
COMMON-TONE TONALITY

1.1 INTRODUCTION

As we enter the twenty-first century, the chromatic music of the nineteenth century continues to provide a fascinating and elusive subject for formal theoretical explanation. Most of our prevailing analytic models and methods, predicated on eighteenth-century practice, have traditionally explained chromatic music as the elaboration of diatonic structures. The music's frequent lack of conformity with these models has often been interpreted as a sign of weakness or inferiority in the music itself rather than due to any inappropriateness of the model. Of late, the orthodoxies of past decades have given way to freer speculation. Nineteenth-century chromatic tonality as a theoretical entity is developing an identity of its own, distinct from earlier models, and is attaining the status of a separate system or group of evolved systems.¹ A renewed interest in the theory of chord relations is fueling the speculative fires.

One such comprehensive idea, recently suggested, envisions a chromatic harmonic space in which all twelve triads of the tonal system are equally available as tonics within a piece.² This space recalls Schoenberg's theory of monotonicity and intuitively invokes the image of later nineteenth-century and early twentieth-century chromatic music.³ It also provides a conceptual framework for recent analytic approaches which posit more than one tonic in a piece and treat works which begin in one key and end in another, and allows for straightforward consideration of high-level structural relationships other than traditional diatonic ones. But there are other possible orderly chromatic harmonic spaces, containing more relationships than diatonic space but fewer than the fully saturated one. For a broad range of nineteenth-century

¹ Gregory Proctor defines chromatic tonality as distinct from diatonic tonality in a pioneering study ("Technical Bases of Nineteenth-Century Chromatic Tonality: A Study in Chromaticism," Ph.D. dissertation, Princeton University, 1978, Ann Arbor: UMI Research Press).

² Patrick McCrelless, "An Evolutionary Perspective on Nineteenth-Century Semitonal Relations," in *The Second Practice of Nineteenth-Century Tonality*, ed. W. Kinderman and H. Krebs (Lincoln, Nebr.: University of Nebraska Press, 1996), pp. 96–98. Harmonic space, or tonal space as defined by Fred Lerdahl, is the abstract nexus of possible normative harmonic connections in a system, as opposed to the actual series of temporal connections in a realized work, linear or otherwise. Lerdahl, "Tonal Pitch Space," *Music Perception*, 5, 3 (Spring 1988), pp. 315–349. Classical tonality inhabits diatonic space; later music, it follows, inhabits chromatic space.

³ Arnold Schoenberg, *Structural Functions of Harmony* (1954) (New York: W. W. Norton, 1969). See below, section 6.2.

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Table 1.1. *Common-tone triadic relations to a major tonic (tonic = C major; solid noteheads show all common tones)*

mode→ ↓root motion	no change	change
fifth	Dominant: 1 c.t. 	Fifth-change: 1 c.t.
third	Chromatic Mediant: 1 c.t. 	Relative mediant: 2 c.t.
prime	Identity: 3 c.t. 	Parallel: 2 c.t.
semitone		Slide (see p. 175): 1 c.t.

style I will propose such a space, suggested by the music of the time as well as by its contemporary theory. Its defining aspect is the requirement of a common tone in any direct chromatic relationship. My argument will be that common-tone relationships constituted the first group of chromatic relations between triads and keys to become fully normalized in nineteenth-century harmonic practice.

Table 1.1 lists the range of possible common-tone relationships between triads, both diatonic and chromatic. There are seven of these, six principal ones and one special case. They can be classified in three ways: by interval of root motion, by the absence or presence of mode change, and by the number of common tones.

As the table shows, the three intervals of root relation which allow for common tones are the fifth, the third, and the prime. (Names for individual relationships will be discussed below in chapter 7.) Relations by each interval may occur without or with change of mode. There is an important difference, though. With the fifth and the prime, mode preservation results in a diatonic relation, mode change in a chromatic one. With the third, it is the opposite: mode preservation results in a chromatic relation while mode change is diatonic. This gives third relations a unique profile and distinctive properties within the set of common-tone relations. The extra relation by semitone, a chromatic one between major and minor triads, is the result of the asymmetry of the tonal system. While not part of the principal set of common-tone relations, it is recognized and employed in mid-nineteenth-century chromatic tonality (see section 6.4).

Five of the six principal common-tone relations are readily accepted in analysis. The diatonic relations and relative mode relations are basic to the harmonic system.

Fifth relations with mode change are either diatonic or else the result of common-place alteration (such as V–i in minor). Chromatic third relations, on the other hand, have always proven contentious for theory. Throughout the nineteenth and twentieth centuries, theorists have disagreed on their nature, their origin, their role within the harmonic system, and their value. They have at times been demonized as threatening the coherence of the harmonic system, or theoretically neutralized as subsidiary to diatonic phenomena. Since I argue that, on the contrary, they serve as a cornerstone of common-tone tonality, my task is to provide a comprehensive case for their inclusion in a larger system.

1.2 CHROMATIC THIRD RELATIONS

The existence and prominent role of chromatic third relations in nineteenth-century music is widely recognized and well documented. Straightforward theoretical explanations for these striking elements of harmony, however, have been the exception. The preferred approach in the past century has been to treat chromatic mediant as derivative entities. They have been characterized as alterations or combinations of other, more basic progressions; as ornamental, secondary voice-leading events; or as incipiently degenerate coloristic phenomena, contributing to the eventual breakdown of the tonal system. I feel that these explanations fall short. My aim here is to clearly identify and describe the full range of mediant relations in the tonal system, and further to argue that chromatic third relations possess an identity and a quality which are independent of the fifth relations and diatonic third relations of the tonal system, displaying an independent functional identity. This requires a notion of direct relation between tonic and chromatic mediant which preserves and affirms the key and makes the elaborate explanations explaining them as versions of other things unnecessary. To facilitate this, a straightforward taxonomic system for diatonic and chromatic third relations alike will be proposed which groups those third relations together in classes which in practice act most similarly. The ease and directness with which this terminology allows for the clear discussion of succeeding topics will serve as an argument for its utility. Mediant will be considered individually, as a group, and as part of a formal representation of the tonal harmonic system.

Developing a way of thinking which allows for direct chromatic relations suggests revisiting received notions of the nature of harmonic relationships. Toward this aim, a study of principal nineteenth-century theorists is enormously instructive. Not only were these writers contemporaneous with the music in which chromatic relations became a norm of harmonic practice, but their viewpoints toward third relations and harmonic relations in general are not what we might assume them to be, and are certainly at odds with much of present conventional understanding. In many cases, theorists' ways of dealing with third relations derived in a rational way from their conceptions of the harmonic system and the ways in which chords relate. In other cases, theorists who recognized the existence of chromatic mediant relations were

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unable or unwilling to express them solely within the constructs of their harmonic theories. Accordingly, in order to appreciate the substance of the conflict between a comprehensive theory and an undeniable phenomenon for which it cannot easily account, we will examine notions of harmonic system and connection in general and their relation to specific ideas of third relation.⁴ The discussion will begin with Jean-Philippe Rameau, who wrote in the eighteenth century but articulated the place of chromatic third relations in the harmonic system. It will continue with Anton Reicha, Gottfried Weber, A. B. Marx, and Moritz Hauptmann, all of whom advanced notions of third relations. Hugo Riemann, who created an elaborate theory of chromatic tonality, will merit a dedicated study. My argument will be that the nineteenth century saw both an increasing acceptance of chromatic third relations as a class of legitimate harmonic phenomena paralleling their increasing presence in music, and, ironically, the development of theoretical constructs which were increasingly less able to accommodate these phenomena.

After Riemann, as new theories emerged which focused less on classes of harmonic relation, and as chromatic practice broadened to the point by which third relations and other common-tone chromatic relations were no longer unusual or extreme, mediant relations ceased to be the subject of directed discussion. The preeminence of scale-step or scale-degree conceptions in twentieth-century theory led to theories as divergent as Schenker's and Schoenberg's, both of which will be seen to devalue chromatic third relations (among others) as ultimately dependent on other musical factors. Scale-degree thinking has also led to the modern textbook approach wherein chromatic mediant relations are presented as variants of diatonic ones, or as coloristic events with no definite harmonic meaning.

Some contemporary American theory has tackled the "problem" of third relations. Solutions range from ones which adopt a Schenkerian point of view and work from the assumption that chromatic mediant relations destroy the integrity of the key, to others which offer alternative explanations of chromatic mediant relations which presuppose their coherent participation in tonal processes. Some propose classification systems; others concentrate less on classification and more on analysis and explanation. Relevant aspects of this work will be discussed and analyses considered where appropriate. The recent development of transformation theory will be reviewed, and will provide a model for my approach, inspiring a modification to existing systems to reflect direct chromatic relations as integral processes.

An investigation of practical aspects of chromatic third relations follows this survey. The discussion will treat common types of mediant relations on different levels of musical organization. Drawing on numerous musical examples and providing some

⁴ Thomas Christensen cautions against naively tracing the development of a single theoretical concept through history without taking account of its context. For the most part he cites musical and cultural forces external to the theoretical texts, but the larger concerns, goals, and structures communicated by the texts themselves also provide contexts for the expression of individual concepts. Christensen, "Music Theory and its Histories," in *Music Theory and the Exploration of the Past*, ed. D. Bernstein and C. Hatch (Chicago: University of Chicago Press, 1993), pp. 9–39. The present study will focus on the latter type of context.

extended analyses taken from the nineteenth-century literature, I will make the case for mediant function, and hopefully demonstrate some of the advantages inherent in thinking in its terms.

1.3 THE CONCEPT OF FUNCTION

“Function” is a term which, although it may seem to express a simple and obvious concept, has grown vague through widespread use to mean a variety of things. Loosely put, the term “function” signifies harmonic meaning. But notions of this meaning may take many forms. We commonly associate the idea of function itself with the thought of theorists ranging back to Rameau. Typical is the following comment on Gottfried Weber’s work by a mid-twentieth-century historian of nineteenth-century harmonic theory: “The author believes Weber to be the first theorist to use Roman numerals as function signs.”⁵ According to this account, Weber, writing in the 1820s, was aware of a pre-existing if unnamed concept of function and was devising signs to denote it. However, such habitual assumptions about the idea of function are misleading. During the common practice period, a well-defined notion of function in harmony had not yet been introduced, although aspects of what we would consider to be functional theory were of course present in the work of many theorists. Not until the end of the nineteenth century was a full-fledged concept of harmonic function formulated and named *Funktion* by Hugo Riemann, following two decades of painstaking theoretical groundwork. For Riemann himself, as I will show, the concept provided a means to explain how all chords, diatonic and chromatic alike, draw their meaning in a key from their shared membership in one of three functions defined by the three principal triads. In a related conception also identified with Riemann, function inheres in the three chords themselves rather than in the categories they define. A corollary notion of ours absent from Riemann’s theory locates harmonic and functional identity directly in scale degrees I, IV, and V, on which these principal triads are based. In our time, functional power and harmonic meaning of chords are often attributed instead to each of the seven diatonic scale degrees and sometimes their variants, serving as the roots of a variety of chords and identified by Roman numerals.⁶ Thus we may say “A ♭ major functions as III in F minor, as V in D ♭ major, and as ♭ VI in C major.”⁷

⁵ Mark Hoffman, “A Study of German Theoretical Treatises of the Nineteenth Century” (Ph.D. dissertation, Eastman School of Music, 1953), p. 65. The author means that Weber was the first to use Roman numerals to label scale degrees in a systematic way, associating chords with keys. A discussion of earlier numbering systems appears in Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge, Mass.: Harvard University Press, 1992), pp. 207–208. For an exploration of ways in which we understand notions of function in earlier theory see my “On the Function of Function,” *Music Theory Online*, 1.3 (May 1995).

⁶ “Each scale degree has its part in the scheme of tonality, its tonal function.” Walter Piston and Mark DeVoto, *Harmony*, 5th ed. (New York: Norton, 1987), p. 53.

⁷ Scale degree is a concept inimical to Riemann, for whom, for example, a chord based on the third scale degree may function as tonic, dominant, or dominant of the relative minor, depending on context. Cf. Carl Dahlhaus, “Terminologisches zum Begriff der harmonischen Funktion,” *Die Musikforschung*, 28, 2 (1975), pp. 197–202.

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The term “function” may also be used to signify a concept of the intrinsic potentiality of a given chord to progress in a particular way or to a particular chord, such as the notion of the dominant’s innate propensity to progress to the tonic. Or we may associate function with specific outcomes rather than with scale-degree identity.⁸ The term may be applied to chords whose motivation to progress is extrinsic to their nature as triads.⁹ It may be associated with individual tones rather than chords.¹⁰ It may be correlated with syntactic, phrase-based meaning.¹¹ The function concept has been identified with a prolongational scale-step notion.¹² Thus many contrasting, sometimes contradictory, notions of chord identity, potentiality, and activity may all be invoked by the term “function.”

More generally, we may use the term “function” to denote meaningfulness or meaningful relation within a key, as opposed to “color,” which signifies a relation without meaning in the tonal system. An important traditional index of meaning within a key is diatonic pitch content, or else, in the case of chords with chromatic content, direct relation or resolution to a chord with diatonic content. The principal chords of a key satisfy the first condition; chords such as secondary dominants, diminished sevenths, and augmented sixths satisfy the second. Chromatic third relations are often dismissed through this rationale as non-functional color events pointing only to themselves or away from the tonic, or else as out of the plane of tonal relations. The presence of non-ornamental chromatic tones in these mediant and the distance between their associated keys and the tonic are attributes which for many theorists disqualify these chords from expressing harmonic function. But in fact chromatic mediant often do satisfy the second condition, relating directly to their tonic or dominant, not as applied chords, but in a coherent way which preserves the sense of tonic key. This coherence derives from smooth relations involving common tones and root connections, along with other factors. Harmonic relationships between chords are not simple, single-faceted connections but rather complex linkages whose effect results from the interrelation of a number of processes. Consider

Dahlhaus also observes that Riemann is not clear about the distinction between function as category and function as chordal archetype.

⁸ “The IV . . . has three common functions. In some cases, IV proceeds to a I chord . . . More frequently, IV is linked with ii . . . [it may also go] directly to V . . .” Stefan Kostka and Dorothy Payne, *Tonal Harmony*, 2nd and 4th eds. (New York: Alfred A. Knopf, 1989/1999), p. 116.

⁹ For example, Lester, *Compositional Theory*, p. 206, uses the term to apply to Rameau’s dissonance-motivated chord types: “Rameau had proposed three chordal functions: tonic, dominant, and subdominant.” For Rameau, who did not use the term “function,” these are respectively represented as a triad, a seventh chord, and an added-sixth chord. Lester is careful to distinguish his use of the term from modern usage.

¹⁰ Daniel Harrison constructs a theory of harmonic function on these terms in *Harmonic Function in Chromatic Music: A Renewed Dualist Theory and an Account of its Precedents* (Chicago: University of Chicago Press, 1994).

¹¹ “In the Kuhnau, the tonic functions first as an *opening tonic* . . . At the end it is a goal of motion, thus a *closing tonic*.” Edward Aldwell and Carl Schachter, *Harmony and Voice Leading*, 2nd ed. (New York: Harcourt, Brace, and Jovanovich, 1989), p. 84. Despite free use of the term, neither this textbook nor any other cited here either defines “function” directly or contains an index entry for the concept.

¹² Willi Apel, article on function, in *The Harvard Dictionary of Music*, 2nd ed. (Cambridge, Mass.: Harvard University Press, 1969).

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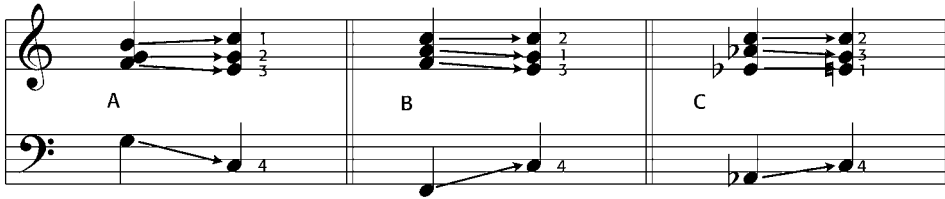


Figure 1.1 Contributing factors of identity, similarity, and difference in three common-tone progressions to the tonic

- 1: characteristic interval, different in each case
- 2: single common tone
- 3: descending diatonic semitone
- 4: root motion by consonant interval

A: from dominant seventh	B: from subdominant	C: from major-third mediant
1: leading-tone resolution	1: descending whole tone	1: chromatic semitone
2: common tone $\hat{5}$	2: common tone $\hat{1}$	2: common tone $\hat{1}$
3: semitone descends to $\hat{3}$, resolving tritone	3: semitone descends to $\hat{3}$	3: semitone descends to $\hat{5}$
4: root descends by fifth	4: root descends by fourth (ascends by fifth)	4: root ascends by third

the relationship of dominant-seventh chord to tonic triad, shown in Figure 1.1a. Several elements contribute to the overall effect of the progression. Some of the most basic are: the progression by diatonic semitone of leading tone to tonic (linear); the root relation of a perfect fifth descending to the tonic (harmonic); the resolution of the tritone created by adding a dissonant seventh to the triad (contrapuntal); and the presence of a common tone (linear/contrapuntal). The absence of any of these factors would deprive the relationship of some or much of its accustomed sense.¹³ Likewise, other progressions also derive their substance from a combination of linear, harmonic, and contrapuntal factors. Figure 1.1b shows a progression from subdominant triad to tonic triad. It shares features with Figure 1.1a, although some are differently realized: the descending diatonic semitone still leads to $\hat{3}$; the root relation of a fifth now ascends; the common tone is $\hat{1}$ rather than $\hat{5}$; and the leading-tone and tritone resolutions are gone. Figure 1.1c shows a commonly encountered chromatic third relation. It, too, contains a descending diatonic semitone, although from a chromatic pitch; a root relation of a major third leading to the tonic; and a common tone, $\hat{1}$. Other details of voice leading also vary from progression to progression, but the factors traced above in combination give these progressions the bulk of their defining strength and their sense of functionality: the presence of a

¹³ While the presence of the tritone may not be essential to this relationship, it contributes a fair share of its cadential and key-defining sense. Some mid-nineteenth-century theorists clearly considered the dominant seventh the fundamental chord of opposition to the tonic, far superior to the plain triad on the fifth scale degree, as related below in chapter 3.

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linear semitone, root motion by a consonant interval, connection to the tonic, and the existence of a common tone. Hence my claim that mode-preserving chromatic third relations should be considered functional. Many nineteenth-century theorists recognized this property, even though their theories could not easily account for it. Twentieth-century theorists of tonality, however, have largely discounted or trivialized the functionality of chromatic mediants. To present my case, chapter 2 presents some clear-cut examples of these elements of harmony and argues for their functionality. Chapters 3 through 5 recount theorists' changing attitudes and the reasons behind them. Chapters 6 and 7 discuss formal transformation systems. Chapters 8 and 9 examine further instances of functional chromatic mediants in music, show the variety of ways in which they act in tonal contexts, and provide analytic examples. In preparation for these discussions, we must thoroughly examine the nature of the third relations possible within the tonal system.

1.4 SCHEME OF THIRD RELATIONS

We think about third relations like we think about function: while at first the idea seems simple and straightforward enough, under examination it proves complex, and our terminological usage proves correspondingly vague. Third relations are multifarious: they may be chromatic or diatonic; they may preserve or alter mode; they may involve major or minor thirds; they may or may not invoke a relative mode; they may or may not interact directly with fifth relations. Third-related chords may be seen as functional, non-functional, or altered forms of functional harmonies.¹⁴ Given this situation, the first step toward treating third relations as meaningful elements of the harmonic system must be to bring order and clarity to their description.

Third relations are certainly more unwieldy to characterize than fifth relations. One obvious reason for this is their greater number. There are two normative types of third – major and minor – against only one normative type of fifth, the perfect fifth. Since root motion between triads occurs by both types of third, it follows that there are twice as many possible third relations as fifth relations in conjunction with any particular chord. Thus, from any given tonic chord, progressions may occur down a minor third or a major third, and up a minor third or a major third. In addition, the nature of harmonic progression by third opens up possibilities of movement between relative and parallel modes, resulting in a more fluid interaction between these modes than is the norm in fifth relations. The goal of movement by a given third relation may equally well be a major or minor chord, especially in nineteenth-century practice, with potentially quite different effects in each case.

The full range of third relations possible between major and minor tonics and their upper and lower mediants is displayed in Figure 1.2. The diagram is to be read such that harmonic relations may occur from either member of the tonic pair to either member of any other pair. Each tonic may thus relate to a minor or major triad at

¹⁴ Thomas McKinley provides a thoughtful review of these different concepts. "Dominant-Related Chromatic Third Progressions," unpublished manuscript (Tulane University, 1994), pp. 9–26.

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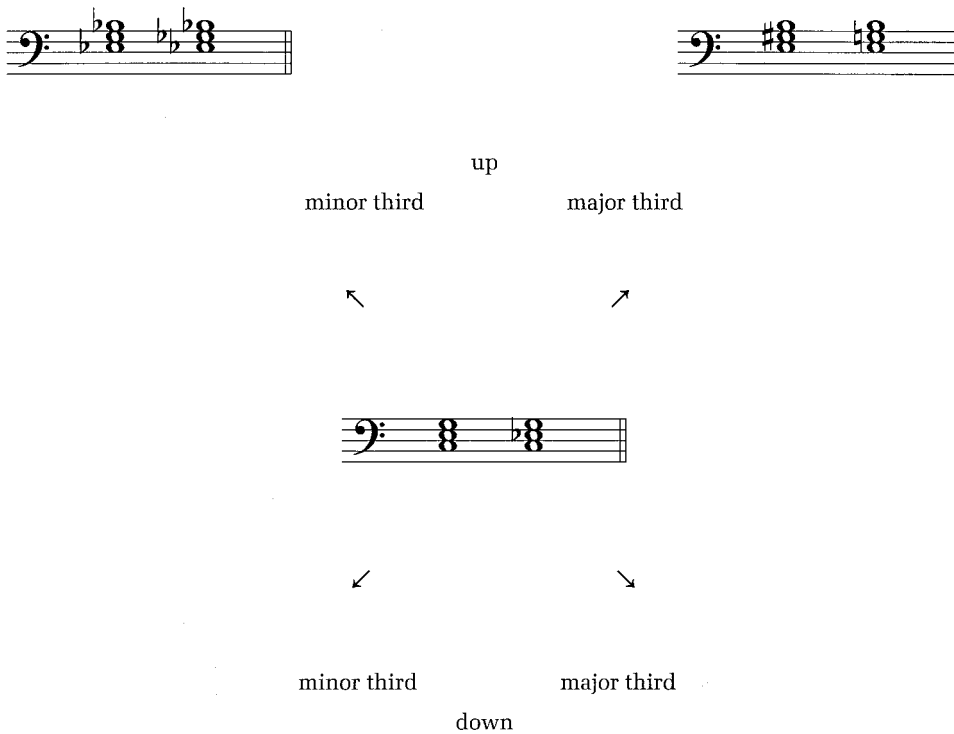


Figure 1.2 Scheme of the sixteen possible mediant relations
 (eight from a major tonic, eight from a minor tonic)

each of four different intervals, yielding eight possible relations for each tonic, or sixteen in all.

The most effective way to classify mediant relations into related groups is to take measure of common tones with the tonic.¹⁵ This approach yields three well-defined categories: those with two tones in common with the tonic, those with one tone in common, and those with none.¹⁶ Mediant relations having two common tones are always diatonic fundamental chords of the relative mode: thus the name “relative.” Mediant relations which have one common tone are always triads of the same mode as the tonic, containing one or two pitches outside the diatonic set: thus the name “chromatic.” Mediant

¹⁵ The classification scheme to be introduced here was originally presented in November 1988 at the national conference of the Society of Music Theory in Baltimore, Maryland.

¹⁶ The outlines of a common-tone classification system were suggested as long ago as Rudolf Louis and Ludwig Thuille’s *Harmonielehre* (Stuttgart: Carl Gruninger, 1907), pp. 343–345. However, the theorists explain away chromatic mediant relations as substitutes for diatonic chords. More recently, Kostka and Payne introduce common-tone classification into the third edition of their textbook *Tonal Harmony* (1995, pp. 324–325; 440; 463), although in piecemeal fashion, and are quick to brand chromatic mediant relations as coloristic.

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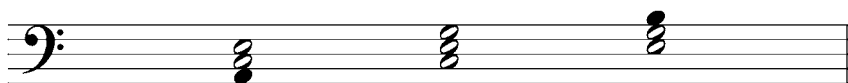


Figure 1.3 Relative mediant associated with a major tonic

with no tones in common are of the opposite mode all of whose pitches fall outside the diatonic set: thus the name “disjunct.”¹⁷ Every major and minor tonic has a complement of two relative mediant, four chromatic mediant, and two disjunct mediant. While details of voice-leading differ among members of each category, these details are secondary to the large-scale attributes of common tones and root motion.

Thus, although it is possible to describe sixteen distinct mediant relations, there are only three quantitatively different ways in which third-related chords connect with respect to common tones. These three classes of mediant are further differentiated by the relationship of their associated keys to the tonic. The keys of the relative mediant share six or all seven diatonic pitches with the tonic; the keys of the chromatic mediant share three or four diatonic pitches; the keys of the disjunct mediant share only one or no diatonic pitches at all.

The first category, relative mediant, contains diatonic chords associated with the relative modes. These relations entail two common tones and one diatonic change of either a semitone or a whole tone. For example, in the relation between C major and A minor triads, the notes C and E are held common, while G and A differ by a whole tone. In the relation between C major and E minor triads, on the other hand, the notes E and G are held common, while C and B differ by a diatonic semitone. This is shown in Figure 1.3.

The second category, chromatic mediant, contains chords which preserve mode. All of these relationships entail one common tone, one chromatic step, and one diatonic step. There are two subspecies of chromatic relations, since the diatonic step may be either a semitone or a whole tone. For example, in the relation between C major and A \flat major, the note C is common, while the notes E and E \flat differ by a chromatic semitone, and the notes G and A \flat differ by a diatonic semitone. On the other hand, in the relation between C major and A major, the note E is common, while the notes C and C \sharp differ by a chromatic semitone, and the notes G and A differ by a diatonic whole tone. Thus the second class of strong mediant relation is a bit stronger – i.e. more marked, or less close – than the first, by virtue of its larger diatonic interval, as well as by the introduction of a pitch outside the tonic major/minor complex. All of the chromatic mediant are shown in Figure 1.4.

Relations of the third, disjunct category involve no common tones. They possess two chromatic steps and a diatonic one, either a semitone or a whole tone. Lacking

¹⁷ While the term “chromatic mediant” could refer to all third relations with chromatic content, whether or not common tones are present, informal usage usually implies the common-tone relations, and this will be the sense in which the term appears here. The terms “weak,” “strong,” and “superstrong” also come to mind to describe the mediant according to their harmonic effect, but the words are loaded with other significant associations. Also, the term “superstrong” is used by Schoenberg to refer to something else; see below, section 5.2.1.