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TONAL HARMONY FOR THE KEYBOARD

Gary E. Wittlich
Deborah S. Martin

Tonal Harmony for the Keyboard

With an Introduction to Improvisation

Gary E. Wittlich
Deborah S. Martin

Indiana University

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Preface

Keyboard harmony has long been a reluctant stepchild of music theory instruction in college-level music curricula. Realizing chord patterns, devising accompaniments to melodies, and particularly improvising at the keyboard have always been basic skills for organists, accompanists, and jazz pianists, but such activities are often met with resistance by other music students who question how such skills will benefit them in their musical careers.

We believe that the keyboard provides an excellent means for reinforcing what is learned in theory classes, e.g., harmony, counterpoint, and aural training. The keyboard instruments, after all, are the main ones on which multi-part textures can be realized simultaneously. We believe further that without such reinforcement, that is, unless the students learn to convert the notated materials of typical music theory instruction into sound, much of what we try to impart to them about musical relationships is merely abstraction. Keyboard harmony, then, becomes an effective means to the end of better understanding harmonic patterns, relationships and voice leading.

APPROACH

The focus of this book is tonal harmony, in particular, basic harmonic patterns and voice leading principles that characterize the harmonic practice of eighteenth- and nineteenth-century music. Our point of view is that tonal music is hierarchic and that it is comprised of certain fundamental harmonic patterns that undergo elaboration in a variety of ways to create musical units of varying lengths (e.g., phrases). By approaching harmony in this way, it is possible to organize the study so that the student learns as efficiently as possible.

Each chapter's harmonic materials are illustrated with examples from music literature, often with models of the underlying harmonic basis shown in a simple note-against-note keyboard setting. These harmonic patterns then become the basis of drills to be played in a variety of settings and keys. To enhance the drills, improvisation is also included, for we believe that one good indicator of a student's aural comprehension of musical relationships is his or her ability to create improvisations on a given harmonic or melodic pattern. Like the keyboard drills, improvisation is employed as a means to the end of understanding pitch relationships and is not intended as an end in itself.

CONTENT AND ORGANIZATION

The book is divided into two parts: I, diatonic harmonic patterns; and II, chromatic harmonic patterns. Part I includes diatonic triads and seventh chords; the only chromaticism that appears is ornamental. In Part II the harmonic vocabulary is extended to include secondary dominant and secondary diminished seventh chords, augmented sixth and Neapolitan sixth chords, and extended tertian chords (ninths, elevenths and thirteenth). Our intention is to cover common harmonic patterns but not to encompass all eighteenth- and nineteenth-century chord vocabulary and harmonic contexts. Rather, we are concerned with developing an understanding of the structure of tonal harmony through typical harmonic patterns, and with developing drills to reinforce the patterns. Given an understanding of harmonic structure, the student will be able to use this knowledge to create other harmonic patterns characteristic of triadic tonal music.

Within Part I there are nine chapters. The first chapter provides an overview of the approach used in the book and introduces terms, concepts, and symbols employed throughout. It introduces three chord classes: Tonic, Subdominant, and Dominant (abbreviated T, S, and D). These classes form the foundation of the chapters on harmonic patterns. Chapter 2 provides preliminary keyboard drills intended primarily to prepare those students with little keyboard experience for the later drills of the book. The third chapter provides an introduction to basic procedures for elaborating a melody as a first step in learning how to improvise and to elaborate the upper voice in harmonic drills throughout the book. Chapters 4 and 5 introduce the basic harmonic patterns that serve as a point of departure for the book's harmonic drills. Of the remaining chapters in Part I, Chapter 7 provides an introduction to figured bass symbols and realization, and Chapters 6, 8, and 9 expand on the idea of harmonic elaboration of basic patterns. After Chapter 3, drills within each chapter cover the harmonic patterns of the chapter, melodic harmonization and keyboard styles, and improvisation. After the introduction to figured bass in Chapter 7, figured bass drills are incorporated in each of the book's remaining chapters.

The chapters of Part II, introduce, in order: secondary dominant chords; modulation to near-related keys; modal mixture; Neapolitan and augmented sixth chords; more extensive modulation procedures; and extended tertian and added-note chords. Part II's drill types parallel those in Part I.

USE OF THE BOOK

This book is aimed at the college, university, and conservatory levels of music study. It can serve as the keyboard harmony component within the basic music theory or class piano curriculum, or as the main text of a separate keyboard harmony course. The book contains sufficient materials for four semesters of keyboard harmony study in a typical undergraduate music theory curriculum.

It is suggested that the text be used by an instructor who regularly assigns drills for the students to practice, who provides time for questions and discussion, and who regularly hears students in order to evaluate their efforts. We recommend that these hearings take place at least once every two weeks, or ideally more often, for regular feedback and evaluation are essential if students are to make steady, measurable pro-

gress. Of course, it follows that students should be expected to practice the drills regularly. With the active involvement of the student in pursuing understanding through performance-knowing through doing-, we have found this approach to be successful for reinforcing the study of tonal harmonic practice.

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PART I

Diatonic Harmony



CHAPTER 1

Introduction and Overview

The purpose of this chapter is to introduce terms, concepts, and symbols used throughout the book. Some of the concepts will become more meaningful after they have been put into use in the following chapters, but they are introduced here to give an idea of the scope, contents, and the approach of the book. We suggest that you skim this chapter before going on to the following chapters, returning to it later, if necessary, for clarification after attempting drills in the following chapters.

PITCH NOTATION

To designate specific pitches, we use the Acoustical Society of America (ASA) code in which middle C is C₄; C₅ is the octave above, C₃ the octave below, etc. The pitches within any octave are identified by the number of the lower C. For example, D₄, D_{♯4}, E₄, etc., lie in the octave beginning with C₄. See Example 1.1.

EXAMPLE 1.1

A musical staff with a treble clef on the top line and a bass clef on the bottom line. The staff is divided into two sections. The upper section, starting from the middle of the staff, shows notes D₄, E₄, F₄, G₄, A₄, B₄, C₅, and C₆ from left to right. The lower section, starting from the bottom of the staff, shows notes C₂, C₃, D₃, E₃, F₃, G₃, A₃, B₃, and C₄ from left to right. A small caret symbol is placed above the C₆ note and below the C₂ note.

SCALE DEGREE NAMES AND NUMBERS

For scales, we use the names and numbers shown in the table below. The caret over the number denotes scale degree.

tonic	$\hat{1}$
supertonic	$\hat{2}$
mediant	$\hat{3}$
subdominant	$\hat{4}$
dominant	$\hat{5}$
submediant	$\hat{6}$
leading tone	$\hat{7}$

We consider the leading tone always to be a half step below the tonic. For example, $\hat{7}$ is C# in both D major and D minor. For altered scale degrees, we add accidentals: a flat lowers the scale degree one half step, and a sharp raises the scale degree one half step. In minor mode, $b\hat{3}$ denotes the minor third and $b\hat{6}$ denotes the minor sixth above the tonic, regardless of the key signature. Thus $b\hat{3}$ is C and $b\hat{6}$ is F relative to a tonic of A, while $b\hat{3}$ is E \flat and $b\hat{6}$ is A \flat relative to a tonic of C. See Example 1.2.

EXAMPLE 1.2

D: $\hat{1}$ $\hat{2}$ $\hat{3}$ $\hat{4}$ $\hat{5}$ $\hat{6}$ $\hat{7}$ $\hat{8}$ $b\hat{2}$ $b\hat{3}$ $\#\hat{4}$ $b\hat{6}$

a: $\hat{1}$ $\hat{2}$ $b\hat{3}$ $\hat{4}$ $\hat{5}$ $b\hat{6}$ $\hat{7}$ $\hat{8}$ $b\hat{3}$ $\#\hat{3}$ $b\hat{6}$ $\#\hat{6}$ $b\hat{7}$

c: $\hat{1}$ $\hat{2}$ $b\hat{3}$ $\hat{4}$ $\hat{5}$ $b\hat{6}$ $\hat{7}$ $\hat{8}$ $b\hat{3}$ $\#\hat{3}$ $b\hat{6}$ $\#\hat{6}$ $b\hat{7}$

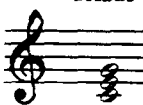
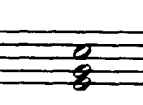
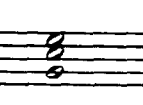
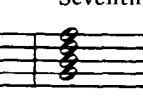
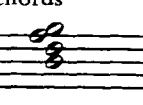

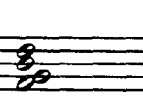
INTERVAL NOMENCLATURE

Throughout this book we will refer to intervals by their standard qualitative names and symbols: perfect (P), major (M), minor (m), augmented (+) and diminished (\circ). To diminish a perfect or a minor interval, lower the upper note or raise the lower note one half step. To augment a perfect or major interval, raise the upper note or lower the lower note one half step. The term *tritone* refers to the interval of an augmented fourth or a diminished fifth. Intervals within an octave are called *simple*, while those greater than an octave are called *compound*. Typical simple intervals are shown in Example 1.3. Adding the number 7 to a simple interval gives the corresponding compound interval (e.g., a compound M2 is a M9).

CHORD INVERSIONS

When a chord has a chord member other than the root in the bass, it is said to be inverted. In Example 1.6, numbers added to Roman numerals indicate intervals above the bass note, and thus indicate the chord inversions. The numbers shown in parentheses are optional.

EXAMPLE 1.6

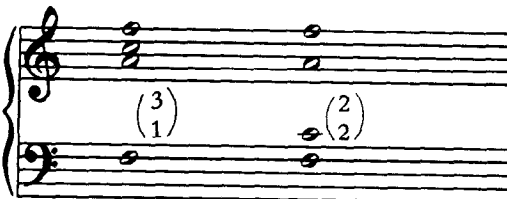
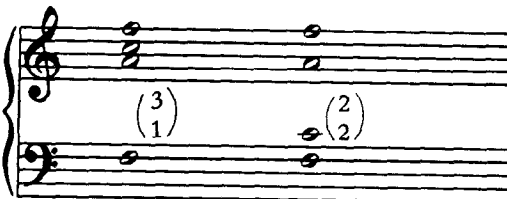
Triads			Seventh chords			
						
C: I ⁽⁵⁾ ₍₃₎	I ⁶ ₍₃₎	I ⁶ ₄	V ⁷ ₍₃₎ ⁽⁵⁾	V ⁶ ₍₃₎ ⁵	V ⁽⁶⁾ ₃ ⁴	V ⁽⁶⁾ ₂ ⁽⁴⁾
position: root	first inv.	second inv.	root	first inv.	second inv.	third inv.

CHORD SPACING: VOICES AND VOICE LEADING

Each note of a chord will be called a “voice” in keeping with traditional practice, with the usual designations of soprano, alto, tenor, and bass, reading from the top down in any setting of four vertically arranged pitches. The connection between voices from one chord to another is called *voice leading* and is an important consideration in harmonic patterns.

Close position denotes a spacing in which the soprano and tenor are separated by no more than one octave, while *open position* denotes a spacing in which the soprano and tenor are separated by more than one octave. Example 1.7 demonstrates these spacings.

EXAMPLE 1.7

	
(3) (1)	(2) (2)
close	open

In addition to the terms close and open, we will also use descriptive symbols, such as “3”, “2”, etc., to denote keyboard settings. The top number denotes the number of notes in the right hand, the lower the number of notes in the left. Both settings are shown in Example 1.7.

CHORD FUNCTION CLASSES

In order to provide a way of generalizing about harmonic patterns, we use the notion of *chord function class*. A chord function class contains specific chords that serve a common harmonic function. Within classes, chords may substitute for each other in terms of function. For example, ii and IV often substitute for each other (ii usually as ii⁶). Most chords used in tonal music of the eighteenth and nineteenth centuries can be grouped into three function classes: *Tonic*, *Subdominant* and *Dominant*, which we abbreviate T, S, and D respectively. We use capital letters for these classes in order to distinguish the class names from names of specific chords, that is, the S class contains both subdominant and supertonic triads, as well as other chords. The table below lists by Roman numerals the triads which usually serve each of these three harmonic functions. Many of these chords may also be found with sevenths, but the addition of a seventh does not normally change the function of the chord.

T(onic)	S(ubdominant)	D(ominant)
I, i	IV, iv, ii, ii ⁶ , vi, VI, V/V, vii ⁶ /V, II ⁶ (N ⁶), +6 (It, Ger, or Fr)	V, vii ⁶

As can be seen from the table, the S class has the greatest variety. Special S class symbols, such as V/V, will be defined when they are used.

BASIC HARMONIC PATTERNS IN TONAL MUSIC

The idea behind the approach taken in this book is that two harmonic patterns (or progressions) in tonal music are fundamental to the definition of tonality. In terms of the chord classes given above, these two patterns are symbolized TDT and TSDT. The T, S, and D chords in the fundamental patterns are called *structural chords* because they govern (or control) the harmonic activity within musical units of varying lengths.

In this book, most of the drills will be concerned with musical units a phrase or two in length. While it is difficult to define the word “phrase” precisely, from the standpoint of harmonic plan, a typical phrase opens on the T chord and closes with the D chord (a *half cadence*) or with a DT chord pattern (an *authentic cadence*). Cadential D and T chords will normally be in root position.

We focus on two types, or plans, of harmonic activity within phrases: 1) the elaboration of a single chord by other chords, and 2) the elaboration of the space between the opening T and the cadence. Another term for harmonic elaboration is *prolongation*.

Prolongation of a single chord is often applied to the chord found at the beginning of a phrase. A typical plan is to state the T chord, follow it by another chord or chords, and then return to the T chord before moving toward the cadence of the phrase. This kind of prolongation can be applied to any chord in a harmonic pattern, though prolongation within T and D chords is most common (see Example 1.8).