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Tonality

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As a music-theoretical term, "tonality" was first used by Alexander Choron in 1810 to describe the arrangement of the dominant and subdominant above and below the tonic and thus to differentiate the harmonic organization of modern music (*tonalité moderne*) from that of earlier music (*tonalité antique*).[1] One of the main conceptual categories in Western musical thought, tonality most often refers to the orientation of melodies and harmonies toward a referential (or tonic) pitch class. In the broadest possible sense, however, it refers to systematic arrangements of pitch phenomena and relations between them.

Usage

A number of musical and discursive factors have contributed to a veritable profusion of definitions for the term.[2] To begin with, there has been considerable indecision about what musical domain the term covers: whether it applies to both Western and non-Western music, or whether, within Western musical traditions, the term can be restricted to the harmonic organization of music from the so-called common practice (1600–1910) or includes all music that evinces a basic difference between consonance and dissonance. There have also been some basic theoretical disagreements about whether its constituent musical elements are melodies or harmonies: however narrow the definition given to the term, the domain of tonal music is so enormous, diverse, and complex that one can choose almost any combination of musical phenomena and theoretical principles as the basis for discussion. In addition to these musical problems, enormous discursive difficulties have arisen from the conceptual languages used to

The present chapter is a revised version of the article written for *NG*2.

1 Choron, "Sommaire de l'Histoire de la Musique," pp. xxxvii–xl; "Summary of the History of Music," pp. xxvii–xxix. In the "Sommaire de l'Histoire de la Musique," Choron contrasts *tonalité moderne* with *tonalité ecclésiastique*. He first drew the more oppositional distinction between *tonalité moderne* and *tonalité antique* in a footnote to his translation of Johann Georg Albrechtsberger's *Gründliche Anweisung zur Composition* (1790). See Albrechtsberger, *Méthode élémentaire de composition* (trans. Choron), p. 18.

2 An invaluable guide to the evolving uses of the term *tonalité* is Michael Beiche's "Tonalität" (1992) in *HmT*.

describe tonal phenomena, theoretical vocabularies that vary dramatically according to the aesthetic and epistemological commitments of the writer. A further complication (and recurrent tension) has to do with whether the term refers to the objective properties of the music – its fixed, internal structure – or the cognitive experience of listeners, whether tonality is inherent in the music or constitutes what one recent author describes as "a form of consciousness."[3]

It is nevertheless possible to sort the various uses of the term into two basic categories, corresponding to its noun and adjective forms, and while its noun forms suggest a greater degree of abstraction and are therefore more controversial, in practice the two forms often converge:

(1) As an adjective, the term is often used to describe the systematic organization of pitch phenomena in both Western and non-Western music. Tonal music in this sense includes music based on, among other theoretical structures, the eight ecclesiastical modes of medieval and Renaissance liturgical music, the *slendro* and *pelog* collections of Indonesian gamelan music, the modal nuclei of Arabic *maqām*, the scalar peregrinations of Indian *raga*, the constellation of tonic, dominant, and subdominant harmonies in the theories of Rameau, the paired major and minor scales in the theories of Weber, or the 144 basic transformations of the twelve-tone row. Perle thus refers to his complexes of interrelated row forms as "twelve-tone tonalities."[4]

(2) As a noun, then, the term is sometimes used as an equivalent for what Rousseau called a "sistême musical," a rational and self-contained arrangement of musical phenomena: Sainsbury, who translated Choron into English in 1825, thus rendered the first occurrence of *tonalité* as "system of modes" before matching it with the neologism "tonality." While tonality *qua* system constitutes a theoretical (and thus imaginative) abstraction from actual music, it is often hypostatized in musicological discourse, converted from a theoretical structure into a musical reality. In this sense, it is understood as a Platonic form or prediscursive musical essence that suffuses music with intelligible sense, that exists prior to its concrete embodiment in music, and can thus be theorized and discussed apart from actual musical contexts.

(3) Within Western musical traditions, "tonal" is often used in contrast with "modal" and "atonal," the implication being that tonal music is *dis*continuous as a form of cultural expression from modal music (before 1600) on the one hand and atonal music (after 1910) on the other.

(4) At the same time, music historians sometimes describe premodern music as being "tonal" on the grounds of (1) above. Here it has been assumed that important historical *con*tinuities underlie music before and after the emergence of musical modernism around 1600 and that the crucial difference between *tonalité ancienne* and *tonalité moderne* is one of emphasis rather than kind. In this sense, tonality is a generic term that

3 Norton, *Tonality in Western Culture: A Critical and Historical Perspective*.
4 Perle, "The Three Tonalities," in *Twelve-Tone Tonality*, pp. 143–51.

refers to music based on the eight modes of the Western church as well as the major-minor complexes of common-practice music, repertoires that share common melodic gestures and cadential formulas, coordinate successions of intervals or harmonies with conditions of dissonance and consonance, and evince a basic textural stratification into a treble melodic voice over a supporting bass line with inner voices that fill out harmonic sonorities.

(5) Tonal phenomena are musical phenomena (harmonies such as the tonic, dominant, and subdominant, cadential formulas, harmonic progressions, melodic gestures, formal categories) arranged or understood in relation to a referential tonic, which imbues the music – in the case of C major – with C-ness.

(6) In a psychophysical sense, tonal phenomena are musical phenomena perceived or preinterpreted in terms of the categories of tonal theories. Here the point is that listeners tend to hear a given pitch as, for instance, an A above middle C, an augmented fourth above E♭, the minor third in an F♯ minor triad, a dominant in relation to D, or $\hat{2}$ (where the caret designates a scale degree) in G major rather than a mere acoustical frequency, in this case 440 Hz.

(7) As a noun, the term is sometimes used, trivially, as a synonym for "key." E minor and A♭ major are thus said to be two different "tonalities." While Choron derived *tonalité* from *ton*, the French word for key, the concept reaches further than the pitch-class content of a particular major or minor scale to describe the relations governing them, relations responsible for the orientation of the music toward the referential tonic. Tonality in this sense means "keyness."

(8) Perhaps the most common use of the term, then, in either its noun or adjective forms, is to designate the arrangement of musical phenomena around a referential tonic in European music from about 1600 to around 1910. However this arrangement is conceptualized, musicians agree that there are two basic genera, major and minor, each with different but analogous musical and expressive properties. It gives rise, moreover, to abstract relations that control melodic motion and harmonic succession over long expanses of musical time. In its power to form musical goals and regulate the progress of the music toward these moments of arrival, tonality has become the principal musical means in Western culture by which to manage expectation and structure desire. In this sense, tonality is understood to define the essential condition of modern Western music: it determines the coordination of harmony with melody, meter with phrasing, texture with register, and thus encompasses – within its historical domain – the whole of music. This use of the term will form the main concern of this chapter.

Rhetoric

Fétis, who popularized the notion of tonality in the 1830s and 40s, defined tonality as the sum total "collection of necessary relations, both successive and simultaneous,

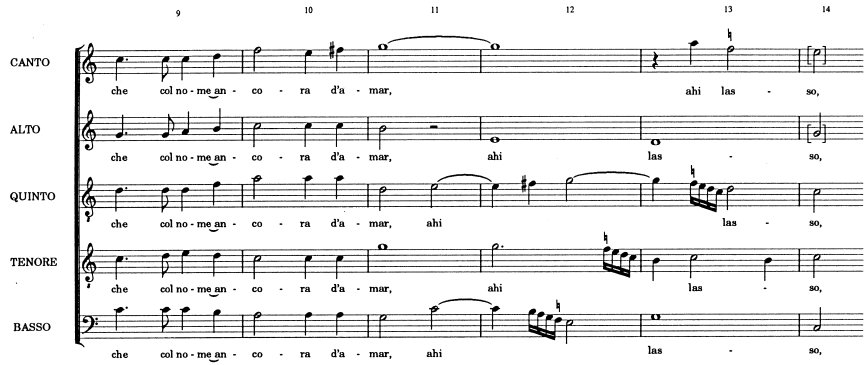
between the notes of the scale."[5] He imagined these relations as forces of musical "attraction." In particular, the "minor fifth" between $\hat{4}$ and $\hat{7}$ formed an "appellative consonance" in which both notes summon (*appeler*) their notes of resolution. $\hat{4}$, that is, strives toward $\hat{3}$, while $\hat{7}$ strives toward $\hat{1}$: if $\hat{4}$ and $\hat{7}$ were both notes of "attraction" within the scale, $\hat{3}$ and $\hat{1}$ were notes of "repose." Fétis, who characterized each degree of the scale in terms of relative attraction and repose, was uncertain about whether these melodic tendencies were prior to the scale or arose from it, but it is clear that *tonalité* and the scale were inseparable, the scale being its material form. These inherent melodic tendencies – which he regarded as "les lois de tonalité" – were charged with harmonic implications: while $\hat{4}$ and $\hat{7}$ belong to the "natural" harmony of the dominant seventh, $\hat{3}$ and $\hat{1}$ belong to the tonic, the chord of resolution. $\hat{4}$ and $\hat{7}$ thus operate like needles on a musical compass to orient the listener toward the tonic within a given scalar environment.

For Fétis, the dominant seventh was the crucial musical element in *tonalité moderne*, the "birth" of which he registered in a Monteverdi madrigal, *Stracciami pur il core* of 1592.[6] While the historical and musical validity of the claim is arguable, the time and place he gives for the origin of modern tonality – around 1600 in the music of Monteverdi – has become firm musicological lore. Fétis, however, mishandled his discussion of the madrigal: the dominant seventh in question does not in fact resolve to the tonic over a change in bass. He later made the same claim, however, about another madrigal, *Cruda Amarilli* of 1605, this time more persuasively.[7] His comments on *Cruda Amarilli* renew the terms of an earlier polemic over dissonance treatment in this madrigal between Artusi and Giulio Cesare Monteverdi, of which Fétis was well aware. He notes that an unprepared dominant seventh occurs above G in m. 13 of Example 23.1 and cadences to a tonic above C on the downbeat of m. 14: because it is unprepared, the dominant seventh in m. 13 is heard as vertical (and therefore autonomous) harmony rather than a collection of simultaneous intervals. Here the dominant seventh derives its intense attraction for the tonic from the presence of $\hat{4}$ (F in the *canto*) and $\hat{7}$ (B in the *tenore*), which move to $\hat{3}$ and $\hat{1}$ on the downbeat of the next bar. Yet for Fétis, the dominant seventh has no real tonal significance *per se*, but rather forms a mere pretext for bringing $\hat{4}$ and $\hat{7}$ together. He regards the dominant as the most common harmonic support for the appellative minor fifth, not as an essential scale degree.

Though Fétis claimed that the idea of *tonalité* came to him as a revelation under a tree in the Bois de Boulogne on a warm spring afternoon in 1831, he borrowed most of its basic tenets – not to mention the term itself – from earlier writers. In fact, both the word and concept had been in circulation for over two decades before Fétis embraced it in the 1830s: Castil-Blaze included a definition for *tonalité* in his *Dictionnaire de*

5 Fétis, *Traité complet de la théorie et de la pratique de l'harmonie*, p. 22.
6 Fétis, *Esquisse de l'histoire de l'harmonie* (Arlin trans., pp. 30–32).
7 Fétis, *Traité complet de la théorie et de la pratique de l'harmonie*, pp. 165–67.

Example 23.1 Monteverdi, "Cruda Amarilli" (1605), mm. 9–14



musique moderne (1821), but the term also occurs in Geslin's *Cours d'harmonie* (1826) and Jelensperger's *L'harmonie au commencement du 19^e^ siècle* (1830). It now appears certain that the first author to use the term was Choron, who coined it in the *Sommaire de l'histoire de la musique* (1810) to describe the constellation of tonic, dominant, and subdominant harmonies familiar to musicians since Rameau. Monteverdi, Choron tells us moreover, invented the dominant seventh around 1590, was the first composer to introduce it without preparation, and was the first composer to use the "minor fifth" as a consonance: "and so tonal harmony came to be." Fétis's debt to Choron thus extends to include the notion of appellative consonance, the distinction between *tonalité ancienne* and *moderne*, and the claim that Monteverdi invented the dominant seventh.

Fétis was at a loss to account for the "mysterious" forces of attraction that operate within the scale other than to insist that these appellative tendencies were "purement métaphysique" – an expression he borrowed from Momigny.[8] If nowadays appeals to metaphysics tend to fall on deaf ears, Fétis was nevertheless broaching a crucial issue: most if not all tonal theories recognize that tonal phenomena are not static and motionless, but rather possess (or seem to possess) dynamic qualities that, however crucial to musical experience, resist causal explanation and are better understood in cultural terms. These qualities occasion intricate aggregates of metaphors and verbal images, some of which compare these relations of musical attraction to forces of nature: for Rameau, the attraction of the dominant to the tonic was gravitational in nature, a metaphor he elaborated to discuss relations between harmonies – and the motions of these harmonies toward the cadential goal – in general. At the same time, these forces

8 See Momigny, "Musique," vol. II, p. 178a.

of attraction have often been translated into animistic language, which attributes intelligence and intention to tonal phenomena: to regard the scale degree below the tonic as the *note sensible*, for instance, is to ascribe sentience to it. Henry Cowell thus defines tonality as "a musical homing instinct,"[9] while Schoenberg imagines relations of melodic attraction in tonal music in terms of "the instinctual lives of tones."[10] Rameau seemed to suggest that this instinct was sometimes sexual: on occasion, he personifies the tonic as the object of musical desire, the musical being "to whom all our wishes tend."[11] For d'Alembert, in contrast, this musical desire was more olfactory in nature: the "sourness of the dominant," he wrote, "desires the sweetness of the tonic."[12]

If the dominant desires resolution to the tonic, the tonic then assumes a passive role in relation to the dominant, which in this sense governs – *dominates* – the tonic. Schoenberg (in *Harmonielehre*, 1911) contended that this view of the tonic was erroneous, insisting that the tonic controls the dominant, not *vice versa*. Schoenberg, that is, inverted the relation between them and opposed an active tonic with a passive dominant, a notion implicit in a number of earlier writers. In *Die Lehre von den Tonempfindungen* (1863), Helmholtz thus describes the tonic as the main note (*Hauptton*), a note that has dominion or maintains control (*Herrschaft*) over all the others.[13] Political images of this sort are pervasive in theories of tonal music: to describe relations between harmonies in terms of dominance and subordinance, as Rameau did, is to conceive them in terms of relations between persons, in terms, that is, of social power. Sometimes these metaphors are extended to become entire musical societies: Schoenberg, for instance, imagined the tonic as a sovereign who rules over the other harmonies and the dominant as his vassal, going before his liege to announce and prepare for his arrival, an idea he embroiders at considerable length.[14] Momigny, in contrast, had earlier imagined the tonic as a queen: the tonic is "the purpose of all purposes, the end of all ends," for "it is to her that the scepter of the musical empire is entrusted."[15] Perhaps the most elaborate of these social simulacra, however, is one of the earliest. In the *Grundregeln zur Tonordnung insgemein* (1755), Riepel compares the six diatonic harmonies in C major to the social and economic organization of a rural farm, where C major was the bailiff or master (*Meyer*), G major the overseer (*Oberknecht*), A minor the head maid (*Obermagd*), F major the day laborer (*Taglöhner*), E minor the chamber maid (*Untermagd*), and D minor the errand girl (*Unterläufferin*).[16] Riepel, that is, separates the six diatonic harmonies in C major into two hierarchical orders, one masculine and agricultural (major harmonies), the other feminine and domestic (minor harmonies), both operating under the watchful supervision of the master. Momigny

9 Cowell, "New Terms for New Music," pp. 22–23.
10 Schoenberg, *Harmonielehre*.
11 Rameau, *Génération harmonique*, pp. 108–09.
12 D'Alembert, *Elémens de Musique théorique et pratique*.
13 Helmholtz, *Die Lehre von den Tonempfindungen*, p. 395; *On the Sensations of Tone*, p. 240.
14 Schoenberg, *Harmonielehre*, pp. 36–37; *Theory of Harmony*, pp. 32–33.
15 Momigny, *Cours complet d'harmonie et de composition*, vol. I, p. 47.
16 Riepel, *Grundregeln zur Tonordnung insgemein*, pp. 65–67.

described the seven notes of the major and minor scales in this sense as a "hiérarchie naturelle" under the "authorité" of the tonic, whereas Schenker would later write, in contrast, of a more egalitarian "stable community of tones."[17] Hence the peculiar insistence in tonal theories of the eighteenth and nineteenth centuries on laws and principles: for Fétis, *tonalité* was "le principe régulateur des rapports." These musical laws were meant both to regulate musical phenomena and to constrain compositional practice. Despite the intended comparisons with natural laws, then, these *Gesetze der Tonalität* were social in basis: there is a strong correlation between tonal theories and conservative political ideologies.

In the discursive rhetoric of tonal theories, the tonic tends to be framed in images of presence and plenitude. Marpurg (in his translation of d'Alembert) was the first writer to describe the tonic as a musical "home," an image that has remained in circulation ever since.[18] Perhaps the most resilient metaphor for the tonic, however, has been that of a musical "center." Helmholtz, building on Rameau's gravitational rhetoric, would later describe the tonic as the center (*Schwerpunkt*) of a tonal mass (*Tonmasse*). As a center, the tonic forms a geometrical *punctum* in a spatial arrangement of harmonies: in one of the more ingenious metaphors for the harmonic organization of tonal music, Tovey compared tonality in music to linear perspective in painting, where the tonic forms a musical "vanishing point," the focal center of an abstract configuration of musical relations.[19] Spatial intuitions like these are crucial to the tonal imagination: when Momigny likens the arrangement of scale degrees around the tonic to the orbits of planets around the sun, he equates the tonic with the gravitational center of the solar system but also conceptualizes the entire arrangement as a series of concentric circles.[20] Here the premise is that one can abstract relations between harmonies from music and plot them as distances between points in two or more dimensions. This urge to spatialize musical phenomena has its immediate origins in registral intuitions of above and below: for Rameau, the dominant lies a perfect fifth above the tonic, the subdominant a perfect fifth below, which allows him to imagine the tonic as a center, at a point equidistant between the two dominants. In actual musical contexts, however, the tonic forms a conclusion, not a center – it arrives at the *ends* of phrases, formal sections, and entire pieces. Even the idea that the dominant lies a perfect fifth above the tonic is true only in a theoretical sense, since in numerous musical contexts the dominant fundamental often lies a perfect fourth *below* – rather than a perfect fifth *above* – the tonic.

In most tonal theories, relations between harmonies are woven together to form a mental grid, an abstract representation Fétis describes as the "basis for all music," that which underlies tonal music and renders it intelligible. The notion that the tonic

17 Schenker, *Harmonielehre*, pp. 54–55; *Harmony*, p. 40.
18 D'Alembert, *Systematische Einleitung in die musikalische Setzkunst nach den Lehrsätzen des Herrn Rameau*, p. 27. 19 Tovey, "Musical Form and Matter," p. 167.
20 Momigny, *Cours complet d'harmonie et de composition*, vol. I, p. 26.

occupies a referential or locus position on an abstract mental grid of harmonic relations, for instance, is crucial to the intuition that some harmonies are more distant from the tonic than others. Schoenberg thus speaks of "remote regions" within larger musical geographies: for Schoenberg, the musical universe divides into spatial enclosures – territories – of harmonies.[21] Implicit here is the idea that tonality constitutes a material substance that has a certain extension in space and time. The discursive reliance of tonal theories on images of containers in particular is remarkable: musicians often speak of music being "in" C major as if C major were a receptacle with an interior volume that somehow contains and gives shape to the music within it. In this sense, tonal music comes to have a diatonic inside and chromatic outside, often understood in terms of an opposition between the rational and irrational, or between the domestic and foreign. Histories of nineteenth-century music are often narrated in terms of a progressive initiative to absorb and incorporate more and more chromaticism into the diatonic confines of the key. Schoenberg's term for the enlarged harmonic resources of late Romantic music was "expanded tonality," a description that attributes an almost Cartesian *res extensa* to music.

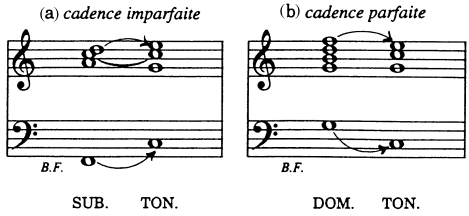
Theory

While both Choron and Fétis drew on the same basic theoretical resources, there are subtle but crucial differences between their accounts of *tonalité*. In contrast to Choron, who emphasizes relations between harmonies, Fétis places more stress on the order and position of pitches within a scale. This difference in emphasis corresponds to the two main historical traditions of theoretical conceptualization about tonal music: the function theories of Rameau and Riemann on the one hand and the scale-degree theories of Weber and Schenker on the other. All tonal theories can be understood in terms of one tradition or the other, or as a hybrid (as with Fétis) of both. Two basic traits common to both discursive traditions are (1) the notion that tonal music has an ideational content, where harmonies refer either to a tonic (in *Funktiontheorien*) or to a scale (in *Stufentheorien*), both of which are understood to underlie the music and render it intelligible; and (2) the use of a metalanguage – whether discursive labels such as "dominant" or "subdominant," or cyphers such as roman numerals – to express the referential orientation of these harmonies.

In *Génération harmonique* (1737), Rameau conceived relations between harmonies in terms of cadences. In the imperfect cadence, Example 23.2a, the fundamental bass (or *B.F.*, for *basse fondamentale*) ascends a perfect fifth from the subdominant to the tonic. In the perfect cadence, Example 23.2b, the fundamental bass descends a perfect fifth

21 Schoenberg, *Structural Functions of Harmony*, p. 19. For a reproduction of Schoenberg's "Chart of the regions," see **Chapter 25, p. 804**.

Example 23.2 After Rameau, *Génération harmonique* (1737)



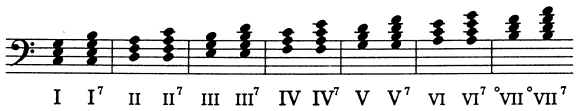
from the dominant to the tonic (cf. **Plates 24.1** and **24.2, pp. 762, 763**). As a constellation, these three harmonies (the tonic, dominant, and subdominant) comprise what Rameau called the "mode." His theories differ from older traditions of *modalité* in their emphasis on the harmonic dimension of music: *tonalité* for Rameau – if one can use the expression – was more harmonic than melodic in nature. A crucial factor in this musical system was the addition of dissonances to the dominant and subdominant: Rameau added a major sixth (D in Example 23.2a) to the subdominant, a minor seventh (F in Example 23.2b) to the dominant, both of which resolve to the same note (in this case E) above the tonic – the note of resolution determines whether the mode is major (as in Example 23.2) or minor. These dissonances accord the tonic, dominant, and subdominant distinctive harmonic identities and characteristic musical behaviors: the added dissonances increase the pressure on the dominant and subdominant to move to the tonic. Rameau often describes these harmonic relations in quasi-Newtonian language: the tonic, that is, exerts a gravitational pull on the dominant and subdominant, an invisible force that binds these three harmonies together.

Rameau was concerned, then, both with the identities of harmonies (as tonics, dominants, or subdominants) and their succession: he coordinates harmonic succession with consonance and dissonance, tension and resolution. For some writers, the notion that harmonies are not mere adjacencies, but that one moves to the next, constitutes the defining trait of tonality. In his influential *Untersuchung über die Entstehung der harmonischen Tonalität* (1966), Dahlhaus extends this concern for succession from harmonies to intervals and thus locates the historical origins of tonality in the music of Josquin and his contemporaries.

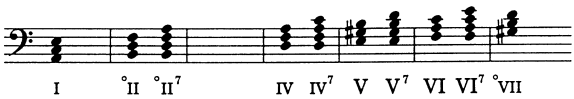
If function theories begin with the prior assertion of a referential tonic, scale-degree theories use the major (or minor) scale as their referential point of departure. Though adumbrated in the theories of Kirnberger, Vogler, and Koch, it was Weber who (in the *Versuch einer geordneten Theorie der Tonsetzkunst zum Selbstunterricht*, 1830–32; see also **Chapter 25, pp. 782–88**) gave them their definitive form and who was responsible for their tremendous pedagogical success: scale-degree theories remain the dominant conceptual language for tonal music in Europe and North America. Weber uses the pitch classes of the major and minor scale to construct diatonic triads and seventh chords on

Example 23.3 After Weber, *Versuch einer geordneten Theorie der Tonsetzkunst zum Selbstunterricht* (1830–32), §149

(a) Diatonic harmonies in major



(b) Diatonic harmonies in minor



the melodic degrees of each scale: Example 23.3a tabulates the results for major, Example 23.3b for minor. He then uses roman numerals to number these *Stufen* from one through seven: large roman numerals designate major triads, small roman numerals designate minor triads, and degree signs designate diminished harmonies. Weber assigns these roman numerals to actual harmonies on the basis of pitch-class content: a succession of harmonies coheres (makes musical sense) when each chord can be traced back via the mechanism of chord inversion to the same major or minor scale. A recurrent source of vexation in scale-degree theories is *Mehrdeutigkeit*, or multiple meaning: because harmonies assume roman numerals on the basis of pitch-class content rather than musical behavior (as in function theories), there are no hard and fast criteria to determine which major or minor scale a particular harmonic configuration refers to: a C major triad, for instance, can be heard as I in C major, IV in G major, V in F major, or VI in E minor; one must take contextual factors into account in order to narrow down the possibilities to a single roman numeral.

In both discursive traditions, tonal theories have tended to concentrate on harmonies to the virtual exclusion of all other musical considerations: register, texture, instrumentation, dynamics, etc., are taken into account only to the extent that these parameters articulate or bring out relations between harmonies. Yet this separation of harmonic from other musical considerations is artificial. Meter in particular is crucial to the subordination of dissonant harmonies to consonant ones: Rameau understood that the clear and unambiguous assertion of a tonic depended on the *mesure*. While most theorists concentrate on harmonic and sometimes melodic considerations, tonality is perhaps best conceptualized as a *tertium quid* in which melody, harmony, and meter all combine into a single musical nexus.

An important historical development in function theories occurred around 1850 with the formal integration of mediants into the aggregate of tonic, dominant, and subdominant harmonies. Though common in earlier theories, mediants did not

become the locus of intense theoretical concern until a number of writers began to use them as functional alternatives to roman numerals. In *Die Natur der Harmonik und Metrik* (1853), Hauptmann represented the musical infrastructure of C major as *F–a–C–e–G–b–D*, where large letters designate dominant-related perfect fifths and small letters their mediant major (or minor) thirds. In this arrangement of intervals and pitch classes, each string of three consecutive letters forms a diatonic triad: the tonic *C–e–G*, dominant *G–b–D*, and subdominant *F–a–C*, of course, but also the mediant *e–G–b* and submediant *a–C–e*. In this case, E minor mediates between the tonic and dominant above, while A minor mediates between the tonic and subdominant below – the submediant is a mediant below the tonic. This further differentiation of dominant-related harmonies into mediants enabled functional theories to account for secondary triads (for which scale-degree theories were able to assign roman numerals), but also to account for the harmonic practice of Romantic music, which began to privilege third relations over the opposed tonics and dominants of Classical harmonic practice. These third relations received their most complete representation in Plate 23.1, which Ottokar Hostinský (whose harmonic theories are unremembered) included in his *Die Lehre von den musikalischen Klängen: Ein Beitrag zur aesthetischen Begründung der Harmonie-Lehre* (1879). In this sonorous grid of interwoven harmonic consonances, horizontal strands of perfect fifths criss-cross with diagonal strands of major thirds (upper left to lower right) and minor thirds (lower left to upper right). While similar grids were common before Hostinský, he was the first to integrate major thirds and minor thirds in the same diagram and thus to give them equal prominence.

It was Riemann who coined the term *function* in *Vereinfachte Harmonielehre* (1893) to describe relations between dominant and subdominant harmonies and the referential tonic: he borrowed the word from mathematics, where it was used to designate the correlation of two variables, an *argument* and a *value*. In contrast to scale-degree theories, function theories are concerned more with harmonic identities than with chord progressions. For Riemann, more than one chord could represent a given tonal function: a D minor triad, for instance, can be heard as the subdominant parallel (or **Sp**) in C major by virtue of the interval (the major third F–A) it maintains in common with the subdominant F major (or **S**). D minor and F major are in this sense two possible values for the same subdominant function. Riemann recognized three basic harmonic transformations (or *Verwandtschaften*) of a given tonic, dominant, or subdominant function: the *Variant*, which correlates major and minor triads having the same ground note (C major/C minor), the *Parallel*, which correlates major and minor triads a minor third apart (C major/A minor), and the *Leittonwechsel*, which correlates major and minor triads a major third apart (C major/E minor). When applied to the tonic, dominant, and subdominant in C major, the result is Example 23.4, in which the three main tonal functions overlap: A minor, for instance, can be heard either as the tonic parallel (**Tp**) or the subdominant *Leittonwechsel* (**Ś**) depending on which function – **T** or **S** – controls the musical context.

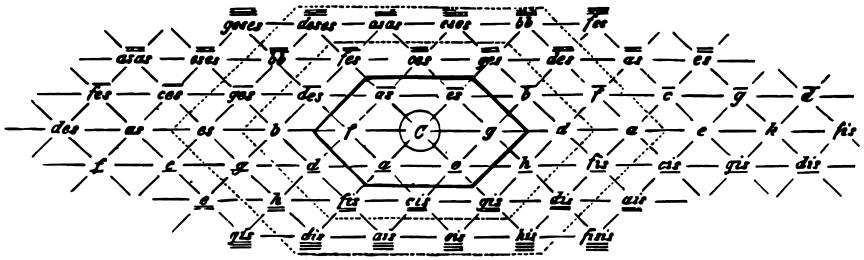


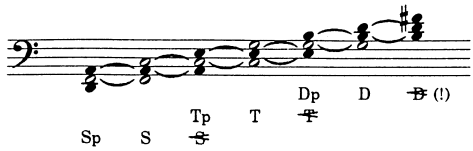
Plate 23.1 Grid of tonal relations (*Tonnetz*), from Hostinský, *Die Lehre von den musikalischen Klängen* (1879), p. 67. In Riemannian terms, letter names designate fundamentals of *Variant*-related major and minor triads. Dominant-related perfect fifths run horizontally from left to right; *Leittonwechsel*-related major thirds run diagonally from lower right to upper left; *Parallel*-related minor thirds run diagonally from lower left to upper right. Because Hostinský assumes just intonation, no two pitches with the same letter name are equivalent. Hence the lines above and below the letter names designate pitch differences in syntonic-comma increments.

Riemann, who identified the *Dominante* with the perfect fifth, the *Leittonwechsel* with the major third, and the *Parallel* with the minor third, thus recognized Plate 23.1 as a powerful realization of his harmonic theories and reproduced the diagram (without attribution) in the "Ideen zu einer 'Lehre von den Tonvorstellungen.'"[22] There he uses uses his three prime functional transformations to reconstruct the diagram as a multi-dimensional musical terrain in which each letter represents the groundtone of a *Variant*-related major or minor triad: in this torus of harmonic consonances, the horizontals represent dominant-related perfect fifths, which intersect at diagonals with *Parallel*-related minor thirds and *Leittonwechsel*-related major thirds. Like Hostinský, Hauptmann, and most other theorists in the functional tradition, Riemann advocated the use of just intonation, which accounts for the lines above and below the pitch letters in the diagram. If viewed through the filter of equal temperament (to which there was no real alternative in the musical practice of the time) and enharmonic equivalence, the diagram expresses a musical universe saturated with with major and minor triads on all chromatic twelve semitones. Even though Riemann restricted their application to the music of Bach and Beethoven, his harmonic theories constitute a remarkable expression of the chromatic tonal relations in late Romantic music.

Scale-degree theories accounted for chromaticism by means of what Schenker called mixture (*Mischung*), which refers to contexts in which the music gains access to or borrows harmonies from the parallel major or minor. In order to increase the harmonic resources of C major, for instance, one can replace A minor (or VI) with A♭ major (or

22 Riemann, "Ideen zu einer 'Lehre von den Tonvorstellungen,'" p. 20. For the dualist underpinnings of Riemann's harmonic theory, see **Chapter 14, pp. 458–65**; for more on his theory of functions, see **Chapter 25, pp. 796–800.**

Example 23.4 Functional harmonies in C major, after Riemann, "Dissonanz," *Musik-Lexikon*, 8th edn. (1916)



♭VI), borrowed from the parallel minor. In *Harmonielehre* (1906), Schenker goes on to describe how, in the music of late Romanticism, major and minor fuse together: he combines the notes of both the major and minor scale into a single chromatic scale and then places – as in Figure 23.1 – major and minor triads (via mixture) on each degree. Schoenberg likewise heard late Romantic music in terms of "a transition from twelve major and twelve minor tonalities (*Tonarten*) to twelve chromatic ones," a historical transition "fully completed in the music of Wagner."[23]

Practice

Historians do not agree on how and when the transition from Renaissance modal polyphony to the harmonic tonality of the Baroque occurred. Harold S. Powers has even argued that modality and tonality coexist as musical properties on separate epistemological planes, in which case it is meaningless to imagine a transition from one to the other; modality and tonality in this sense are no longer competing or mutually exclusive means of musical organization.[24] Even within the terms of this argument, however, we can register a reduction in musical practice from eight or more modes in *Cinquecento* music to a mere two in music of the *Seicento*. In historical retrospect, this reduction occurs as a gradual emergence of a paired *cantus durus* and *cantus mollis* from the labyrinthine complications of Renaissance modal theories, a transition completed in *Das neu-eröffnete Orchestre* (1713), where Mattheson lists alternative major (*dur*) and minor (*moll*) modes for all twelve semitones within the chromatic octave (see also **Chapter 13, p. 427**) In the music of Mattheson's contemporaries, however, mutations of earlier modal procedures continue to exist alongside newer means of tonal organization, but also in conjunction with numerous hybrid practices: there are a large number of Bach chorales, for instance, that accord modal melodies *dur* or *moll* harmonizations.

There *is* a consensus, however, that the emergence of a newer major-minor modal ethos coincides with a radical simplification of musical texture that involves the strat-

23 Schoenberg, *Harmonielehre*, p. 466; *Theory of Harmony*, p. 389.
24 Powers, "Is Mode Real?," pp. 9–14.

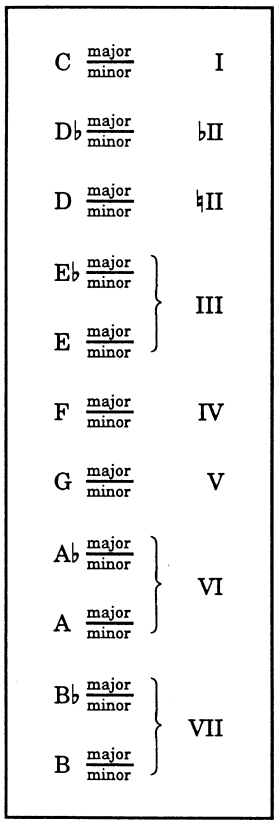
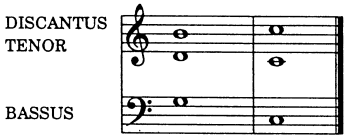


Figure 23.1 C $\frac{\text{major}}{\text{minor}}$, after Schenker, *Harmonielehre* (1906), p. 395

ification and sedimentation of the dense, interwoven imitation of late Renaissance music into harmonic sonorities above a *basso continuo*. A crucial effect of this transformation was to isolate and draw attention to chords as discrete musical entities: from now on, Western music would be heard as successions of harmonies rather than collections of simultaneous intervals. In both theory and practice, the harmonic triad – a musical structure in which the fundamental unifies the intervals above and lends its pitch class to the entire configuration – becomes the basic perceptual element of tonal music. The final, mediant third, and dominant fifth – the three constituents of the *trias harmonica* – were used not only as normative sonorities but also to determine medial cadences: the harmonic triad thus took precedence over the distribution of semitones within the modal octave as a means of structuring the pitch domain. It is in this context that the *clausula formalis* of earlier music was reinterpreted as the dominant-to-tonic

Example 23.5 *Clausula formalis* (with bass accompaniment)



cadence. In Example 23.5, the bass G – the dominant fundamental – is the one note capable of forming consonances with both D and the *subsemitonum* B in the penultimate bar: the dominant-to-tonic cadence, in other words, arises from the melodic exigencies of the voice leading. In the newer harmonic orientation of German Baroque music it becomes a rhetorical device, a conventional gesture used to punctuate mosaic-like successions of phrases and *ritornelli*.

The preoccupation with the moment-to-moment resolution of dissonance in Rameau's theories mirrors the sensuous harmonic sonorities and episodic nature of French Baroque music. These dissonances urge the fundamental bass forward, but gravitational momentum in this music nevertheless tends to be local in significance, directed toward an immediate cadential goal. It is an improvisational, accompanimental harmonic practice, one that responds to the expressive needs of the moment: rapid transitions from one tonic to the next (Rameau was inclined to hear any triad without a dissonance as a tonic) organize the music into additive series of modulations connected together via chains of dominants in which tonal coherence has more to do with the dramatic action on stage (or the *sentiment* of a poetic image) than an abstract musical design.

Harmonies in Classical music (Haydn, Boccherini, Mozart, Beethoven), like those in Baroque music, tend to be clear and unambiguous in their references to the tonic, whether a chord or a scale degree. Whole passages and even entire pieces can be heard as large-scale harmonic progressions in which the music assumes a sense of almost inevitable momentum and progress toward a distant but forehearable harmonic goal. Pieces are thus sometimes said to develop from within, out of certain tensions inherent in the musical material. These tonal tensions constitute a musical logic analogous to that of premise (antecedent) and conclusion (consequent) that allows listeners to predict both the immediate course of events and the modulations that articulate the larger musical argument. In this sense the harmonic organization of Classical music can even be understood (after Fichte and Hegel) as a dialectic in which the dominant opposes (or even negates) the tonic: the dominant and tonic, that is, enter into a rational, contrastive musical logic homologous with other oppositions between dissonance and consonance, tension and resolution, etc. In the sonata, the reprise in particular constitutes a moment of synthesis in which music heard earlier in the dominant recurs in the tonic and thus assumes an altogether different musical significance. In this sense, the tensions

that underlie tonal music form what Rose Rosengaard Subotnik has described as the musical equivalent of reason.[25] Because of this quasi-objective musical logic, Classical music gives the appearance of being universally intelligible to all listeners within its cultural reach.

However evident this musical logic appears to us now, certain aspects of Classical harmonic practice were not theorized until well after the fact. Schoenberg, for instance, conceptualized the firm sense of closure in this music in terms of "monotonality," the idea that, no matter how extended in duration, pieces of music retain their allegiance to the original tonic from beginning to end (*Structural Functions of Harmony*, 1954). Schenker, who elaborated the same basic idea, heard modulations as temporary "tonicizations" of non-tonic scale degrees rather than permanent departures from the original tonic. This allowed him to regard entire pieces as recursive hierarchies of harmonies, progressions within progressions. In Plate 23.2, his musical picture of the Moderato from the Haydn Piano Sonata in G minor, Hob. XVI:44 (c. 1771–3), tonicized scale degrees control isolated contexts as local tonics while retaining their original identities as non-tonic harmonies in the large-scale progression that governs the piece as a whole: the large-scale III at m. 13 in Plate 23.2a is thus heard as I in B♭ major in Plate 23.2b, where it controls its own I–II–V–I progression between m. 13 and m. 20.[26] Schenker viewed pieces as melodic projections (or prolongations) of the tonic in the form of an a priori *Ursatz*, in which both the bass and the melodic *Urlinie* (outlined with whole notes and carets in the upper voice of Plate 23.6a) move within the intervals of the tonic triad. Within this contrapuntal framework, tonicizations of non-tonic scale degrees, however near or remote, have their rationale not as autonomous harmonies, but in the coincidental confluences of melodic lines. The bass, in particular, moves from I through III to V before returning to I at the beginning of the reprise, a large-scale arpeggiation of the tonic that Schenker equates with *Tonalität*. The crucial moments in this long-range elaboration of the tonic coincide with the main formal divisions of the sonata: I with the so-called first theme (*erster Gedanke*), III with the second theme (*zweiter Gedanke*), the motion from III to V with the development (*Durchführung*), and the return to I with the reprise (*Wiederholung*). In this sense, the tonic controls and coordinates not just the large-scale harmonic and melodic organization of the piece, but also the succession of textural contrasts that characterize sonata form in its various generic guises: the tonic seems to saturate the music and reach down to its very core, determining its points of internal articulation.

In its use of distinctive harmonic sonorities and remote tonal relations, the harmonic focus in Romantic music is on the particular, concrete, sensuous, and contingent. In drawing attention to these unusual harmonies, the music tarries over the

25 Subotnik, "Tonality, Autonomy, and Competence in Post-Classical Music," pp. 154ff.
26 Schenker, "On Organicism in Sonata Form," p. 34. For further information on the theory and notation of Schenker's analytical graphs, see **Chapter 26, pp. 816–31**.

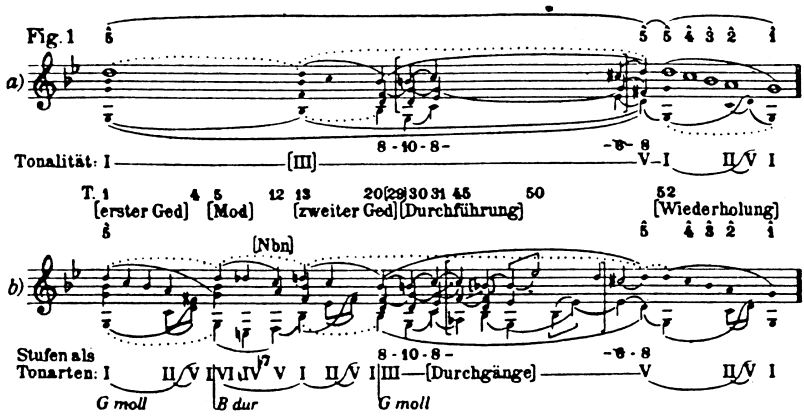


Plate 23.2 Schenker's analysis of Haydn's Sonata in G minor, Hob. XVI:44; from *The Masterwork in Music*, vol. II, p. 24

present moment and distracts the listener from large-scale tonal relations. At the same time, motivic chromaticism destabilizes the careful coordination between the melodic and harmonic dimensions that characterized Classical music, freeing music from the requirement to close on the original tonic: numerous pieces from Schubert on begin and end on different tonics. At first the two termini were a major or minor third apart, as in *Ganymed*, D. 544 (1817), which moves from A♭ major through C♭ major to F major. With Wagner, however, relations between the two tonics become less diatonic and increasingly remote: Act 3 of *Tristan und Isolde* (1859), for instance, begins in F minor but concludes in B major; the dictum that pieces close on the original tonic was an aesthetic rather than a cognitive requirement. As Romantic music turned away from the autonomous, self-contained, and absolute, it began to depend more and more on the extrinsic and extramusical for its coherence: poems, dramatic narratives, programmatic conceits, visual imagery. Tonal relations become increasingly "associative" in nature, unique to a given piece. Hence the overall motion from E♭ minor in the Prologue to *Götterdämmerung* (1874) to B minor at the end of Act 1 can be heard in the context of the entire *Der Ring des Nibelungen* to effect a transition from the natural world of the Norns to the evil (because cultural) realm of the Gibichungs.[27] It is this thematic relation between the two tonics rather than any intrinsically musical logic that accounts for the tonal coherence of the music.

The aesthetic predilection for sensuous sonorities and striking progressions in late

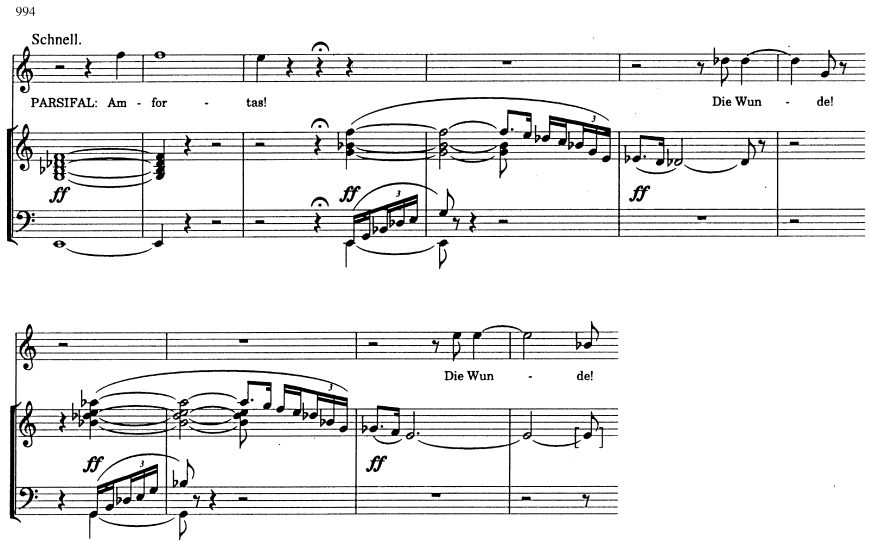
27 Bailey, "The Structure of the *Ring* and Its Evolution," pp. 59–60.

Romantic music led to what Kurth (in the *Romantische Harmonik und ihre Krise in Wagners "Tristan"* of 1923) called "absolute effect," where chromatic harmonies stand out as figures against a more normative diatonic ground (see also **Chapter 30, pp. 941–42**). These chromatic harmonies were characteristic of the "alteration style," which he diagnosed in terms of three factors: (1) chord alteration, where a chord tone is raised or lowered a semitone, (2) melodic displacement, where a dissonant neighbor replaces a regular chord tone, and (3) chromatic progression, where chromaticism inflects the interval of bass progression between harmonies. In combination with one another, these three factors tend to occlude references to the tonic and obliterate the distinction between the chromatic figure and the diatonic ground. In general, references to the tonic become increasingly ambiguous and occasional: in the music of *Tristan* (which for Kurth represented a "crisis" in Western music), cadential dominants and tonics are few and far between and the connections between them are for the most part melodic rather than harmonic. Kurth heard these interspersed functional harmonies as pillars (*Grundpfeiler*) supporting a texture of melodic chromaticism more non-tonal (if not *a*tonal) than tonal. On occasion, this chromaticism resulted in the "repression of the tonic," the indirect assertion of the tonic in music where the tonic itself remains in abeyance. In the first three bars of the opening phrase of *Tristan*, the music moves to a dominant seventh above E, which refers to an absent A minor tonic (see **Example 25.8, p. 792**). Kurth hears the entire *Vorspiel* to Act 1 as a series of increasingly violent "oscillations" between the dominant and subdominant in A minor that never once in over fourteen minutes of music touches on the tonic.[28]

In late Romantic music, moments of orientation toward the tonic become allusive and fragmentary, a condition that Schoenberg – an ever-reliable source of neologisms – termed "floating tonality."[29] In the sequential continuation of the *Tristan* Prelude, the music moves out of A minor to the dominant in C minor, and so on. In the historical wake of *Tristan*, music underwent an atomization in which non-tonal harmonies cluster around isolated dominants and tonics. This tonal disintegration has often been understood as a dissolution from within, an organic process in which the forces of melodic attraction that gave rise to tonality led to its inevitable destruction. For Kurth, major and minor triads were suffused with leading-tone energies in which the major third (above the ground tone in the major triad) presses upward, while the minor third (above the ground tone in the minor triad) presses downward. In the historical development of the musical material, these leading tones came to overwhelm the triads that gave rise to and at first contained them, resulting in an amorphous, centrifugal chromaticism that neutralizes and obscures more centripetal references to the tonic. Coherence in this music is no longer tonal but melodic and (above all) motivic in

28 Kurth, *Romantische Harmonik und ihre Krise in Wagners "Tristan"*, pp. 235–36.
29 Schoenberg, "Über schwebende und aufgehobene Tonalität," *Harmonielehre*, pp. 459–60; "Concerning Fluctuating and Suspended Tonality," *Theory of Harmony*, pp. 383–84.

Example 23.6 Wagner, *Parsifal* (1881), Act 2, mm. 993–1001



nature: it makes far more sense to hear the *Tristan* chord as a verticalization of the melodic minor third from G♯ to B (the Yearning motive) and the diminished third from F to D♯ (the Suffering motive) than to hear it as an altered dominant (Kurth) or subdominant (an augmented sixth chord above F) in A minor.

In extreme cases, the motivic chromaticism of late Romantic music negates all reference to the tonic and veers over the precipice into atonality. In Example 23.6, the climactic bars in Act 2 of *Parsifal* (1881), Wagner loads harmonies with dissonances that render them ambiguous and referentially inoperative: while the music is littered with tonal debris – seventh and ninth chords familiar from more conventional tonal contexts – those harmonies fail to coalesce around a tonic. Sustained bass notes immobilize the harmonies above them and arrest forward momentum: the music wanders between functionless harmonies that neutralize rather than progress to one another, sonorities that seem to float in the music, without a goal, without direction. Dissonant harmonies are either severed from their resolutions or resolve back into themselves: with his agonized "Amfortas!," Parsifal resolves the minor ninth F in m. 994 to a no less dissonant, no less wrenching E in m. 996. As Adorno noted in his discussion of these measures in the *Versuch über Wagner* (1938), dissonances in Romantic music "stand for negation and suffering."[30] Amfortas's open wound thus becomes symbolic of what some listeners (Adorno among them) have heard as the death throes of tonality.

30 Adorno, *Versuch über Wagner*, pp. 61–62; *In Search of Wagner*, p. 67.

Historiography

The diachronic account of tonal music given in the preceding section is most often related in terms of musical evolution or continuous progress, a master narrative in which the historical course of tonal music is directed toward its own end, depicted either as a completion or (as is more common) a tragic demise. In either case, the *telos* of these stories reflects (perhaps ironically) the strong forward momentum toward a cadential goal so often thought to be an essential attribute of tonal music. While these histories are sometimes recounted as technological allegories in which tonality collapses, breaks down, or wears out from overuse, it is more common to imagine them as genetic narratives, organic processes of growth and decay, birth and death.

Ideas of evolution and progress make powerful claims on the historical imagination, claims consistent with a musical aesthetic that privileges (as Romanticism did) the new and original. This aesthetic led both composers and listeners to fetishize striking harmonies and to associate chromaticism with the irrational, foreign, and erotic. This fascination with harmonic color can be understood in quantitative terms as an increase in chromaticism and dissonance, either a progression toward some utopian *Zukunftsmusik* (Schoenberg regarded the progressive increase in dissonance as an "emancipation" of musical resources) or toward a musical apocalypse; both Choron and Fétis forewarned their readers of an impending atonal catastrophe.

Popular accounts of this musical evolution follow the familiar lines of biological evolution, with its concern for selection and adaptation. These stories assert, more or less explicitly, that there were forces at work within tonal music analogous to those that determine the form and development of an organism. Perhaps the most important of these were the energetic tendencies of the semitone, which accounted for the earlier mutation of modality into tonality (for Fétis, the occurrence of the appellative minor fifth between $\hat{4}$ and $\hat{7}$ in both the C and A mode explained the reduction of the six ecclesiastical modes to two) but also the later mutation of tonality into atonality. This historical process is further understood to be unidirectional and irreversible, in which relations between successive stages are both genetic and causal. In biological terms, the evolution of tonal music is both specific (in which newer phenomenal forms – harmonies – differentiate themselves from older ones) and general (in which more complex phenomenal forms replace simpler ones).

There are, however, good reasons to question this historical narrative, as there are to dispute the application of evolution to cultural phenomena in general. First, the notion of a musical evolution ignores the crucial factor of mediation: composers write music with an awareness of their roles as agents of historical change and make compositional decisions in an effort either to transform the music of their own time or to maintain the *status quo*. Their active interference in the historical course of events undermines attempts to explain musical change on the basis of some genetic, self-regulating

musical process. Second, the notion of an evolution in tonal music tends to compress the messy diversity of contemporaneous compositional practices into a single historical mainstream. Hence all the metaphors of trunks and branches, rivers and tributaries: Tovey, whose commitment to evolution was self-conscious and emphatic, described this unilineal compression as "the mainstream of music." As a result, accounts of musical evolution smooth over historical discontinuities, either failing to register divergent practices or dismissing them as inconsequential departures from the main music-historical current. Third, such accounts tend to privilege later forms of harmonic phenomena over earlier ones: later harmonic practices, that is, are thought to be more complicated, more advanced, and therefore better with respect to the common tonal language of the historical mainstream. Chopin is thus heard to be progressive in relation to his contemporaries, while Rakhmaninov, in his own historical milieu, is regressive. This attitude lies at the root of the prejudice, common in academic music circles, that atonal music is somehow more complicated and more difficult (and therefore worthier of sustained critical attention) than tonal music, which is believed to be simpler and easier in comparison.

However compelling within the narrow confines of a certain historical tradition, from a broader perspective the notion that tonality somehow dissolved is implausible, for tonal music has never faded from cultural attention. It continued to thrive in what are sometimes considered to be conservative idioms within Western art music, but also in popular music, commercial music, and – despite ongoing experiments with atonal procedures – jazz, where it has never loosened its grip on the musical imagination. To insist on the dissolution of tonality as a historical fact is to confuse a historical phenomenon for a cognitive one. In the West and elsewhere, tonal music remains the music most people listen to most if not of all the time. It makes little sense to argue that tonality broke down around 1910 when we still listen to the music of Beethoven and Cole Porter. In this sense, tonality is still very much a part of the historical present, perhaps even more so – given the wide dissemination of Western music through electronic media and the globalization of mass culture – than ever before. News of its demise, like Mark Twain's, seems premature.

At the same time, however, composers, music historians, and music theorists have tended to exaggerate the importance of tonality as a theoretical construct. The entire historical account in the previous sub-section could be rewritten without reference to the idea: the history of tonality is better understood in terms of specific harmonic practices rather than immutable laws. Before 1910, moreover, tonality – as a construct that informs the production and consumption of music – had a modest historical provenance. Liszt, who corresponded with Fétis, was perhaps the first composer (besides Fétis himself) to create music with a conscious awareness of the notion, and it would not be until Schoenberg that it assumes crucial historical significance. Almost all of the tonal music written during the three previous centuries emerged without reference (tacit or otherwise) to the concept now thought to define its essential condition.

Tonality, then, is an ideological as well as a theoretical construct: from the very beginning, the term has been used primarily for historiographical purposes. Both Choron and Fétis, for instance, cite the birth of the dominant seventh in the music of Monteverdi as the decisive event in the historical separation of *tonalité moderne* from *tonalité antique* (Choron) or *ancienne* (Fétis). In this sense, one can equate modality with musical premodernism, tonality with modernism, high modernism with its putative dissolution, and its re-emergence in the avant garde of the late twentieth century (however changed in musical and cultural significance) with post modernism. According to this scenario, tonality virtually coincides with the age of Western modernism, the great era of representation that stretches from the philosophical meditations of Descartes to the general crisis of representation in the arts around 1910. It thus forms a precise analog to linear perspective in painting as one of the main cognitive structures in Western culture: in their respective media, tonality and linear perspective are responsible for the effect of subjectivity – the notion that an individual embodies a historical consciousness – so crucial to modernity. Heinrich Besseler in fact traced the origins of tonality back to the use of *fauxbourdon* in the 1430s,[31] the same decade in which Brunelleschi demonstrated the basic geometrical principles of linear perspective from within the central portal of the Santa Maria del Fiore in Florence.

Tonality, for Choron, was in fact "entirely modern." It was the culmination, "the goal and the result," of a teleological process. He regarded each historical era as a succession of progressive stages: "formation, development, progress toward perfection, permanence, and decline."[32] This process was cyclical: it was the coincidence of decline and formation that separated one historical age from another. Choron believed that the guiding spirit of each age (and here Hegelian language is appropriate) manifests itself in the objective tendencies of the musical material, hence the epochal division between *tonalité antique* and *moderne*. He heard the music of his time as the apex in the historical curve of modernism: he believed that his contemporaries could look back on "the progressive rise" of *tonalité moderne* and "the attainment of its present state of perfection." The current age was one of "permanence," a plateau from which one could cast a sad glance at the future of music and its inevitable historical descent.

Fétis (who read Hegel) understood this historical process as the progressive actualization of immutable laws. He believed that tonality was a metaphysical principle, a fact not of the inner structure or formal properties of music, but of human consciousness, which imposes a certain cognitive organization – a certain set of dynamic tendencies – on the musical material. As a metaphysical principle, then, tonality does not itself evolve, but rather remains invariant and universal, true for all people and for all time. He thus regarded what he felt to be the undeniable historical progress of Western music as a series of discrete advances toward completion, the ever more perfect realization of a musical absolute.

31 Besseler, "Tonalharmonik und Vollklang," p. 135.
32 Choron, "Summary of the History of Music," p. vi.

Fétis arranged these historical transformations (as he called them) into a teleological series that culminated in the music of his contemporaries.[33] The first of these was the *ordre unitonique*, the music of plainchant: the *tonalité ancienne* of liturgical music was, for Fétis, placid and dispassionate, free of appellative tendencies and thus incapable of modulation. He heard the onset of the *ordre transitonique* around 1600 in the music of Monteverdi, whose invention of the dominant seventh allowed for a wide range of modulations and marked the birth of *tonalité moderne*. Intense and subjective, transitonic music was well suited to the dramatic requirements of opera. The historical transition to the *ordre pluritonique* in the music of Mozart and Rossini was more subtle. Remarkable for its chromaticism, pluritonic music represented the culmination and perfection of *tonalité moderne*. In their orientation around diminished seventh and augmented sixth harmonies (both of which Fétis considered to be deformations of the dominant seventh), the volatile appellative tendencies of this tonal language allowed for remote modulations appropriate to the violent emotions of the age. The historical logic behind this progression of tonal orders gave Fétis the confidence to predict the future course of music: he believed that the chromaticism of the *ordre pluritonique* would dissolve into the ambiguous enharmonism of an *ordre omnitonique*, premonitions of which could be detected in music as far back as Mozart. Fétis, however, listened in on "the insatiable desire for modulation" in the omnitonic music of Berlioz and Wagner with revulsion: in their music, the intense appellative energies of pluritonic music neutralize and even negate themselves, weakening the gravitational forces on which *tonalité moderne* – with its clear references to the tonic – relies. For Fétis, *musique omnitonique* was sensual, decadent, and dangerous. It was music in historical decline.

Tonalité was in fact the site of a remarkable number of cultural anxieties, worries about the future of music, but also (and perhaps surprisingly) about race. For Fétis, there was a strong anthropological dimension to *tonalité*: he believed that different human societies were attracted to different pitch repertoires because of their different mental capacities, which were, moreover, a function of "cerebral conformation."[34] Fétis asserted that primitive (non-Western) societies were limited to simpler scales because of their simpler brain structures, while the more complex psychological organizations of Indo-Europeans permitted them to realize, over historical time, the full musical potential of *tonalité*; his theories were similar in their biological determinism to the racial theories of Gobineau. His inquiries into non-Western music advanced the academic agenda of Orientalism, an ambitious international attempt to research the languages, social organizations, sciences, and arts of non-Western societies, those under European rule in particular. In its most common forms, this research

33 Fétis devotes a separate chapter to each historical transformation in Book III of the *Traité complet de la théorie et de la pratique de l'harmonie*, pp. 151–200. He includes a précis of the argument on pp. xlii–l of the preface. 34 Shellhous, "Fétis's *Tonality* as a Metaphysical Principle," pp. 234–36.

was used to bolster vast and often irrational generalizations about race, intelligence, emotional temperament, social organization, and various forms of cultural expression. A strong motive behind these generalizations was the tacit fear that various African and Eastern cultural practices constituted a threat to European notions of social self-identification: in contrast to the modern West, the Orient appeared to European writers as a primitive or even animalistic realm of sexual desire, religious violence, and racial terror. In general, these writers organized knowledge about the East into cross-cultural comparisons that served to denigrate non-Western others and thus associated the Oriental with marginalized elements in their own societies – the ignorant, backward, degenerate, insane, and the feminine.[35] Fétis's contribution to Orientalism was to associate pitch repertoires with racial characteristics. His accounts of non-Western music, however – which he collected in the *Histoire générale de la musique depuis les temps les plus anciens jusqu'à nos jours* (1869–76) – conceal emotive assertions within the neutral language of factual description. Because of its dearth in appellative semitones, Fétis contended (in the *Traité complet*) that the pentatonic music of "la race jaune ou mongolique" – the music of the Chinese, Japanese, Koreans, Manchus, and Mongols – was "grave and monotonous." Arab, Persian, and Indian music, in contrast, was "langoureuse et sensuelle," befitting "the manners and mores (*mœurs*) of the nations that conceived it." Fétis believed that the dangerous excess of microtonal inflections in the pitch repertoires of the Levant was consistent with the expressive content of their music, which consisted of nothing but "amorous songs and lascivious dances."[36]

While the essentialization of race in terms of pitch repertoires has since been discredited, the practice remains part of the genealogical heritage of tonality. But the main point here is that the concept of tonality, as an ideological construct, serves to articulate and promote a far from disinterested view of the historical past. The notion of a tonal evolution or progress, in particular, has been appropriated for both conservative and radical aesthetic agendas: decisions about what constitute historical continuities or discontinuities are never empirical. Conservative ideologies, drawn to the hierarchical organization of harmonies in tonal music, have often advanced the concept of tonality (as Fétis did) as a means of regulating compositional practice or to naturalize Western music as a form of cultural expression. Some writers have also used the notion of its demise to warn of a cultural decline, or to argue for a return to traditional musical values. An almost random selection of more or less recent books on twentieth-century music, for instance, yields chapters titled "Tonality as Order" and "The Twilight of Tonality." Use of the term in accounts of modern music often expresses a sense of profound loss and infinite nostalgia, even among proponents of the new. Within this discursive tradition, the onset of atonal music in the avant garde around 1910 constitutes a decisive (and for some listeners irreparable) rupture in the history of Western music.

35 The standard account is of course Edward W. Said's *Orientalism*, on which the present discussion relies. 36 Fétis, *Traité complet de la théorie et de la pratique de l'harmonie*, p. xxi.

The concept of tonality has also been an important one for radical ideologies. Here the seminal figure is Schoenberg, who relies on the idea of a progressive development in musical resources to compress divergent *fin-de-siècle* compositional practices into a single historical lineage in which his own music brings one historical era to a close and begins the next: he appealed to notions of musical evolution and progress to position himself as the sole legitimate musical heir to Brahms. Twelve-tone music could thus be heard either as the natural and inevitable culmination of an organic motivic process (Webern) or a historical *Aufhebung* (Adorno), the dialectical synthesis of late Romantic motivic practice on the one hand with a musical sublimation of tonality as pure system on the other. It could be heard and understood in this sense as a simultaneous completion and negation of tonal practice. Schoenberg thus depicted himself as Siegfried to (paradoxically?) Brahms's Wotan, the hero who shattered the sacred musical spear (with its contractual obligations to the tonic) and blazed a path to the new world order, rebuilt from the ruins of musical tradition. "The Atonal Revolution" proclaims a chapter in another recent volume on modern music.

From this point of view, the rise and fall of tonality is far from a neutral account of music history, but serves, rather, to situate atonal and twelve-tone music as the focus of musicological (if not cultural) attention. The fierce commitment of music historians and music theorists to ultramodernist narratives of evolution and progress buttresses the hegemonic position of a serialism long since on the wane. It allows its advocates to characterize composers who continue to pursue tonal idioms as regressive, but also to exclude popular music – which continues to embrace tonal materials – from music curricula: narratives of evolution and continuous development are conspicuous for their silences and elisions. The failure of these narratives to account for the continuous use and renewal of tonal resources in Bartók, Porter, Coltrane, and Britten (among numerous other composers) alongside the music of Schoenberg, Berg, and Webern (not to mention the arcane experimentalism of Babbitt, Boulez, and Stockhausen) is remarkable.

Yet as Adorno pointed out, the dissolution of the distinction between consonance and dissonance – a distinction crucial to all theories of tonal music – into the closed, algebraic structures of serialism constituted a doubtful "emancipation." Now that popular and commercial music has overwhelmed and displaced "serious" music in cultural significance, and in view of an ongoing re-emergence of tonal idioms within the postmodern avant garde, the narrative of continuous tonal evolution no longer seems as credible as it once did and has begun to loosen its grip on the music-historical imagination. In the absence of the musical and cultural polemics that were responsible for the tremendous prestige of the concept, musicologists – whether historians or theorists – will turn to the description of tonal music in terms of contingent harmonic practices rather than immutable laws that inhere in or arise from the musical material and determine its ultimate historical fate.

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