

Tonal Markers, Melodic Patterns, and Musicianship Training

Part I: Rhythm Reduction

Laurdella Foulkes-Levy

Single-line tonal melodies, notated without accompaniment or harmonic indicators (like those found in sight singing texts) nevertheless contain strong clues which reveal important tonal relationships. Within a single phrase, or a group of phrases, these clues form a relationship that signals a tonal center, just as a group of chords that form a common harmonic progression points to a specific tonic. These melodic configurations consist of pitches that are important in the tonal hierarchy (generally members of tonic and dominant chords), and we recognize them because they are emphasized in an obvious way in the melody. This article discusses two procedures that can be used to identify these important tonal pitches, and suggests ways in which we can use this information to train musicianship skills.¹

In traditional melodic analysis we rely heavily upon our knowledge of harmony and its ability to imply specific connections between chords and melodic pitches. This information in turn directs us to a key center. We are then able simply to identify melodic pitches that either belong or do not belong to an implied harmony. For example, an opening upbeat-downbeat melodic figure of scale degrees (SDs) 5-1 reveals its tonal center partly because of the implied V-I harmony, just as a phrase ending on SD2 reveals its tonal center through the support of an implied dominant

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harmony. But this harmonic information rarely appears in sight singing texts, and is usually not supplied when melodies are played for purposes of dictation. We therefore need to train students to recognize tonal clues in the melodic lines themselves, just as we teach students to recognize tonality through common chord progressions in their harmonic studies.

I begin this article with three analyses of a melody by Mozart: one uses the traditional analytic technique of labeling harmonic and nonharmonic pitches (passing tones, neighbor notes, appoggiaturas, etc.), the second identifies common surface-level melodic patterns, and the third is a hierarchical analysis that reveals a variety of common melodic patterns on several levels. Following a discussion of these analyses, I present a procedure for reducing melodies that reveals important tonal information. Using this information, I then suggest activities that help to develop musicianship skills in the areas of memory, ear training, sight singing, improvisation, and dictation in an undergraduate aural training program.

THREE ANALYSES OF A TONAL MELODY

The first analysis of Mozart's K. 331, example 1 uses a harmonic-based approach to understanding the tonal features of this melody. The first measure, harmonized by a tonic chord, contains one neighbor note (D_3),² and the second measure, harmonized by a dominant seventh chord, also contains one neighbor note ($C\#_5$). Measure three has only harmonic pitches, while m. 4 has one obvious appoggiatura and another possible one, depending upon the interpretation of the second $C\#_5$ as a member of the cadential six-four chord or as an appoggiatura to B_4 , a member of the dominant chord. The beginning of phrase two repeats mm. 1-2 of phrase one, but the final two measures differ, with a harmonized passing tone (B_4) and a harmonized neighbor note (D_3) in m. 7, and another cadential six-four chord or appoggiatura ($C\#_5$) in m. 8. These labels reflect an interpretation of the melody in which the harmonic underpinning is the prominent feature, yet questions of interpretation arise. Can we

²The notation of pitches is based on the practice of the Acoustical Society of America, where middle C is C_4 .

EXAMPLE 1: Mozart, *Piano Sonata in A, K. 331, I*, mm. 1-8

label B_4 in m. 7 as a nonharmonic on the surface level? It is harmonized with a $V6$ chord, yet has a clear passing function. In this type of analysis each melodic pitch is supposed to be either part of a harmony or not part of it, but the B_4 and the D_5 at the end of the measure appear, respectively, to be passing and neighbor pitches. The same is true for the two cadential $6/4$ s. Are they appoggiaturas or members of a harmony? Labeling harmonic and nonharmonic pitches is a simple concept, yet I submit that students frequently do not recognize implied harmonies, nor can they easily make decisions of interpretation during the process of sight singing or taking dictation. Ultimately, such skill deficits may interfere with their ability to become well-rounded musicians.

Another interpretation of the K. 331 melody, shown in Example 2, still maintains a link to harmonic implications, but emphasizes surface-level melodic patterns, as shown by the brackets. The first measure contains a complete upper neighbor note pattern ($C\#_5$ - D_5 - $C\#_5$), followed by a triadic leap ($C\#_5$ - E_5). The same appears in m. 2 only a step lower (B_4 - $C\#_5$ - B_4 and B_4 - D_5). Mm. 3-4 contain a scale segment (A_4 - B_4 - $C\#_5$), a triadic leap ($C\#_5$ - E_5), and a descending scale segment (E_5 - D_5 - $C\#_5$ - B_4). The second phrase opens the same way as the first phrase, but the final two measures consist of an ascending scale segment (A_4 - B_4 - $C\#_5$), upper neighbor note pattern ($C\#_5$ - D_5 - $C\#_5$), and a descending scale segment ($C\#_5$ - B_4 - A_4). This interpretation hinges on a close interlocking of melodic patterns through common tone connections, the final note of one pattern serving as the beginning of the following one.

EXAMPLE 2: Mozart, *Piano Sonata in A*, K. 331, I, mm. 1-8

While much is the same in these two interpretations, the second focuses on the melodic features that reveal and emphasize the tonality. Notice how frequently members of the tonic triad (A_4 - $C\#_5$ - E_5) appear at the beginning and/or ending of each of these short patterns. One cannot help but recognize the clear tonal features of a melody when analyzing the melodic patterns as compared to labeling each pitch as a member of an implied harmony or not.

Another essential feature of the study of tonal melody is its hierarchical nature. Again the same melody by Mozart is rewritten as Example 3, now with several structural levels shown. The downbeats of mm. 1-3 present $C\#_5$ - B_4 - A_4 , a melodic pattern found on the surface in the final measure of this period structure. By including the last pitch of each phrase, a higher level reading of this period structure is $C\#_5$ - B_4 - A_4 - $C\#_5$ - B_4 and $C\#_5$ - B_4 - A_4 - $C\#_5$ - A_4 , as shown on the top staff (labeled as the dotted half-note level). These pitches reinforce the periodic nature of the melody with motion from tonic to dominant in the first phrase and a return to the tonic at the end of the second phrase. The melodic patterns on this level consist of scale segments ($C\#_5$ - B_4 - A_4 and $C\#_5$ - B_4) and triadic leaps (A_4 - $C\#_5$ and A_4 - $C\#_5$ - A_4).

The dotted quarter-note level, a level just above the surface, reveals another melodic pattern, a sequence ($C\#_5$ - E_5 / B_4 - D_5 / A_4 - $C\#_5$). It is clearest in mm. 5-7, but also appears in mm. 1-4, even though the final interval (A_4 - $C\#_5$) is less obvious with the passing tone (B_4) inserted in m. 3. Again notice that the opening and closing members of the sequence ($C\#_5$ - E_5 and A_4 - $C\#_5$) are members of the tonic triad.

EXAMPLE 3: Mozart, *Piano Sonata in A, K. 331, I, mm. 1-8*



The type of melodic analysis presented in this paper and its sequel hinges on two essential issues: the hierarchical nature of tonal melody, and the patterns found on levels that appear on and close to the surface of the melody. Since we must work on these foreground levels to train skills such as sight singing, improvisation, and dictation, there is no attempt to study any background features of tonal melody. Quite frequently only short portions of compositions are used in sight singing and dictation practice, making it impossible to discuss issues such as background structure and unity. In some of the melodic examples below, structural importance is shown through the use of stemmed and unstemmed noteheads, open and closed noteheads, slurs, and beams. Although these symbols are associated with Schenkerian notation, they are not used here to pursue the goals of formal Schenkerian analysis.

At the intersection of the melodic patterns and structural levels are tonal markers. Tonal markers are pitches found on a lower level of a tonal melody that emerge through a process of reduction to form higher-level patterns. These are common tonal patterns that appear on all levels of reduction. In Example 3, the first notes of each measure plus the last pitch of each phrase are all tonal markers on a higher level, the dotted half-note level. The pitches that form the sequence are tonal markers on a level just above the surface. The most common melodic patterns found in tonal melodies are scales and scale segments, neighbor note patterns (single and double, complete and incomplete), triads, sequences, pedal points, and pitch segments (psegs). A pseg is a group of, usually, three to five pitches with a strong tonal orientation that also contains one or more leaps. In C major, for example, C-D-E-G and C-G-D are common tonal patterns, but since neither has a formal name, such as a scale or triad, I call each a pitch segment and abbreviate the name to pseg. In contrast, a scale segment contains only adjacent pitches, again most commonly in a group of three to five pitches. These patterns appear on the surface as well as other levels close to it, but tonal markers are the pitches that form those patterns at levels above the surface.

In these articles I apply two types of reduction to a variety of tonal melodies to reveal their tonal markers. One type is based on rhythmic/metric considerations, the other on melodic contour information. The rest of this article deals with the process of rhythmic reduction and applications of the information gleaned from that process to the training of the following skills: musical memory, ear training, sight singing, improvisation, and dictation. A sequel to this article, appearing in the next issue, deals with those same skills as applied to patterns derived through contour reduction procedures.

TWO THEORIES THAT SUPPORT THIS STUDY

Two theories concerning rhythm directly affect this study, Maury Yeston's *Stratification of Rhythmic Structure*³ and Fred Lerdahl and Ray Jackendoff's *A Generative Theory of Tonal Music*⁴, each of which I will deal with in turn.

³Maury Yeston, *The Stratification of Musical Rhythm* (New Haven: Yale University Press), 1976.

⁴Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, Mass.: MIT Press), 1983.

In *The Stratification of Musical Rhythm*, Yeston adopts Schenker's terminology for structural levels, applying them to rhythmic *strata*. He deals with relationships between rhythmic structure and pitch function, usually in time spans encompassing two to four measures. In so doing he makes a distinction between *pitch-to-rhythm* and *rhythm-to-pitch* configurations. In pitch-to-rhythm, pitches give significance to rhythms, and in rhythm-to-pitch, rhythms give significance to pitches (Yeston, 4-5). An example of pitch-to-rhythm is shown in Example 4, where the melody could conceivably be interpreted in either 3/4 or 6/8 (Yeston, 68). The pitches of an ascending triad, produced on the three beats of the measure, are more significant at level A than are the static dotted quarter notes at level B. This reinforces the given time signature and shows that the pitches on the quarter-note beats of each measure yield a more significant interpretation than do the repeated dotted-note patterns of the next level.

A rhythm-to-pitch configuration recognizes pitches that are emphasized as a result of recurrent rhythmic groups such as the rhythmic modes of the twelfth century (Yeston, 7-8), ostinatos, dance patterns, and short repeated rhythms as in the three-beat pattern of Example 5. Here the basis is the quarter-half-note higher level pattern that begins on the surface as a pattern of an eighth and two sixteenth notes and is completed by a quarter note-quarter rest pattern in mm. 1 and 2, but changes to repetitions of the eighth-and two sixteenth-note pattern in m. 3. While both pitch-to-rhythm and rhythm-to-pitch configurations result in various strata-which in essence are reductions of their foreground melodies-in this study I use the latter (rhythm-to-pitch) as the basis for establishing structural levels in some tonal melodies and for devising singing exercises to aid in aural training.

Fred Lerdahl and Ray Jackendoff's 1983 book, *A Generative Theory of Tonal Music*, is a formal theory of tonal music that uses the methodology of contemporary linguistics, principles of hierarchy, and a reductive approach to analysis. At the heart of their theory is the realization that musical elements are heard as groups that are themselves hierarchically perceived.

EXAMPLE 4: Bach, Twelve Little Preludes, No. 8, mm. 1-4

[illegible]

EXAMPLE 5: Beethoven, String Quartet in G, Op. 18, No. 2, III, mm. 1-4

The first system of the musical score for 'The Rose Tree' consists of two staves. The top staff is a treble clef with a key signature of one sharp (F#) and a common time signature (C). It contains a melody of eighth and quarter notes: C4, D4, E4, F#4, G4, A4, B4, A4, G4, F#4, E4, D4, C4. The bottom staff is also a treble clef with a key signature of one sharp (F#) and a common time signature (C). It contains a bass line of eighth and quarter notes: C4, D4, E4, F#4, G4, A4, B4, A4, G4, F#4, E4, D4, C4.

A hierarchical structure, in the sense used in this theory, is an organization composed of discrete elements or regions related in such a way that one element or region subsumes or contains other elements or regions. A subsumed or contained element or region can be said to be *subordinate* to the element or region that subsumes or contains it; the latter can be said to *dominate*, or be *superordinate* to, the former. . . . Thus all elements or regions in a hierarchy except those at the very top and bottom of the structure are subordinate in one direction and dominating in the other. Elements or regions that are about equally subordinate within the entire hierarchy can be thought of as being at a particular hierarchical level (Lerdahl & Jackendoff, 13).

The formalization of Lerdahl and Jackendoff's theory shows how consistently one can recognize hierarchical levels based on their rules of grouping, metrical structure, time-span reduction, and prolongational reduction. All aspects of the theory seek to reveal hierarchical connections in tonal music.

The two areas of hierarchy that impact upon the present study are *metrical structures* and *time-span reductions*. Metrical hierarchies are produced by patterns of strong and weak beats, whereby a beat that is strong at one level is merely a beat (not necessarily strong) at the next level. Therefore, beats one and three belong to a larger level in 4/4 time, while beat one becomes a beat at the next larger level. Each level is labeled by the length of its time-span. The four beats in a measure of 4/4 are labeled the *quarter-note level*, while beats on the first and third quarters are the *half-note level*, and on the first beat, the *whole-note level* (Lerdahl & Jackendoff, 19-20).

RHYTHM REDUCTION AND MELODIC PATTERNS

If a time-span is defined as "an interval of time—a duration—[that] takes place between successive beats," (Lerdahl & Jackendoff, 18) then time-span reductions are intervals of time (time-span segments) at hierarchical levels that are defined by metric or rhythmic patterns. The pitches at each level thus represent time-spans from another level (Lerdahl & Jackendoff, 119). This allows hierarchical hearing in which certain pitch events are heard as structurally important and connected, while others are deemed elaborative and subordinate.

In example 6, a level close to the surface is represented by the first beat of each measure, revealing four pitches, each having a time span of a dotted half note and creating the dotted half-note level. Together these pitches form a double neighbor note pattern surrounding the tonic pitch (G_5 - A_5 - $F\#_5$ - G_5). Each pitch is a tonal marker because each is chosen through a process of reduction to represent a higher level, and it becomes a member of a common tonal pattern at that higher level—here a double neighbor note pattern. These tonal markers are revealed through an understanding of Lerdahl and Jackendoff's metrical hierarchies and time-span reductions. The surface of this melody shows an ascending third elaborating each of the first three higher-level pitches (G_5 - Bb_5 | A_5 - C_6 | $F\#_5$ - A_5).

In example 7, an excerpt by Bach, three levels are revealed: the dotted quarter-note level, the eighth-note level, and the surface level. At the dotted quarter-note level there is a scale segment (F_4 - G_4 - A_4 - Bb_4) that is further elaborated by a sequential upper neighbor note figure at the eighth-note level (F_4 - G_4 - F_4 | G_4 - A_4 - G_4 | A_4 - Bb_4 - A_4). On the surface level the sequence encompasses five of the six pitches of each measure, with an ascending third attached to the first beat and a descending third attached to the second beat. The second half of each third beat consists of leaps to either the dominant or tonic pitches. The patterns at several levels in this melody (scale segments, neighbor notes, sequences) are common patterns found in a multitude of tonal melodies.

I submit that by making our students aware of the patterns that appear at structural levels close to the surface of a melody, we can greatly facilitate their abilities to hear, memorize, sight sing, improvise, and take dictation of tonal melodies. In the next section I will detail activities that can facilitate this task in the areas of musical memory, ear training, sight singing, improvisation, and dictation.

SKILL BUILDING ACTIVITIES

The most common tonal patterns found on the surface and on levels close to the surface of tonal melodies are scales and scale segments, neighbor note patterns (single and double, complete and incomplete), sequences, triads, pedal points, and pseqs. The first task must be to learn many of these patterns from memory from every scale degree, beginning first in a major tonality. While I have

EXAMPLE 6: Mozart, *Serenade in D, K. 250*, III, mm. 1-4



EXAMPLE. 7: Bach, *Brandenburg Concerto No. 1 in F, V*, mm. 1-4



had success using a movable-*do* system of solfège, these activities do not depend upon any particular system. However, I strongly suggest they be taught through singing, since singing is the most important activity for developing a strong inner, musical ear.

Pattern teaching in any musical area, be it rhythm, harmony, or melody, is a fairly straightforward pedagogical concept. Common patterns are identified and used as the basis for building a curriculum, with the easiest and most common patterns presented first. These are then used as a foundation for approaching more complex patterns. Perhaps an analogy to the formal learning of language is appropriate. One of the first steps in a formal learning process is to learn the letters of the alphabet. These letters are practiced in common, short, and simple words that are presented first in a simple context. "The dog runs fast," is a simple sentence that can easily be lengthened by adding adjectives, adverbs, or additional phrases to it: "The large brown dog runs very fast, catches a ball while leaping into the air, and brings it back to us."

Likewise, in teaching theory and harmony we require that students first learn the musical alphabet: key signatures, intervals, and basic information about triad formations. Having mastered that, the students might begin the study of harmony with short chord progressions in a tonal context. There are many approaches to the topic, as evident in numerous harmony texts. In one instance harmony is taught in patterns—groups of chords that are commonly found in tonal music, such as I-V-I. Simple chord progressions containing triads and their inversions are the first order of business (for example, I-VII⁶-I⁶-II⁶-V-I), followed by a study of progressions with seventh chords and their inversions, chromatic chords, and modulating progressions. In melody, combinations of three to five pitches frequently make up short recognizable patterns at different levels of structure, as illustrated in the melodies shown above. Not unlike harmonic configurations, these melodic patterns appear in myriad manifestations, allowing for an unlimited number of distinct melodies. It seems obvious that, as basic melodic elements, melodic patterns should form the basis of a curriculum designed to teach tonal melody.

DEVELOPING MUSICAL MEMORY

The first step in implementing such a curriculum is to require students to memorize a variety of common patterns based on simple rhythm patterns, akin to Yeston's rhythm-to-pitch configurations. These patterns are sung from memory on each scale degree, even though, ultimately, they may rarely appear on every scale degree in music literature.

Each repeated rhythm pattern delineates and emphasizes the melodic segment by calling attention to its melodic construction. On the surface level a three-note rhythm pattern, for example, may consist of a melodic trichord with the first pitch of each repeated rhythm acting as a tonal marker. This marker is a member of a higher level pattern—a major scale. To practice this two-level configuration, students sing sequences of common patterns that begin on each scale degree and are set to specific rhythm patterns. Trichord patterns are paired with three-note rhythms, tetrachords with four-note rhythms, and so on.

The following exercises illustrate a variety of combinations of rhythms and patterns, including a scale segment (Ex. 8a), an upper neighbor note figure (Ex. 8b), triads (Ex. 8c), a sequence (Ex. 8d), a descending pseg (Ex. 8e).

The student must sing each exercise fluently from memory in both ascending and descending forms, using either solfège, numbers, or absolute pitch names. If absolute pitch names are used, it is helpful to transpose them to a variety of keys. To keep the singing of these exercises fresh, the teacher should constantly vary the combinations of melodic patterns, rhythm patterns, and mnemonics.

Another aspect of memory training is, of course, to have students memorize complete melodies using rhythmic reduction procedures. Returning once again to the Mozart melody in Example 3, the students first memorize the dotted half-note level (plus final note of each phrase) as a melody ($C\#_5-B_4-A_4-C\#_5-B_4$ and $C\#_5-B_4-A_4-C\#_5-A_4$). They then memorize the sequence associated with the first few measures of each phrase ($C\#_5-E_5 / B_4-D_5 / A_4-C\#_5$), and last they fill in all surface-level features. Some students may need to work on the third measure of each phrase, going back and forth between mm.

EXAMPLE 8a⁵

EXAMPLE 8b



EXAMPLE 8c



⁵Solfège syllables are notated in abbreviated fashion with the initial consonant representing the syllable. Thus, d = do, r = re, m = mi, f = fa, s = so, l = la, t = ti. The upper comma refers to a pitch an octave or more above the designated tonic pitch, while a lower comma refers to a pitch below the designated tonic pitch. For example, d-s-d' in the key of C major is C₄-G₄-C₅, while d-t,-d is C₄-B₃-C₄.

EXAMPLE 8d



EXAMPLE 8e



3-4 and 7-8 to solidify their differences. This technique for memorizing melodies helps the students focus their attention and accomplish this task in an orderly fashion.

EAR TRAINING ACTIVITIES

The purpose of ear training procedures in this context is both to strengthen the students' knowledge of the patterns they are learning, and to help encode the patterns and tonal relationships in their inner ears. Both contrived exercises and examples from the literature help accomplish this task. Example 9 illustrates a contrived example utilizing an echo procedure whereby students sing back each melodic motive. The teacher plays each motive (or sings it on a neutral syllable), while a student responds with the

appropriate solfège syllables, numbers, or absolute pitch names. This activity reinforces both the rhythmic/melodic pattern and the relationships among patterns within a given tonality.

EXAMPLE 9



Ear training exercises using examples from literature are actually a direct predecessor of dictation, but without the responsibility for perceiving and notating everything. When melodies from Examples 7 and 10 are played, the students are expected to sing back only the first beat of each measure. Example 7 opens with tonal markers that form a scale segment based on SDs 1-4, while Example 10 opens with tonal markers that form a scale segment connecting the lower dominant to the tonic before leaping to the upper dominant as the last pitch of the phrase. Once the tonic and opening pitches of each melody are ascertained, identifying these scale segments is relatively easy. Because the students concentrate on a higher level, the accidentals on the surface do not present a problem. Since both melodies contain more interesting features, it would be appropriate to return to them on different occasions, to ear train sequences and notate each phrase. Re-using some of the same material for various activities helps to strengthen the inner ear, since there is then an unconscious familiarity with the music. This helps quicken the students' orientation to the skill being developed.

SIGHT SINGING

In addition to memorizing common tonal patterns with given rhythms, ear training them through echo procedures, and recognizing them at higher levels in melodies from literature as

EXAMPLE 10: Mozart: *Piano Sonata in G, K. 283, III*, mm. 9-13



beginning steps, the technique of *rhythm reduction* is also an important activity for developing sight singing skills. Example 11 illustrates.

Once students are aurally and visually oriented to the key of the melody, they begin by singing the first note of each measure, while keeping a steady beat and possibly even conducting. Maintaining the tempo, students should then sing at a level closer to the surface (in this case the whole-and half-note levels in Ex. 11). The whole-note level presents a simple repetition of G_4 and B_4 . The half-note level reveals stepwise motion filling in the G-B leap: G_4 - A_4 - B_4 - A_4 - G_4 -

EXAMPLE 11: Leveridge, "When dull care," mm. 1-4



A_4 - B_4 - A_4 . The surface level in m. 2 contains first an upper neighbor note prolongation of B_4 (B_4 - C_5 - B_4) and the beginning of a dominant pedal (D_4) that continues through m. 3. The final measure contains only stepwise motion, ending on a member of the dominant chord, suggesting a half cadence. Students are only given the single-line melody; they do not actually see the additional levels notated in the example, making it necessary for them to seek the first pitch of the each measure on their own.

Example 12 is a melody by Beethoven that contains sequential motion among the levels. The higher level (dotted half-note) reveals a sequence consisting of ascending second-descending third motion (Eb_5 - F_5 - Db_5 - Eb_5 - C_5). After the aural and visual orientation to the key, the first pitch, Eb_5 , is sung as the first pitch of that level, even though it represents a dotted quarter-note upbeat closer to the surface. The dotted quarter-note level contains only stepwise motion (Eb_5 - F_5 - Eb_5 - Db_5 - Eb_5 - Db_5 - C_5), while the surface level adds a descending third to each of those pitches. The sequential activity on the surface reverses the ascending second-descending third of the sequence from the dotted half-note level to descending third-ascending second motion.

Example 13 is a more difficult example because it modulates, but the same reductive procedure can be used. The modulation takes place in m. 4. At the whole-note level D_5 becomes the dominant of the new key, G major, making the first three measures an outline of

EXAMPLE 12: Beethoven, *An die ferne Geliebte*, Op. 98, No. 4
 "Diese Wolken in den Höhen"



a tonic triad in C and the final five measures an outline of a tonic triad in G. At the half-note level the pivot is easily achieved by the repeated Ds in m 4: the first is sung as SD 2 in C, the second as SD 5 in G.

Many common tonal patterns are found on the surface level. In just the first three measures students will easily see the opening scale segment (E_4 - F_4 - G_4), triadic leap (G_4 - C_5 - G_4 - E_4), neighbor note figure plus scale segment (E_4 - D_4 - E_4 - F_4 - G_4), and the complete scale connecting G_4 to G_5 . The A_5 at the end of m. 3 seems to be an overshooting of the octave, and indeed is an incomplete neighbor note that highlights the large leap down to D_5 further emphasizing the importance of that structural/pivot note. That D_5 is then

EXAMPLE 13: Bach, *Orchestral Suite No. 1 in C*, Bourrée I, mm. 1-8

prolonged by a complete double neighbor note pattern (D_5 - C_5 - D_5 - E_5 - D_5). The following two measures contain an interesting use of a scale segment. The half-note level pitches in mm. 5 and 6 (G_5 - D_5 - G_5 - C_5) are structural pitches that are each preceded by two eighth notes, forming a quasi-scale segment or incomplete neighbor note pattern. These pitches (E_5 - $F\#_5$ connected to G_5 , B_4 - C_5 connected to D_5 , and A_4 - B_4 connected to C_5) act like a two-note upbeat to those higher level pitches, making it all the more important to understand the half-note level structure of these measures. The arrival at C_5 in m. 6 shows an interesting feature of tonal melody. While C_5 is the structural pitch, D_5 is an important tonal pitch on the surface. It may be difficult to hear its structural identity as an incomplete neighbor note to C_5 , since it is so strongly associated with the dominant triad. Such dichotomies often occur at places where melodic direction is changing. Here the surface-level upward thrust is immediately reversed, as it was at the end of m. 3, to form a cadence with a descending scale fragment (B_4 - A_4 - G_4).

Using rhythmic reduction procedures to develop sight-singing skills facilitates accuracy in singing and, just as importantly, helps the student learn to sing complete phrases rather than possibly getting lost in the details of the surface and losing sight of the musical line. Being as familiar as possible with common patterns, as mentioned above in the sections on memory and ear training, is an important preparatory step for achieving this goal.

IMPROVISATION

Improvisation is a skill that allows more creativity than the previously discussed skills of memory, ear training, and sight singing. Improvisation requires students to create on-the-spot, and helps them learn more about tonal melody than does any other skill building activity. Using rhythmic reduction procedures, students begin with a higher-level structure, such as a whole-note level in 4/4 time. All students are encouraged to use the common patterns that they are learning, but some may choose to experiment with other combinations, again singing either solfège, numbers, or absolute pitches. In the early stages the teacher sets certain parameters, for example, the time signature, key and mode, and the final whole note as tonic. All students participate—it is most helpful if an atmosphere of playfulness is established—and all answers are

accepted, even if the nurturing teacher has to assist the very shy student. Example 14a shows three improvised four-measure phrases in F major. As the level of proficiency grows, students can improvise several phrases, period structures, or concentrate on making the surface level more ornate.

DICTATION

Dictation is often the most difficult activity for students, for indeed the complexity of skills needed to be successful is great. The students who are good at taking dictation have well-developed inner ears with a strong sense of tonality, a good musical memory, a knowledge (conscious or unconscious) of common patterns, and a

EXAMPLE 14a



EXAMPLE 14b: adds the half-note level to the structural pitches from the whole-note levels shown in Ex. 14a.



(cont)

EXAMPLE 14c: adds a surface level to the structural pitches from Ex. 14b.



knowledge of basic notational procedures. Even after a student has learned some basic information about tonal melody, memorized common melodic patterns, and used rhythmic reduction procedures for sight singing and improvisation activities as discussed above, dictation needs to be carefully taught, beginning with activities that do not require complete notation of a melody. All dictation activities must, as a matter of preparation, be preceded by a clear establishment of both meter and tonality.

One pre-dictation activity takes place during sight singing activities. While one student sight sings a high level reduction of a melody, the other students notate those pitches as they are sung. Using the melody in Example 11 above as such an exercise, the class notates whole notes G_4 - B_4 - G_4 - B_4 while a student sings solfège or numbers at that level (*do-mi-do-mi* or 1-3-1-3). Then they notate half notes G_4 - A_4 - B_4 - A_4 - G_4 - A_4 - B_4 - A_4 . Not only does this force everyone to concentrate while one student is singing, it also gives every student practice in translating interpreted data (solfège syllables, numbers, absolute pitches) into staff notation from an aural stimulus.

An early dictation activity is the notation of just the first pitch of each measure of melodies such as those presented in Example 15. After carefully preparing the meter and tonality, the teacher plays

each example. The students are required to write only the downbeat pitches, although the more advanced students may notate more detail after correctly completing the higher level.

Next, students can notate melodies with very clear and obvious common patterns on all levels. The melody in Example 16 contains a tonic triad at the dotted half-note level and almost a complete scale at the dotted quarter-note level. Once students notate these two levels, the sequence and surface level are fairly straightforward.

One way to lengthen dictation exercises is to use parallel period structures. With its repeated opening, this form is a logical next step. When they notate the higher level, students can quickly grasp the relationship of the two phrases and, since the opening of each phrase is the same, they hear it twice during each playing of the melody. Hearing the differences in the conclusion of each phrase should also be fairly simple. The opening period from a Mozart song provides a clear example (Example 17). The dotted half-note level presents a very clear picture of the relationship between the two phrases. At the dotted quarter-note level, the tie in m. 2 of each phrase may need special attention, otherwise it is closely related to the higher level.

EXAMPLE 15

a. Mozart, *Bastien und Bastienne*, K. 50, No. 11

"Meiner Liebsten schöne Wangen," mm. 1-6

b. Mendelssohn, "Abschied vom Wald," Op. 59, No. 3, mm. 1-4

c. Hopkinson, "Beneath a Weeping Willow's Shade," mm. 1-4

The image displays three musical staves, each representing a different melody for dictation exercises. Staff 'a' is in D major (two sharps) and 3/4 time, showing a melody with eighth and quarter notes. Staff 'b' is in B-flat major (two flats) and common time (C), showing a melody with quarter and eighth notes. Staff 'c' is in D major (two sharps) and 6/8 time, showing a melody with eighth and quarter notes. Each staff is labeled with a lowercase letter (a, b, c) to the left.

EXAMPLE 16: Haydn, *Symphony No. 28 in A, IV:1-4*



The surface level patterns (triadic leaps, repeated notes, and neighbor notes) should be easily recognized and notated.

The process of rhythm reduction, as presented in this article, is a clear and straightforward one, and its value in skill building can be great. However, rhythm reduction alone does not suffice to reveal tonal markers in the numerous melodies that do *not* create common patterns at levels above the surface, such as the one shown in Example 18.

EXAMPLE 17: Mozart, "Sehnsucht nach dem Fröhlinge," K. 596, mm. 1-8



Pitches at the dotted half-note level are Eb_5 - F_4 - Eb_5 - Bb_4 . These pitches do not create a common tonal pattern, meaning simply that they are not the correct tonal markers. However, if we select the first and last pitches plus those at each of the melodic turning points (marked by asterisks), we have Bb_4 - Eb_5 - Eb_4 - Eb_5 - G_4 - Bb_4 - Eb_4 . Now the appropriate tonal markers at a higher level reveal a common tonal pattern, a tonic triad. The surface level patterns connecting these tonal markers are also common patterns. A complete major scale connects Eb_5 - Eb_4 while an arpeggiation plus scale segment

EXAMPLE 18: Brahms, *Intermezzo in Eb*, Op. 117, No. 1, mm. 1-4



connect Eb_4 - Eb_5 . Again a scale segment returns the melody as far as G_4 , which then merges with an arpeggiation (G_4 - Bb_4 - Eb_4). The final Eb_4 is then prolonged by its upper neighbor note F_4 . Selecting contour pitches to represent hierarchical levels is a second procedure that can be used to reveal tonal markers, create structural levels above the surface, and show common melodic patterns at all levels. Information gleaned from both rhythmic and contour reduction techniques can be used to develop musicianship skills in an undergraduate aural skills curriculum. The sequel to this paper, appearing in the next issue, discusses contour reduction and its application to the study of tonal melody.