

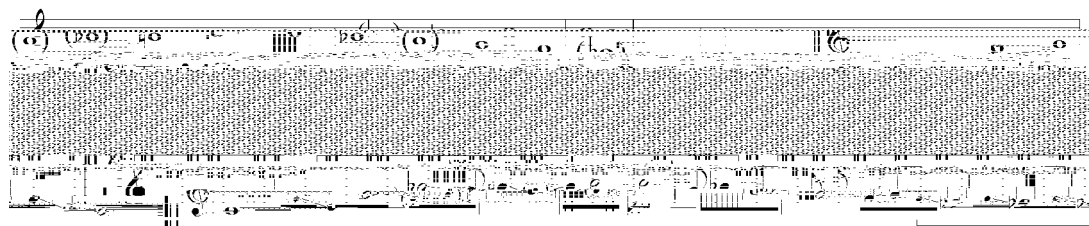
The Rise of $\hat{6}$ in the Nineteenth Century

Jeremy Day-O'Connell

INTRODUCTION

Ethnomusicologists and theorists of non-Western music maintain a useful distinction between “scale” and “mode”—that is, between a neutral collection of tones in a given musical tradition and the actual conventions of melodic practice in that tradition. Example 1, for instance, illustrates the tonal hierarchy and motivic dispositions that transform the undifferentiated pitch material of a Hindustani *thāt* (“scale”) into a *ragā* (“mode”), which in turn constitutes the governing syntax for a piece or improvisation. In short, “[mode] is more than merely a scale.”¹ While inquiries into unfamiliar musical systems engage mode as a matter of course, recent studies of the Western major scale have more often concerned scale as scale, investigating group-theoretic criteria such as “coherence” and “well-formedness,” or acoustic properties such as “optimum consonance.”² These studies help to explain the relative

prevalence of a handful of scales throughout the world, and to delimit those scales’ structural potentials, but they fail to address melodic practice. Setting out along the musical continuum pictured in Example 2, we will begin to explore the question of



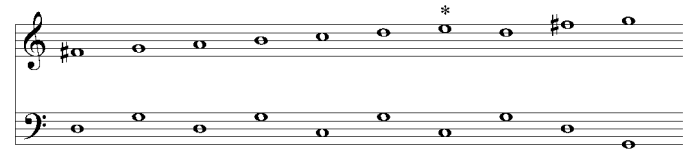
THEORY: $\hat{6}$ IN THE MAJOR MODE

older theories of the scale

Technically, $\hat{6}$ was not $\hat{6}$ until the emergence of the major mode, and hence a history of $\hat{6}$ might begin sometime during the seventeenth century. However, we do

sitions by Sweelinck, Byrd, and Bull, and a Mass movement by Burton, whether meant as self-conscious didacticism or not, use as *cantus firmus* the archetypal sequence *ut-re-mi-fa-sol-la*.⁶ Around 1600, a new solmization degree, *si*, gained increasingly widespread acceptance, although not without heated objection from conservatives; even as late as the eighteenth century, controversy surrounded the relative merits of hexachordal versus major-minor thinking.⁷

Eventually, as the major-minor system coalesced, the leading tone became a defining component of tonality, and the heptatonic octave naturally emerged as the unqualified foundation of musical pitch. But as important as $\hat{7}$ became in common-practice harmony, it presented certain

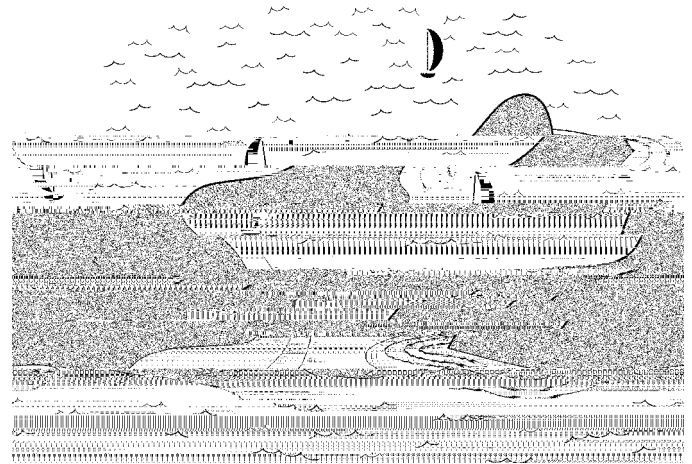
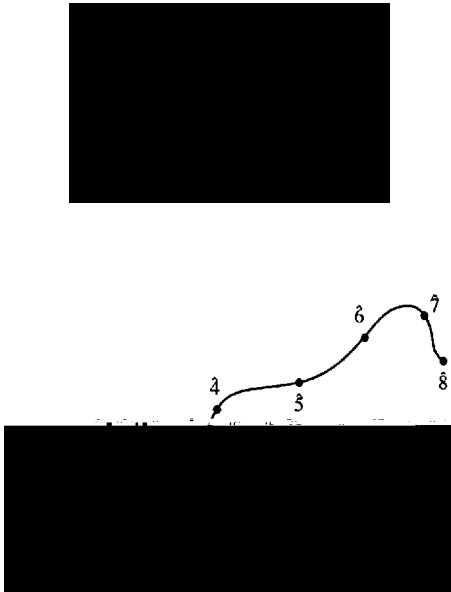


The image shows a musical staff in bass clef with a sequence of notes and figured bass labels. The notes are: G2, G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, D4, E4, F4, G4. The labels are: Reg. 3. (under G2), Reg. 5. (under G2), Reg. 4. (under A2), Reg. 6. (under B2), and Reg. 2. (under E3). Above the notes, there are figures: '6' above G2, '5 6' above G2, '6' above A2, '5 6' above B2, '6 4 2' above E3, '6' above F3, and '6' above G3.

toward $\hat{5}$. The notion of tendency tones

The Rise of δ in the





metaphor by recognizing the paradoxical nature of octave equivalence: the scale's linear progression is potentially circular (with $\hat{8}$ and $\hat{1}$ both tonics), and yet according to the precept of "obligatory register," not all tonics are created equal. The Escher-esque play with perspective in Example 9 attempts to convey these competing ideas simultaneously: by some measures, $\hat{8}$ is "higher" than $\hat{1}$, while by other measures, the two points are found to be at the same height after all, both enjoying the stable state of tonic.²⁵

This model of stepwise dynamics is, to be sure, just

Example 11. Tonal pitch-spaces (after Lerdahl 1996, 343)

octave

1̇

8

PRACTICE: CLASSICAL 6̇

typical contexts

Example 12 illustrates the conventional syntax of 6̇ by reviewing some of its typical harmonic contexts. The embellishing plagal cadence in (a) exemplifies the normative role of 6̇ in the major mode just as the dominant cadence exemplifies that of 7̇. Its chromatic sibling, the common-tone diminished-seventh chord, also finds 6̇ falling to 5̇ (b), while in another idiomatic harmonization, 6̇ dutifully descends as the seventh of a leading-tone seventh chord (c). In the case of pre-dominant harmony, 6̇ may rise to the leading tone (Sechter notwithstanding), but a supertonic seventh chord does necessitate 6̇–5̇ motion to avoid doubling the leading tone, which will follow instead as the resolution of the chordal seventh, 8̇ (d). Finally, in chords applied to V, 6̇–5̇ motion becomes 2̇–1̇ motion (e), and, indeed, the pivot relation 6̇ = 2̇ offers a favorite means of modulation and tonicization.

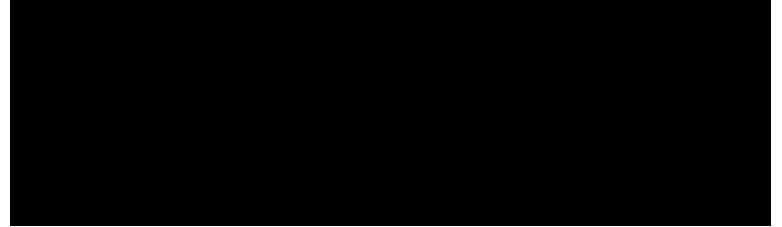
Chromatic alterations of 6̇ in major magnify its tendency to descend, for which reason a minor-tinged plagal cadence so frequently follows (and rarely precedes) a standard plagal. The use of $\flat 6̇$ as a rhetorical exclamation point after $\sharp 6̇$ can even assume motivic status in the course of a theme, as in Example 13. In fact, virtually all the favorite chromatic devices within the major key, illustrated in Example 14—the Neapolitan, the diminished seventh, the minor subdominants, and the family of augmented sixths—arise at least in part from the chromaticization of 6̇–5̇. By contrast, $\sharp 6̇$ in major occurs infrequently, the much-discussed theme of

²⁷6̇–7̇, both with and without the registral shift, may contain structural significance, as suggested in Neumeyer 1987.

7 8 5 6 5

pa - cem pa - cem pa - cem

A musical score for a vocal line in G major. The melody consists of the notes G4, A4, B4, A4, G4. Above the notes are the fingerings 7, 8, 5, 6, 5. The lyrics are "pa - cem pa - cem pa - cem". The score includes a treble clef, a key signature of one sharp (F#), and a common time signature (C).



5 6 5

A musical score showing a sequence of notes with fingerings 5, 6, 5 above them. The notes are partially obscured by a redaction box below.

6 5 6 5

A musical score showing two pairs of notes with fingerings 6 5 and 6 5 above them. The notes are partially obscured by a redaction box below.

These observations regarding $\hat{6}$'s

6 5

A musical score showing two notes with fingerings 6 and 5 above them. The notes are partially obscured by a redaction box below.

Example 13. Chopin, Prelude in D major, op. 28, mm. 1–4

Musical score for Chopin's Prelude in D major, op. 28, mm. 1–4. The score is in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. The melody consists of eighth-note chords. Above the first two measures, the fingering '6 5' is written. Above the next two measures, the fingering 'b6 5' is written. The bass line consists of a steady eighth-note accompaniment.

Example 14. Chromatic chords in the major key

Musical score for chromatic chords in the major key. The score is in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. The melody consists of eighth-note chords. Above the first three measures, the fingering '6 5' is written. Above the next three measures, the fingering '6 5' is written. The bass line consists of a steady eighth-note accompaniment.

Example 15. Mozart, Sonata, K. 281: i, mm. 5–8

Musical score for Mozart's Sonata, K. 281: i, mm. 5–8. The score is in treble clef with a key signature of one sharp (F#) and a 3/4 time signature. The melody consists of eighth-note chords. Above the first three measures, the fingering '6 5' is written. Above the next three measures, the fingering '6 5' is written. The bass line consists of a steady eighth-note accompaniment.



Example 18. Hexachordal melodies

(a) Handel, Messiah: "Pastoral Symphony," mm. 1–4

Larghetto e mezzo piano

(b) Vivaldi, La Primavera, mm. 7–10

back to the spirit of folk-dance and the world of Schubert's Ländlers. The Strauss example demonstrates an increased freedom in usage—more “harmonic” than “melodic”—but an eventual resolution to $\hat{5}$ does occur. The flourishing of such added-sixth chords in the nineteenth century hardly required intensive cultivation; in reference to triadic harmony, the sixth is, after all, the only chordal additive that forms a consonance with the root. Although we cannot always distinguish between appoggiaturas and true added sixths, the two concepts are useful. If Examples 24

and 28 represent stepping-stones from the one technique to the other, Example 29 continues this trend, and Example 30 represents its apotheosis: the added sixth chord does not resolve, but remains forever, “ewig.”

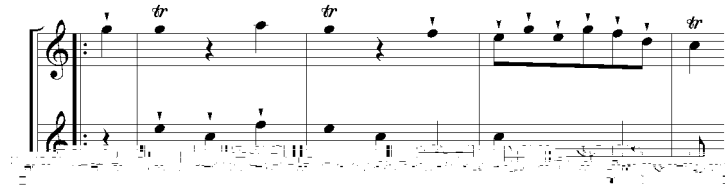
Nineteenth-century composers' seeming infatuation with $\hat{6}$, and the evolution from $\hat{6}$ –

Example 19. $\hat{6}$ - $\hat{5}$ bird motives

(a) Vivaldi, Concerto in A, "Il cucu," mm. 18–20



(b) Haydn, Quartet, op. 33, no. 3: ii, mm. 35–8

Example 20. $\hat{6}$ - $\hat{5}$ horn calls

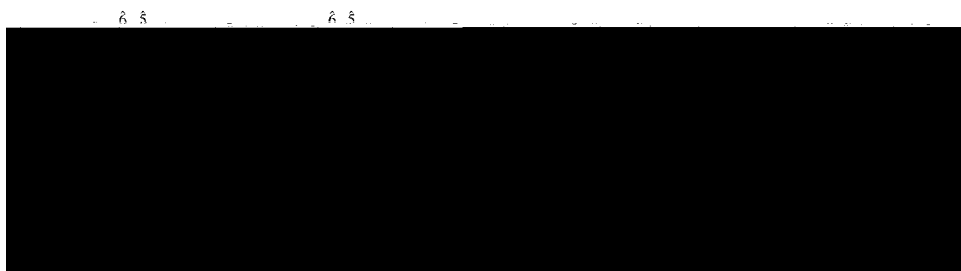
(a) Schubert, Winterreise, "Der Lindenbaum," mm. 1–2



(b) Schubert, "Trost" D. 671, mm. 10–14

Hör - ner - klän - ge ru - fen kla - gend aus des For - stes grü - ner Nacht,
Tö - nen aus des Wal - des Grün - den Hör - ner - klän - ge an - mein Ohr,

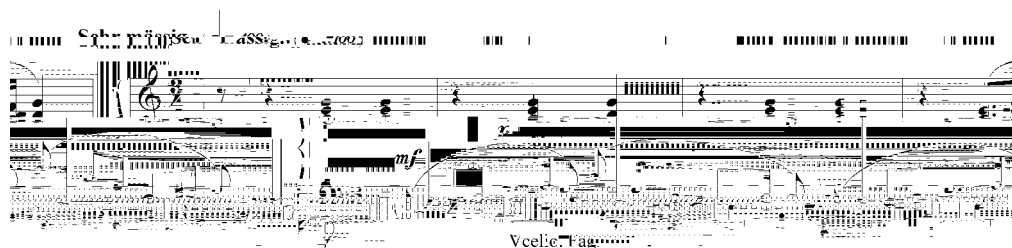
Example 21. Beethoven, Symphony no. 6: i, mm. 67–74



Example 22. Schubert, Ländler, D. 681, no. 8, mm. 1–8, primo



Example 23. Schumann, Symphony no. 3: ii, mm. 1–4



Example 24. Chopin, Prelude in F major, op. 28, mm. 1–2

delicatissimo

p

Example 25. Mendelssohn, "Bei der Wiege," op. 47, no. 6, mm. 5–6

der Zeit,
ge - walt,

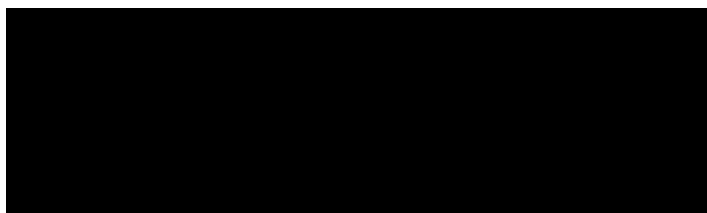
1. Schlumf - reund träu - me von kom - men -
2. Schlumf - reund träu - me von Früh - lings

Example 26. Schubert, Sonata, D. 664: ii, mm8cmBT0.027Tc37003710022021Tm/T61Tm/T61Tm.2408cmi999999999

mezzo-forte

Example 27. Chopin, Waltz, op. 18, mm. 22–7

Example 28. Johann Strauss, Jr., Donauweibchen, no. 2, mm. 5–10



Example 29. Fauré, Barcarolle, op. 44, mm. 99–101

Example 30. Mahler, Das Lied von der Erde: "Der Abschied," end

PRACTICE AGAINST THEORY: NON-CLASSICAL $\hat{6}$

preliminary examples

Ever since its premiere in 1830, Berlioz' *Symphonie fantastique* has commanded attention for its revolutionary approaches to orchestration, harmony, form, and program. One small innovation may be added to this list, a detail that appears at the very end of the first movement: a plagal cadence with melodic $\hat{6}-\hat{8}$ (Example 31). Although one may discern a more classical $\hat{6}-\hat{5}$ just below the contrapuntal surface—and the final chord, $I/\hat{5}$ encourages this (see reduction)—the foreground cadential $\hat{6}-\hat{8}$ represents a compositional first, as far as I know.³³ Indeed, the sampling of plagal cadences to 1830 presented in Example 32 reveals an unwavering preference for stepwise or oblique motion in the melody, whether $\hat{6}-\hat{5}$, $\hat{4}-\hat{3}$, or $\hat{1}-\hat{1}$.³⁴ This preference reflects modal norms and underscores the essentially ornamental nature of these cadences as voice-leading prolongations of tonic harmony. Nineteenth-century composers, on the other hand, embraced the leaping $\hat{6}-\hat{8}$ cadence as a novel and compelling gesture in its own right. Example 33 cites several instances, some of which will be discussed below.³⁵

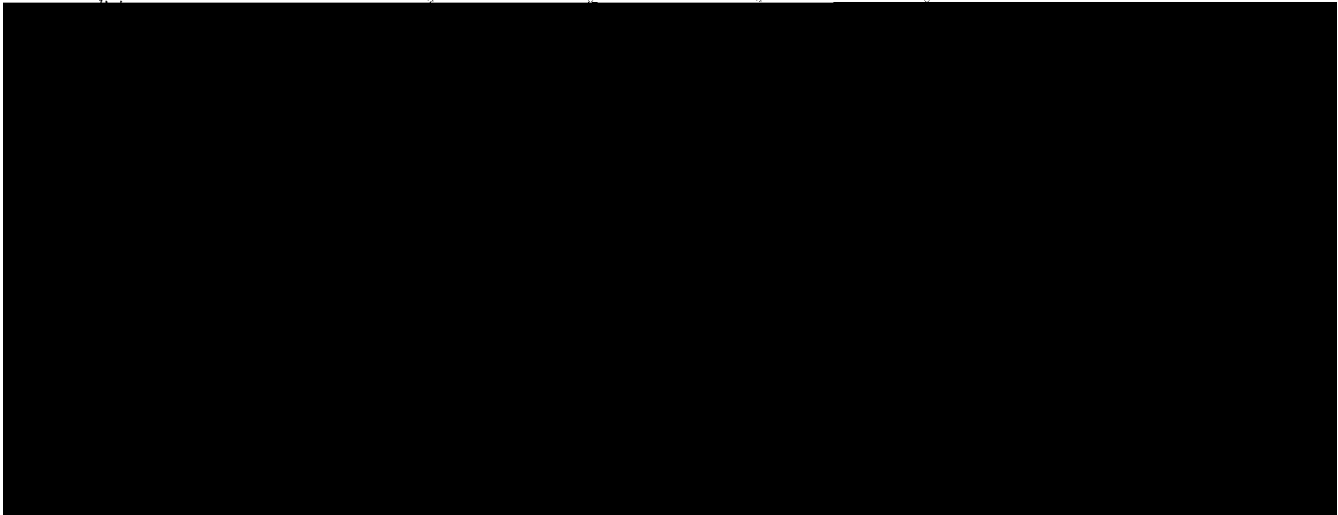
In the case of Berlioz and many others, the $\hat{6}-\hat{8}$ cadence embodied a uniquely Romantic spirituality: the Protestant "Amen" connoted with the minor-third shapes of Catholic liturgical intona-

tion.³⁶ But the cadence is found in a wide variety of pieces that are not always explicitly programmatic, and the $\hat{6}-\hat{5}$ foreground connection is generally absent—both indications of the extent to which this development earned its place among the fundamentals of nineteenth-century musical procedure. A contrapuntal reduction of Example 34, for instance, would necessarily describe a connection between the melodic $\hat{6}$ and the ensuing inner-voice $\hat{5}$,³⁷ but this connection requires of the listener slightly more imagination than does the Berlioz (or more still than the Bach shown in Example 10). In fact, the melodic $\hat{6}-\hat{8}$ here acts as a salient cadential "answer" to the preceding, inversionally related $\hat{5}-\hat{3}$ (itself a quasi-cadential Ländler gesture, about which more will be added below). By its very nature—that of an ending—a final $\hat{6}-\hat{8}$ cadence will typically lack any subsequent opportunity to evince the implicit neighbor relation $\hat{6}-\hat{5}$. That is, short of an extension-cum-explanation (as in the Berlioz), one must imagine the descent to $\hat{5}$ (or settle for its fulfillment in an inner part), rather than merely await it—a not uncommon circumstance in contrapuntal music, but one that helps to gauge the congruity of theory with practice and, by implication, to gauge the expressive content of such moments.

a theoretical accommodation

The $\hat{6}-\hat{8}$ cadence appears to violate the "law of the shortest way," and more to the point, it complicates the conventional role of the plagal cadence as a neighbor-chord formation. In short, taking $\hat{6}-\hat{5}$ as our analytical "foil," we begin to observe a qualitatively new brand of deviation from that foil. Moreover, the precise nature of this deviation illustrates the potential interaction of scale

³³To obviate any potential confusion: what I refer to in the remainder of this paper as the cadential " $\hat{6}-\hat{8}$ " (melody) should



and mode, both of which are, after all, abstractions of melody. Bearing in mind Powers' formulation quoted earlier—mode as "particularized scale"—Example 35 represents its logical extension in light of "non-classical" $\hat{6}$: scale as "generalized mode." That is, this modal novelty impels us to infer a new stratum of pitch-space alongside our existing family of chromatic, diatonic, triadic, and octave spaces, what might be called "pentatonic" or "hexatonic" space.³⁸ By retaining the fundamental (scalar) prin-

ciple of adjacency,

Example 32. Major-mode terminal plagal cadences to 1830

		Soprano
Arcadelt	Ave Maria	$\hat{1}-\hat{1}$
Bach	B-minor Mass, Credo	$\hat{4}-\hat{3}$
Handel		

Example 34. Chopin, Etude, op. 25, no. 8, end

Musical notation for Example 34. The notation shows a melodic line with a slur and a fermata over the final notes. The notes are labeled with circled numbers 1 through 8. A dashed line above the slur indicates a specific interval or duration.

Example 35. Pentatonic pitch-space

triadic	$\hat{1}$		$\hat{3}$		$\hat{5}$			(!)	$\hat{8}$
pentatonic/hexatonic	$\hat{1}$	$\hat{2}$	$\hat{3}$	($\hat{4}$)	$\hat{5}$	$\hat{6}$			$\hat{8}$
diatonic	$\hat{1}$	$\hat{2}$	$\hat{3}$	$\hat{4}$	$\hat{5}$	$\hat{6}$	$\hat{7}$		$\hat{8}$

Musical notation for Example 35. The notation shows a melodic line with a slur and a fermata over the final notes. The notes are labeled with circled numbers 1 through 8. A dashed line above the slur indicates a specific interval or duration.

Musical notation for Example 35. The notation shows a melodic line with a slur and a fermata over the final notes. The notes are labeled with circled numbers 1 through 8. A dashed line above the slur indicates a specific interval or duration.

with a tense chromatic neighbor $\hat{3}-\sharp\hat{2}-\hat{3}$, but confirming the cadence with the relaxed pentatonic neighbor $\hat{8}-\hat{6}-\hat{8}$. Example 37(a) gives a similar common-tone progression, and although its $\hat{6}-\hat{8}$, like that of the previous example, appears to result from motion between two independent contrapuntal voices, a comparison with (b) reveals another factor that must have guided Schubert's decisions: the major-mode theme differs from its minor-mode prototype precisely in its inclusion of the $\hat{6}-\hat{8}$, suggesting that melodic proximity ($b\sharp-d$ compared to $b\flat-d$) provided the critical justification for the leap.³⁹ Furthermore, as should be expected, pentatonic space also posits the other type of adjacency, in which $\hat{6}$ is a passing tone in a $\hat{5}-\hat{6}-\hat{8}$ formation. For instance, Example 38 accomplishes a pentatonic voice-exchange: the prolongation of tonic harmony through the "stepwise" exchange of voices a "pentatonic third" apart.⁴⁰

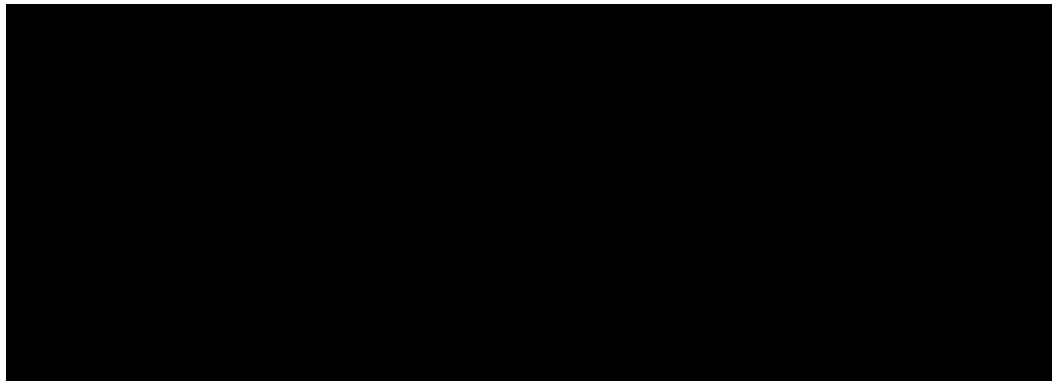
Such pentatonic passing tones are unremarkable and, in fact, idiomatic structures in many musical traditions, as in Scott Joplin's execution of his own "Maple Leaf Rag," transcribed in Example 39.⁴¹ Just as Joplin can be seen as having integrated vernacular "African retentions" into his music, European composers' traversal of pentatonic space relates in part to a growing interest in music outside the sphere of modern Europe, from the plainchant revival to exoticisms both Northern (e.g., Ossianism) and Eastern

(chinoiserie) to the extensions of pastoralism noted earlier. The various interactions of these influences with the Romantic imperative of artistic originality and the inherent possibilities of Western diatonicism produced a subtle but momentous broadening of melodic sensibility during the nineteenth century.⁴²

Another Semantic Digression: Returning to the fleeting but significant $\hat{6}-\hat{8}$ in

Example 37. Schubert, Winterreise: "Gute Nacht"

(a) mm. 71-5



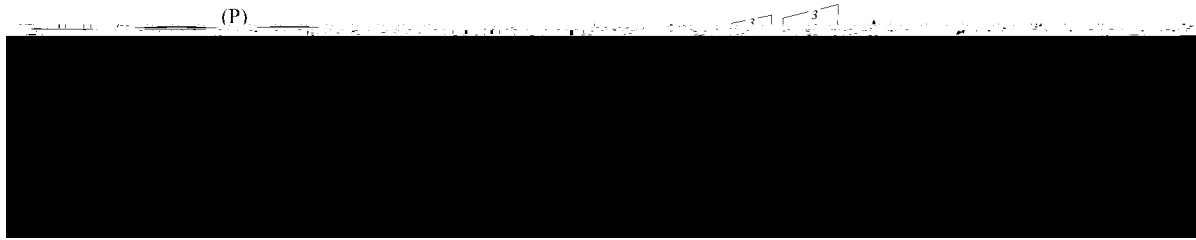
b) mm. 7-11



8 5

pp

Eü.JTTy118(in)08aLW0.211W0.2110



(as published, 1899)

5 6 8

mf >

mf

te weerst dwijn mid du li te Sa - te Wit - te en in di
et one - bare - nge - would - that - you could be - but - mine! you - in - the - Sw

the migration of $\hat{6}-\hat{8}$ to the bass represents another significant development, in the “quasi-progression” vi-I: notwithstanding the two common tones, a

Example 41. Brahms, Schicksalslied, mm. 64–9

Example 41 shows a musical score for Brahms's *Schicksalslied*, measures 64–9. The score is in E-flat major and features a vocal line with a long arch over measures 64–69 and a piano accompaniment. The vocal line includes several triplet markings. The piano part has a complex rhythmic texture with many sixteenth notes.

Example 42. Mahler, Symphony no. 5: i, mm. 9–14

Example 42 shows a musical score for Mahler's *Symphony no. 5: i*, measures 9–14. The score is in A major and features a vocal line with a long arch over measures 9–14 and a piano accompaniment. The vocal line includes a triplet marking. The piano part has a complex rhythmic texture with many sixteenth notes.

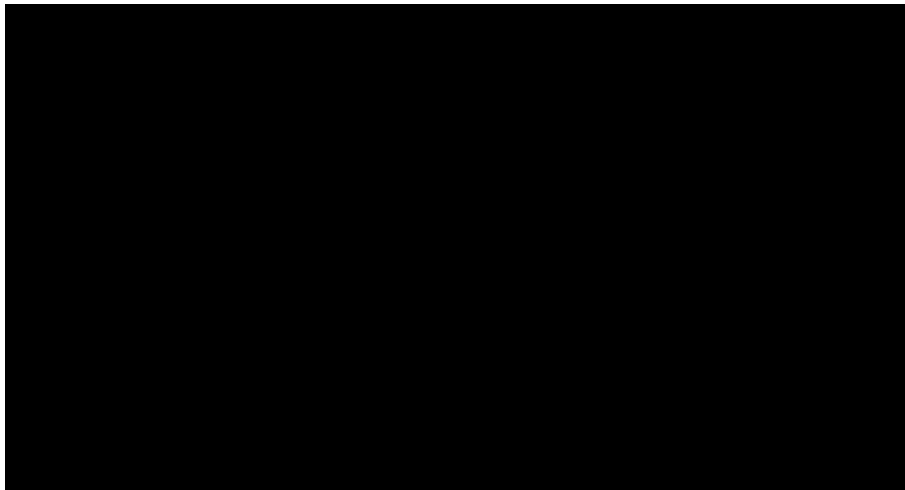
Example 43. Wagner, Lohengrin, Act I, Scene iii, mm. 42–4

Example 43 shows a musical score for Wagner's *Lohengrin*, Act I, Scene iii, measures 42–4. The score is in D major and features a vocal line with lyrics and a piano accompaniment. The vocal line includes lyrics such as "Leb' wohl!", "Bis zu weissen...", "trist...", "swan!", "mein lie...", "ber... Schwan!", and "farewell!". The piano part has a complex rhythmic texture with many sixteenth notes.

Example 44. Liszt, Requiem: Dies irae, end

A musical score for the end of Liszt's Requiem, Dies irae. The score is written for a vocal line and a piano accompaniment. The vocal line is in the treble clef and features a melodic line with a fermata over the final note. The piano accompaniment is in the bass clef and consists of a complex, rhythmic pattern. The word "mer..." is written below the vocal line. The score is marked with "vi" and "T. C." below the piano part.

Example 45. Puccini, Gianni Schicchi: "O mio babbino caro," end



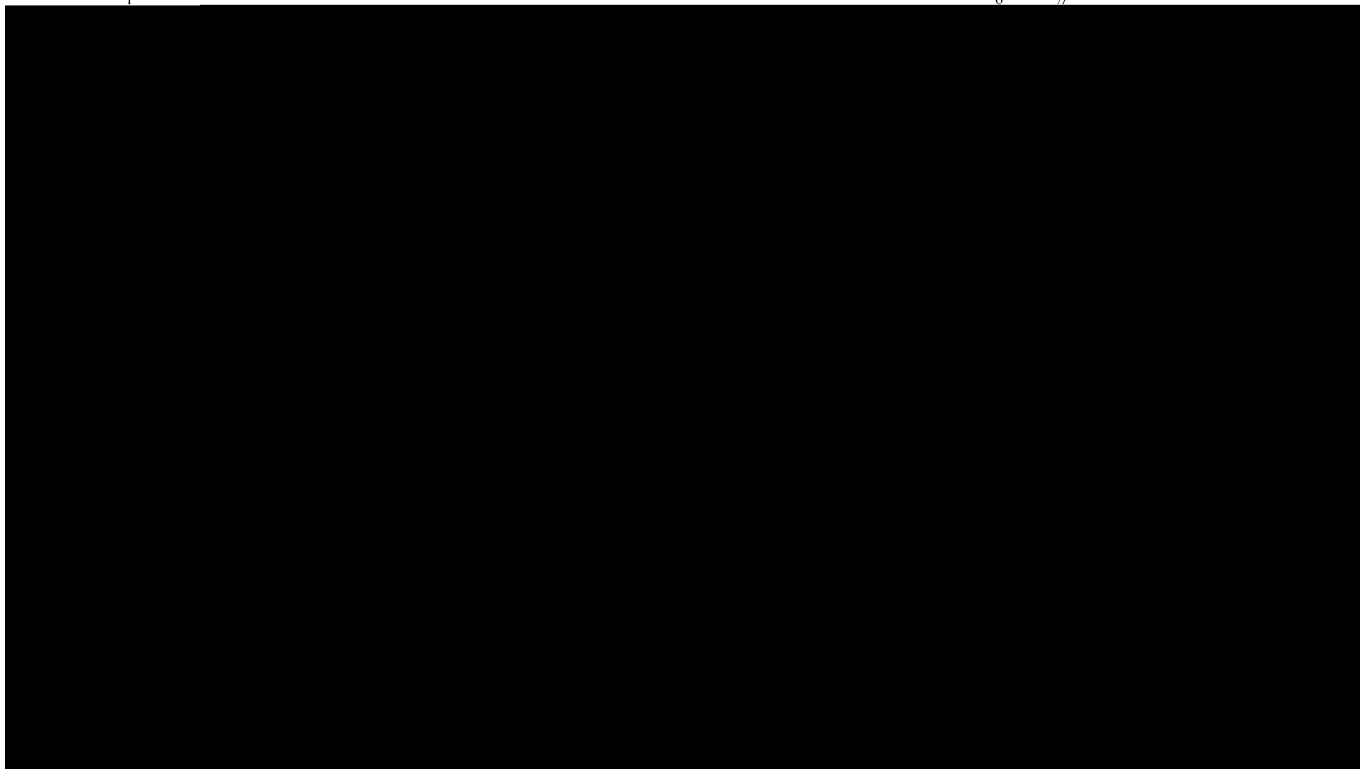
Example 46. Tchaikovsky, Romeo and Juliet, mm. 517–24

A musical score for Tchaikovsky's Romeo and Juliet, mm. 517–24. The score is written for a vocal line and a piano accompaniment. The vocal line is in the treble clef and features a melodic line with a fermata over the final note. The piano accompaniment is in the bass clef and consists of a complex, rhythmic pattern. The score is marked with "8" and "T. C." below the piano part.

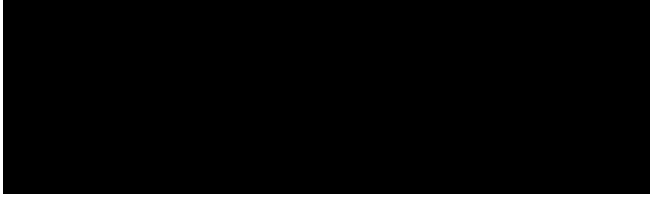
↑

6

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ambivalent status of



ethnomusicologists, in discerning a musical “common denominator” of our species, cite “music that uses only three or four pitches, usually combining major seconds and minor thirds.”⁵⁴ Indeed, the apparent suitability with which the bare minor third executes quasi-speech interjections—its “logogenic” status as “the basic singsong interval,”⁵⁵ whether among children, sports fans, street vendors, or marching soldiers (see Example 49)⁵⁶—raises the possibility of a connection between the $\hat{6}$ – $\hat{8}$ cadence and Leonard Meyer’s principle of musical “acontextualism” in the nineteenth century.⁵⁷ That is, beyond the obvious ideological attractiveness of “primitive” musical structures to the Romantic sensibility, it is conceivable that these structures satisfy deeper psychological or anthropological principles that themselves explain composers’ affinity to non-classical $\hat{6}$.

In any case, the story of $\hat{6}$ in the nineteenth century may ultimately amount to little more than a footnote in a larger story, namely that of plagal harmony. But while $\hat{6}$ – $\hat{8}$ may be primarily a symptom of a shift in harmonic sensibility, an inevitable experiment by plagal-loving composers in search of new possibilities, the melodic dimension still offers



LIST OF WORKS CITED

- Agawu, V. Kofi. 1991. *Playing With Signs. A Semiotic Interpretation of Classic Music*. Princeton: Princeton University Press.
- Agawu, Kofi. 1994. "Ambiguity in Tonal Music: A Preliminary Study." In *Theory, Analysis, and Meaning in Music*. Edited by Anthony Pople. Cambridge: Cambridge University Press, 86–107.
- Agmon, Eytan. 1996. "Coherent Tone-Systems: A Study in the Theory of Diatonicism." *Journal of Music Theory* 40: 39–59.
- Aldwell, Edward, and Carl Schachter. 1989. *Harmony and Voice Leading*. Second

- Huron, David. 1994. "Interval-Class Content in Equally Tempered Pitch-Class Sets: Common Scales Exhibit Optimum Tonal Consonance." *Music Perception* 11: 289–305.
- Kaufmann, Walter. 1968. *The Ragas of North India*. Bloomington: Indiana University Press.
- Kinderman, William, and Harald Krebs, eds. 1996. *The Second Practice of Nineteenth-Century Tonality*. Lincoln: University of Nebraska Press.
- Krumhansl, Carol L. 1990. *Cognitive Foundations of Musical Pitch*. New York: Oxford University Press.
- Larson, Steve. 1993. "Scale-Degree Function: A Theory of Expressive Meaning and Its Application to Aural-Skills Pedagogy." *Journal of Music Theory Pedagogy* 7: 69–84.
- Lerdahl, Fred. 1988. "Tonal Pitch Space." *Music Perception* 5: 315–50.
- . 1996. "Calculating T

Sechter, Simon. [1853] 1880. *The Correct Order of Fundamental Harmonies*. Translated by C. C. Müller. New York: Pond. Stein,