, B4, C5 with chord symbols E: above the first two notes and D: above the last. Part B is written in bass clef. The first staff has notes B3, C4, D4, E4, F4, G4 with chord symbols b-flat: above the first two notes, c: above the third, d: above the fourth, e: above the fifth, and f-sharp: above the last. Above the first three notes are fingerings: 1, 1, 2, 3, 4, 5. Above the last note is 'etc.'. The second staff has notes G3, A3, B3, C4, D4, E4 with chord symbols a: above the last two notes.

The context exercise can be transformed into dictation form as well. The student is given a starting pitch and listens to a scale segment played at the piano, the terminal pitch always being the tonic. The objective is to determine the key and mode of the scale and write out the segment with proper pitches and accidentals. In many ways, the dictation version is easier than the primary context exercise because its focus is shifted. To determine the scale degree of the initial pitch, one simply needs to count how many pitches were played. The difficulty lies in assessing the mode of the scale, thus drawing one's attention away from context and toward modal color.

When students have learned the basics of triad construction, a triadic version of the context exercise can be added (Ex. 11). Given a starting pitch, students sing major and minor triads, ascending and descending, in root position, first and second inversion, using scale degree numbers, solfège, or note names. It should be noted that only when scale degree 3 is the initial pitch do the roots of the major and minor triads differ. Other triads and seventh chords can be added later.

## Applications

Ear training students need to be reminded constantly how their aural skills practice relates to the real world of music making. Here are just a few of the numerous exercises and musical excerpts that illustrate why ear training need not occur in a non-musical vacuum. Some of these excerpts contain fairly advanced compositional ideas, so emphasis can be placed on their aural content rather than their theoretical underpinnings, and how and when they are explained to students are up to the discretion of the teacher.

1) Single pitch as pivot. The term *pivot* describes the action that occurs when the function of a harmony or pitch is transformed from one thing to another. The context exercise can be done internally to illustrate this: Play any note on the piano, hear (and feel) it as the tonic, then shift its identity to scale degree 3 of a major scale, then imagine it as another scale degree, and so on. Or, in other words, play only the fermata measures in Ex. 2, but with regard to the contextual

**Example 11**

I. Major triads below f-natural

II. Minor triads below f-natural

III. Major triads above f-natural

IV. Minor triads above f-natural

harmonies that follow.

From there, one can progress to more expansive musical examples. Establish B-flat Major with a perfect authentic cadence. While the other tones of the final tonic triad fade away, reiterate the tonic for several seconds, during which students are asked to imagine the function of this pitch transform from scale degree 1 in B-flat Major to scale degree 3 in G-flat Major. Sing an ascending B-flat major scale from the tonic, followed by an ascending G-flat major scale commencing on the mediant, paying special attention to the change in color and feel of the pitch B-flat. This is what occurs in the second movement of the Violin Concerto no. 1 by Max Bruch (Ex. 12).<sup>8</sup>

2) Pair of pitches as pivot. In an excerpt from the last movement of Beethoven's Piano Trio in E-flat, op. 1 no. 1, two pitches function as a pivot. Although a theoretical explanation of the passage is more complicated than in the Bruch example, the pivot itself is just as explicitly highlighted (Ex. 13a).<sup>9</sup> The passage begins with an authentic cadence in mm. 332-333. After this key-defining cadence, the texture turns sparse, and Beethoven introduces mixture in the form of c-flat<sup>3</sup>. To what extent mixture needs explanation depends on the level of the class, but students should at least know that c-flat is a lowered form of scale degree 6. Repeated throughout mm. 337-340, the textural density diminishes even further. Much like the Bruch example, extraneous information is put aside so that the pivot

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<sup>8</sup>The same descending major third modulation occurs in Beethoven, Piano Trio in c minor, op. 1 no. 3, fourth movement, mm. 155-180 and Elgar, "Enigma" Variations, between variations VIII and IX. Other examples of a single tone as pivot include Schubert, Symphony no. 8 in b minor, first movement, mm. 38-42 and 252-256; Mendelssohn, Symphony no. 3 in a minor, first movement, mm. 201-209 (second ending) and 419-427; Mozart, Fantasy in c minor, K. 475, mm. 25-26; Brahms, Intermezzo, op. 118 no. 2, m. 48; Beethoven, "Wellington's Victory," op. 91, mm. 421-423 (second part, mm. 59-61); Tchaikovsky, Piano Trio in a minor, op. 50, second movement, between variations V-VI and X-XI.

<sup>9</sup>Another composition that uses pairs of pitches as pivots is Brahms' "In Der Fremde," op. 3 no. 5. The song is set in f-sharp minor and makes brief modulations to A Major and D Major. The former key uses the pitches A and C-sharp (m. 9) to return to the main tonic, while the latter uses A and F-sharp as pivots (mm. 15-16).

Example 12

The musical score for Example 12 is presented in two systems. The first system includes a Violin part and an Orchestral part. The Violin part begins at measure 75 with a *p* dynamic and a *rit.* marking. The Orchestral part includes timpani and other instruments, with a *pp* dynamic and a *rit.* marking. Both parts then return to *a tempo*. The second system continues the orchestral part with a *cresc.* marking and a *f* dynamic. The score is written in a key signature of two flats and a 3/4 time signature.



### Example 13

A)

m. 331

Violin

Cello

Piano

*p*

*p*

*p*

*pp*

*p*

**B)**

m. 351

Violin

Cello

Piano

*p* *pp* *p* *pp*

Detailed description: This block contains the first system of music for measures 351-353. It features three staves: Violin (top), Cello (middle), and Piano (bottom). The key signature is two flats (B-flat and E-flat), and the time signature is 3/4. In measure 351, the Violin and Cello parts begin with a half note G3 (marked *p*) and a half note F3 (marked *pp*) respectively, which are tied into measure 352. The Piano part starts with a half note G3 (marked *p*) and a half note F3 (marked *pp*). In measure 352, the Violin and Cello parts continue with a half note E3 (marked *p*) and a half note D3 (marked *pp*) respectively. The Piano part continues with a half note E3 (marked *p*) and a half note D3 (marked *pp*). In measure 353, the Violin and Cello parts end with a half note C3 (marked *p*) and a half note B2 (marked *pp*) respectively. The Piano part ends with a half note C3 (marked *p*) and a half note B2 (marked *pp*).

*ff* *p* *ff* *p* *ff* *p*

Detailed description: This block contains the second system of music for measures 354-356. It features three staves: Violin (top), Cello (middle), and Piano (bottom). The key signature is two flats (B-flat and E-flat), and the time signature is 3/4. In measure 354, the Violin part begins with a half note G3 (marked *ff*) and a half note F3 (marked *ff*). The Cello part begins with a half note G3 (marked *ff*) and a half note F3 (marked *ff*). The Piano part begins with a half note G3 (marked *ff*) and a half note F3 (marked *ff*). In measure 355, the Violin part continues with a half note E3 (marked *ff*) and a half note D3 (marked *ff*). The Cello part continues with a half note E3 (marked *ff*) and a half note D3 (marked *ff*). The Piano part continues with a half note E3 (marked *ff*) and a half note D3 (marked *ff*). In measure 356, the Violin part ends with a half note C3 (marked *ff*) and a half note B2 (marked *ff*). The Cello part ends with a half note C3 (marked *p*) and a half note B2 (marked *p*). The Piano part ends with a half note C3 (marked *p*) and a half note B2 (marked *p*).

to the upcoming key is as clear as possible. Somewhere between mm. 337 and 342, scale degrees 4 and flat 6 in E-flat Major become scale degrees 3 and 5 in E Major, and the music modulates to an enharmonic respelling of the Neapolitan (or ascends by semitone if students are unfamiliar with flat scale degree 2).

As witty and Haydnesque as this modulation is, the return to the original key of E-flat Major is even more humorously abrupt (Ex. 13b). Once again, a sudden textural liquidation in m. 354 foreshadows a modulation. The actual pivot note is debatable (E-natural in m. 354 equals F-flat), but for the purposes of the context exercise the most illuminating analysis is to reinterpret the D-sharp in m. 355 as E-flat within the same bar. Thus, the leading tone in E Major becomes the tonic of E-flat Major. These modulatory techniques can be expressed in scale segment exercises (Exs. 14a and 14b). Triadic versions of these exercises are also possible.

3) Pivot chords. So far, discussion has mostly centered on the pivot possibilities of a single note. A further step in gaining aural comprehension of the pivot concept is learning to alter the meaning of an entire harmony. For some, this may involve a two-step process (Ex. 15). After choosing a pivot chord (in Ex. 15 I will use the downbeat of m. 2 as the pivot), the first step in hearing a chord as a pivot is to examine each of the four voices individually and concentrate on the pivot moment. If necessary, scale segment exercises can be extracted from each line. In some sense, a pivot harmony is nothing more than a group of pivot notes sounding simultaneously. But rather than hearing multiple pitches pivot concurrently, it is more efficient to hear a single harmonic entity performing the same task. Therefore, the second step is to learn to hear the downbeat of m. 2 not merely as four pivot notes sounding simultaneously, but rather as one harmonic pivot. In other words, what does a C major triad feel like in C Major compared to its tendencies in G Major?

4) Common tones. Passages need not modulate to demonstrate the function of a pitch changing according to its context. In the second movement of Brahms' Third Symphony, op. 90, the common tone C-natural plays the role of root, third, and fifth of major triads within a brief span (Ex. 16). The contrast between the first two measures, I-IV, and the latter two measures, I-flat-VI, typifies the relationship between the natural and flatted forms of a scale degree, an idea that

Example 14

A)



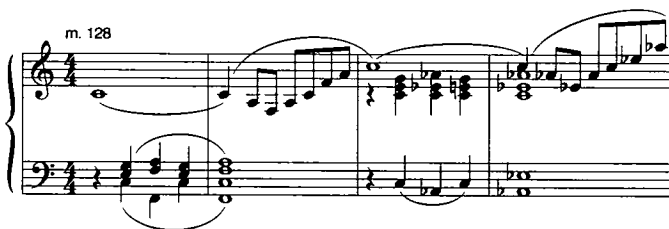
B)



Example 15



Example 16



can be traced back to the opening measures of the first movement, where A-natural and A-flat are pitted against each other within the context of F Major. To demonstrate the effect of harmonic context, have the class sing C-natural along with this passage to illustrate how this pitch is pushed and pulled according to its harmonic surroundings.<sup>10</sup>

5) Pedals. A pedal tone has a somewhat different relationship to its surroundings than the common tones in the previous Brahms example. A tonic or dominant pedal in the bass normally renders the upper pitches less harmonic and more ornamental in function. In the first movement of Brahms' Violin Sonata no. 3, op. 78, a dominant pedal governs the entire development section (mm. 84-129). This is perhaps the most explicit example of dominant prolongation during the development section of a sonata form that exists. Brahms, however, finds ingenious ways to intermix the incessant bass A-natural with the above harmonies (Ex. 17). During the development section, A-natural serves as the root, third, and fifth of major and minor triads, the root of a dominant seventh chord, and the third of a diminished seventh chord, among others. This remarkable passage can be reduced to the triadic version of the context exercise (Ex. 18).<sup>11</sup>

### **So you still don't believe in the power of context? Four musical "tricks"**

1) One traditional aural skills exercise involves the identification of melodic or harmonic intervals played without regard to tonal context. The following example illustrates how issues of context can sneak into this more abstract soundworld. Quickly play the two dyads shown in Ex. 19 and request someone to identify them (Ex. 19). Certainly, few will have difficulty correctly naming the

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<sup>10</sup>The effect would be even greater if C-natural were to become a dissonant chord tone. For a more advanced example, make a harmonic reduction of Brahms, Concerto for Violin and Cello, op. 102, first movement, mm. 270-278, then sing and discuss the effect context has on common tones and enharmonic equivalents.

<sup>11</sup>Two other interesting passages illustrating similar ideas are Verdi, *Otello*, Act IV, scene 2 (an upper pedal E-flat in Desdemona's "Ave Maria" aria, the first 11 measures) and Verdi, *Falstaff*, Act III, second part, mm. 89-101 (the clock strikes midnight).

Example 17

Violin

m. 84

*molto p*

Piano

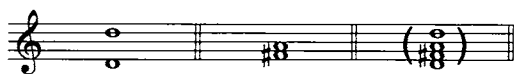
*pp*

The musical score for Example 17 consists of two systems. The first system shows the Violin part in the upper staff and the Piano part in the lower staff. The Violin part begins with a melodic line starting on G4, moving through A4, B4, and C5, with various rhythmic patterns. The Piano part provides a harmonic accompaniment with a steady eighth-note bass line in the left hand and a more complex melodic line in the right hand. The second system continues the Violin and Piano parts, showing further melodic development and harmonic support. The Violin part features more intricate phrasing and dynamics, while the Piano part maintains its accompaniment role with some melodic flourishes.

Example 18

The musical score for Example 18 consists of two staves of music. Both staves are in bass clef and feature a melodic line with a steady eighth-note rhythm. The first staff begins with a G2, moving through A2, B2, and C3, with various rhythmic patterns. The second staff continues the melodic line, showing further development and modulation. The music is characterized by its consistent eighth-note rhythm and the use of various intervals and accidentals.

Example 19



octave, but a surprising number of listeners will incorrectly label the latter interval as a major third. This should not be interpreted as the product of a careless ear, but rather the result of one who is influenced by a more persuasive musical factor—namely, that the two intervals, when combined, form a major triad. Consequently, the listener is more struck by the composite major mode of the resultant triad than the actual minor quality of the second dyad, and thus misinterprets the latter interval.

2) A beginning harmony student would be hard pressed to find an analytical interpretation other than “vi<sup>6</sup>” for the opening sonority of the second movement of Schubert's Piano Sonata in A Major, D664 (Ex. 20). Yet, we know that what we see on the page does not always concur with what our ears hear. After listening to only a few bars (if not right away), one realizes that the opening sonority is but one in a long line of downbeat appoggiatura motives (totaling close to forty by the end of the movement!). Even though the initial appoggiatura creates the illusion of a consonant “vi<sup>6</sup>” harmony, it possesses the quality of a 6-5 embellishment over an opening tonic harmony (B is a nonharmonic tone wanting to resolve to A). Thus, a better analysis interprets the opening chord as a tonic I harmony with melodic ornamentation (I<sup>6-5</sup>). The consistent motivic context convinces the listener to hear the upper voice in the initial sonority as a nonharmonic (dissonant) embellishment. The way one perceives the relationship between the pitches B and A and their tonal context in m. 1 has crucial significance on the way the passage is performed. Schubert marks this and other similar moments with accents not because they are downbeats, but because they are moments of dissonant stress.

3) As in the previous example, the beginning of Liszt's *Faust* Symphony creates a context in which a seemingly consonant

Example 20

Example 20 is a piano score in 3/4 time with a key signature of one sharp (F#). The tempo is marked "Andante" and the dynamics are "pp" (pianissimo). The score consists of two systems of music. The first system has four measures, and the second system has three measures. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a harmonic accompaniment with chords and moving bass lines. There are accents (>) over several notes in both hands.

Example 21 (slightly recomposed)

Example 21 is a piano score in common time (C) with a key signature of C major. The dynamics are marked "ff" (fortissimo) and "p" (piano). The score consists of two systems of music. The first system has four measures, and the second system has four measures. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a harmonic accompaniment with chords and moving bass lines. There are accents (>) over several notes in both hands.



harmony, a minor triad in first inversion, is made to sound dissonant (see m. 7 in Ex. 21) (Ex. 21). By saturating the music with augmented triads at various levels, this sonority—and not a major or minor triad—convincingly serves as the harmonic center of the introduction. The augmented triad is so firmly established as the harmonic “tonic” that when a first inversion minor triad appears on the downbeat of m. 7, c-sharp<sup>1</sup> sounds like a dissonant upper neighbor to the more “consonant” augmented triad. Thus, context creates a situation in which the consonant and dissonant properties of two harmonies are swapped in comparison to their normal tonal tendencies. Ultimately, however, the dominance of the major triad is reestablished in the Faust Symphony when the initial governing harmony C-E-A-flat eventually resolves to C-E-G.

4) One’s aural recognition of a cadence may have great significance on an analytical interpretation. For instance, choosing the harmonic label  $V^{6/4}$  versus  $I^{6/4}$  often depends on whether this harmony is involved in some sort of cadential process. Along these lines, the harmonic label “III<sup>6</sup>” may be dubious if it occurs after a predominant chord at a cadential moment. Often times, this harmony is better viewed as a dominant chord with an escape tone.<sup>12</sup> Near the end of Act III of *La Bohème*, Puccini writes a unique version of this scenario (Ex. 22). At rehearsal no. 35, the dominant pedal is both implied and explicit, with the lowest notes of the harmony (found in the right hand of the piano reduction) not sounding but still present until their resolution to a tonic harmony two measures later. This two-bar dominant pedal renders the voice and harp pitches ornamental and non-structural and defines a relatively straightforward, albeit highly embellished, authentic cadence. By omitting the dominant pedal with a slight bit of recomposing, a musical situation occurs that highlights an unusual substitute for a dominant chord (Ex. 23).<sup>13</sup> A visual analysis of the final three

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<sup>12</sup>Contrarily, this is not the case in m. 29 of the second movement of Dvorak’s *String Quartet no. 12 in F Major, op. 96, “The American.”* Although a literal “III<sup>6</sup>” functions as the dominant in this measure, the origin of the A is not an escape tone. (The cadence in mm. 29-30 includes interesting parallel fifths in the second violin part.)

<sup>13</sup>In Ex. 23 I have labeled the function of the chords as PD (predominant), D (dominant), and T (tonic).

Example 22

Mimi  
Ci la - scie - rem al - la sta - gion dei fiori!

Rod.  
Ci la - scie - rem al - la sta - gion dei fiori!

Orch.  
35  
*f*  
*pp*  
*p*

The musical score consists of three staves. The top staff is for Mimi (soprano), the middle for Rod (tenor), and the bottom for the Orchestra. The key signature has two flats (B-flat and E-flat), and the time signature is 3/4. The lyrics are in Italian. The orchestral part includes a piano section with dynamic markings of *f*, *pp*, and *p*. A box containing the number 35 is placed above the first measure of the orchestral part. The score ends with a fermata over the final notes of the vocal parts and a breath mark ( $\wedge$ ) over the final notes of the orchestral part.

**Example 23**

G-flat: PD D T PD D T  
 (II III I?)

**Example 24**

II "III" I II6 "III6" I II6 V5 - 6 I II6 V I II6 V I

harmonies would reveal the unsightly progression II-III-I, as well as parallel fifths. Nevertheless, one can untangle this passage and trace its cadential origin as well explain the parallel fifths (Ex. 24). The parallel fifths stem from contrapuntal embellishment, similar to the more common parallel fifths that occur when a V chord with an 8-7 motion coincides with a scale degree 2-1 anticipation of the tonic as found in Bach Chorales, for instance. The "III" chord, therefore, is not a mediant, but rather a dominant whose escape tone is elided with the change in harmony. At the foundation of Ex. 23 is a common II<sup>6</sup>-V-I perfect authentic cadence, illustrating once again that we cannot always believe what we see. (It is better to trust what we hear.) And, just as a pitch is consonant or dissonant depending on its tonal surroundings, context can transform the functional properties of other seemingly fixed musical material in many fascinating ways.

Whether we are discussing the function of a note within a chord, a chord within a key, or a key within an entire composition, context works at all levels of tonal music. In this sense the topic of modulation is not so advanced as we might tend to think. It is innately connected to the idea of context, which is one of tonal music's most basic features. And the sooner we can hear it, the sooner we can understand it.