

Rethinking the Teaching of Minor Scales and Keys

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I ntroduction

In a recent issue of the *Journal of Music Theory Pedagogy*, Timothy Smith reviewed Earl Henry's *Sight Singing* book and took the occasion to briefly discuss his own vexation with the so-called *three forms of minor*.¹ He succinctly summed up his solution: "Inform students that all dominant functions in minor are: (a) borrowed from the parallel major, (b) signaled by the appearance of "ti" which is (c) often approached from a borrowed "la," and leave well enough alone."² I would like to pick up where Smith left off and further explore the problems inherent in this "three forms" approach, expand the discussion to include the corollary topic of the equally flawed method of teaching minor scales and keys through their relative majors, and conclude by proposing a different approach, illustrated by a model textbook unit.

There is no disputing that minor is more complicated than major. The question is, how, does one account for the variables in the most efficient yet comprehensive way. I maintain that the traditional way of teaching three separate forms of minor, and the relative key approach, are neither. In this paper I am arguing for (1) teaching minor scales as a single composite scale form (more or less derived from the Aeolian mode) that incorporates two sixth

¹Timothy A. Smith, "Review: *Sight Singing*," *Journal of Music Theory Pedagogy* 11 (1997): 99–105. Smith was reviewing Earl Henry's *Sight Singing* (Upper Saddle River, New Jersey: Prentice Hall, 1997).

²Smith, *Review*, 104–105.

and seventh scale degrees, and (2) emphasizing to a much greater degree the relationship between parallel major and minor keys, and conversely de-emphasizing the relationship between relative major and minor keys, especially with respect to learning key signatures. Following a brief examination and critique of several widely used music-theory and aural-skills texts, I present a model that exemplifies the approach I am advocating. This is not meant to be an exhaustive review of undergraduate texts, nor an attempt to single out these texts alone for criticism, but rather an endeavor to determine how the subject is typically dealt with and how it might be improved. I suspect the textbook authors themselves may be somewhat conflicted and not entirely pleased with their presentations, but feel bound by tradition and marketability to keep it fairly standard.³ This survey demonstrates that almost all the presentations are to some degree contradictory, trying to incorporate a sophisticated account of the generation and role of the two sixth and seventh scale degrees, while at the same time falling back on the three-forms approach.

Problems of the three-forms and relative-key approach

For far too long, as I have taught second through fourth semester theory and aural skills (and even graduate level theory), I have repeatedly confronted the problems and persistent confusion that are the direct result of the students' overall lack of any true understanding of minor scales and keys, all traceable to their having been taught the traditional and hidebound three forms of minor and relative-key approach. This deficit manifests itself in numerous ways. For instance, many students view minor-key music as having three distinct configurations, believing a composition or passage is written in one specific form of minor. They also believe that if a melodic passage is ascending, the melodic form of the scale *must* be used, and if descending, the natural form is called for, and they are perplexed if they encounter anything else. These students do not understand the comprehensive integrity of minor—that minor is an aggregate

³Timothy Smith discusses this same concern in his review with respect to solmization systems (p. 103).

with two variable scale degrees, and that a minor-key composition may use any of the notes or chords available in the key. While it is true that ascending passages often use the raised sixth and seventh scale degrees, and descending passages use the lowered ones, the determining factors are a combination of the prevailing harmony and concomitant melodic tendencies. For example, in Prelude 10 from Bach's WTC, Book I (shown in Example 1), the bassline ascends with the lowered sixth and seventh degrees, while the soprano descends with the raised ones, in order to project subdominant and dominant harmonies on beats 3 and 4 of m. 40.⁴

Other shortcomings of this traditional method include the added difficulty of trying to learn three different scale forms for each key (with a different set of pitches for each), followed by what seems to be a bewildering array of chord choices. Most students try to compartmentalize: melodies or chords that fit in natural minor, those that fit in harmonic minor, those that fit in melodic minor. Furthermore, many, if not most, textbooks are complicit in this, showing melodic excerpts and chord choices for each form of minor, rather than integrating them and showing all minor-key melodies and chords as belonging to a single key whose scale form includes two variable 6th and 7th degrees.

Example 1. Bach, WTC, Book I, Prelude 10

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⁴This example is used in Stefan Kostka and Dorothy Payne's *Tonal Harmony*, 4th ed. (Boston: McGraw-Hill, 2000), 63.

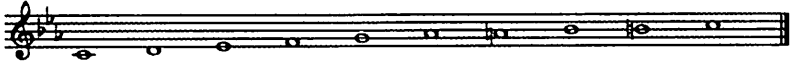
No doubt unintentionally, these texts fail to reinforce the fundamental notion that minor scales are simply pitch inventories we construct to show ourselves the pitches available in any given key (which most texts *do* point out when discussing major scales). Scales, whether minor or major, need to be understood as a *byproduct* of musical practice, not the generator. However, textbooks tend to overemphasize minor scale forms as distinct entities (as do many instructors), rather than showing them as tools used in the service of the keys themselves, resulting in students understanding them as the determining factor in melodies and harmonies, rather than the reverse. We then must try to untangle the students' misperceptions when they see music that does something contrary to what they believe it should (in their minds, breaking the "rules").

The reliance on three scale forms suggests implicitly that we lack a better explanation for the appearance of two variable scale degrees—that we believe composers saw these scale forms as inviolable musical truths and composed accordingly, yet impishly broke these rules more often than we like to admit, as evidenced by the amount of music that does not adhere to these sacred precepts. Students *do* need to be able to spell minor scales in order to familiarize themselves with the pitches available in the various minor keys, but I propose that minor scales be taught as composite scales (as shown in Example 2), a method already adopted by some textbook authors. Traditional scale forms should be understood as an older way of showing the alternate scale degrees—something that is most useful for practicing patterns on an instrument (as pointed out by some authors), but not particularly instructive. Beyond that, do we really need separate scale forms to provide a leading tone, or to illustrate a common melodic pattern? How much easier to show all the notes together as a single composite scale.

This approach also has the advantage of laying a more secure foundation for teaching diatonic chords in keys. By building two triads on every scale degree but tonic (the only triad that does not contain scale degree $\hat{6}$ or $\hat{7}$) we can effectively and efficiently demonstrate how each diatonic triad has two alternate versions (as shown in Example 3).⁵ This contrasts markedly with the method

⁵ The diatonic seventh chords would include two triads on scale degrees $\hat{1}$ - $\hat{6}$ but four on $\hat{7}$, since a $\text{vii}^{\circ 7}$ or a VII^7 each contain both a 6^{th} and a 7^{th} degree.

Example 2. Composite Scale with Variable 6th and 7th Scale Degrees



Example 3. Diatonic chords in minor

$\hat{1}$ $\hat{2}$ $\hat{2}$ $\hat{3}$ $\hat{3}$ $\hat{4}$ $\hat{4}$ $\hat{5}$ $\hat{5}$ $\downarrow\hat{6}$ $\uparrow\hat{6}$ $\downarrow\hat{7}$ $\uparrow\hat{7}$

i *ii*[°] *iii* III III⁺ *iv* IV V V VI *vi*[°] VII *vii*[°]

currently used in many textbooks, which show three forms of a minor scale, and the diatonic triads for each. As noted above, students have great difficulty integrating these three scale forms, and many never do. Furthermore, if the text stresses the idea that the most commonly used chords in minor are primarily those from harmonic minor, students often come to believe the others do not actually exist, at least not in any “real” music. Unless of course, they find it in Bach, and they fall back on that old saw, “well, he was Bach, he could do whatever he wanted to do”—as though Bach were violating a major theoretical and compositional principle.

As for the relative-key approach, the most common problem is that students try to learn minor key signatures through their relative majors, rather than learning them as independent keys, or through their parallel majors. This is in large part due to the fact that if they had any music lessons before entering college theory, they likely were taught this way. Furthermore, many theory textbooks foster this approach. Nevertheless, the end result is a lack of fluency with minor keys and key signatures, and worse, minor keys are always viewed as adjuncts to their relative majors, rather than as legitimate keys in their own right, or at least modally inflected versions of their parallel major-key counterparts.⁶ And students often pair the wrong keys. I have had the experience of asking a student the key signature of E $\flat$ minor and being told it is G major. Not only is the relative major G $\flat$ rather than G major, but more importantly, the key signature is six flats, not the name of some other key.

The situation is further compounded when students must learn to spell dominants and leading-tone chords in minor, because they often confuse the leading tone and subtonic, thinking in terms of key signature only. This problem becomes even more acute in upper levels of theory, when chromatic chords such as secondary dominants, diminished sevenths, augmented sixths, Neapolitans, and borrowed chords are introduced, chords that when used in major borrow notes from their parallel minors, most often the lowered sixth scale degree. Certainly every theory teacher has experienced students repeatedly spelling a minor-key dominant triad or seventh with a minor third (the subtonic); likely, these teachers have also

⁶ The keys without relative majors or minors are discussed later in this paper.

noted the bewilderment of students trying to spell an augmented sixth in major, because these students do not have a clear concept of the lowered sixth scale degree.

When students focus on the traditional pairing of *relative* major and minor keys, the concept of lowered or raised sixth and seventh scale degrees is at best confusing and at worst meaningless, because students are never sure what the notes are lowered or raised to or from. If minor scales are paired more aggressively with their *parallel* majors, then “lowered” always refers to those notes that fit in the minor key signature, and “raised” refers to those that fit in the major key signature. Further, pairing minor scales with their parallel majors clarifies the reason for using $\hat{1}\hat{6}$ and $\hat{1}\hat{7}$: (1) to provide the leading tone for harmonic purposes (as happens in parallel major); and (2) to provide the raised sixth, both to smooth out the potential augmented second that would result if the lowered sixth is placed next to the leading tone, and to provide stronger dominant harmonies, or dominant prolongation.⁷ For example, mm. 31–32 of Bach’s G_6 minor Gavotte prolong dominant harmony via the progression $V_5 - vi^{b7} - V^7$ with the bassline descending $F\# - E\flat - D$ against an upper voice ascending $E\flat - F\# - G$ (shown in Example 4).⁸ Yet another benefit of underscoring the parallel relationship is that the tonal priority of $\hat{1}$, $\hat{4}$, and $\hat{5}$ can be highlighted, since they remain the same in either mode. This provides not only a firmer foundation for future study than does the relative relationship, but also support for aural skills classes, particularly for harmonic dictation, since the scale degrees and their interconnected relationships remain the same. Focusing on parallel keys is also beneficial when teaching intervals. Most current textbooks state that all intervals above tonic in a major scale

⁷I am borrowing this efficient arrow notation from Kostka and Payne’s *Tonal Harmony*, 4th ed. (Boston: McGraw-Hill, 2000). Downward-pointing arrows designate the sixth and seventh scale degrees specified by the minor key signature, while upward-pointing arrows designate their major-key counterparts a chromatic half-step higher. This notation has the advantage of consistency, avoiding differing accidentals to refer to the same scale degree or chord in different keys, as for example, b_6 or bVI for $A\flat$ in C minor, but $\hat{b}_6$ or $\hat{b}VI$ for A in C# minor.

⁸English Suite No. 3 in G minor, BWV 808. This gavotte is readily available in various anthologies, and often included in textbooks in chapters on binary form and contrapuntal writing.

Example 4. Bach, Gavotte in G minor

are either major or perfect, so pairing parallel major and minor keys makes it is easy to see that the minor key signature will yield minor intervals on scale degrees $\hat{3}$, $\hat{6}$, and $\hat{7}$, a half-step below their major key counterparts, while $\hat{2}$, $\hat{4}$, $\hat{5}$, and $\hat{8}$ remain the same. Additionally, the minor key contains the identical major 6th and 7th degrees that the parallel major does. Surely many teachers already point this out, but by placing greater emphasis on the parallel relationship, the task becomes easier.

So why do these traditional approaches still hold sway? First, as mentioned above, if students have had any pre-college music lessons, they typically were already exposed to the three-forms and relative-key approach, and that would no doubt continue in their college-level performance studies. Second, many college-level theory instructors employ this method because that is the way they were taught. Third, no doubt in response to the first and second reasons, most theory and aural skills texts perpetuate this method, as the following survey illustrates.

Survey of Texts

Earl Henry's *Fundamentals of Music* begins by showing the half- and whole-step arrangement of a natural minor scale (without mentioning

the word natural), and follows this with what I consider to be an exemplary paragraph for a fundamentals text, since he mentions what is probably the likeliest explanation of why the three forms of the minor scale became a seemingly indelible part of common musical understanding (as alluded to above): the necessity for performers to practice the various scale-type passages they were likely to encounter when playing common-practice music:

Whereas traditional Western composers did not regularly alter the intervals in major scales, three different forms of the minor scale are common....[which] reflect the choices made most often by traditional composers. Performers practice three different forms...to become familiar with the most typical melodic patterns. In actual composition, however, the three forms are adhered to less rigidly, and two of them may even be employed simultaneously (one form in the melody, for example, and a different one in the harmony).⁹

But having said that, Henry continues with the traditional approach, including melodic excerpts to illustrate the different forms of minor, and making it appear as though it might be unusual to find two forms of minor in the same piece: “The following melodies are constructed from a major scale or from one of the three forms of minor....One of the melodies employs two different forms of minor. Locate this melody and speculate on why the composer used the two different forms.”¹⁰ Rather than focusing on a scale form, why not ask instead why the composer chose a particular 6th or 7th scale degree and get students thinking along those lines? A few pages later he says: “In the actual music, however, harmonic and melodic forms of minor occur regularly as accidentals effect the raised sixth or seventh. Sometimes...two or more forms of minor occur in the same composition—even simultaneously.”¹¹ Thus, this still suggests that pieces are strung together from different forms of minor. More to my liking, though, after he presents the standard approach of learning minor key signatures through their relative majors, Henry shows how to learn them through their parallel majors: subtract three sharps or

⁹Earl Henry, *Fundamentals of Music*, 3rd ed. (Upper Saddle River, New Jersey: Prentice Hall, 1999), 219.

¹⁰Henry, *Fundamentals*, 227.

¹¹Henry, *Fundamentals*, 231.

add three flats to the parallel key signature. Although he does not elaborate on the reason for this, it serves to reinforce the connection between parallel keys (especially if seized upon by the instructor): a minor key signature yields three notes that are a chromatic half-step lower than those of the parallel major ($\hat{3}$, $\hat{6}$, and $\hat{7}$).

Bruce Benward and Gary White, in *Music in Theory and Practice* (probably one of the most widely-used theory textbooks), start out well enough by saying that a minor scale has two versions of $\hat{6}$ and $\hat{7}$, and that traditionally, the minor scales have been described as having three distinct forms, but in practice, composers use all the scale resources of the minor scale within a single composition.¹² But then they go into the three forms of the scale, invoke the relative relationship to introduce minor, and show excerpts of pieces that they claim use the various forms of the scale, thus contradicting what their first paragraph, and reinforcing the idea that pieces are written in a specific form of minor. On the plus side, though, they pair all the major scales with their parallel minors, and efficiently show the possibility of both $\hat{6}$ s and $\hat{7}$ s with the use of parentheses (as shown in Example 5).¹³

In their presentation of diatonic chords in keys, Benward and White show separately the chords available in the three minor scale forms, as opposed to conflating them. But at least they do show all

Example 5. Benward's composite scale



¹²Bruce Benward and Gary White, *Music in Theory and Practice*, vol. 1, 6th ed. (Madison, WI: Brown and Benchmark, 1997), 33–39.

¹³Benward and White, *Theory and Practice*, 73.

available chords, and they do pair them with their parallel major. Less satisfying is Benward and J. Timothy Kolosick's *Ear Training* book, where in one section the instructor is given 10 melodies to play, and the students are asked to determine the scale-form basis of each melody, again reinforcing the misconception that minor key music is written exclusively in one form or the other, and never the twain shall meet.¹⁴ Similar to what I suggested with respect to Henry's text, this could be a valuable exercise with a slight modification. Instead of asking for scale form identification, why not focus students' attention on which sixth and seventh scale degrees they are hearing and why the composer may have chosen one over the other (as, for example, the necessity of a leading tone at a cadence, or $\downarrow\hat{6}$ as an upper neighbor to $\hat{5}$)?

Like Benward and White, Ralph Turek (*Elements of Music*) follows the path of least resistance and uses the relative-key approach to introduce minor (although later he does make some important connections between parallel keys), illustrates the three forms of the minor scale, and dutifully gives a short musical excerpt that employs each form of the scale.¹⁵ More positively, Turek makes the important point that "composers have actually approached the minor scale not as three separate structures but as different facets of a single scale."¹⁶ He follows this with what he calls the *melodic minor principle*:

1. Scale degree seven is usually raised when progressing upward. If scale degree six precedes it, it is also raised.
2. Scale degree six is usually in its natural minor state when progressing downward. If scale degree seven precedes it, it is also in its natural minor state.¹⁷

¹⁴Bruce Benward and J. Timothy Kolosick, *Ear Training*, 6th ed. (Boston: McGraw-Hill, 2000), Melody 2B, pp. 30–32 in the instructor manual, 20–21 in the student book.

¹⁵Ralph Turek, *The Elements of Music*, vol. 1, 2nd ed. (New York: McGraw-Hill, 1996), 61–64. On a related note, I find it disappointing that, unlike his section on major scales, where Turek shows every single major scale written out, he shows only five minor scales (four natural, one harmonic), hardly sufficient for the more difficult and less familiar of the two scale types.)

¹⁶Turek, *Elements*, 65.

¹⁷Turek, *Elements*, 65.

I have no objection to his principle per se, but calling it the *melodic minor principle* once more reinforces the notion that music is predicated on a particular scale form, minus any harmonic consideration, and not the reverse.

Better, from my point of view, is Turek's section on diatonic triads in minor. He places the most common triads on one staff, and the less common ones on another, labeling them "alternative forms using sixth and seventh scale degrees," and noting that these alternative forms occur far less frequently than their counterparts on the first staff. His illustration neatly displays all the available diatonic chords without invoking any particular form of minor, but disappointingly he relates this back to his so-called melodic minor principle, saying, "every triad but the tonic has a diatonic variant that can result from the alteration of the sixth or seventh scale degree in accordance with the melodic minor principle."¹⁸ Thus, harmonic considerations are made to seem secondary to the supposed priority of a scale form.

Benjamin, Horvit, and Nelson (*Techniques and Materials of Tonal Music*) take a minimalist approach in their presentation of topics.¹⁹ They introduce minor scales (as they did for major) as particular arrangements of whole and half steps (and an augmented second for harmonic minor), indirectly relating them, however, to the relative key—C is used to illustrate major, and A for minor. Minor key signatures are directly related to the relative major: "Each major key has a relative minor whose tonic is on the sixth scale-degree of the major (and a minor third below the tonic) and that uses the same key signature."²⁰ But what I like about their presentation is that they immediately introduce the idea of variable sixth and seventh scale degrees, that no excerpts are used to suggest that music is written in a particular form of minor, and that context alone determines the choice, rather than the direction of a line:

¹⁸Turek, *Elements*, 124.

¹⁹Thomas Benjamin, Michael Horvit and Robert Nelson, *Techniques and Materials of Tonal Music*, 3rd ed. (Boston: Houghton Mifflin, 1986), 12–13.

²⁰Benjamin, Horvit, Nelson, *Techniques and Materials*, 15.

Minor scales have three traditional forms—natural (pure), harmonic, and melodic—shown here with the A-minor scale. There is rarely a clear distinction between these forms in actual music. Context alone determines which forms of the variable sixth and seventh scale-degrees will be used in a given passage.²¹

Unlike the other books surveyed, this text does not have a discrete section presenting all the diatonic triads in major and minor. Rather, successive chapters introduce individual chord functions, with major and minor keys treated simultaneously, initially without any mention of variable scale degrees or chord qualities. Those minor-key chords that are included in these chapters are the more commonly used ones, though no explanation is given for why that is. Later, in a chapter titled “Variant Qualities of Triads,” the less common triads in minor are discussed. Disappointingly, they are linked to forms of the scale: “IV, ii, and vi^o are found with the ascending form of the scale; v is found with the descending form.”²²

Earl Henry’s *Sight Singing* text (the book reviewed by Smith) contains a commendable discussion of minor, all the more so since it is a sight-singing book and not a theory book, as pointed out in the preface:

Sight Singing is not a theory text...yet many theoretical subjects...are discussed briefly....Each chapter begins with a list of **Allied Theoretical Concepts** that...should be thoroughly understood *before the chapter is begun*.²³

Henry introduces minor by explaining that, “Although we commonly study these scales as if they were three distinct choices, you will find that composers choose melodic patterns in minor that emphasize the goal of the passage.”²⁴ He relates minor to Aeolian

²¹Benjamin, Horvit, Nelson, *Techniques and Materials*, 12–13.

²²Benjamin, Horvit, Nelson, *Techniques and Materials*, 98.

²³Earl Henry, *Sight Singing* (Upper Saddle River, New Jersey: Prentice Hall, 1997), ix. Henry’s two out-of-print theory books, *Music Theory* vol. 1 (New Jersey: Prentice Hall, 1985) and *Theory of Tonal Music* (New Jersey: Prentice Hall, 1985) were unavailable to me.

²⁴Henry, *Sight Singing*, 96.

and pairs A major with A minor in order to demonstrate the different placement of half steps. Owing to this difference, he says, minor contains a subtonic. He explains that composers generally wanted a leading tone, especially for harmonic purposes, so they often raised it, producing what is known as Harmonic minor. In a stepwise melodic passage, this would result in an awkward augmented second, so composers often raised the sixth degree as well, thereby creating a *new* form known as Melodic minor. (Henry shows the three minor forms next to the parallel major, emphasizing the comparison of scale degrees $\hat{3}$, $\hat{6}$, and $\hat{7}$.) Consequently, these different scale forms are seen as the *byproduct* of musical practice, and not the reverse—practice has *created* new forms of the scale.

In discussing the use of the alternate sixth and seventh degree, in place of the all too common, simplistic and counterproductive explanation that when melodies ascend, the melodic minor is used, and when they descend, natural minor is used, Henry avoids any mention of scale form and focuses instead on tonal goals and harmonic considerations:

Melodies move typically according to the goal of a given passage, as shown below. If the tonic is the goal of an ascending passage, raised $\hat{6}$ and/or $\hat{7}$ will be employed. If the dominant is the goal, however, either or both of these same pitches will probably be natural. When pitches other than the tonic and dominant are emphasized, raised or lowered $\hat{6}$ and/or $\hat{7}$ reflect the direction of the passage²⁵....When the dominant triad is outlined in a melody, the raised $\hat{7}$ is nearly always employed.²⁶

The treatment in Kostka and Payne's *Tonal Harmony* is close to what I am advocating in several ways. For example, chapter one introduces minor scales in relation to their parallel majors.²⁷ The authors show the three minor forms against their major counterpart, highlighting the comparison of scale degrees $\hat{3}$, $\hat{6}$, and $\hat{7}$ (as shown in Example 6).²⁸

²⁵Henry, *Sight Singing*, 99.

²⁶Henry, *Sight Singing*, 112.

²⁷Kostka and Payne, *Tonal Harmony*, 13–16.

²⁸Kostka and Payne, *Tonal Harmony*, 13.

Example 6. Kostka/Payne comparison of parallel scales

C Major	C	D	E	F	G	A	B	C
Scale Degree	$\hat{1}$	$\hat{2}$	$\hat{3}$	$\hat{4}$	$\hat{5}$	$\hat{6}$	$\hat{7}$	$\hat{8}$
C Natural Minor	C	D	E $\flat$	F	G	A $\flat$	B $\flat$	C

Moreover, the authors do not show snippets of pieces and claim that they are written in a particular form of minor, nor do they state that when the melody ascends, the raised sixth and seventh are used, and when it descends, the lowered sixth and seventh are used, but they still do treat them as three separate scale forms. Their opening sentence on minor scales states: "Musicians traditionally memorize and practice three minor scale formations, although they are not used with equal frequency, as we shall see in a later chapter."²⁹ I thoroughly endorse this comment and what they say in that later chapter (Chapter 4, "Diatonic chords in Major and Minor Keys") and wonder why they did not include these comments in chapter one:

Because instrumentalists are taught to practice natural, harmonic, and melodic minor scales, we sometimes assume that the tonal composer had three independent minor scale forms from which to choose, but this is not how the minor mode works in tonal music. We can make the following generalizations about the three minor scales: there is, in a sense, one minor scale that has two scale steps, $\hat{6}$ and $\hat{7}$, that are variable. That is, there are two versions of $\hat{6}$ and $\hat{7}$, and both versions will usually appear in a piece in the minor mode. All the notes in Example 4-1 are diatonic to e minor. [Their Example 4-1 shows a composite scale.]³⁰

²⁹Kostka and Payne, *Tonal Harmony*, 13.

³⁰Kostka and Payne, *Tonal Harmony*, 61.

How disappointing, then, for them to follow this by reverting back to invoking forms of the scale:

How do composers decide which version of $\hat{6}$ and $\hat{7}$ to use? Melodically, the most graceful thing for $\uparrow\hat{6}$ and $\uparrow\hat{7}$ to do is to ascend by step, whereas $\downarrow\hat{6}$ and $\downarrow\hat{7}$ tend naturally to descend by step; these tendencies conform to the melodic minor scale. Example 4–2 provides a good illustration of the use of the minor scale.³¹

My reaction to their discussion of diatonic triads in minor is equally mixed. The strength of the presentation is in explaining why there are more triads in minor than major and showing all the chords on a single staff, circling those that occur most frequently (as shown in Example 7):

Because $\hat{6}$ and $\hat{7}$ are variable, and because nearly all triads contain $\hat{6}$ or $\hat{7}$, more diatonic triads are possible in minor. Nonetheless, there are seven triads in minor (one for each scale degree) that occur more frequently than the others, and these are the ones [that] are circled.³²

The weakness of this section is that they still relate those chords to the harmonic minor scale:

Notice that the roots of the triads circled [in Example 7] all belong to the harmonic minor scale. In fact, all the notes of the circled triads belong to the harmonic minor scale, with the exception of the 5th of the III chord.³³

Robert Gauldin's presentation in *Harmonic Practice in Tonal Music* is, overall, probably the closest to what I am advocating, although I think too concise for many typical university students.³⁴ He begins, as did Henry, by pointing out that the basic difference between major and minor is the lowered third scale degree. But he

³¹Kostka and Payne, *Tonal Harmony*, 62.

³²Kostka and Payne, *Tonal Harmony*, 64–65.

³³Kostka and Payne, *Tonal Harmony*, 65.

³⁴Robert Gauldin, *Harmonic Practice in Tonal Music* (New York: W.W. Norton, 1997), 30–31.

Example 7. Kostka/Payne diatonic chords in minor

$\hat{1}$ $\hat{2}$ $\hat{2}$ $\hat{3}$ $\hat{3}$ $\hat{4}$ $\hat{4}$ $\hat{5}$ $\hat{5}$ $\downarrow\hat{6}$ $\uparrow\hat{6}$ $\downarrow\hat{7}$ $\uparrow\hat{7}$

i *ii*^o *III* *III*⁺ *iv* *V* *VI* *vi*^o *VII*

then uses A to illustrate minor when he used C for major. That aside, he says minor is more complex than major and that “several scales are traditionally used to illustrate different aspects of the minor mode.”³⁵

The **melodic minor scale**...shows how the scale degrees tend to operate in actual tonal melodies. As a melodic line rises from $\hat{5}$ to $\hat{8}$, scale steps $\hat{6}$ and $\hat{7}$ are raised by a half step, which increases their inclination toward the upper tonic ($\hat{5} - \sharp\hat{6} - \sharp\hat{7} - \hat{8}$). When a melodic line descends from $\hat{8}$ to $\hat{5}$, scale steps $\hat{7}$ and $\hat{6}$ are lowered, producing a strong half-step pull from $\natural\hat{6}$ to the dominant ($\hat{8} - \natural\hat{7} - \natural\hat{6} - \hat{5}$). The lowered 7th degree is called the **subtonic** rather than the leading tone, since in this form it does not lead to the tonic....The **harmonic minor scale**...represents those scale degrees that are typically found in the most basic chordal progressions...The natural minor scale is identical to the scale of the Aeolian church mode....If we combine all three forms of the scale into one composite scale, we obtain a better picture of the wealth of musical pitches actually used in minor-mode compositions. Example 11 shows that while the scale degrees from $\hat{1}$ to $\hat{5}$ are diatonic, the span from $\hat{5}$ up to $\hat{8}$ is completely chromatic, containing both lowered and raised 6th and 7th degrees: $\hat{5} - \natural\hat{6} - \sharp\hat{6} - \natural\hat{7} - \sharp\hat{7} - \hat{8}$.³⁶

³⁵Gauldin, *Harmonic Practice*, 30.

³⁶Gauldin, *Harmonic Practice*, 30–31.

The strength of this presentation is that minor is approached as an aggregate, with scale forms being a *consequence* of musical practice. And the composite scale elegantly brings into focus what is actually a simple concept: two sixth and seventh scale degrees that create a chromatic span from $\hat{5}$ to $\hat{8}$ (Gauldin's scale is shown in Example 8).³⁷ As for diatonic chords in minor, Gauldin illustrates them in C minor, directly underneath those in C major, as shown in Example 9. He says, "In the minor mode, note the two forms of the subdominant, dominant, and subtonic triads, which make use of both the lowered and raised 6th and 7th scale degrees."³⁸ I only wish he would have included ii, III+, and vi^o for sake of completeness, as did Kostka and Payne.

Obviously, and with varying degrees of success, all of these authors (as well as others) try to address the problem of presenting minor, yet inadvertently add to the confusion by reinforcing the three-forms and relative-key approach. I wish each of the texts could expand on their better, more theoretically correct explanations (which they all have) and excise completely any notion that minor is anything but one key with two alternate scale degrees, the raised ones absorbed from major. Clearly, much of what underlies the choice of sixth and seventh scale degree is too complicated for the introduction of minor scales and keys in the first few weeks of Theory 1, but the materials should be presented and organized with this integrated long-term goal in mind, so that students do not later have to unlearn or disregard what they learned in the beginning, or worse, get through theory without ever having understood minor. A compilation of all the strengths from each of the above texts would produce a solid presentation of minor, but I would take it even a step farther. Perhaps many instructors already employ a presentation similar to what I propose below, but I would make a plea for textbook authors to consider this approach as well. (I have chosen one possible ordering, but other orderings may be used without undermining the approach.)

The unit would begin with modes in order to introduce the concept of "scale" in its larger sense, as a collection of seven diatonic

³⁷Gauldin, *Harmonic Practice*, 31.

³⁸Gauldin, *Harmonic Practice*, 92–93.

Example 8. Gauldin's composite scale**Example 9.** Gauldin's Chords in Parallel Major and Minor

C: I ii iii IV V vi vii^o I

c: i ii^o III iv IV v V VI VII vii^o i

itches (that is, seven different letter names), each with a particular arrangement of half and whole steps, and explain that there are many scale types, not just major and minor—that those are in fact a subset of the class, “diatonic scale.” It would emphasize at this early stage that major and minor scales and modal scales (synonymous for our purposes) are pitch inventories that for the sake of simplicity and consistency happen to be arranged in ascending order—they could just as easily be arranged in descending order, as they were in the Greek modal system. But the point is, scales are just a convenient

tool we construct for ourselves to show the pitches belonging to a particular key or mode. After showing the different modes, and their unique placement of half and whole steps, the text would discuss how various modes, most notably Ionian and Aeolian, coalesced into the major and minor modes or keys of the common practice period, in large measure because of the desire for a leading tone at the ends of pieces, which discussion will be delayed momentarily.³⁹ Meanwhile, students would begin building major/Ionian and minor/Aeolian scales, concentrating on the correct placement of whole and half steps. The text would also introduce the building of scales in tetrachords, putting in place the foundation for key signatures and the circle of fifths.

This would be followed by pairing Ionian with Aeolian scales (same tonics) to demonstrate that Aeolian has a lowered or flatted $\hat{3}$, $\hat{6}$, and $\hat{7}$ with respect to Ionian, which then leads logically to the concept of parallel major and minor scales. Students would now begin spelling and notating parallel scales together to get this concept thoroughly ingrained and gain fluency in relating these scales to one another.⁴⁰ For example, one exercise might have students spell an E-major scale followed by an E-minor scale, paying close attention to which notes are lowered, followed by the reverse: spell a G-minor scale followed by a G-major scale, again noting carefully which notes are raised.

Next, the text would explain and emphasize that in minor-key music, in addition to the sixth and seventh degrees found in Aeolian minor, the raised sixth and particularly the raised seventh were so often borrowed from parallel major that they in fact became part of the minor scale and key. Thus, minor has *two* sixth and seventh scale degrees, as would be illustrated by a single composite minor scale

³⁹ Actually, Dorian was the model for minor for quite a while, before Aeolian came to the fore, but in these early stages I would want to focus on Aeolian for the obvious reason that its structure is what we now refer to as natural minor. As for Dorian, Rameau, in Book Two of his *Treatise on Harmony*, advocates A minor (Aeolian) as the model but acknowledges that the scale on Re (Dorian) is more commonly used and understood.

⁴⁰ I would delay introducing the three major and three minor keys that have no parallel keys until the students are reasonably fluent spelling those that do.

paired with its parallel major, enabling students to learn all the notes of a minor key at once, without having to go through three different scale forms to ferret out a note. Students would then spell and notate composite scales paired with their parallel majors.

Now the issue of the three forms of minor would need to be addressed. The text would point out that one reason for having three scale forms was (and is) for practicing melodic passages on instruments—and for this purpose it is still valuable and necessary for instrumentalists to know. But as a means of showing all the available notes in the key, and elucidating the richness and intricacies of minor, this approach falls short and typically generates more confusion than clarification. Nevertheless, since the terms “natural,” “harmonic,” and “melodic” have been around for so long, we do need to know them and to know how each scale is constructed, particularly for practicing on an instrument. Here the text would stress the overriding importance of understanding that, because of this well-known instrumental exercise, we may have assumed that composers had three independent minor scale forms to work with; however, in tonal music there is but one minor scale that incorporates two 6th and 7th scale degrees. Context alone determines which of the variable degrees will be used. Melodies move according to the *goal* of a passage. Often, when a melody ascends from $\hat{5}$ to $\hat{8}$, raised $\hat{6}$ and $\hat{7}$ are used, whereas when a melody descends from $\hat{8}$ to $\hat{5}$, lowered $\hat{6}$ and $\hat{7}$ are used, but this is not an absolute, and examples to the contrary may easily be found (as in the Bach example quoted above in Example 1). Overall, $\downarrow\hat{6}$ and $\uparrow\hat{7}$ are used most often, but the others are used too, often in proximity. (After chord spelling and functional principles are introduced, this explanation would be expanded to encompass harmonic considerations, such as the need for the raised 6th and 7th scale degrees in descending passages which instance dominant harmony, as in Examples 1 and 4, and the need for the lowered 6th and 7th scale degrees in ascending passages instancing subdominant harmony, as in Example 1.) The text would further emphasize that this concept must be clearly understood, or future progress will be significantly hampered.

Key signatures would be next, with the text concentrating on the relationship of parallel keys. One class exercise might be to call on a student to give the key signature for some major key. Another

student would then be asked whether to raise or lower three notes for the parallel minor key signature, and to name the resulting key signature. In order not to make major keys a crutch (whether as relative or parallel keys), students would be drilled on minor key signatures from zero to seven accidentals. For instance, one exercise might have them recite together: "A minor no sharps, E minor one sharp, B minor two sharps," etc., and similarly for flat keys.

To teach diatonic chords, this text would do essentially as Kostka and Payne and Gauldin do: build two triads on each scale degree of a composite scale (excepting tonic) to show *all* the triads available in minor. Now, because the concept of variable scale degrees has been drilled extensively in earlier chapters, the whole topic of teaching diatonic chords in minor can be simplified by explaining that the chords used most often are those with $\downarrow 6$ and $\uparrow 7$ (with the exception of III), although all of the chords are used sometimes. Is that not more elegant than the inefficient method of creating two separate extraneous scale forms to accommodate a particular chord choice or melodic pattern?

I believe the approach I am advocating has much to recommend it and would go a long way towards providing students with a much better appreciation and understanding of minor keys as well as ease the entry into such topics as chromatic and borrowed harmonies, modulation, extended chromaticism and large-scale analysis. I hope I have been persuasive and that this paper will encourage instructors and textbook authors to rethink and revise their discussions of minor.