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AP® Music Theory:

Building AP Music Theory Skills from the Ground Up

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Curriculum Module

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The AP® Music Theory Examination

Melissa Cox
Curriculum Module Editor
Emory University
Atlanta, GA

The AP® Music Theory Examination presents a variety of aural and written theory challenges to students. In turn, helping students master the knowledge and skills necessary to do well on the examination provides significant challenges to the teacher. Challenges to both teacher and students are even greater in classrooms where students have mixed abilities and musical backgrounds.

This Curriculum Module offers practical strategies for working effectively with students in five areas: sight singing, melodic dictation, harmonic dictation, melody harmonization, and aural analysis of music literature. The articles focus on the essence of each task and offer instructors and students logical steps both to develop necessary skills and to approach the examination tasks with increased confidence. These step-by-step frameworks can be useful for all students, but may be especially so for relatively under-prepared or students who lack confidence.

The articles are written by authors who are familiar with the AP Music Theory Examination and who, cumulatively, have many years of experience in the music theory classroom.

Contextual Listening for the AP® Music Theory Classroom

Jane Piper Clendinning
Professor of Music Theory
Florida State University

One of the ultimate goals of aural skills training is for student musicians to be able to listen to a piece of music—whether at a concert, from the car radio, on their iPod, through the sound system at the shopping mall, or even while they are performing—and to be able to locate and identify in the music, while it is sounding, the elements they have learned in their music theory class, in context, and in "real time." This is called "contextual listening."

The barriers to contextual listening may seem insurmountable to the novice music theory student. You've probably heard these, or similar, complaints:

- "The music goes by too fast!"
- "How can you expect me to hear all of those things?"
- "It all mixes together!" and
- "I can't do that on one hearing!"

When listening to streaming music, it is not possible to make the music stop, slow it down, or to hear it again, and the students are right—there is so much going on at once! Yet hearing musical elements in real music is an essential skill for musicians and is the real-world "payoff" for the students' hard work in a music theory course.

This ability to hear and identify musical details "on the fly" is not one most students enter our classes with, and, like many other skills that musicians must acquire, listening in context is a learned skill—students have to be taught how to do it, and contextual listening has to be practiced over a span of time. Contextual listening (answering questions about aural musical examples without reference to a score) is a part of the AP® Music Theory curriculum, and for the students in the AP Music Theory sequence, it is a skill they need to begin learning early in the school year, although typically they will not master this skill in one year of study. This essay will explore some problems to consider when teaching students to hear musical elements in real musical contexts, and it will also suggest some methods to start breaking down barriers to student learning.

Considerations in Designing a Contextual Listening Component.

The contextual listening component is normally taught in conjunction with other elements of a typical AP Music Theory course, including music rudiments and notation, basic counterpoint, partwriting (from Roman numerals and from figured bass), visual analysis of musical elements (both constructed examples and in music literature), sight singing, and other aural skills such as melodic and harmonic dictation and aural identification of elements in constructed exercises (individual chords or intervals and progressions of block chords). Contextual listening parallels visual analysis using music literature as the corresponding aural version of that task. As with visual analysis, the contextual listening examples may range in length from a short except to an entire piece, depending on how far the course is in the academic term and the musical elements under study at that time. Here are a few potential issues to think about when starting a contextual listening program with your students. As you consider these, you will likely think of others from your own experiences.

Problem #1: Where to Begin?

One of the tasks of the AP Music Theory class is to help students learn to sort out the various elements at play in a musical context—pitch, duration, timbre, texture, range, form, harmony, melody, cadences, etc.—and to learn the names for these. Especially at the beginning of their formal music theory studies, most students will know the names of a limited range of musical elements that they are comfortable identifying. Some students, even those who have played music since they were very young, will not have had any training beyond basic music notation, and all of the subject matter in the AP Music Theory course, including the idea of listening analytically, will be new to them. It is also common for students who "have a good ear" and have been listening to music actively to be able to hear and distinguish elements but not be able to label those elements because they do not know the appropriate terms. Unfortunately, there is a temptation in designing the aural skills curriculum to "wait until they know enough" before requiring students to listen in music literature for the musical elements they have learned in class.

As we introduce the concepts in the classroom, it is important to teach the sound of each musical element using aural examples as well as showing the students how musical elements are notated and the correspondence between notation and sound. Identifying musical elements while listening to music literature is analogous to a biology class going on a field trip to observe birds, butterflies, and plants in their natural habitat—except that we do not have to get field trip permission slips or order a bus! Though not quite the same as listening to "live music," we can use recordings to have a "field experience" in every class. Part of the teacher's task is to be a field guide—to help students earn what to listen for in order to distinguish between types of newly discovered musical elements that they probably have never even noticed before and, from identifying combinations of elements, to be able to identify and name smaller constructs, such as phrases and types of cadences, and also larger-scale aspects such as form, style, and genre.

Strategies:

There are many musical elements that we can reasonably expect the student to be able to detect and identify aurally (without score reference) when listening to music literature. At the beginning of the year, most students will need to start with some basic, entry-level tasks, then, as they become more comfortable with the task and know more musical terminology and theoretical concepts, they can move to more complex listening assignments. To get started, ask students to listen to a composition or excerpt, then:

- tap the beat;
- determine the meter and conduct along;
- describe the tempo and dynamic level and observe whether they are constant or change over the course of the piece;
- name the instruments that are playing and identify when instrumentation changes (this can be easy or difficult depending on the type of music);
- sing tonic;
- identify whether the excerpt overall is major, minor, modal, or none of the above;
- sing along with the melody or bass line (just singing at first, then work on singing with solfège or scale degrees);
- identify range and tessitura (narrow or wide, high or low) for the piece overall and also for individual instruments or parts of the texture;
- name the type of texture (melody and accompaniment, chordal homophony, contrapuntal, Alberti bass, etc.—this also can be easy or difficult depending on the pieces selected);
- determine if a melody or bass line is mostly conjunct (steps) or disjunct (skips);
- observe the presence of scale segments, arpeggiations of chords, and other basic musical elements;
- identify isolated intervals and chord qualities in easy-to-hear locations;
- determine if a melody begins with an anacrusis or not;
- listen for the return of music that was presented earlier in the piece;
- identify whether musical passages are the same or different (can be made easier by specifying parameters to compare).

Here are some tasks of intermediate difficulty:

- locate the phrase divisions;
- hear the cadence type at the end of a phrase;
- identify the length of phrases;

- determine the harmonic rhythm (how fast the chords seem to change);
- label the opening and closing scale degrees of a melody or bass line;
- determine the quality of individual chords (triads and V^7);
- identify melodic embellishments (neighbor tones, passing tones, suspensions, etc.);
- identify a melodic or harmonic sequence;
- determine if a passage is diatonic or includes chromatic chords;
- label several chords at the beginning or ending of phrases.

Eventually, students should be able to

- use information about phrases and cadences to determine form;
- write down the melody or bass line of a phrase-length segment of music;
- indicate the chord progression using Roman numerals;
- identify common seventh chord qualities (V^7, ii^7, vii^{07}) and inversions;
- hear and label secondary dominants;
- determine if the music has modulated;
- use all the information above to determine the style and genre of the composition.

Of course, the difficulty level of each task depends on the aural complexity of the musical example you have chosen, how many parameters you ask the students to identify at once, the familiarity of the listening sample, and the number of hearings. Even a task as basic as "singing tonic" or conducting along with the meter can be difficult in late Romantic era textures with ambiguous tonality and much rubato. Start with aspects of the music that are relatively easy to hear in examples that are not complex, and use those to get the students into the listening experience.

Problem #2: Learning to Listen Attentively.

The world our students live in is saturated with music—from the headphones in their ears to cell phone ring tones, to the ever present music at shopping malls, restaurants, and movie theaters, to television commercials and computer games—music is everywhere. As a coping mechanism, they have learned not to pay too much attention to music around them, to treat it as "wallpaper" or as a part of the background. Students often will work with music on to block out other distractions and to help them focus on their work. This practice, however, enforces the idea that the music passing by is not to be listened to attentively. When we ask our students to listen to music analytically, one of the first barriers they must overcome is to attend to the music and block out other competing thoughts and distractions.

Strategies:

One concept to keep in mind, when playing music for students in class or assigning listening outside of class, is to always give our students a specific listening task or assignment. Just knowing that they are responsible for noticing particular elements and that they will be called upon to answer regarding those elements alerts students to their need to pay close attention to what they are hearing. If you play music without giving specific listening directions, you may assume that students will revert into passive listening mode, turning their active thoughts to something else that is probably not relevant to your class.

If you wish for students to listen attentively to music outside of class, give a specific assignment—elements in the music they have to locate and identify—or test them on the pieces. Though we no longer literally "drop the needle" (for those of you who grew up after vinyl records, that refers to lowering the phonograph needle onto some random spot in a record and asking what the piece is), we can ask students to identify which piece a musical excerpt is from or ask other specifics about pieces they were to study outside of class. This "encourages" students to complete their assignments carefully and draw conclusions from what they have heard. A quick start-of-class quiz on listening, which they were to have studied as homework, will keep them on task during listening assignments outside of class and will not require collecting and grading papers.

Another good way to encourage students to listen actively to a piece is through meter and rhythm. Ask students to tap the beat, count along, conduct, or (if appropriate) dance or move in some way with the music. These types of physical activities will encourage students who might tend to "zone out" and are good ways to initially engage students who are listening to an unfamiliar musical example. Since beat and meter are topics that are usually covered early in the course, students should be able to do this from the first weeks of class. Conducting or tapping along are good ways to identify tempo, meter, phrase lengths, locations of significant cadences, and placement of other important musical features in music they hear without visual reference to a score.

Problem #3: Lack of Knowledge of Music Literature.

Though they live in a world saturated with sounds of all kinds, students often do not know much "traditional music literature." They may know everything about a few genres of popular music or works by their favorite bands or singers, but they may not know any string quartets, choral works (especially if they are band, guitar, or keyboard players), band or orchestra repertoire (especially if they are choral, guitar, or keyboard students), chamber music, and little music even for instruments they are learning to play. Often band, keyboard, and string students will only be exposed to the preparatory literature for their instrument—beginner and intermediate solo and ensemble repertoire—and many students will not have ever heard repertoire for the ensembles in which they perform beyond the literature their ensemble director chooses for them.

Unfortunately, it is unwise to assume that students will know even famous musical works. When media outlets were more limited, it was possible to predict that

most students would have heard particular works which were featured on television, on the radio, or in movies. With the number of media choices now available, students who chose other entertainment forms might not recognize even "classical" pieces featured in advertising. Unless they have performed specific works in your ensembles or you have taught the pieces, you must assume that art music literature you select to play for your class will be completely unfamiliar to most students. In popular music genres there are also many choices available; therefore, familiarity with current popular standards cannot be assumed as shared cultural knowledge. In addition, popular music that the teacher knows from his or her youth may be as unfamiliar and as "old" to the students as music by Bach, Mozart, or Beethoven.

The problem with students who only know narrow categories of music literature is that, outside their favorites, they will not know what is normal or unusual for a particular style or genre of music—they will have no aural "repository" of pieces upon which to draw. To make an analogy to language, students often will not know the grammatical rule for a particular sentence construction in their native language, but they will know whether it "sounds right" or not. They can make educated guesses based on their years of hearing spoken language. For the types of pieces for which students have aural memories, they will have a basis for drawing conclusions about other pieces in the same style. Without this background knowledge, students may feel a lack of confidence in making conclusions about a style or genre of music. In the music theory class, we may have to start fresh to build the repository of familiar pieces students will need to know in order to have a context for understanding various types of works and for the students to have expectations of what a genre of music is like.

Strategies:

Usually students who choose to take an AP Music Theory class have some interest in learning more about music, and they must know some repertoire. Since many elements of music that students need to identify aurally will be present in various types of music, they can work with the familiar in the beginning. An obvious way to work with lack of knowledge of repertoire is to ask the students to bring in music they know and like and then work with it in class. As is often the case with the "obvious solution," this has both positive and negative ramifications. One positive aspect is that the process of listening and selecting musical examples to share with their peers will engage students in thinking about the music they like in an analytical way. If the teacher and class are open to a wide range of repertoire, they will be able to learn musics that they otherwise might not have encountered. One problem is that contemporary students typically have very diverse tastes, and popular music pieces that one will know and love, another will greet with disdain. Also, some of the worst music snobs I have encountered are young people who are learning primarily classical music (especially string players and pianists) and who think that anything remotely popular is trash—not realizing that some of the pieces they play were in their time either a type of popular music or were based on folk or popular sources. The teacher who invites student contributions of literature for study must be

prepared to deal with potential issues raised by diverse musical tastes and to provide positive reinforcement for students whose musical choices are subject to peer criticism.

Other elements to consider before setting the students loose to locate contextual listening examples are the preparation time required of the teacher and the amount of class time to devote to these activities. It often takes longer to prepare lesson plans if the teacher has to learn new examples (and, for high school use, prescreen for inappropriate lyrics or content) rather than use materials with which he or she is already familiar. Typically, students will not have the experience to select listening pieces that cover specific teaching points as efficiently as examples selected by an experienced teacher. Allowing students to select and present a piece for a contextual listening exercise also can impact instructional time and the completion of a lesson, unless the teacher is willing to set clear guidelines and help the students prepare appropriate listening questions. With those caveats, this is an approach that will work well for some teachers and groups of students.

A different take on this problem is to assume that students do not know music literature and that it is the teacher's position to systematically introduce students to works with which the teacher feels they should be familiar. One goal of an AP Music Theory course is to broaden the students' musical horizons by introducing them to music they may not know but that they might like. When introducing a piece in a genre that is totally new to them, students may need to hear it a few times to get a sense of what the music sounds like, what its length and proportions are, and what type of musical elements the composition engages. Keep in mind that "easy" examples are not only found in "simple" pieces—it is possible to select a complex or difficult piece and, at first, ask simple questions such as identifying the meter or mode. As students learn more, you may revisit the piece again and again, each time listening for more complex elements and for additional details.

Part of the delight of this situation, of course, is that we have an opportunity to introduce students to beautiful and moving music literature that otherwise they would not have known had they not chosen to take our class. We can open up their musical world in ways that may change the direction of their lives. The ultimate goal is for our students to be able to listen to any music, identify specific musical elements, be able to recognize the style and genre of music they are hearing, and be able to utilize the music elements.

Problem #4: Moving from Basic Constructed Examples to Musical Contexts.

As we know, it is a lot harder to hear a chord progression in an elaborated musical context than the same progression in block chords. One of the challenges of contextual listening is making the transfer from hearing and understanding basic harmonic and melodic gestures in a simple, constructed example (block chord progressions, or an unembellished melody), then being able to hear the same melodic or harmonic gesture in a piece.

Strategies:

Particularly in the aural skills portion of an AP Music Theory course, it is possible to fall into a habit of always playing dictation-type examples—asking the students to label things or write them down—without first playing or listening to those same musical elements. Remember that we can't just ask students to identify things all the time—we sometimes have to identify things for them, and model for them the analytical behaviors we want them to emulate.

Part of being able to identify musical elements is having an internal aural reference for what each of the elements sounds like—a "known" to which one can compare "unknowns." To establish these referential sounds, students will need to hear musical idioms played repeatedly, both isolated in constructed examples and in musical contexts. This can be done in two ways: you may start by listening to a piece of music, then make a reduction of the harmonic progression or melodic framework, or you may start with a basic framework, then demonstrate possible elaborations.

Students also need to have in their aural memory pieces where they know that a particular cadence is a perfect authentic cadence (PAC), a deceptive cadence (DC), or an imperfect authentic cadence (IAC). I learned to hear deceptive cadences because my freshman theory teacher would come into class each day and call the class to order by playing a piece of music at the piano, stopping at a deceptive cadence. He would then leave the piano and begin the day's lecture. He did this until all of us had forever emblazoned in our memory the sound of a deceptive cadence, then he moved on to cadential 6/4 patterns! Simply taking time to play music and say "That is a ___, this is a ___, and here is how you identify the sound of a ___," will help students learn to hear the difference between elements and establish a mental repository of what the musical elements themselves sound like.

The students also need to make connections between the sounds of elements, how they look on a score page, and how the elements are produced on an instrument, if possible. That's where singing the elements back, writing them down, listening and visualizing, looking at scores, and thinking about the elements' characteristic sounds all come into play. Moving back and forth between the elaborate musical surface and the underlying framework is a complex endeavor. This transfer from surface to framework will be made easier if the students are engaged in making reductions in analytical assignments and elaborations through composition assignments while playing and hearing the music with which they are working.

Problem #5: Locating Musical Elements While Listening.

"Location, location, location" is not only a concern in real estate. One serious problem in answering contextual listening questions is knowing where to listen to answer the question. This issue has two aspects: locating events in chronological time in the piece and being able to hear elements within a complex texture. It is easy enough to ask about intervals or chords at the very beginning or ending of an excerpt, but what about in the middle? Because the listening is done without a score, we can't simply say, "What

happens in measure 24?" and expect our students to count measures! If the student doesn't know where in a composition of a specific genre a particular event is likely, and if the questions don't guide the student to attain an overview of the piece's organization, asking about "the middle" can be too challenging.

Sometimes picking out a particular part in a complex texture is also difficult for students who are unfamiliar with that texture or aspect of a texture. For example, male students may have trouble hearing and singing the melody; female students may struggle to identify bass lines; and all may have trouble in distinguishing inner voices or other parts that are not melodic. Often problems in identifying musical specifics are due to the students' inability to locate the musical aspect students are asked to hear, rather than their not knowing or understanding the concept. Contextual listening assignments must be designed to help students feel confident of the specific location of elements they are asked to identify.

Strategies:

While there are many excellent questions to be asked about the beginning and ending of excerpts or pieces, we will also want to engage the "middles." Measure number references or descriptions of other visual aspects of a score are unhelpful or distracting in an aural-only context. Events beyond the first few measures of an excerpt are too far away to count measures accurately and find the location—the students will spend all of their listenings conducting along and trying to make sure they counted properly! Several strategies often used in the design of the AP Music Theory Exam questions can help with listening to longer examples. One strategy is "divide and conquer"—divide the longer piece or excerpt into shorter segments, and only play a short portion of the excerpt at first. If the students know that what they have heard is "the first two phrases" or "the first section," then they know how long a phrase probably is in this example, or what size of segment equals a section length. After hearing individual passages and answering questions about those passages, the listeners will be in a better position to hear the whole example as comprised of the now-familiar segments, and be able to draw conclusions about overall form, key relationships, and other larger-scale aspects.

Another strategy is to give a description, song text, or diagram. For example, the instructions may say, "You are about to hear an example comprised of a piano introduction and the first four vocal phrases of an art song," or there may be a diagram indicating sections or phrases of the listening. This type of introductory material provides a quick orientation for the listener to the style, genre, and locations in the excerpt, and will make possible questions about the cadences at the end of the second and fourth phrases or about the beginning of the third phrase. A quick perusal of the aural-stimulus section of the released exams will provide other sample wordings that you can use in designing your own examples.

Eventually, we would prefer for students to be able to determine the formal design of works they are hearing without help from the instructions or questions. It is easier to hear musical elements in context if you know when and where particular progressions or

melodic gestures or idioms are expected. If the students know that instrumental pieces in classical style often begin with either a parallel period, contrasting period, or sentence structure, then they may be able to hear the first eight measures of a new classical-style piece once, and recognize which of the three is present, or if this piece displays none of the above. Knowing the typical harmonic rhythm and textures for a style—such as one or two chords per measure in arpeggiated Mozart keyboard works, or one chord per beat (with 2:1 passing tones and neighbor tones) in Bach chorales—can help in hearing entire chords or progressions instead of focusing on individual notes or intervals. Recognizing the musical style and genre, coupled with knowing what is typical, allows listeners to make educated guesses, and then listen to confirm them.

Problem #6: Developing Musical Memory.

Relatively complex tasks, such as taking down a melody or bass line from a musical example, hearing a modulation, or determining musical form, require musical memory—the ability to hear something unfamiliar once or twice and remember enough about it to be able to think back through it, identify or write down elements, and determine how the pieces fit together. Often students will complain that they were trying to listen carefully, but that they can't remember what they have heard well enough to answer the questions. Improving students' musical memory is a difficult problem to address directly in a class setting. There are many possible ways that an individual can remember and mentally "store" musical thoughts, and students may not be able to comprehend or articulate how they do this. Typically, the way an individual instructor remembers musical ideas draws on his or her broader knowledge of music literature and specific musical elements, which means that the instructor may not be able to articulate how he or she does this either!

Strategies:

A basic strategy to improve musical memory is to practice listening and capturing musical sounds in memory. It may help some students to start with short examples, adding on segments as students are able to remember the shorter ones. However, for some students that strategy does not seem to work, since their method of remembering does not respond to additive procedures. For other students, hearing a longer segment and being instructed to remember only the framework, such as melodic notes that fall on a beat, may be helpful. Other students will not be able to process the music this way without visual cues from a score since their musical memory does not work with reductive procedures. Some students will remember a melody better if they sing or conduct along with it; for others this seems not to help at all! Unfortunately, even scientists who study musical memory can't explain adequately how and why some listeners will process musical memories in one way while others depend on another.

Perhaps the most reliable way to help all students figure out how to improve musical memory is to give some contextual listening assignments as homework, where students can listen as many times as they require to complete the assignment. Let's say the assignment is to write down the melody, bass line, and chords from a phrase of music.

Some students may need only a few listenings to complete the assignment, and others may need 20 to 30. If repeatedly given similar assignments, the students who only needed a few listenings may refine their skills to capture all the information on only one or two hearings (and will be ready for more complex examples), and the student who required many, many listenings at first will likely find ways to become more efficient at capturing the requested information. Often what students report is that they figured out a way that works for them to capture musical ideas in groups or "chunks," rather than by one note, one interval, or one chord at a time.

Contextual listening tasks are easier if students are able to listen in "chunks," and we can help them develop the ability to hear in "chunks" if we teach musical elements this way. Here are some examples of "chunks" that should be heard as a unit:

- cadence formulae (learn in three chord units—predominant, dominant, tonic, for example, or melodic cadence patterns such as $\hat{3}$-$\hat{2}$-$\hat{1}$);
- typical melodic gestures (start with scale segments and melodic arpeggiation of chords, then consider common skip patterns);
- very basic chord progressions, such as I-ii^6-V-I in classical style (one chord per measure with an Alberti bass);
- tonic, predominant, and dominant expansions (such as I-vii^{o6}-I^6 at the beginning of a chorale-style phrase or IV to IV^6 with a passing 6/4 between);
- melodic and harmonic sequences—if the students realize what they are hearing is a sequence, they only need to know the contents of one melodic or harmonic "pattern," whether it is moving up or down by step or skip, and how many repetitions there are to get the whole thing.

As students catch on to the concept of hearing musical "chunks" and practice hearing and notating longer examples, they will be able to add other musical groupings to this list.

Problem #7: Overcoming Fear With a Procedure for Success.

A final barrier to learning is alluded to in the "student complaints" at the beginning of this essay—students often find it hard to believe they can successfully do this task. When students listen to a piece of music knowing that they will have to make detailed observations, a typical first reaction is to panic. Of course, this problem is not limited to contextual listening; it is an issue with many aural skills tasks that are new to students when they first take music theory classes, including (and especially) sight-singing and dictation. Unfortunately, lack of confidence can become a self-fulfilling prophecy: As the brain locks down, panic and blanking create more panic and blanking.

Strategies:

One important way to combat student insecurity is regular practice of contextual listening skills, starting with relatively simple tasks and building to more complex ones. If

at all possible, engage music literature in each class in some way—either by starting with a musical example that illustrates the main idea for the day's class or by considering the basic framework of the theoretical concept first, then moving into literature. Listen both with and without scores. Sometimes use "knowns," telling the students what they are listening for and where it is in the music; sometimes use "unknowns," where they have to find and identify the musical elements on their own.

As your students work on their listening skills, observe how each approaches the task, and help each student find a procedure that works for him or her. For example, some students will do better if they simply listen the first time a new piece is played, in order to become familiar with it without attempting to answer any of the listening questions. Asking other students to listen only on the first hearing without writing anything down may make them feel like they have "wasted a listening" and result in frustration. They may want to make notes as they go or listen for specific elements on each hearing. Help each student devise both an individual listening strategy that is comforting and reliable and a procedure for drawing conclusions. Knowing that they have a "plan for success" and carrying it out on a routine basis will help your students avoid panic.

Educating students about different degrees of right and wrong answers will also help to build students' confidence levels. They need to know if their "wrong" answer indicates a basic understanding of the issue with some of the details incorrect and only needs some more refinement, or if the miss is a mile away and represents a lack of understanding of the larger concept.

Conclusions

Teaching contextual listening presents challenges, including student resistance to these types of exercises, but the existence of challenges is not a reason to avoid the teaching of listening in context! This is an important skill, and one that most students will not acquire on their own without specific instruction from their teacher. Keep in mind that any improvement in the students' skill level on contextual listening is worth the effort. Once they see how to do it and have some success, they will continue to improve. The issues highlighted here are only some of those that arise in teaching music listening in context, but I hope they will help you in planning for your class and will inspire you to think of additional strategies that will further ensure student success.

Jane Piper Clendinning is professor of music theory at Florida State University. She is a coauthor of *The Musician's Guide to Theory and Analysis* and *The Musician's Guide to Aural Skills* (both W. W. Norton, 2005). Professor Clendinning's current research interests include music theory as applied to world and popular music, music theory pedagogy, and theory and analysis of recent twentieth-century music. She is a former head of the AP Music Theory Test Development Committee.

Sight Singing: A Strategy for the Non-Singer and the Underprepared Student

Lois Johnson
Lone Peak High School
Highland, Utah

To a young high school student, the sight-singing tasks on the AP Music Theory Exam can be the most traumatic feature of the entire exam. Early in the year in my AP course, I describe the entire exam to my students, but I usually don't tell them about the sight-singing portion until the deadline to drop the class has passed! So many of our students have never had to sing anything before, let alone sing by themselves. The majority of students in my AP classes come from our instrumental and choral programs. Several are excellent pianists who are not in any high school performing ensemble. A few play in a rock band and have little background in music theory. The diversity of their backgrounds and experiences provides a challenge to equip them with the tools they need to conquer their fear of sight singing and to develop the necessary skills to perform the tasks confidently. Their anxiety is real and can almost paralyze them if they are not prepared for the experience. There are several keys that I have found to be valuable in successfully preparing students for this portion of the exam.

One of the most important practices is to start sight singing early in the year and then do it every day. Our school is on the A/B block schedule, so I see my students every other day for 85 minutes. We take 5 minutes at the beginning of every class period to sight sing. I start the year with the entire group singing together and gradually decrease the size of the "performing" group so that fairly soon each student has the opportunity to sing alone. Eventually I test them with the tape recorder, just as will be required on the actual AP Music Theory Exam. It is very important to sing daily to help my students gain the confidence they need.

In the beginning I use simple stepwise diatonic melodies in a variety of keys, slowly progressing to melodies that are more challenging. In addition to melodies that I or my students create, I select most of my melodies from several of the outstanding books devoted to sight-singing instruction. The AP Web site, AP Central (http://apcentral.collegeboard.com/apc/Controller.jpf), has a comprehensive list of fine texts that can provide structure to the sight-singing portion of the AP Music Theory curriculum.

Many of the instrumental students and pianists have found it helpful to "play" the melody as if they were playing it on their instrument. It also becomes part of their study in their respective ensembles and helps them be better musicians there as well. Since all of my students do some keyboard work, even the noninstrumentalists with very basic piano skills may use this approach.

Perhaps most vital to help the students develop their skill is to teach them a strategy for sight singing and to practice it consistently. My students are taught to scan the melody quickly (remember: only 75 seconds to practice), and to consider the following points along the way:

1. Check the clef.
2. Check the key signature: In what key is the melody written? (Determine whether the melody is major or minor).
3. Check the meter signature.
4. Tap out the rhythm of the entire melody, identifying and practicing tricky rhythms.
5. Look at the general contour of the melody, practicing "thinking" (rather than singing) the melody.
6. Consider the range. If the given pitch is not comfortable and the student needs to sing the melody in a different key, that decision needs to be made early in the practice period.
7. Sing the scale and the tonic triad, including the 5 below the triad (i.e., 1-3-5-3-1-5-1).
8. Always know where the tonic pitch ("*do*") is and be able to sing it at any time.
9. Look for any patterns in the melody (i.e., stepwise passages, triads, outlined chords, etc.).
10. With a pencil (yes, pencils are permitted on the sight-singing portion of the exam), mark
    a. all of the places where you find "*do*";
    b. the beats or any tricky rhythms;
    c. intervals or melodic patterns discovered (see #9); and
    d. the "last note value" (remember to hold it for its full value).
11. Some difficult intervals may need to be approached "backward" rather than always forward (e.g., F4 to C#4 to D4 can be troublesome when approached as the notes come, but F4 to D4, and C#4 to D4 are both easier to perform when isolated as two separate steps, making the C#4 easier to find in relation to D4 than in relation to F4).
12. Practice the melody out loud (students are often most frightened by the sound of their own voice if they've never sung alone before, making it imperative that they have as much experience as possible singing alone before they attempt the exam).
13. Repair spots that don't work or fall apart.
14. Perform the melody again correctly.

Prior to looking at a melody, we practice a variety of ways to perform the melody, and I encourage the students to decide on the method of singing that fits them best (i.e., *solfeggio*, numbers, "la la," whistle, etc.). Whatever they choose, they should use the same method each time a new melody is encountered. In our school district, elementary and junior high school students are not taught any regular system of sight singing (i.e., *solfeggio*, numbers, etc.), rather, that is left to the preference of the individual teacher. Some students come into the AP class knowing *solfeggio* for a diatonic scale, but are completely lost when it comes to chromatic alterations or even simple diatonic intervals. They've learned *do-re-mi* as the names of the steps in a major scale, but are unable to really use *solfeggio* as a tool for sight singing. *Solfeggio* is an invaluable aid when students know how to use it correctly, but it can totally derail them in performance if they are not completely comfortable using it, especially when dealing with chromatics. It is like a foreign language to them and, like any foreign language, they need to be fluent in it to be successful with it. If they are not completely comfortable using *solfeggio*, they become more concerned with the "lyrics" of the sight-singing melody than the melody itself, and thus end up stumbling through the melody, giving a performance that is full of hesitations, restarts, and wrong notes.

Because our school only has one year of AP Music Theory, and I meet with students only every other day, there simply isn't time for my students to become so fluent in *solfeggio* that they can truly use it competently, as well as cover all of the other topics required to be successful in the AP course. Therefore, we use numbers as a starting point and go on from there. With regard to the use of neutral syllables, I encourage my students who would rather use a neutral syllable to use a closed vowel like "o," "oo," or "e" since these vowels tune better and are less ambiguous in terms of pitch than the "ah" vowel or other neutral toneless sound. "Bo bo," "Te te," and "noo noo" are some favorites of my students. While whistling is permitted on the exam, I discourage my students from performing the melodies in that manner.

It is important to remind students that they will be evaluated on the accuracy of their pitch and rhythm in relation to the printed melody and the key that they establish at the beginning of their performance. The quality of their singing voice is NOT part of the evaluation, a fact that helps my students breathe a little bit easier. The "lyrics" they choose to use (i.e., *solfeggio*, numbers, "bo bo," etc.) are not considered in the evaluation either.

As they develop this skill, students should be encouraged to perform their melody at a steady tempo and to avoid starting and stopping as they sing. The flow of the melody is an important part of the evaluation, so the tempo established at the beginning of the performance should be consistent throughout. They don't get any more points for singing it faster than anyone else. Once again, students need to remember to give full rhythmic value to the notes they sing, especially with regard to the last note of the melody.

As a final note to instructors, the administration of the sight-singing portion of the AP Music Theory Exam is fraught with problems. One of the most important

considerations is to use equipment that will record accurately and clearly. And it is vital that students record their responses in a place where they are isolated from other performances and extraneous noise. Practice rooms and offices work well for this task, while language labs and "large rooms" where students can spread out are usually not the best places to record their melodies. I have also found it most beneficial to have students practice using the same recording equipment that they will use in the actual exam. The more familiar my students are with the sight-singing portion of the exam and its administration, the more successful they will be in their performance of the required sight-singing melodies.

While the thought of sight singing is often terrifying at the beginning of the school year, students gain confidence and skill as they methodically and consistently practice using a workable strategy. Along the way they also learn the value of sight singing as it helps them to be better musicians and performers outside of the music theory classroom.

Lois Johnson has taught at Lone Peak High School in Highland, Utah, since it opened 11 years ago, and previously at American Fork High School for 12 years. In addition to directing five choirs, teaching music appreciation and AP Music Theory, she also serves as the coach of the Academic Decathlon team. She was on the voice faculty at Brigham Young University for 19 years, and also maintained a voice studio in her own home. Ms. Johnson has been an instructor in the Brigham Young University Study Abroad Program in Vienna, Austria. She also presents workshops for AP Music teachers and has served on the AP Music Theory Development Committee for the College Board.

Techniques for Teaching Harmonic Dictation

YouYoung Kang
Associate Professor of Music
Scripps College

Of the various ear-training skills that a student is supposed to "learn" in an AP Music Theory class, harmonic dictation is often the hardest to teach. Often what seems to matter most in a student's ability to do harmonic dictation are the various musical skills and experiences that students bring to the class from piano lessons, choir, orchestra, band, etc. However, I have found some conventional and nonconventional techniques helpful for many students. These include using scale degrees in other musicianship tasks such as sight singing; having students memorize some stock harmonic progressions; doing four-part singing in theory class; having all students do some keyboard harmony; and, finally, using theory skills to help in determining the chordal progression heard in a dictation exercise. No doubt, many of these techniques, such as using scale degrees and connecting dictation to theory, are familiar to most, if not all, theory teachers. The other techniques that I have to offer are possibly less commonly used, but I cannot claim credit for having "discovered" any of these. Nonetheless, I have found them immensely useful in theory classes for helping students who previously had approached harmonic dictation as a big "guessing" game rather than as a rational musical exercise.

Sight Singing with Scale Degrees (or Equivalent)

It is imperative that students learn sight singing—and consequently hearing—with scale degrees (or an equivalent system such as movable "do"). This is even true of students who already know how to sight sing; forcing them to use a scale degree-type of system eventually helps them with other musicianship skills and allows them to develop a technique for learning more difficult melodies.

Common Harmonic Progressions

There are about 25 to 30 mini-progressions that are so common and ubiquitous that it is worthwhile for students to "memorize" them. One can practice these in little chunks via short dictation and/or keyboard exercises:

- Opening Progressions:

  1-2-3, 3-2-1, 3-4-3, 5-4-3, 3-4-5 scale degrees in the soprano
- Cadential Progressions:

  3-2-1, 1-7-1, and 5-4-3 scale degrees in the soprano
- Tonicization and/or Modulation:

secondary dominants to IV and V in major, and to III in minor

(See Figure 1, Common Opening and Closing Harmonic Progressions, page 25)

This type of exercise trains students to listen to three or four chords at once as a musical unit rather than listening to one chord at a time. It also gives the students the vocabulary of the most common progressions in music literature and hence common on the AP Music Theory Exam.

Singing in Four-Part Harmony

The ability to sing in parts is not tested on the AP Music Theory Exam, but it is a useful musical skill, especially for students who have never sung in a choir. It can be helpful for harmonic dictation if coupled with some other intuitions about harmony, and it also contextualizes the harmonic dictation exercise in real music.

For basic four-part harmony, I usually turn to simple hymns from old Protestant hymnals (preferably from before 1923). Examples of hymns with basic harmonies are Amsterdam (*Foundery Collection*, 1742) and Forest Green CMD (Traditional English; arranged by R. Vaughan Williams).

For more advanced harmonies, one can find other hymns with tonicizations and/or modulations, including:

Redhead (Richard Redhead, 19th c.)
Eventide (W.H. Monk, 19th c.)
Schmücke Dich (Johann Cruger, 17th c.)
Savannah (Foundery Collection, 1742)
Munich (*Gesangbuch*, Meiningen, 1693; harmonized by Felix Mendelssohn)

In order to keep the singing exercise a purely secular one, I delete the words on the hymn settings:

1. Photocopy method: photocopy the hymn and then white out the words.
2. Scanning method: scan in the hymn, cut the words using a basic graphics program (I have used Presto! PageManager in the past), then shrink the size between the treble and bass staves, and print out.
3. Music notation software: One can also enter the simple four-part settings into a music notation program such as Finale, Sibelius, etc.

For more advanced harmonies, one can also use parts of some Bach chorales, carefully chosen for their relative accessibility. Some examples of simpler chorales from *371 Harmonized Chorales and 69 Chorale Melodies with Figured Bass*, edited by Albert Riemenschneider, are the following:

Aus meines Herzens Grunde (#1)

Christus, der ist mein Leben (#6)

O, Herre Gott, dein gottlieb Wort (#14)

Lobt Gott, ihr Christen allzugleich (#54)

In general, I have found that females have a harder time hearing the bass line, and males have a harder time hearing the melody. This is partly due to the vocal range (students usually do better with melodies in their own vocal range) and partly due to the fact that they are unfamiliar with the typical melodic procedures in other vocal parts. In theory class, I generally have females sing the bass and tenor lines, and the males the soprano and alto lines. This familiarizes them with lines that are not necessarily the ones they sing and allows them to relate pitches heard an octave higher or lower with the pitches in their own vocal range. As a "treat" at the end of class, one can allow the students to revert to their natural vocal ranges. It makes for a nice ending when the class sounds good singing in four-part a cappella harmony after the awkwardness of the topsy-turvy vocal parts.

Keyboard Harmony

Keyboard harmony can be an invaluable tool for music theory in general, but it is particularly useful for developing harmonic dictation skills. Students who have played hymns on the piano or organ generally have the easiest time with harmonic dictation. Although keyboard exercises are the most difficult to incorporate into the tight schedule of a music theory class, one can at least incorporate the basics of keyboard harmony. One can teach students to play standard cadences and opening progressions on the piano. This allows students to combine aural, visual, and tactile experiences in learning standard harmonic progressions.

For more on the importance of keyboard harmony, see Richard Nelson's "Keyboard Harmony as an AP Music Theory Tool" on AP Central®.

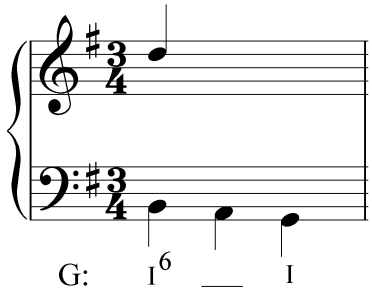
Listening for Sonority

Although this is commonly taught as a technique for harmonic dictation, this is NOT the first thing that a student should be trained to do. In fact, one should delay introducing this technique until students are able to pick out the soprano and bass lines and place chords in a tonal context. However, for a student who has already mastered the basics, being able to distinguish between major, minor, diminished, and seventh chords within the context of a larger phrase can help in cases where there are two or three good choices.

Knowing Theory

Ultimately harmonic dictation, as tested on the AP Music Theory Exam, expects the student to make the connection between what she hears and music theory. Thus, instead of asking the student to notate the alto and tenor lines, the harmonic dictation exercises on the exam and in most college courses ask for Roman numerals instead. Assuming that the student is able to notate either the bass or soprano perfectly and the other line with some success, it is important that the chords that she notates follow standard harmonic procedures. For example, we all know that I ii I^6 and ii V IV are not valid harmonic progressions in common practice tonality, and we can safely conclude that such a succession of chords will never appear on the AP Music Theory Exam as part of a harmonic dictation exercise. Thus, it is important to stress this point over and over and over again to one's students. Even if the student has a difficult time hearing a particular chord, there are usually only two, or at most three, plausible choices for that blank, according to standard common practice harmonic procedures. Then the student can decide what to listen for in order to determine between the choices.

Consider the following example:



The student should automatically assume that the progression is I^6 vii^{o6} I or I^6 $V^{4/3}$ I or I^6 $P^{6/4}$ I. Then she can ask about that second chord: What note is in the soprano? Is there a tritone in the chord? Does the chord contain scale degree 4 or 5?

Homework Assignments and Practice Outside of Class

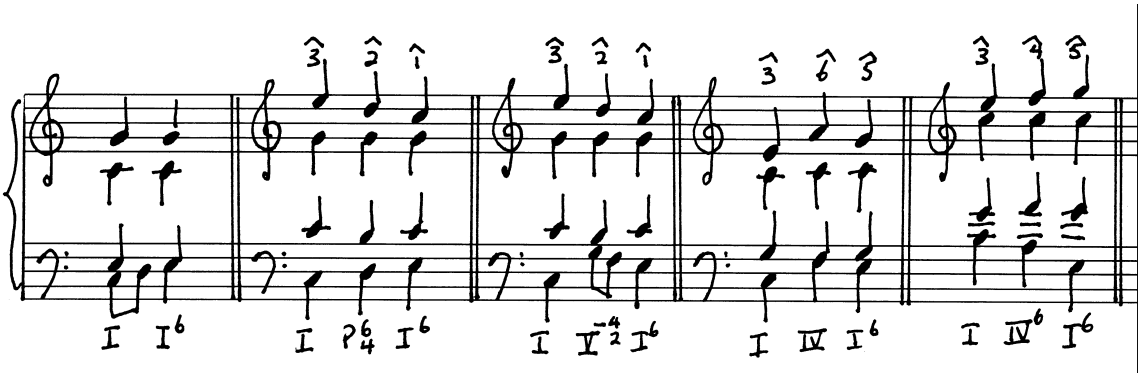
There is usually not sufficient class time to practice harmonic dictation in class; thus, it is important that students practice this skill outside the classroom. If an aural skills textbook is adopted as part of the course (see the list of aural skills textbooks under "Music Theory Textbooks: Example Textbook List" on AP Central), one could certainly assign some of the dictation exercises to students as homework. One could also use ear- training software such as MacGamut or Practica Musica for practice outside of class. In many institutions, however, it is not practical to adopt a separate ear-training textbook or offer ready access to ear-training software to the students. In addition, one may want to write one's own harmonic progressions for the class. With the aid of modern music notation software

such as Finale or Sibelius, one can easily create MIDI files of one's own harmonic dictation exercises and record them onto audio CDs. Although the quality of these recordings may not be wonderful, they will give students excellent practice and prepare them well for the AP Music Theory Exam's high quality MIDI recordings.

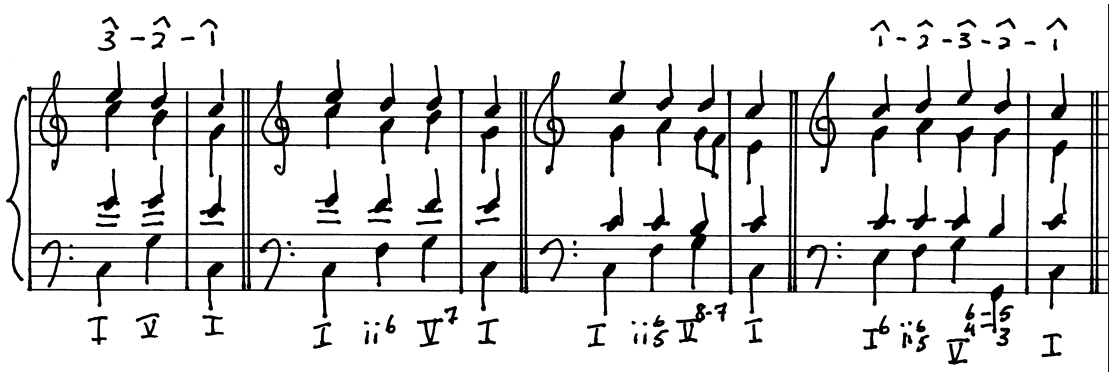
YouYoung Kang is associate professor of music at Scripps College in Claremont, CA. She is currently a member of the College Music AP Music Theory Development Committee and the author of "Defending Music Theory in a Multicultural Curriculum," published in College Music Symposium, Vol. 46. Her work embraces disparate areas of scholarship ranging from early music analysis and compositional theory in seventeenth-century Italy to musical representations of national identity in Korean and American musics.

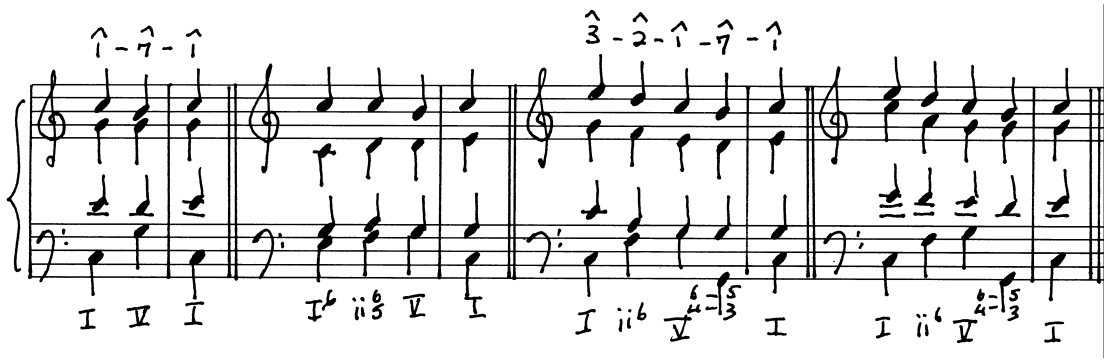
Figure 1: Common Opening and Closing Harmonic Progressions

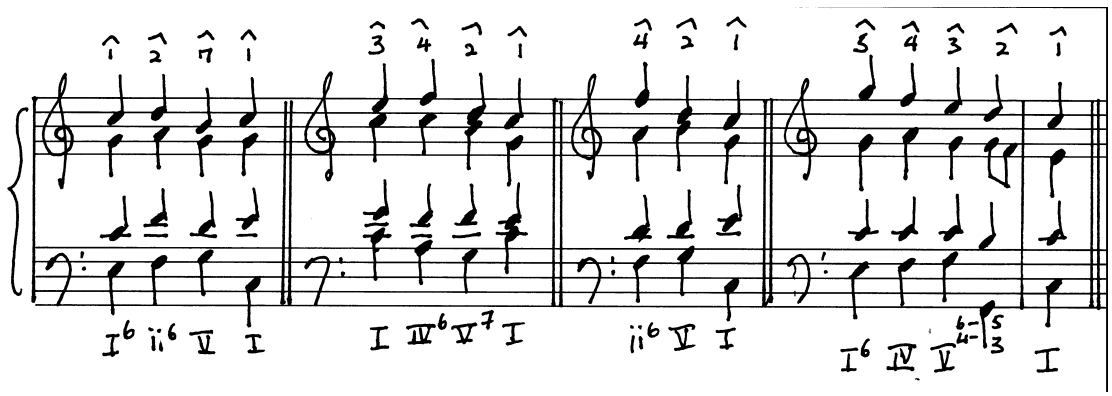
Opening I-I^6 Progressions



Cadential Progressions







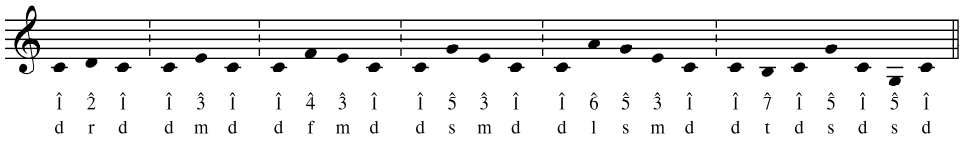
Strategies for Strengthening Relative Pitch: Graduated Pitch Universes in Melodic Dictation

Joseph Kraus
Professor of Music Theory
Florida State University

We have all had the experience of working with students whose tonal orientation seems weak. As soon as a melodic dictation example strays from completely conjunct motion, they become very uncomfortable, not being able to judge skips or leaps within a tonal example with any accuracy. They tend to encounter the same difficulties when singing tonal melodies at sight. In my own teaching, I have found several strategies that can aid in solving this problem. If the weakness is not severe, a bit of extra tonal reinforcement is often enough to help the student over the proverbial hump.

Example 1 illustrates a common "mantra" for strengthening basic functional pitch relationships in a major (or minor) scale. This can be sung as a warm-up in the key of the following dictation or sight-singing example, allowing students to become acclimated to the key. Playing a tonic drone in the bass during one or more of the hearings during melodic dictation, or having students hum the tonic softly during one of the playings, can also be helpful. When singing a melody at sight, simply imagining an "extra" tonic pitch between two notes of a difficult leap will assist some students, provided that they can audiate every degree of the scale in relation to the tonic.

Example 1

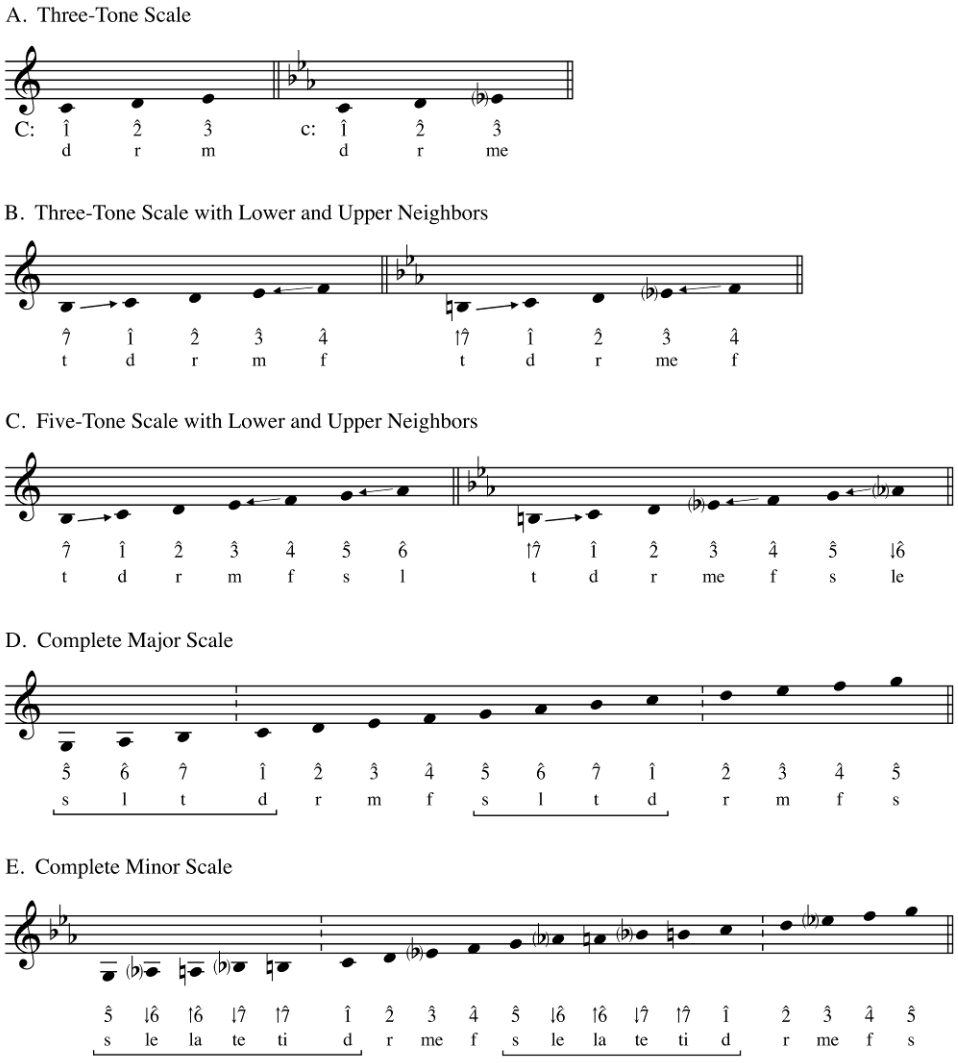


But what about the student or class that needs more serious remediation? One approach that has been successful for me involves a temporary restriction of the range for melodies to be used in dictation and sight singing. The pertinent information is shown in Example 2, which provides both scale degree numbers and solfège syllables for five-pitch "universes" that lead gradually to the complete major and minor scales. I begin with a three-tone scale in major and minor that only involves $\hat{1}$, $\hat{2}$, and $\hat{3}$, where $\hat{2}$ functions as a passing element (Ex. 2A).[1] After a student can recognize random pitch patterns within

[1] I draw on ideas first presented by Lars Edlund in *Modus Vetus* (his companion volume to the better known *Modus Novus* for atonal music reading). Lars Edlund, *Modus Vetus: Sight Singing and Ear-*

this extremely narrow range, we add $\hat{7}$ as lower neighbor to $\hat{1}$ and $\hat{4}$ as upper neighbor to $\hat{3}$, producing an ambitus of five notes (Ex. 2B). This arrangement also helps to reinforce the concept of tendency tone $\hat{7}$ resolving to $\hat{1}$, and $\hat{4}$ resolving to $\hat{3}$. After singing and recognition drills have produced some level of comfort, we are ready to add $\hat{5}$ and $\hat{6}$ into the mix, where $\hat{6}$ functions as upper neighbor to $\hat{5}$ (Ex. 2C). Once this five-tone scale with lower and upper neighbors is thoroughly explored, we can reintroduce the entire major scale (Ex. 2D), working particularly on the "new" segment of the scale from $\hat{5}$.

Example 2. Graduated Pitch Universes.

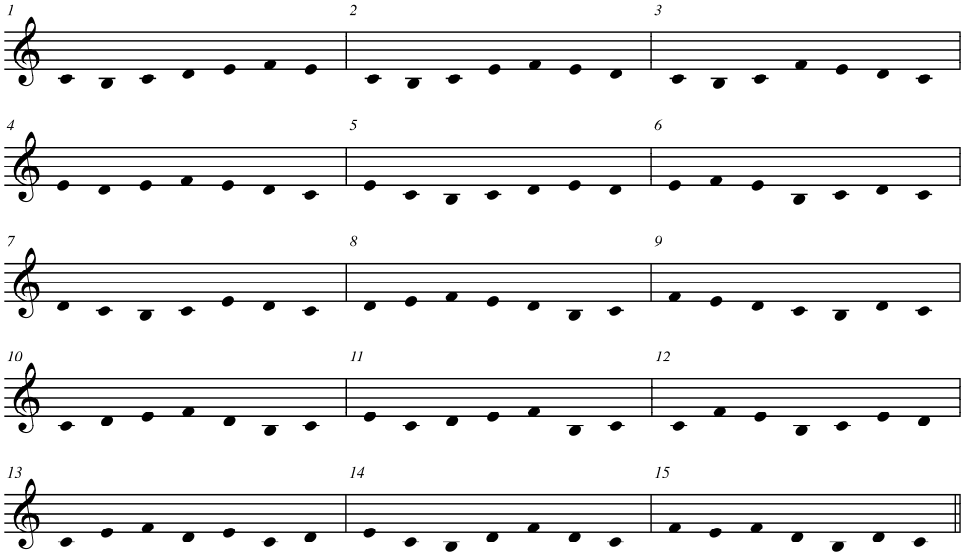


Training in Major/Minor Tonality (Stockholm: Wilhelm Hensen, n.d.). Although this book was out of print for a time, it was recently reprinted by Beekman Books in 1994 and is still readily available.

up to î (bracketed on the example). In order to work in different ranges, one can concentrate first on just the middle segment, then add either the first segment or the last to widen the pitch universe. Example 2E shows one way to present the complete minor scale with variable sixth and seventh degrees. If an instructor wishes to reduce the complexity of this situation at first, she could limit the scale to harmonic minor (continuing to stress tendency tone resolutions), then add ↑ĥ and ↓ĵ from melodic minor later in the process. Again, one can concentrate primarily on the middle segment at first, then add the bottom or top segments to expand the range.

As a warm-up for each pitch universe, I would recommend projecting an arrangement of the universe as shown in Example 2 in a suitable clef and key. After establishing tonic, the instructor can then point to the scale degree numbers or solfège syllables to produce brief patterns of 4–7 notes, which are sung by the students. These warm-ups should explore the different skips and leaps found within that particular pitch universe, so that the students can develop a stronger sense of pitch function in relation to the tonic. As the next step, the instructor sings or plays pitch patterns from this universe, and students sing them back on numbers or syllables after one or two hearings. Example 3 illustrates what these "pencils-down" dictation exercises might be like for Universe B, the three-tone scale with upper and lower neighbors. Patterns 1–3 introduce skips upward from the tonic; patterns 4–6 skips downward from ŝ. Patterns 7–9 begin on r̂ or f̂ and include skips between active scale degrees, while the remaining patterns become more disjunct, eventually incorporating consecutive skips within the vii^{o} triad.

Example 3. Sample Drill Patterns for Pitch Universe B.

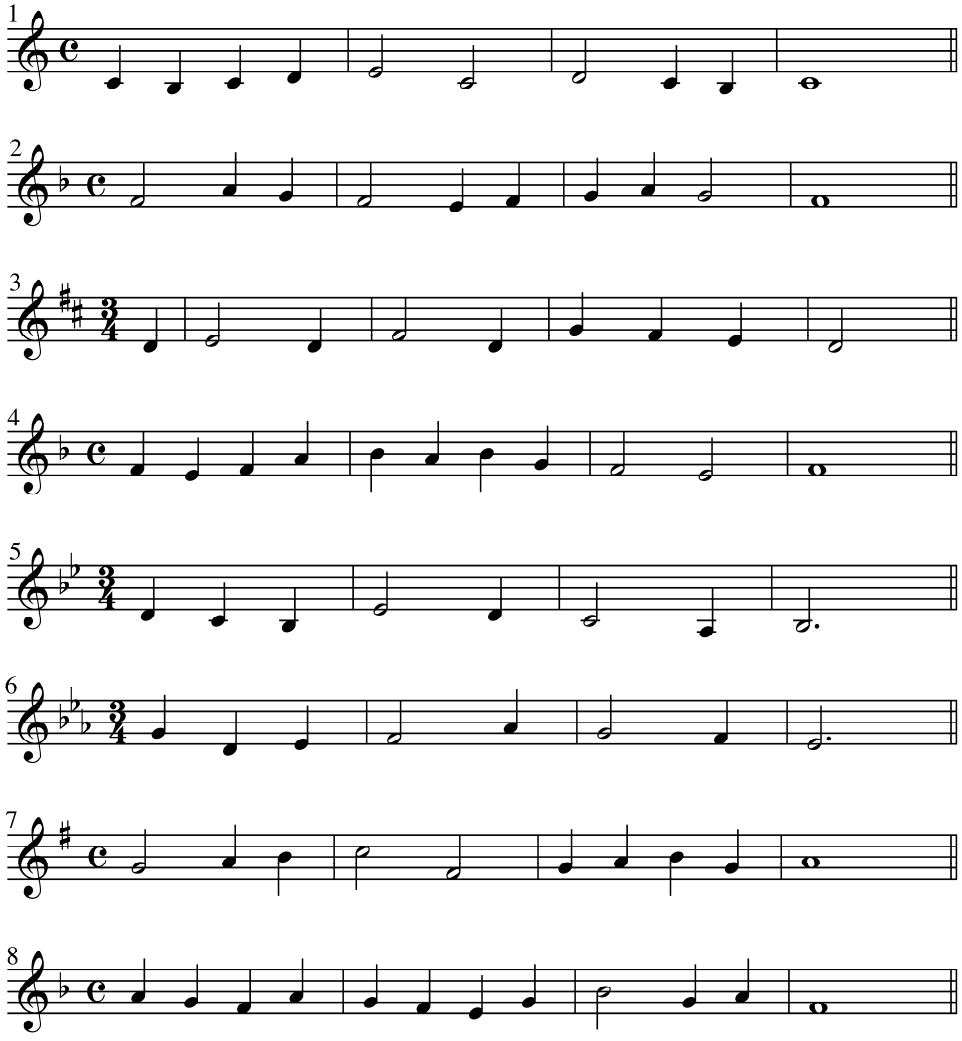


A variant of this activity is to ask students to bring their instruments to class, establish the notes for the pitch universe on each of their instruments, and then ask them to *play back* the dictated pattern. This activity creates a tactile connection between the

pitch relationships and their own instrument, which can greatly improve correct "indexing" of melodic patterns.[2]

The final step for employing the pitch universe is written melodic dictation in rhythms that are appropriate for the given situation. Sample melodies for Universe B in major mode are shown in Example 4, with simple rhythms that involve only the beat and its combination. Many more examples for each pitch universe are available in Edlund's *Modus Vetus*, a valuable resource for dictation and sight singing of tonal melodies.

Example 4. Sample melodies for Universe B.



[2] There are also many possibilities here for "games," where students themselves invent the patterns, and sing/play them to a partner or to the entire class for recognition.

As with any pedagogical strategy, this approach has its strengths and weaknesses. On the positive side, the reduction of the pitch universe to a "manageable" size, which is only gradually increased, helps to build student confidence—an element that is crucial for the successful development of any skill. Note also that major and minor modes are introduced in tandem here, rather than "postponing" the minor mode until it is too late to do it justice. In my past experience with Theory I and II, the minor mode often gets the "short shrift"; the method given here ensures that this will not happen! Another advantage of these graduated pitch universes is the constant aural reinforcement of how tendency tones ($\hat{7}$, $\hat{2}$, $\hat{4}$, and $\hat{6}$) resolve. In particular, the resolution of $\hat{4}$ down to $\hat{3}$ and $\hat{7}$ up to $\hat{1}$ will prepare students well for the resolution of the v^7 and vii^{07} chords in four-voice writing. With these tendencies so well ingrained in their aural experience, students are more likely to remember and apply them in their own written work. If the instructor emphasizes the contextual use of chords in patterns in harmonic dictation, the concept of $\hat{7}$ as lower neighbor to $\hat{1}$ lays the groundwork for hearing the V^6 (with its bass $\hat{7}$) as a lower neighbor chord to the tonic later on.[3]

Of course, there are also a few drawbacks to a graduated pitch universe approach. Some readers might have noticed that the important tonic-dominant pitch relationship comes relatively "late" here, beginning in Universe C but only involving all possible ranges in Universes D and E. If this approach were to be adopted for an entire class, the instructor would have to take care that the complete major and minor scales are adopted in a fairly limited amount of time—say, one to two months—to ensure that $\hat{1}$-$\hat{5}$-$\hat{1}$ gets the attention it deserves as the most basic element of the tonal pitch hierarchy. The introduction of skips and leaps in this approach does not follow the strictly "harmonic" ordering that is prevalent in many of the mainstream sight-singing manuals like Ottman/Rogers or Benjamin/Horvit/Nelson, where skips within the tonic triad are covered first, followed by those within the dominant and subdominant triads. Again, if the graduated pitch universe approach is used only for individual remediation, or is used by an entire class as an introductory technique for the first two months of the first semester, this problem can easily be avoided; there will still be plenty of time to use "harmonically oriented" materials after an initial foundation has been laid.

The introduction of the complete major and minor scales for sight singing and dictation can seem overwhelming for beginning students, particularly if their sense of pitch relative to the tonic is rather weak. One possible solution is to build the scale gradually, while strengthening their sense of pitch function along the way. The graduated pitch universes presented here provide a step-by-step approach for achieving the goal of better relative pitch.

[3] There are other possible correlations with written concepts as well. For example, when covering Universe A (the three-tone scale), the instructor can easily introduce the concept of major and minor seconds and thirds, with the advantage of immediate aural reinforcement.

Joseph C. Kraus is professor of music theory at the Florida State University College of Music. He teaches freshman theory as well as upper-level undergraduate and graduate courses in Baroque counterpoint, nineteenth-century music, the history of music theory, and music and meaning. His research focuses on the music of the late nineteenth century.

Interpreting and Harmonizing Melodies: Some Formulas for Success

Nancy Rogers
Assistant Professor of Music Theory
Florida State University

Introduction

One of the most widely feared questions on the AP Music Theory Exam is Free Response #7 (FR 7), in which students are given a melody and asked to write an accompanying bass line and suitable harmonic symbols. Even relatively experienced musicians often become overwhelmed by melody harmonization tasks: the more they contemplate the apparently unlimited possibilities, the harder it becomes even to decide where to start. Before long, they are nearly paralyzed by uncertainty.

Pondering the myriad possibilities is confusing and wastes both time and mental energy. More importantly, this isn't the most musical approach to the problem at hand: yes, perhaps anything is possible, but clearly not everything is probable. A large part of the teacher's job is to focus on ways to make this wide-open, free-response question feel more like a multiple-choice question—something a student can grasp without becoming bewildered by endless options.

Prioritizing Cadences

Our very modest first step is thinking of a phrase in three parts (beginning, middle, and ending), because patterns that work beautifully as beginnings often sound rather strange and unsatisfying as endings (and vice versa). The cadence, of course, comes last — but this doesn't mean that we should teach it last! Given the relative importance of the cadence (which is reflected by the AP scoring rubric), the phrase ending is probably the most productive starting point in our harmonization process. Indeed, cadences are so critical that I recommend emphasizing commonly recurring formulas through sight-singing, dictation, and analysis long before introducing four-part writing. Students will presumably learn to write effective cadences faster if the most common patterns already sound familiar to them.

Acquainting students with cadential formulas is relatively easy; guiding them toward mature thought patterns is significantly more difficult. Students need to develop good habits for choosing an appropriate cadential model based on a few important decisions.

- What is the key?
- Is this a half cadence or an authentic cadence?
- If the cadence is authentic, does it involve a cadential $\frac{6}{4}$ chord?

If the phrase ends with a half cadence, no further thought about the final chord is necessary because there is a clear best choice: simply write a root-position V triad. We may approach this V either from the tonic or from a pre-dominant chord such as IV or ii^6. If the phrase ends with an authentic cadence, on the other hand, then we immediately know how to harmonize the last two notes: V-I (or V^7-I), both in root position. Ideally, we would like to approach this dominant with a strong pre-dominant chord, because such a motion dramatically intensifies the desired cadential effect. 2

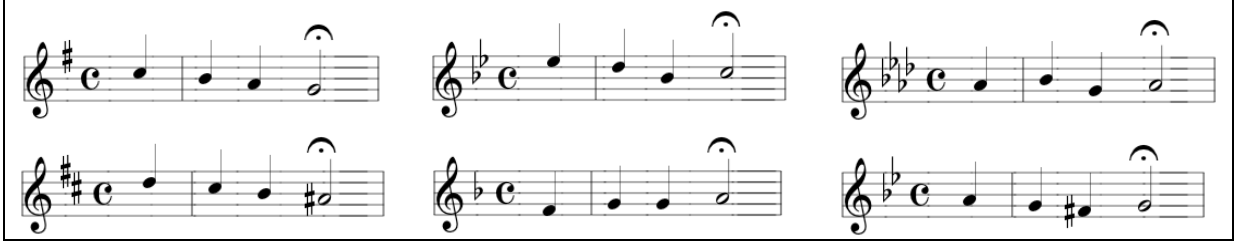
How do we know whether a cadential $\frac{6}{4}$ chord is appropriate? There are three important clues:

- The two most characteristic melodies are $\hat{3}$-$\hat{2}$-$\hat{1}$ and $\hat{1}$-$\hat{7}$-$\hat{1}$; $\hat{5}$-$\hat{4}$-$\hat{3}$ is also possible.
- The first note of these melodic patterns—that is, $\hat{3}$ and $\hat{1}$, respectively—will fall on a strong beat. The note resolving the cadential $\frac{6}{4}$ ($\hat{2}$ and $\hat{7}$, respectively) must not be metrically stronger than the cadential $\frac{6}{4}$ itself.
    - The preceding chord will almost surely have a pre-dominant function.

If a cadential $\frac{6}{4}$ chord seems suitable, based on these three criteria, then it is almost surely best to include one. Advise students to write $\hat{5}$-$\hat{5}$-$\hat{1}$ in the bass without further ado, and then to back up one more chord and select a common pre-dominant (most likely IV or ii^6) that fits the melody.

Notice that this procedure revolves around a few straightforward decisions, making it inherently more efficient than memorizing a large collection of specific cadence realizations. It is immeasurably superior to figuring out every possible chord that might be used and then gradually eliminating choices. To illustrate the efficacy of our method, consider the collection of four-note cadential melodic formulas shown in Figure 1. As quickly as possible, decide how you would harmonize each one, focusing on the logical process leading to your decisions.

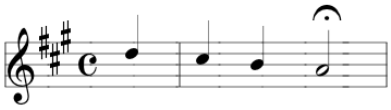
Figure 1. Quickly determine a harmonization for each cadential melodic pattern. Notice *how* you reach decisions.



Did you indeed find yourself consistently evaluating the key, cadence type, and presence/absence of a cadential $\frac{6}{4}$? If so, encourage your students to adopt these questions as a mantra because they reflect mature musical thinking. Rote memorization of some information (e.g., note names and key signatures) is imperative, but interpretation-based problems such as melody harmonizations are better solved with a context-sensitive approach.

Observe how efficient our strategy is compared to writing out every conceivable chord that might be involved and then trying to choose one solution among many. An illustration of this widely used (but ill-advised) plan appears in Figure 2.

Figure 2. An illustration of the misguided and inefficient "brute force" approach to harmonization.



Root of:	IV	iii	ii	I
Third of:	ii	I	vii°	vi
Fifth of:	vii°	vi	V	IV
Seventh of:	V^7	IV	iii^7	ii^7

This uselessly thorough and unselective approach presents us with 256 choices—even more when we consider inversions! No wonder some students find melody harmonization so overwhelming. In contrast, our three-question method makes the problem comparatively easy.

- The key appears to be G major. (E minor is also possible, of course; the superior choice would be clear in context.)
- An authentic cadence is needed (regardless of which key we pick), so we can immediately write $\hat{5}$-$\hat{1}$ in the bass and add V-I chord symbols.
- This melody meets all criteria for a cadential $\frac{6}{4}$ chord, so we write a cadential $\frac{6}{4}$ on the downbeat and choose an easy pre-dominant chord (IV or ii^6) to harmonize the melodic C.

We are left with relatively few remaining choices (e.g., IV vs. ii^6, or V vs. V^7), any of which will work in this case. In other words, we really can't go wrong—quite unlike the situation depicted in Figure 2, where the bad options significantly outnumber the good options.

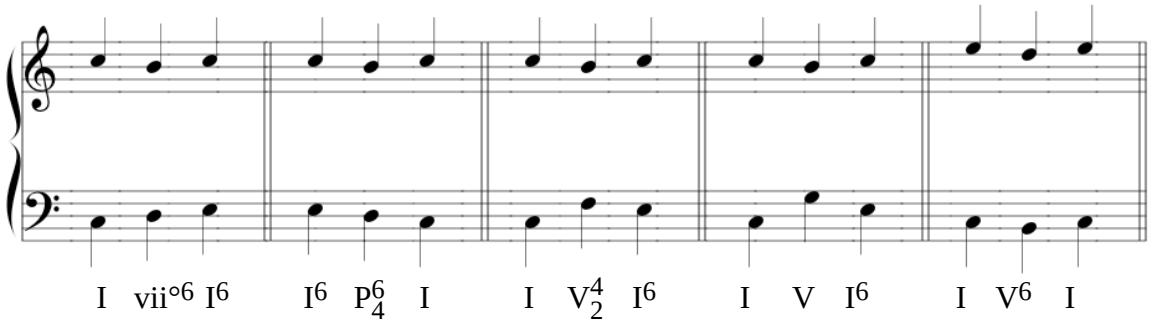
Non-Cadential Melodic Formulas

Although the beginning and middle of a phrase are not nearly as predictable as its cadence, most conservative melodies (like those featured in FR 7) emphasize motion between members of the tonic triad. It would be impossible to address every conceivable melodic pattern that might occur, but if your students know just one or two good harmonizations for the common three-note stepwise melodic fragments shown in Figure 3 (see next page), they will at the very least make substantial headway with their harmonizations.

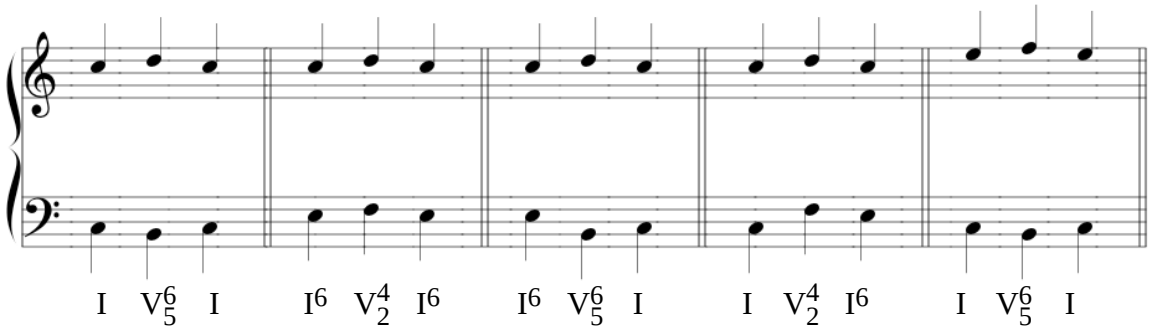
Notice, by the way, that rising soprano lines generally work best with a dominant triad rather than a dominant seventh chord. The single exception is the melodic $\hat{3}$-$\hat{4}$-$\hat{5}$, which is well harmonized by I-V^4_3-I^6.

Figure 3. Some easy harmonizations for common three-note tonic-oriented stepwise melodic patterns.

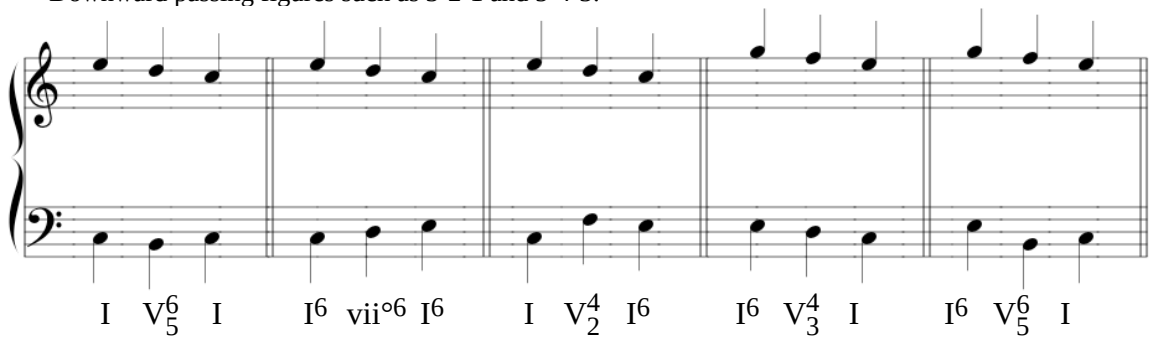
Lower neighbor figures such as $\hat{1}$-$\hat{7}$-$\hat{1}$ and $\hat{3}$-$\hat{2}$-$\hat{3}$:



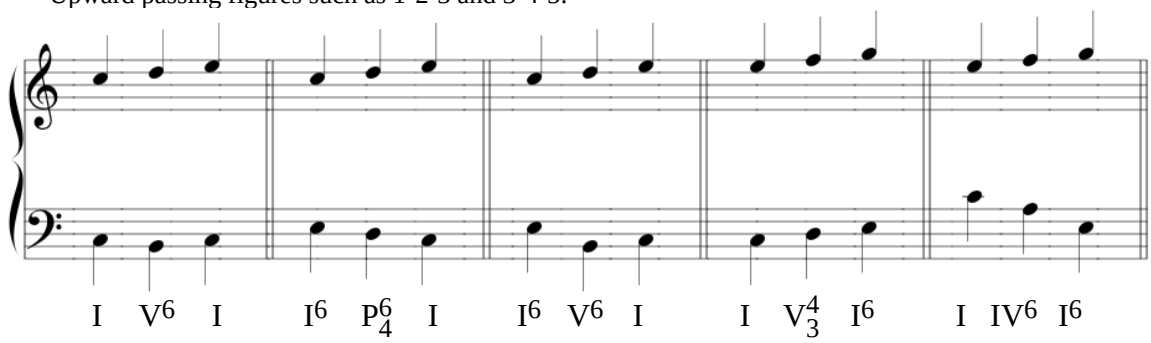
Upper neighbor figures such as $\hat{1}$-$\hat{2}$-$\hat{1}$ and $\hat{3}$-$\hat{4}$-$\hat{3}$:



Downward passing figures such as $\hat{3}$-$\hat{2}$-$\hat{1}$ and $\hat{5}$-$\hat{4}$-$\hat{3}$:



Upward passing figures such as $\hat{1}$-$\hat{2}$-$\hat{3}$ and $\hat{3}$-$\hat{4}$-$\hat{5}$:



Other Miscellaneous Advice

Many routine mistakes on FR 7 would be eliminated if students took a few simple suggestions to heart:

- Don't hesitate to use mostly tonic and dominant chords.
- Avoid seventh chords other than V^7 (in any inversion), ii^6_5 and ii^7, and possibly $vii^{\circ 7}$.
- Don't use $^6_4$ chords other than the cadential $^6_4$ and perhaps the passing $^6_4$.
- Use almost entirely quarter notes in the bass (other than cadential notes, which will be longer, of course). Also, generally avoid repeating bass notes (except for $\hat{5}$ at an authentic cadence, which is quite typical).
- Don't include embellishing tones; they are far more likely to cause errors than to enhance the overall musical effect.

Students should also be reminded that, in eighteenth-century chorale style, a fermata is not an appropriate place for a deceptive cadence. Not only is this fundamentally inconclusive gesture ill-suited for a significant phrase ending, but it invites voice-leading errors such as parallel fifths, and is therefore better avoided on both stylistic and practical grounds.

It is extremely difficult to examine our own teaching practices objectively. Consider, though, whether your textbook and your curriculum are best preparing students for long-term success. For instance:

- Might students be drawing unintended (even erroneous) conclusions from the order in which you introduce chords? For instance, might they reasonably infer that root-position chords are always easier than inverted chords, or that all chords are most commonly found in root position, or that iii is used more often than V7 or the cadential $^6_4$?
- Do you start harmonizing melodies (even very short melodies) sufficiently early in the year that the task doesn't develop an intimidating aura? Have no qualms about beginning solely with I and V, given that these chords are especially common and we don't want to overwhelm students with choices from the outset.
- Is there a deliberate and repeated emphasis on prototypical patterns? Your students who don't listen to classical music on a regular basis aren't likely to acquire a strong sense of what sounds appropriate unless good models are routinely provided.
- Along those same lines, does your class sight sing melodies at the exclusion of bass lines? Most students are significantly less familiar with bass lines, and it will be difficult for them to develop stylistic expectations for bass lines without sufficient first hand experience.

Clearly class time is limited, and no experienced teacher believes that sprinting through even more material each day is inherently beneficial. I am simply suggesting that we all assess whether some strategic tweaking might enable us to lay a better foundation for the more advanced work ahead.

Conclusion

Knowing common musical formulas makes melody harmonization (and many other facets of the AP Music Theory Exam) much easier; emphasizing indispensable patterns as early and as often as possible is therefore crucial. However, it is equally vital to cultivate effective methods for solving complex problems. Approaching open-ended exam questions with an established and comfortable routine greatly reduces the potentially paralyzing fear of the blank page. More importantly, students who adopt strategies that reflect a sensible and mature decision-making process are not just better prepared for their AP Exams: they will be better prepared for adult life.

Nancy Rogers is an assistant professor of music theory at Florida State University as well as secretary of the Society for Music Theory. She received her Ph.D. from the Eastman School of Music, where she won both school-wide and university-wide teaching awards. Her primary research interest is music cognition and its pedagogical implications, and she has presented papers at national, international, and regional conferences. She is also coauthor (with Robert W. Ottman) of the seventh edition of *Music for Sight Singing* (Prentice-Hall), which was published in 2006.