

UNIVERSITY OF MIAMI

A JAZZ IMPROVISATION COURSE UTILIZING MOVABLE-*DO* SOLFEGE

By

Andrew Scott Peal

A DOCTORAL ESSAY

Submitted to the Faculty
of the University of Miami
in partial fulfillment of the requirements for
the degree of Doctor of Musical Arts

Coral Gables, Florida

May 2021

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(May 2021)

A Jazz Improvisation Course Utilizing
Movable-Do Solfege.

Abstract of a doctoral essay at the University of Miami.

Doctoral essay supervised by Professor Stephen Guerra, Jr.
No. of pages in text, (124).

This essay explores the utilization of the movable-*do* solfege system in jazz improvisation instruction and creates a one semester improvisation course for beginning improvisers. Solfege is introduced to students in aural skills courses at many music programs, but it is not a common instructional tool in jazz improvisation pedagogy. An aural skills approach to jazz improvisation will connect prior melodic knowledge to acquire musical phrases for many students that have been trained in music programs across the United States. I have adapted and created pedagogical materials to create a course in which students study jazz compositions, melodies, and transcriptions from recordings. This pursuit is supported by research from jazz pedagogy and aural skills experts. I draw upon jazz pedagogy materials by authors such as Jerry Coker, David Baker, and Hal Crook. Further support is from aural skills methods and theories by Gary Karpinski and Edwin Gordon.

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CHAPTER I

Background

This essay facilitates the creation of a jazz improvisation method intended for undergraduate music students that have prior training in aural skills. I refer to aural skills acquisition techniques that are commonly utilized in music education programs in the United States. This method provides pedagogical material in an attempt to guide music theory students seamlessly into the practice of jazz improvisation.

A concern that is lamented by many pedagogues of jazz music is the lack of reference to the records, which have been the “textbooks” for past generations of musicians.¹ The proposed course attempts to facilitate understanding of seminal jazz recordings through application of solfege to basic diatonic exercises, jazz standard melodies, and transcriptions. A connection between aural skills techniques and common music elements within jazz recordings will serve to inform the student’s path to improvising in the jazz idiom. This instructional approach intends to help students appreciate, imitate, and eventually contribute to the development of the art form. Additionally, the skills taught in this course aims to give students a fresh perspective and musical skills that can benefit performance in any genre.

Many music students pursue jobs as band directors, whose duties often include leading a jazz band. Those who teach high school and middle school jazz bands have the responsibility to teach jazz improvisation. This essay proposes a method to connect the

¹ David Baker, *David Baker’s Jazz Pedagogy: A Comprehensive Method of Jazz Education for Teacher and Student* (Los Angeles: Alfred Publishing, 1979), 23.

musical comprehension that many undergraduate music majors need to embrace aural-based education used in jazz improvisation instruction.

Music students benefit from the study of jazz improvisation because improvisation requires a deep understanding of the rhythms, melodies, and harmonies that are found within jazz music. Jazz improvisers often perform spontaneous melodies without the aid of printed sheet music. This requires a mastery of fundamental music theory. Playing by ear is an example of the typical activities in jazz improvisation pedagogy. A case-control experiment by David Baker and Lucy Green suggests that, “Ear playing benefits sight reading, musical memorization, performance skills, musical memorization, and wider aural development.”² A desired byproduct of this course is to develop students’ ability to hear music in the context of pursuing a new outlet for creative individual expression.

According to Townsend, “Jazz improvisation differs from other improvisatory music because its goal is to respond creatively to the musical environment in which the improvisation is taking place.”³ Musical conversation between musicians on the bandstand, often with musicians that have never played together before, is possible because of shared repertoire and jazz language that has been perpetuated aurally for generations. For example, a soloist may choose to continue or respond to a melody that was just sounded from the musician before them. This interplay is possible because of these specific aural skills: reference of the previous melody with the inferred tonic,

² David Baker and Lucy Green, “Ear Playing and Aural Development in the Instrumental Lesson: Results from a ‘Case-Control’ Experiment,” *Research Studies in Music Education* 35, no. 2 (December 2013): 141–59, <https://doi.org/10.1177/1321103X13508254>, 1.

³ Peter Townsend, “The Language: Jazz as Music,” *Jazz in American Culture* (Edinburgh, UK: Edinburgh University Press), 14.

consciousness of form, and accurate sense of rhythm. These aural skills combine to aid the soloist in “pre-hearing” the phrase. According to saxophonist Joe Lovano, “It’s a matter of not just playing *what*, but *how*.” A musician would have great difficulty focusing on what to play while simultaneously deciding how to play it. Short of planning what they will play before the song begins, the improviser must quickly determine what to play based on what is heard around them, then “pre-hear” a melody just as they play it. This “pre-hearing” was described by Coker in his text, *Hearin’ the Changes*:

Jazz is a highly creative and spontaneous craft. For purposes of validity and effective musical expression, the improviser must acquire the ability to hear (or pre-hear) what is played and play what is heard, which goes beyond playing what is theoretically ‘correct,’ as the latter could lead to a mechanical solo and/or poorly chosen notes (though ‘correct’).⁴

“Pre-hearing” a melody or a set of changes may seem like an overwhelming challenge but is more a matter of being informed of the artform’s historical performance and compositional conventions. While the music has evolved and been shaped by time, many elements of the aural jazz tradition remain central to the performance and pedagogy of the idiom.⁵

Need for Study

Many resources exist for the purpose of teaching aural skills in the context of jazz improvisation. They do not delineate a one semester course that focuses on acquisition of jazz phrases utilizing movable-*do* solfege. This essay will be useful as a guide for future researchers when determining the learning sequences and scope of the improvisation class for beginning improvisers. In order to meet the needs of music students with prior aural skills training, I have created materials that are informed by aural skills research

⁴ Jerry Coker, *Hearin’ the Changes* (Los Angeles: Alfred Music Publishing, 1997), 7.

⁵ Ibid.

and jazz pedagogy materials. The desired outcome for students in this course is enhanced aural recognition, imitation, and spontaneous creation of melodies, harmonies, and bass lines through study of notable jazz recordings.

Justification

Though movable-*do* solfege is not traditionally taught to construct ideas for improvisation, the proposed audience for this study will find the connection to aural skills pedagogy helpful. Many students are intimidated by improvisation, even when armed with theoretical information regarding improvisation. This course aims to foster student confidence in their abilities to improvise by listening to and imitating recordings. Similar to acquiring a new language, jazz improvisation phrases can be learned by ear, imitated, and eventually manipulated in order to converse with members of the ensemble. The justification for using movable-*do* solfege is necessary because numbers are generally used to label chord degrees in jazz pedagogy. Numbers as labels are practical because most discussions in music theory are expressed numerically. Those opposed to movable-*do* solfege express concern that it is over-complicated and puts the focus on the means rather than the end.⁶ However, students that have been trained in the movable-*do* solfege method require an approach that compliments their prior classical music training. Numeric labels and movable-*do* solfege are both efficient methods to transpose musical phrases. Singing in movable-*do* solfege provides the additional benefit of singing and simultaneously trains students' intellect and aural perception.

Musical elements within certain jazz recordings, such as melodies and basslines, are diatonic and appropriate for implementation of movable-*do* solfege. Singing diatonic

⁶ Bert Ligon, *Jazz Theory Resources* (Milwaukee: Hal Leonard Corporation, Inc., 2001), 56.

melodies with solfege can provide a foundation to facilitate advanced improvisation techniques such as chromatic embellishment and harmonic superimposition.⁷ Singing diatonic melodies and patterns with solfege are used by music theory pedagogues to develop the ability called audition, which is to hear sounds before they are physically present.⁸ Relevant literature suggests that identification of the tonal center and relating melodies to the tonal center are skills that foster audiation. The movable-*do* solfege system is a tool for students learn these skills. According to aural skills expert Gary Karpinski, “I submit that many of the most important musical ideas conveyed in any tonal composition are rooted in the tonal functions of its pitches. To listen to or perform tonal music without a sense of key and tonal function is, to be blunt, unmusical.”⁹

Definitions are included below in order to prepare the reader for the methodology in Chapter III. This list of terms is presented in the body of the paper to establish specific terminology to the reader because many music theory terms are not standardized. The definitions are necessary to understand the concepts provided throughout the course and will facilitate efficient communication to students. It will serve as a reference and is meant help musicians interpret the concepts presented in later chapters.

⁷ David Liebman, *A Chromatic Approach to Jazz Harmony and Melody*, (Los Angeles: Alfred Music Publishing, 2015), 19.

⁸ Edwin E. Gordon, *Study Guide for Learning Sequences in Music: A Contemporary Learning Theory* (Chicago: GIA Publications, Inc., 2007), 3.

⁹ Gary Karpinski, “Defending the Strawman: Modulation, Solmization, and What to Do with a Brain,” *The Routledge Companion to Music Theory Pedagogy* (Oxfordshire: Routledge Publishing, 2019), 179.

Definitions

Audiation

The hearing of music in one's mind when the sound is not physically present. Coined by Edwin Gordon in the Gordon *Music Learning Theory*.¹⁰

Relative Pitch

The ability to identify pitches with reference to a tonality.¹¹

Solmization and Solfege

System of designating notes by the sol-fa syllables in any of the various methods used since Guido d'Arezzo in 11th cent., as in the It. *do, re, mi, fa*, etc.¹²

Fixed-do Solfege Method

Solmization method that models the letter names that represent those absolute pitches in notation. Used to model pitch and intervallic relationships, not tonal function.

Movable-do Solfege Method

Solmization method that explicitly models the tonal functions of the tonic and the scale degrees that relate to it. The tonic in all modes is sung as “do.” The syllables *do, re, mi, fa, sol, la*, and *ti* stand for the seven scale degrees in major mode. Karpinski explained chromaticism within the context of movable-do:

Upward chromatic inflections of *do, re, fa, sol*, and *la* are affected by inflecting the vowel to the Latinate “i”: *di, ri, fi, si*, and *li*. (There is no such thing as a functional chromatic raising of *mi* or *ti*). Downward chromatic inflections of *mi, sol, la*, and *ti* are affected by inflecting the vowel to the Latinate “e”: *me, se, le*, and *te*. *Re*, the one exception, is lowered to *ra*. (There is no such thing as a functional lowering of *do* or *fa*.) In this way, the seven unique consonants *d, r, m, f, s, l*, and *t* map directly onto the seven scale degrees in major, and the terminal vowels indicate diatonic or specific chromatic status.¹³

Do-based minor

Method within movable-do which maps *do* on the tonic, inflecting individual scale degrees as necessary to model specific modes. This method takes a parallel approach to the modes: all modal tonics or finals are solmized as *do*; all parallel scale

¹⁰ Edwin E. Gordon, “Research Studies in Audiation: 1,” *Bulletin of the Council of Research in Music Education* (University of Illinois Press, 1985), 34.

¹¹ Gary Karpinski, *Aural Skills Acquisition: The Development of Listening, Reading, and Performing Skills in College-Level Musicians* (Oxford: Oxford University Press), 58.

¹² Michael Kennedy & Joyce Bourne Kennedy, *The Concise Oxford Dictionary of Music* (Oxford: Oxford University Press, 2007) Retrieved 30 Nov. 2020, from <https://www.oxfordreference.com/view/10.1093/acref/9780199203833.001.0001/acref-9780199203833>.

¹³ Karpinski, *Aural Skills Acquisition*, 86.

degrees receive the same initial consonant. *Do*-based minor directly models the functional scale degrees within a key or mode.¹⁴

La-based minor

Method within movable-*do* that always maps the two diatonic semi-tones as *mi-fa* and *ti-do*, letting the tonic fall on various syllables in various modes. This method takes a relative approach to the modes; all modes that share a single diatonic collection also share a single set of syllables that map directly onto the pitches in that collection, regardless of where the tonic or final is positioned within that collection. *La*-based minor models the relative major diatonic collection.¹⁵

Number Label Method

Label method which maps numbers directly onto tonal function. Valuable because “these syllables use the exact same labels to represent scale-degree numbers as those used in spoken discourse.”¹⁶

Functional Harmony

A theory of tonal music that regards all harmonies as functioning as essentially tonic, dominant, or subdominant harmony.¹⁷

Non-Functional Harmony

Chords in which the diatonic association is undetermined; chords whose functional resolution is avoided.¹⁸

I, II, and V Chord

These chords are based on the major scale and are described by the Roman numeral indicative of the scale degree. I major seventh, II minor seventh, and V dominant seventh are the most commonly played chords in jazz. Since each of the chords contain a perfect fifth interval, the variables are $\hat{3}$ and $\hat{7}$ in relation to the chord of the moment. Levine (1995) explains the difference in the three chords.

- Major seventh chords have a major third and a major seventh.
- Minor seventh chords have a minor third and a minor seventh.
- Dominant chords have a major third and a minor seventh.¹⁹

II-V-I Progression

The most common progression that jazz musicians play. The I, II, and V chords often occur as a II-V-I chord progression. Major II-V-I usually contain a minor II chord (IImin7), a dominant V chord (V7), and a major I chord (Imaj7).

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Ibid., 87, 148.

¹⁷ “Tonal Harmony,” Merriam-Webster.com.

¹⁸ Barbara Murphy, “Non-Functional Harmony,” Music Composition Course PDF. Accessed March 9th, 2021. <https://music.utk.edu/theorycomp/courses/murphy/documents/Non-FunctionalHarmony.pdf>

¹⁹ Mark Levine, *The Jazz Theory Book* (Petaluma CA: Sher Music Co., 1995), 15.

Delimitations

Compositions in bebop and post-bop styles often feature chromatic melodies, complex harmonies, and abrupt key center changes. However, beginning improvisation students must be adequately prepared to play complex chord progressions. Premature introduction to tonally ambiguous music would hinder beginning students' musical growth by focusing on the mechanical execution of music. In order to adequately prepare students for complex harmonic and melodic content, the author has determined that prioritizing the functional relationships of tonal centers and melodies is most pragmatic. Students will learn to aurally identify functional relationships related to particular solfege syllables. According to Prosser, "Aural identification of functional chord relationships will allow students to understand the structure of melody, facilitate transposition to different keys, and aid in the perception of harmony".²⁰

Instruction of movable-*do* solfege is often limited to melodies with few chromatic alterations and functional harmony. Publications such as *Aural Skills Acquisition* by Karpinski suggest that movable-*do* solfege is inappropriate for teaching a composition that is tonally ambiguous.²¹ Movable-*do* is used to inculcate a sense of scale degrees in relation to the tonic. If a consistent tonic is absent, another label system must be used, such as numbers. A fluid understanding of both systems is possible because each singable solfege translates to a number (for example, $fa=\hat{4}$ or $te=b\hat{7}$). Number labels are useful for learning improvisation beyond the scope of this course in order to study advanced harmonic and melodic concepts.

²⁰ Steve Prosser, "Sight Recognition (Pitch) Studies," *Essential Ear Training for the Contemporary Musician* (Boston: Berklee Press, 2000), 14.

²¹ Gary Karpinski, *Aural Skills Acquisition*, 55.

This paper is not intended to be a comprehensive jazz improvisation course because it will only cover techniques used to foster aural skills and improvisation. This essay is limited to teaching specific aural skills and is not meant to reinvent the many jazz improvisation courses in existence, but it provides a framework to hear melodies and harmonies that can introduce jazz improvisation to musicians with prior aural skills training. This framework for applying aural skills should be used in conjunction with an improvisation class that currently exists but requires an aural skills component. A comprehensive improvisation course would also include activities not mentioned in this paper, such as discussions of rhythm, jazz history and artists, practice techniques, constructing solos, interaction, melodic and harmonic approaches and innovations, and many other topics.

Furthermore, this method primarily aids in the performance of songs that utilize functional harmony as opposed to non-functional harmony. Compositions that frequently change key centers and apply non-functional substitutions would be beyond the scope of a one semester introductory jazz improvisation course for undergraduates with existing aural skills training in movable-*do* solfege.

CHAPTER II

Review of Related Literature

Connecting Chords with Linear Harmony and Jazz Theory Resources by Bert Ligon

Bert Ligon is the Director of Jazz Studies at the University of South Carolina. *Connecting Chords With Linear Harmony* provides “linear-horizontal connections of jazz materials in the improvised jazz melody line based on solo excerpts from outstanding jazz artists.”²² According to Ligon, one of the goals of teaching jazz improvisation is to help students produce rhythmically coherent and harmonically specific lines. The introduction of his book suggests that students often rely on the rhythm section to provide the harmony and rhythm of a tune, rather than creating lines that connect the chords and produce the characteristic framework inherent to the composition. An additional benefit gained by studying jazz improvisation through the lens of linear structure is to avoid the pitfall of labelling everything by its vertical arrangement, which potentially disregards implied harmonic rhythm resolutions.²³

Ligon’s outline method was determined through analysis of hundreds of melodic examples from the solos of several great jazz artists. He formulated three basic outlines and their variations for ascending fourths progressions. Embellishing devices are given to vary approaches through each basic outline. Rather than creating his own lines to illustrate the outlines, Ligon derived examples from notable jazz artists.

²² Bert Ligon, *Connecting Chords with Linear Harmony* (Milwaukee: Hal Leonard, 1996), 1.

²³ Ibid.

A chapter in *Jazz Theory Resources* acknowledges that most compositions tend to modulate to key centers that are closely related by one sharp, one flat, or to its relative minor key. In other words, many tonicizations only contain one or two accidentals outside of the departed key center. The accidentals are sounded over secondary dominant chords, which are dominant chords that are borrowed from and signal a new key center. In order to improvise over the secondary dominants, the melodicist must take the new key into consideration. Specific accidentals outside the initial key can be identified aurally and used to hear the new tonal center as it is being signaled.

Additionally, Ligon's approach to minor progressions are compatible with solfege because of he decided to assign the harmonic minor scale to be played V7b9 chords.²⁴ In doing so, he only adds one accidental to the minor tonality that the V7b9 chord leads to. In other words, the harmonic minor scale to be played on G7 (flat 9), C harmonic minor, contains six of the seven notes contained in C Aeolian minor, the chord that is being targeted. This approach also avoids complications that arise from the ascending melodic minor scale.²⁵

In *Jazz Theory Resources*, Ligon addresses a tonal hierarchy that categorizes the 12 pitches into three levels: Primary, Secondary, and Tertiary. Primary tones consist of the tonic triad. Secondary tones are the second, fourth, sixth, and seventh tones. Tertiary tones are the remaining chromatic pitches. He suggests that primary pitches will be the most prominent pitches in a line in both frequency of occurrence and rhythmic placement. In contrast, the secondary and tertiary pitches will "point back" to the primary

²⁴ Ibid., 2.

²⁵ Ibid., 25.

pitches and occur on weaker beats and with lesser durations.²⁶ The author suggests the hierarchy with the intention of aiding aural skill development.

***An Aural Approach to Teaching the Fundamentals of Jazz Theory* by Dr. William
Swann**

Swann's dissertation is a comprehensive guide for aural skills teachers with classical music training. He presents sequenced activities that address topics found in jazz pedagogy such as rhythm, the modes of the major scale, harmony, the II-V-I progression in major tonality, and the blues form. It begins with musical activities that foster an understanding of basic jazz improvisation terms and concepts. The activities are supplemented with additional transcriptions and voicings from notable jazz artists. Swann's dissertation is limited in scope because the author did not set out to define a solfege method for minor key tonality. He also advocates for a German solfege method in order to make letter names singable. The collection of notated examples may lead students to rely solely on the printed music instead of prioritizing listening and transcribing as the main method of learning.

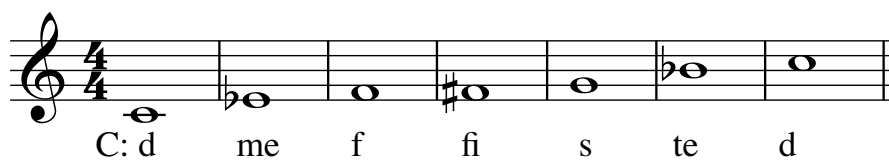
Swann's work is a thorough method for teaching classical musicians to improvise jazz using movable-*do* solfege. Swann intended to create this paper for aural skills teachers that wish to augment their activities to involve jazz improvisation as the focal point. However, a class structured in this way does not prioritize the practice of improvising, which is the focus that this document pursues.

Swann makes decisions in his paper which will inform this essay, such as the challenge of determining solfege syllables for improvisational phrases on the blues form.

²⁶ Ibid., 55.

“The blues grew out a melodic concept that has little to do with the scales and tuning systems in the West.”²⁷ The blues form contains major, minor and dominant tonalities, often simultaneously. The tonic key is also dominant, which is not entirely major or minor because of its major third and minor seventh. Movable-*do* solfege systems exist mainly to develop a keen sense of major and minor tonalities, but this system is ill-equipped to handle the melodic concepts presented in the blues scale. The “blues notes” that are included in the minor blues scale are the lowered $\hat{3}$, $\hat{5}$, and $\hat{7}$. These pitches are lowered by one half-step relative to their normal position in the major scale. The lowered third and seventh scale degrees reside in the minor scale, but can be played in major, minor, and dominant tonalities if the improviser desires. Swann labels the notes of the minor blues scale in Figure 2.1.

Figure 2.1: Minor Blues Scale Solfege



An alternative method to construct the “minor blues scale” is to add a $\#4$ to the minor pentatonic scale, which would warrant the use of *la*-based minor, in which the solfege syllables of the relative major scale are applied. This approach to relative minor keeps half-steps of the major scale intact and results in fewer chromatic alterations than a parallel minor approach. Swann prefers use of *la*-based minor for minor compositions and prefers *do*-based minor to confront the unique melodic language of the

²⁷ William Edward Swann, “An Aural Approach to Teaching the Fundamentals of Jazz Theory” (Ph.D. diss., University of Tennessee, 2000), 183.

blues. The *do*-based minor system labels the minor key tonic as *do* and is appropriate in the blues because instances of the major third arise in the tonic key, drawn from the dominant tonality in the blues form. The $b\hat{3}$ is the exception to the Mixolydian scale that would normally sound natural $\hat{3}$ on a dominant chord. *Do*-based minor provides an easier transition to accommodate major blues phrases that may be sounded before or after the minor blues scale.

***Aural Skills Acquisition* by Gary Karpinski**

Gary Karpinski authored this book to bridge the gap between music cognition research and aural skills instruction. Rather than a method book, this is a detailed guide to teaching aural skills that is well supported with copious sources. Karpinski outlines classroom techniques for teaching aural skills and also acknowledges common pitfalls in evaluating students' progress. Additionally, he often addresses why students may have difficulty in certain areas and posits underlying causes for the problem. His book is supported by cognitive research and cites music theory texts that were the progenitors of effective approaches. A review from *Indiana Theory Review* states, "Karpinski has undoubtedly facilitated such future endeavors by providing a solid foundation upon which to build, and—just as importantly—by helping to establish aural skills as a legitimate field of scholarly research."²⁸

***Music Learning Theory* by Edwin E. Gordon**

The *Music Learning Theory* was written by Edwin E. Gordon and is used to teach the skill that Gordon refers to as "audiation." *Music Learning Theory* is a comprehensive

²⁸Nancy Rogers, "Review of *Aural Skills Acquisition* by Gary Karpinski," *Indiana Theory Review* 22, no. 2 (2001): 83-93. Accessed November 1, 2020. <http://www.jstor.org/stable/24045197>, 93.

teaching method complete with specific techniques and activities designed to teach music students to “think in music.” The method is based on Gordon’s research and extensive experience since publishing his theory in 1977 and exists in several updated editions. The methods outlined in his approach have been met with enthusiastic support and contributed to the teaching and learning of music. A review from the Bulletin of the Council for Research in Music Education states “Generally, the book, though controversial, is without a doubt valuable. It is a dramatic attempt to clarify the theory and is rich in terminological proposals needed by the community of music educators. Both general concepts of audiation and musical literacy are still valid and helpful in our search for better music education.”²⁹ Gordon’s *Music Learning Theory* is thorough in its attempt to codify a method for students to “think in music,” however it has been criticized for being “too narrow and limited in scope to provide students access to the diversity of musical belief systems, practices, and groups that exist.”³⁰

***Developing Musicianship Through Improvisation* by Christopher Azzara**

Christopher Azzara is Professor of Music Teaching and Learning at the Eastman School of Music. In this work, Azzara aims to convey a process of learning music that is akin to learning language. The reader is asked to interact with the music by internalizing music through singing, playing by ear, and finally improvising. Azzara suggests stylistic remarks throughout regarding phrasing and practicing. He draws from the Gordon *Music Learning Theory*, which maps the tonal center using three-note tonic and dominant

²⁹ Kacper Miklaszewsk, “*Learning Sequences in Music. Skill, Content, and Patterns. A Music Learning Theory* by Edwin E. Gordon; *Study Guide for Learning Sequences in Music. Skill, Content, and Patterns. A Music Learning Theory* by Edwin E. Gordon,” *Bulletin of the Council for Research in Music Education*, No. 89 (Fall, 1986):83-86.

³⁰ Paul Woodard, “Evaluating Edwin Gordon’s Music Learning Theory from a Critical Thinking Perspective,” *Philosophy of Music Education Review* 4, no. 2 (1996): 83.

cells.³¹ Though it is not a jazz improvisation method book, it parallels several approaches found in other jazz pedagogy books including listening to recordings, learning patterns, playing by ear, and improvising. Azzara co-authored a method book with Edwin Gordon called *Jump Right In: The Instrumental Series* in which audiation is the primary focus, but in an instrumental music classroom setting.

***The Sequential Learning Theory and Its Relationship to the Instruction of Jazz
Improvisation at the Junior High Level* by David Jost**

Jost draws from Edwin Gordon's research in music learning and jazz pedagogy materials written by Jerry Coker and David Baker, among others. Though the author aims to connect the concept of audiation with improvisation, he does not go into much detail about the actual practice of utilizing movable-*do* solfege to internalize jazz language in closely related keys. The dissertation is more concerned with the theoretical concept of delivering classroom instruction with Gordon's rigid structure for learning music.³² At the root of the *Music Learning Theory* is the concept of audiation. Dr. Gordon has chosen this term to describe the process whereby one hears pattern that is not physically present in notation. Jost argues that if a student cannot audiate the home tone, or tonic, his improvisation will not have meaning or direction.³³

The necessity to audiate a melody is palpable on a wind instrument or stringed instrument. The performer achieves good intonation on these instruments by audiation of the correct pitch to produce appropriate vibrations on the instrument. Wind

³¹ Christopher Azzara and Richard F. Grunow, *Developing Musicianship Through Improvisation* (Chicago: GIA Publications, Inc., 2005), 4.

³² David Jost, "The Sequential Learning Theory and Its Relationship to the Instructor of Jazz Improvisation at the Junior High School Level" (Ph.D. diss., University of Lowell, 1984), 12.

³³ *Ibid.*, 37.

instrumentalists must coordinate the air, embouchure, and fingers while focusing on the musical nuances of the music. String musicians, trombonists and vocalists rely on their ears to play in tune because their instruments do not have tangible placeholders to rely on. Audiation of the correct pitch focuses all the mechanisms on the musical aspect of the performance and prioritizes the end goal, rather than the means to achieve it.

Jost forms a methodology for teaching students to improvise based on Gordon's sequence for learning. The method withholds information regarding labeling of scales and rhythms (verbal association) until the members of the ensemble engage in a call and response (aural/oral) with the band director. Students are then asked to record written notation of the patterns learned aurally as well as perform from the notation (symbolic association).³⁴

³⁴ Ibid.

CHAPTER III

Methodology

By thorough review of best practices in jazz pedagogy and aural skills methods, I have developed a one semester curriculum that guides students to improvise jazz phrases on standard repertoire and aurally understand harmonic and melodic components of jazz recordings. Exercises were made specifically for this essay or derived from other jazz improvisation methods. This method is based on books by Jerry Coker, David Baker, Scott Reeves, Hal Crook, Jerry Bergonzi, and Bert Ligon. The resources contained within this proposed method create and adapt resources involving movable-*do* solfege system that aim to foster relative pitch and melodic construction in musicians that are learning to improvise. Appendix A (page 58) contains an outline of the course by class. The desired end goal for students is to perform jazz improvisations that are informed by an appreciation of great jazz artists through observation of the harmonic and melodic content on recordings.

Instruction in solfege provides skills that enable students to learn a melody in any key, compare pitches to the tonal center, and orient their practice toward singing. Students benefit from singing solfege to foster relative pitch. Imitation of vocal qualities when singing solos can also enhance the emotional range of improvisation and help determine phrasing and expression.³⁵ Singing is also of particular importance because it allows for mental practice outside of the practice room, without the technical considerations of the instrument.

³⁵ Jost, "The Sequential Learning Theory," 2.

Many exercises addressed in beginner improvisation classes are purely diatonic.³⁶ Solfege application is pragmatic for diatonic major scale exercises because it creates a sense of scale degree function and offers a diagnostic into students' thought process.³⁷ Examples of possible diatonic solfege exercises are available in a dissertation by William Edward Swann (2000).

Scope and Prerequisites

The proposed course is one semester due to the limited number of elective credits that music majors are afforded. A prerequisite for this course should be delineated to ensure student readiness in confronting the demands of the course. College students in their third year of aural skills study theoretically should be prepared for the demands of this improvisation course. A firm grasp of basic principles in aural skills, performance skills, and notational skills will be required. Students will be asked to match pitch on their voice, aurally identify the tonic pitch in major and minor songs, identify any pitch of the major scale, and identify intervals.³⁸ Students should also be able to perform all major scales on their primary instrument, in solfege, and ideally be able to sightread basic exercises. These skills should be covered in the first year of college music theory instruction before the student attempts to pursue improvisation training.

Note that it may not be possible to cover all of the material included in the outline. Depending upon the ability level of the students in the class, the instructor must evaluate and adapt the amount of time and material to best suit the needs of the students.

³⁶ Swann, "An Aural Approach," 63.

³⁷ Karpinski, "Defending the Strawman," 11.

³⁸ Ibid.

Repertoire and Reference Recordings

Repertoire studied in this course will be three compositions from the American Songbook and the blues form. The American Songbook compositions are “Bye Bye Blackbird” by Ray Henderson, “Autumn Leaves” by Joseph Kosma, and “If I Should Lose You” by Ralph Rainger. These jazz standards were selected because they are commonly performed at informal jam sessions. The course will prepare students to be confident in their ability to succeed in the playing in “jam sessions”. These compositions feature common root movements to closely related key centers, many of which are described in Coker’s *Hearin’ the Changes* and Bert Ligon’s *Jazz Theory Resources* book. The recordings to be studied feature ‘*Round About Midnight* by the Miles Davis Quintet, *Live at Birdland* by the Art Blakey Quintet, *Blue Train* by John Coltrane, *Walkin’* by Miles Davis, and *Kenny Dorham Quintet* by Kenny Dorham. They were chosen for educational value in exemplifying specific musical characteristics and appropriate ability level for the proposed student skill level. These recordings exemplify some of the finest jazz soloists in jazz history and will expose students to the notable artists in these groups. Study of jazz compositions, melodic structures, and transcriptions will be the primary activities to foster aural skills and practice improvisation.

Study of Jazz Compositions

Students will memorize and sing jazz standards and blues melodies that are primarily diatonic to one key center utilizing movable-*do* solfege. The class will sing bass notes and arpeggios of each chord and learn the harmonic rhythm and form of a standard jazz composition. The class will analyze melodies to understand how composers utilize common tones to create diatonic melodies above shifting harmonies. Students will sing

guide tones to identify harmonic voice-leading and the melodic notes that are used. Compositions discussed in the latter half of the course will feature short modulations or tonicizations to closely related key centers. Through study of compositions with closely related key centers, the students will practice identifying root motion and non-harmonic tones that signal a change in tonal center. As students gain familiarity with these compositions, the goal is to progress to more advanced compositions that contain distant key centers that contain fewer common pitches to the tonic key.

Melodic Structures

Fundamental exercises in the modes of major scales will be thoroughly practiced in this course. Students will sing patterns derived from the major scale and its modes using movable-*do* syllables. Students will also solfege other scales such as the harmonic minor and dominant bebop scales. Patterns in major and minor II-V-I progressions will be presented aurally to promote a “building blocks” approach to creating phrases. These “building blocks” will be a combination of diatonic melodies that consist of major scales, bebop scales, arpeggios, and scale patterns. The example melodies, extracted from recordings, will demonstrate traditional voice leading and phrasing from the jazz idiom. Diatonic and chromatic approach tones will also serve as practice tools for extending phrasing. When adding only a few chromatic and rhythmic alterations, the possibilities for melody construction are immense.³⁹

³⁹ Jerry Bergonzi, *Inside Improvisation Series, Vol. 6: Developing a Jazz Language* (Los Angeles: Advance Music, 2003), 53.

The class will sing seventh chords of the following chord qualities in jazz recordings:

- Major 7 (Ionian Scale)
- Minor 7 (Dorian and Aeolian Scale)
- Dominant (Mixolydian Scale)
- Dominant b9 (Harmonic Minor Scale)
- Half Diminished (Locrian Scale)

The objective is to aurally recognize chord qualities in recordings and when playing with others. Students will discriminate between dominant chord qualities and select the appropriate scale by singing solfege syllables of the major and harmonic minor scales.

Transcription

Introductory melodic dictation and identification exercises will take place at the piano to facilitate transcription of jazz recordings. To ensure the continued aural tradition in jazz education, an emphasis will be placed on notable recordings in the jazz idiom. Solfege will aid students in the process of learning to identify chord functions as a result of studying common root motions, chord qualities, and primary notes in the pitch hierarchy proposed by Ligon.⁴⁰

⁴⁰ Ligon, *Jazz Theory Resources*, 55.

CHAPTER IV

Fundamentals

The course will begin with review of the movable-*do* solfege as applied to the major scale through activities discussed in this chapter. Activities related to Chapter IV will be utilized for the remainder of the class to reinforce aural skills. The movable-*do* solfege system utilizes the labels shown in Figure 4.1.

Figure 4.1: The Major Scale and Chromatic Alterations

Ascending											
Degree: 1	#1	2	#2	#3	#4	#4	5	#5	6	#6	7
Label: do	di	re	ri	mi	fa	fi	sol	si	la	li	ti

Descending											
Degree: 1	7	b7	6	b6	5	b5	4	3	b3	2	b2
Label: do	ti	te	la	le	sol	se	fa	mi	me	re	ra

Students will begin by singing diatonic pitches of the major scale, which are *Do*, *Re*, *Mi*, *Fa*, *Sol*, *La*, and *Ti*. These labels directly map onto each scale degree of the major scale. For instance, if the chosen scale of study is Ab Major, then *do* is Ab, *re* is Bb, *mi* is C, and so forth. Each pitch of the major scale will be presented in written exercises with only one letter, such as *d*, *r*, *m*, *f*, *s*, *l*, and *t*. Pitches that are altered chromatically, such as the scale degrees above that have flats or sharps beside them, will be labeled with both letters. Some exercises do not have any written solfege to give students the opportunity to apply solfege to musical notation. The chosen solfege system was adapted from Swann’s dissertation, “An Aural Approach to Teaching the Fundamentals of Jazz Theory.”⁴¹

⁴¹ Swann, 67.

The Major Scale

As mentioned in the methodology in Chapter III, a prerequisite for this course is familiarity with the construction of the major scale. This presupposes that students understand the intervallic content of the major scale, the key signatures of all twelve major keys, and demonstrate the ability to identify scale degrees. The goals of the activities presented in the introductory section of this course are to reinforce the relationship between conceptual and aural knowledge of the scale degrees within the major scale. In pursuit of this objective, activities will include melodic dictation, singing activities and performances on primary instruments. These activities will lead students to a more intimate knowledge of pitch function within the major scale. The fundamental exercises serve as an intermediate step to study jazz repertoire because melodies within the jazz idiom are primarily tonal, though they are often presented in the context of shifting tonal centers. In Activity 1, students sing the major scale and its modes with movable-*do* solfege syllables. The instructor plays along at the piano. See Appendix B (page 66) for Modes of the Major Scale handout.

Figure 4.2: Major Scale Modes

1st Mode of Major (Ionian)

d r m f s l t d r d t l s f m r

2nd Mode of Major (Dorian)

A critical skill derived from the major scale is performance and recognition of the triads and seventh chords contained within the major scale. Melodies found within

recordings frequently contain modes, triads, and seventh chords that are embellished or in pure form. In Activity 2, students sing and play triads and seventh chords for each mode in 12 keys. See Appendix B (page 68) for Diatonic Triads and Seventh Chords.

Figure 4.3: Diatonic Triads and Seventh Chords

Figure 4.3 displays two musical staves illustrating diatonic triads and seventh chords in G major. The first staff shows chords G^{maj7}, A^{m7}, B^{m7}, C^{maj7}, D⁷, E^{m7}, F^{#ø7}, and G^{maj7}. The second staff shows chords G^{maj7}, A^{min7}, B^{min7}, C^{maj7}, D⁷, E^{min7}, F^{#ø7}, and G^{maj7}. Solfege syllables are provided below each staff.

Modes

In *The Jazz Theory Book* (1995), Mark Levine states,

A revolution took place in jazz in the 1950s and 1960s, one almost as important as the bebop revolution of the early 1940s, but overlooked by most historians. Jazz musicians began to think horizontally (in terms of scales) as much as they did vertically (in terms of chords).⁴²

To address this change in thinking, pedagogical practices that facilitate mastery of modes is necessary to prepare the learner to improvise. Singing modes is preparatory work to develop identification of common melodic devices. An outline for labeling the pitches with solfege will benefit students as they learn to apply solfege to melodies. Swann's solfege method outlines the solfege labels for major modes in this course.

Seven modes can be derived from the notes of the C major scale. Ionian mode begins on C, like the C major scale, and therefore has the same intervallic content, i.e. half steps between $\hat{3}$ - $\hat{4}$ (*m-f*), and $\hat{7}$ - $\hat{8}$ (*t-d*). The Ionian mode is sung using the solfege syllables *d-r-m-f-s-l-t-d*. Most jazz musicians refer to the Ionian mode as the major scale, and this paper will reflect that. The Dorian mode begins on $\hat{2}$ of the major scale and uses the

⁴² Levine, *The Jazz Theory Book*, 31.

solfege syllables *r-m-f-s-l-t-d-r*. The Phrygian mode begins on $\hat{3}$ or *m*, the Lydian mode begins on $\hat{4}$ or *f*, the Mixolydian mode begins on $\hat{5}$ or *s*, the Aeolian mode begins on $\hat{6}$ or *l*, and the Locrian mode begins on $\hat{7}$ or *t*. Half steps are always between *m-f* and *t-d*, although they are different scale degrees in each mode.⁴³

Figure 4.4: Modes of the Major Scale

Ionian

d r m f s l t d

Dorian

r m f s l t d r

Phrygian

m f s l t d r m

Lydian

f s l t d r m f

Mixolydian

s l t d r m f s

Aeolian

l t d r m f s l

Locrian

t d r m f s l t

⁴³ Swann, 75.

In order to prepare students to sing examples in each mode, the teacher will need to prepare the class with the following procedures, outlined by Swann.⁴⁴

1. The students determine the proper mode used in the example. They then sing the mode using solfege and note names in the appropriate key.
2. The students speak the rhythm of the music using the appropriate syllables while conducting.
3. The students speak the solfege syllables in rhythm. This step helps bridge the gap between rhythm and solfege singing. Problem areas can be addressed in 2-4 beat “chunks” that are then added back together.
4. Finally, the students should sing the examples using solfege. The examples should be played on their instrument only after they successfully accomplish all of the preparatory steps and can successfully sing the example.

According to Swann, “One of the best ways to ingrain the characteristics of a musical style is to memorize excerpts from the standard repertoire.”⁴⁵ Students should memorize musical phrases and transpose them to become fluent and use the phrase in the context of any song. Appendix B (page 78) presents several common musical phrases in Dorian, Mixolydian, and Aeolian modes to be sung using the appropriate solfege syllables outlined in Figure 4.4. Swann suggests the following procedure for memorizing musical phrases:

1. Sing the appropriate mode with solfege and note names to reacquaint themselves with the sound.
2. Sing the melody several times using solfege.
3. Sing from memory. If problems are encountered, small sections of the melody, 2, or 3 beats (a “chunk”), should be repeated until they are learned, then added back into the original. Each small problem area needs to be extracted and learned separately before singing the entire melody successfully from memory with solfege.
4. Transpose the melody to other keys, first with solfege, then note names.⁴⁶

⁴⁴ Swann, 98.

⁴⁵ Ibid.

⁴⁶ Ibid.

The purpose of Activity 3 is familiarization of modes and manipulation of a melody into different modes. In the article *Jazz Improvisation: A Tool for Music Learning*, David Baker suggests changing the mode of a composition:

One might change the melody to conform to various scales that a student already might know or that the teacher can write on the chalkboard or simply teach by ear. Needless to say, this exercise can help dramatize the tonal potential of various scales and modes. A student might also sing or play the tune using different key signatures.⁴⁷

Figure 4.5: “Joy to the World” Mode Exercise



Melodic Dictation and Transcription

Transcription is a necessary activity in jazz pedagogy because jazz music is an aural tradition. “Learning from the record” persists as the preferred method of learning in jazz pedagogy. An intermediate step before transcribing a solo is to practice pitch identification. Pitch identification is an activity that prepares for melodic dictation in ear training courses. This activity can be achieved by guided listening of jazz recordings or at the piano with the instructor. The instructor demonstrates a diatonic melody, then asks the student to identify pitches in relation to the tonic key.⁴⁸ As students become more comfortable with the major scale, chromatic pitches that lead by half step to a diatonic note may be used.

Appendix B (page 80) lists jazz recordings that clearly present the melodies of common jazz standards by notable artists. It is important to note that students should

⁴⁷ David N. Baker, “Improvisation: A Tool for Music Learning,” *Music Educator’s Journal* 66, no. 5 (January 1980): 42-51. Accessed November 14th, 2020. <https://doi.org/10.2307/3395775>, 43.

⁴⁸ Karpinski, *Aural Skills Pedagogy*, 52.

identify pitches in relation to the tonic key, rather than the chord of the moment. The goal of this exercise is to prepare the student to hear and play melodies that are primarily diatonic until introducing the II-V-I progression in Chapter V.

In Activity 4, students will be asked to identify pitches and simple diatonic melodies from selected jazz recordings.

Patterns for Jazz

Patterns for Jazz (1982) includes many patterns, including diatonic melodies. Many of the patterns provide melodic material for improvisation solos and may be adapted to function as ear training materials. In this book, the patterns are presented in one key to be transposed by the student in every key. Author Jerry Coker advises the student to learn the chord-scale number associated with each scale for easy transposition.⁴⁹ In addition to movable-*do*, learning the scale degree number is useful because the two systems provide complimentary sets of information. The number system is useful for visual purposes and discussion of theoretical construction of chords and provides vertical context. The movable-*do* system provides the student with a linear approach of creating melodies while improvising. The two systems are complimentary because the student is simultaneously aware that *fa* is $\hat{4}$ in the major scale. As students internalize the solfege within diatonic patterns, they will attempt to improve their ability to aurally identify pitches related to the tonic key. Students will find that slow practice and patience are both of the utmost importance on the pathway to mastery of these techniques.⁵⁰ In Activity 5, students sing melodic examples of diatonic patterns from

⁴⁹ Jerry Coker, *Patterns for Jazz* (Los Angeles: Alfred Music Publishing, 1982), 23.

⁵⁰ Javier Nero, "Developing and Implementing the Double and Triple Tongue Techniques Through Study of J.J. Johnson and Curtis Fuller: A Guide for Jazz Trombonists" (D.M.A. diss., University of Miami, 2017), 29.

Jerry Coker's book, *Patterns for Jazz*. Figure 4.6 is an example of a pattern in the Diatonic Triads and Seventh Chords worksheet in Appendix B (page 68).

Figure 4.6: Diatonic Triad Pattern



Pentachords

Pentachords are five notes that immediately help the listener determine whether the chord is major, minor, or diminished in quality. Pentachords are also helpful in the construction of melodies and help students discern the intervallic content of a stepwise melody quickly. These scale segments may also be utilized to prepare students for more advanced improvisational techniques such as harmonic superimposition.⁵¹ Activity 6, sing pentachords of the major scale. The entire Pentachords Worksheet is in Appendix B (page 75).

Figure 4.7: Pentachords

Ionian and Mixolydian	Dorian and Aeolian	
F: d r m f s f m r d Bb: s l t d r d t l s	F: r m f s l s f m r Bb: l t d r m r d t l	
Phrygian	Lydian	Locrian
F: m f s l t l s f m	F: f s l t d t l s f	F: t d r m f m r d t

The composition “Bye Bye Blackbird” was chosen to illustrate the use of diatonic notes to create a melody. It is also a common song that is performed frequently by jazz

⁵¹ David Liebman, *A Chromatic Approach to Jazz Harmony and Melody* (Los Angeles: Alfred Music Publishing, 2015), 19.

musicians. The selected recording is from The Miles Davis Quintet, which is a historically influential ensemble of master jazz artists. The recording serves as a study in jazz melody, harmony, and performance conventions still used by modern jazz musicians. In Activity 7, students solfege the melody from “Bye Bye Blackbird” by the Miles Davis Quintet.

Figure 4.8: Miles Davis Melody Interpretation



Hal Crook presented a method to memorize melodies in his book *How to Improvise: An Approach to Practicing Improvisation*. His procedure includes writing out the pitches of the melody without note-length values. This method emphasizes visual and aural practice. Crook’s memorization procedure of melodies encourages students to sing each phrase rubato several times by sight and several times by ear.⁵²

Figure 4.9: Crook Melody Memorization



Transposition

Jazz musicians must be fluent in all 12 keys. It is common practice for jazz musicians to perform songs in keys other than the original key. Additionally, many jazz compositions tend to modulate to unrelated key centers. It is important to assign activities in which students transcribe and transpose musical phrases to every key to ingrain the

⁵² Hal Crook, *How to Improvise: An Approach to Practicing Improvisation* (Los Angeles: Alfred Music Publishing, 2015), 23.

phrase into their memory. Jerry Coker wrote, “The good improviser can play his ideas in all keys, an attribute that most beginning improvisers lack, and one they will generally avoid working on until it becomes absolutely necessary. It is now necessary.”⁵³

Scott Reeves quotes saxophonist Michael Brecker saying,

I keep notebooks and every time I come up with something I like, I write out the idea and date it... I do these exercises in every key. Then I forget it. Usually in a couple of months, the exercises that I practiced... enter the subconscious pool and come out in some way I never imagined.

Jerry Bergonzi also advocates for this approach in his book *Developing a Jazz Language*.

Practicing melodies in all keys has a tremendous upside. It’s great for ear training, articulation training, gaining harmonic knowledge and developing technique as well as versatility in all keys. After learning a great variety of lines, one forgets the original lines but can carry on a conversation with the same sounds or words. Improvising doesn’t mean recalling lines you’ve memorized, it means saying something in the moment with the people you are playing within a particular context.⁵⁴

In Activity 8, students sing and play a diatonic phrase from Ionian, Dorian, Mixolydian, and Aeolian modes. in all 12 keys.

Figure 4.10: Mixolydian Phrase



Students apply newly acquired musical phrases to “Bye Bye Blackbird” in Activity 9 inserting the phrase during an improvised solo. Figure 4.11 shows how a student would integrate a musical phrase into a song they are familiar with.

⁵³ Coker, *Method for Improvisation*, 33.

⁵⁴ Jerry Bergonzi, *Inside Improvisation Series: Vol. 6, Developing a Jazz Language* (Los Angeles: Advance Music, 2003), 80.

Figure 4.11: Musical Phrase Acquisition

Hank Mobley
C7 Mixolydian Phrase

Root Movement

The transition between playing in one stable tonality to playing over changing chords requires that the student hear when the chords change. This can be achieved by memorizing the chord changes of the song, but it is important to be able to aurally identify root motion. Transcribing and singing bass lines can be a great way to practice developing the ability to identify root motion. In tonal music, the bass notes alone may indicate the entire harmonic structure.⁵⁵ The root notes contained within “Bye Bye Blackbird” are mostly diatonic to the key of F major.

Paul Chambers was a member of the Miles Davis Quintet, and he can be heard on the “Bye Bye Blackbird” recording previously mentioned. Activity 10, solfege Paul Chamber’s bass line on the melody of “Bye Bye Blackbird.” Beginner jazz bassists frequently study Chambers’ bass lines for their melodic and harmonic content. The nature of bass lines used by Paul Chambers are rhythmically simple, mostly diatonic, and therefore appropriate for beginners to solfege. Several notes are chromatic leading tones that resolve to notes that are diatonic to the key of F major.

Figure 4.12: Paul Chambers Bassline on “Bye Bye Blackbird”

Fmaj7 C7 Fmaj7 C7

F: d

⁵⁵ Gary Keller, *The Jazz Chord/Scale Handbook* (Los Angeles: Advance Music Publishing, 2002), 9.

Scale patterns such as scales in thirds and fourths facilitate technique on primary instruments, but they can also be used as a primer to common root motion. According to Ligon, the most common root motions are ascending fifths, descending thirds, and ascending seconds. Exercises such as Activity 11 are useful because they prepare the learner to sing the roots of chords in jazz progressions. In Activity 11, students sing a scale in thirds and scale in fourths with solfege.⁵⁶ Below is a scale in ascending fourths and descending thirds, which are two common root motions in jazz standards.

Figure 4.13: Scale in Fourths



⁵⁶ Coker, *Patterns for Jazz*, 29.

CHAPTER V

The II-V-I Progression

Acquisition of Improvisation Phrases

Upon beginning the study of jazz improvisation, students may find it difficult to understand what notes are appropriate to play and for how long. By dissecting compositions into tonal centers, students can identify how the chords relate to one another and adapt their melodic statements to be specific to each chord progression. Paulson observed that “college-level students in beginning jazz improvisation class and in jazz performance groups were observed to be having difficulty improvising effective melodic statements in improvised solos.”⁵⁷ Beginning improvisers frequently have the ability to play their major scales but lack the ability to perform effective melodic statements in jazz solos. Students can gain the appropriate melodic statements from listening to recordings and acquire jazz vocabulary, which has its own dialect that draws from blues and jazz traditions. As Azzara notes, learning a language is acquired by listening to others speak and imitating.⁵⁸ Bash studied the effectiveness of three instructional methods on the acquisition of jazz improvisation language and concluded:

Of all the non-technical activities which took place during the study, various informal observers, including the subjects’ teachers, the study’s improvisation instructor, and the researcher, noted that the singing of improvised solos as an aural perceptive task seemed particularly effective.⁵⁹

⁵⁷ John Charles Paulson, “The Development of an Imitative Instructional Approach to Improvising Effective Melodic Statements in Jazz Solos” (Ph.D. diss., University of Washington, 1985), ii.

⁵⁸ Christopher Azzara, *Developing Musicianship through Improvisation*, iv.

⁵⁹ Lee Bash, “The Effectiveness of Three Instructional Methods on the Acquisition of Jazz Improvisation Skills” (Ph.D.diss., State University of New York at Buffalo), 106.

Major II-V-I Progression

The II-V-I Progression will be presented in Week 4. At this point, students will have the ability to sing and identify major scales and arpeggios. This section of the course will build upon the first section by introducing outlines of the II-V-I progression that point toward major and minor key centers. In tonal music, key centers are usually prepared by use of a subdominant and dominant chord. The most common subdominant chord is the minor II (IImin7) and the most common dominant chord is V dominant (V7).⁶⁰

In the text *Connecting Chords with Linear Harmony*, Bert Ligon conceives of three melodic “outlines” that account for many examples of harmonic specificity. The three outlines are a product of Ligon’s synthesis of transcription analyses. The outlines are supported in his book by examples of melodic phrases from important jazz artists. An additional benefit to these outlines is their effectiveness in minor keys when adding the appropriate accidentals for the relative harmonic minor scale. All three outlines and their inversions can be found in the Appendix C (pages 87-90). In Activity 12, students sing Outline 1 in major using solfege while the instructor plays the accompanying chords. Next, students sing Outline 1 variations with octave displacement and the dominant chord variation found in Appendix C (page 87).

⁶⁰ Levine, *The Jazz Theory Book*, 19.

Figure 5.1: Outline 1 in Major and Minor

Figure 5.1 shows two musical staves illustrating Outline 1 in Major and Minor. The top staff is in D minor, with chords D^{min7}, G⁷, and C^{maj7}. The bottom staff is in D major, with chords D^{ø7}, G^{7(b9)}, and C^{min7}. The notes are: D, E, F, G, A, B, C, D.

In Activity 13, students compare Outline 1 to a phrase transcribed from a Tom Harrell Solo and identify other improvisation phrases within jazz recordings.

Figure 5.2: Tom Harrell Outline 1

Figure 5.2 shows two musical staves illustrating Tom Harrell's Outline 1 in Eb major. The top staff is in Eb major, with chords F^{min7}, B^{b7}, and E^bmaj⁷. The bottom staff is in Eb major, with chords F^{min7}, B^{b7}, and E^bmaj⁷. Solfege notation is provided below each staff: Eb: f m r d t l s f m.

The top line of Figure 5.2 shows how solfege is applied to Outline 1 by determining the target key center. Below the basic outline, see the example from a Tom Harrell solo which utilizes an identical phrase with an anticipation into the first chord. Harrell presented the outline in Eb major with an anticipation of the first note. However, the order of notes and downbeat are unaffected because the first beat is a quarter note and maintains the harmonic specificity of the phrase.⁶¹

⁶¹ Ligon, *Connecting Chords with Linear Harmony*, 19.

Bebop Scales

Bebop scales include a chromatic passing tone to ensure that all of the chord tones are on downbeats. According to David Baker, Charlie Parker innovated the use of passing tones by implementing a systematic and logical way to use certain scales with added chromatic tones. Previous generations of jazz musician lacked this unanimity in their approach to chromatic passing tones. Charlie Parker and Dizzy Gillespie created these scales that later became the backbone of all jazz from bebop to modal.⁶²

Dominant Bebop Scale

The pedagogical advantage of dominant bebop scales is that they are used on the dominant chord (V) and the related minor seventh chord (II) in a II-V-I progression. The implication is that this passing tone line can be used to outline both the subdominant and dominant key area. There is only one passing tone, which does not complicate solfege syllables beyond changing one syllable. In order to simplify the solfege, the author chose to use the syllable *fi*, regardless of the direction the chromatic passing tone is leading. This avoids the confusion of using two separate names for the same pitch. Solfege syllables of the dominant bebop scale are to be practiced using a consistent *fi* syllable, as shown in Figure 5.3, measure three. Measure one is the conventional notation and solfege used in sight-singing because it indicates the direction of the line.

Figure 5.3: Dominant Bebop Scale

The image shows two measures of music on a single staff. The first measure is labeled C⁷ and contains the notes F, G, A, Bb, C, D, E, F. Below the notes are the solfege syllables: F: s se f m r m f fi s. The second measure is also labeled C⁷ and contains the notes F, G, Ab, Bb, C, D, E, F. Below the notes are the solfege syllables: F: s fi f m r m f fi s. The chromatic passing tone (fi) is highlighted in both measures.

⁶² Baker, *Jazz Improvisation*, 40.

II-V-I Progression in Minor

Minor II-V-I progressions can confuse beginning improvisers. The minor II-V-I progression is more complex than the major II-V-I because it uses pitches from the ascending melodic minor scale. Furthermore, each chord contains its own unique collection of pitches, making it difficult to grasp at first. The melodic minor approach uses the ascending melodic minor scale from the $b\hat{3}$ of the half-diminished II chord, an ascending melodic minor scale from the $b\hat{2}$ of the V7b9 chord, and some form of minor scale on the minor chord, depending on the harmonic context. However, many jazz soloists disregard the melodic minor approach and choose to simplify the half-diminished II chord with the seventh major mode, Locrian mode. The V7b9 chord can often be simplified with the use of the harmonic minor scale. In preparation for learning the minor II-V-I progression in this introductory course, students will learn to play the harmonic minor scale. This scale is useful for beginning improvisers because it provides many common tones between all chords of the minor II-V-I. When applying the harmonic minor scale, the student will play several notes that are necessary to outline a V7b9 chord, including the third, seventh, and flat-ninth.

The II chord will be treated as a half-diminished chord and will be derived from Locrian, the seventh mode of the major scale. The V7b9 chord will derive from the fifth mode of harmonic minor. The final minor chord of the progression will utilize either Dorian or Aeolian minor scales, depending on the progressions' context in the composition.

If the minor chord that is being tonicized is the relative minor, or VI minor, the solfege derived from Aeolian minor is most appropriate because its syllables are identical

to the relative major scale. This is useful for the same reason that major II-V-I utilize the same major scale for each chord. This way, only one note is changed between the three chords of the minor II-V-I. It is desirable to have shared common tones over several chords because it allows the improviser to focus on the melodic and rhythmic content in one tonal center. The Major II-V-I utilizes the same major scale for each chord. The minor II-V-I contains one different note in the dominant chord, the third of the chord of the moment. Figure 5.4 illustrates the common tones in the major and minor II-V-I progressions.

Figure 5.4: II-V-I Progression Scales

The figure displays two musical staves in treble clef, each showing a three-chord II-V-I progression with corresponding scales. The top staff is for a major II-V-I progression: D^{min7} (Dominant), G⁷ (Subdominant), and C^{maj7} (Tonic). The bottom staff is for a minor II-V-I progression: D^{ø7}, G^{7(b9)}, and C^{min7}. Each chord is followed by its respective scale, which is a sequence of eighth notes. The scales for the major progression are D minor (D, E, F, G, A, B, C) and C major (C, D, E, F, G, A, B). The scales for the minor progression are D half-diminished (D, E, F, G, A, B, C) and C minor (C, D, E, F, G, A, B).

Minor II-V-I progressions usually include a half-diminished II chord and a V chord with an augmented fifth and an augmented ninth or flatted ninth. Coker indicates characteristics unique to the minor II-V-I Progression:

Both chords continue to function as their major counterparts did, but the change of structure necessitates the application of scales other than the Dorian and Mixolydian modes used for the II^{min7} and the V⁷. If the II-V in minor leads to a I chord in minor, then obviously the scale for the I chord will also have to be changed from the usual major scale found on I when it is in major. The augmented fifth and the altered ninth of the V⁷ in minor are all meant to suggest and reinforce the sound of a minor key and to distinguish between it and a major key.⁶³

⁶³ Coker, *Improvising Jazz*, 35.

Study of Repertoire

“Autumn Leaves” is a popular jazz standard that contains both major and minor II-V-I progressions. Students will sing and play II-V-I outlines and guide tones to gain greater facility of harmonic specificity in the context of an improvised solo. This minor II-V-I leads to the relative minor (minor VI). The relative minor shares all half step relations with its relative major, which benefits students when learning solfege. The harmonic minor scale used over the V7b9 chord that precedes a tonicization of the relative minor contains only one accidental, *si*. A more advanced tonicization to the minor II chord is discussed in the next chapter.

CHAPTER VI

Closely Related Key Centers

Students must aurally identify the key they are playing in order to determine the most appropriate pitches to play. Determining the key center of a song is simple when students understand the context in which chord qualities appear.

Figure 6.1: Seventh Chords

Chord Type	Interval Construction	Place In Major Key
Major 7th	M3-m3-M3	I _{maj} 7 or I _{maj} 7
Minor 7th	m3-M3-m3	II _{min} 7, III _{min} 7, VI _{min} 7
Dominant 7th	M3-m3-m3	V7
Half-Diminished 7th	m3-m3-m3	VII \emptyset

Chord Identification Practice

There are four seventh-chords. Major and minor seventh chords can be found in several places within a key center. However, dominant seventh chords only occur within a given key signature on the V chord. As shown in Figure 6.1, dominant seventh chords occur less frequently compared to other diatonic seventh chords, making them the most effective determinant of the key. Students will practice identification of chords within the major scale, which will allow them to quickly recognize the chord's function within the progression. Ligon's secondary dominant chart, shown in Figure 6.2, is an effective tool to practice chord identification. While most written exercises are outside the scope of this essay, students must understand that a minor chord such as C minor can reside diatonically in B \flat major and E \flat major, for example. This concept is necessary because otherwise students will perform scales that do not fit within the harmonic context of the song. For instance, they will only play C Dorian minor while performing in the key of E \flat

major, and not recognize that they are borrowing a chord from the pitch collection of Bb major. Though Dorian minor is appropriate, it is an exceptional chord and must be thought of as such. Though an advanced student may wish to play the sound of a Dorian or melodic minor scale on the tonic of a minor song, the beginning student is not yet prepared to hear this quality of chord until they learn to play within the choice that derives from the tonic key.

Figure 6.2: Chord Identification Chart.⁶⁴

Key	I _{major} 7	II _{minor} 7	III _{minor} 7	IV _{major} 7	V7	VI _{minor} 7	VII \emptyset
C	C _{major} 7	D _{minor} 7	E _{minor} 7	F _{major} 7	G7	A _{minor} 7	B \emptyset
F							
Bb							
Eb							
Ab							
Db							
Gb							
B							
E							
A							
D							
G							

Common Root Movement

The ability to hear the root motion of the bass player and to identify the chord qualities of jazz standards is crucial for learning music by ear. Students must be trained to hear each note of the major scale in melodies, bass notes, and harmonies. This will prepare them to identify pitches outside of the major scale in relation to the diatonic pitches. The bass lines by Paul Chambers “Bye Bye Blackbird” and “The P.C. Blues” in Appendix A (page 76) and Appendix C (page 115) demonstrate non-harmonic tones that resolve to harmonic tones by half-step.

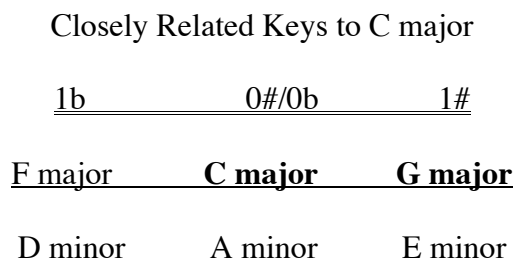
⁶⁴ Ligon, *Jazz Theory Resources*, 97.

Closely Related Key Centers

It is rare for jazz standards to remain in one key center and contain chords that are only diatonic to one key. However, many times a song will contain chords that function as dominant chords to closely related key centers. As described by Ligon,

Closely related key centers are one accidental away from the tonic key. If the key of C is the home key, then related keys would be the relative minor which shares the same key signature (A minor), the key of one flat (F major and D minor), and the key of one sharp (G major and E minor).⁶⁵

Figure 6.3: Closely Related Key Centers

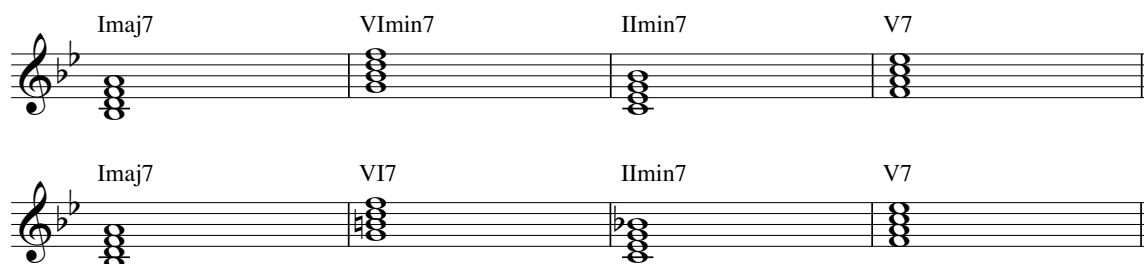


Composers frequently feature closely related key centers in jazz standards to temporarily depart from the original key. Dominant chords from other keys create tension to chords by adding half-step guide tones that would not otherwise exist within the tonic key. For instance, G7 contains B natural, a note that is not diatonic to a song in Bb major. It will likely resolve to a Cmin7 chord, which is a diatonic chord in Bb major. Furthermore, VI7 frequently contains the flat seventh of the tonic key when leading to its Iimin7. In the case of Bb major, G7b9 contains Ab. This brief tonicization of C as the tonal center is immediately thwarted when followed by an F7. F7 serves to firmly reestablish Bb major as the tonic, and in hindsight the Cmin7 chord sounds like a subdominant. The first line of Figure 6.4 represents a common progression in which all

⁶⁵ Ligon, *Jazz Theory Resources*, 112.

chords are diatonic to Bb major. In the second line, the VI7 chord utilizes B natural, a note outside of the tonic key center.

Figure 6.4: VImin7 and VI7b9



According to Jerry Coker, only one dominant chord (V) will agree with any given key signature. However, it is very common to come across dominant chords built on scale degrees other than V, especially in cyclical progressions. In classical music, these are called secondary dominants and they appear frequently in compositions by composers such as J.S. Bach. Coker's analysis of many compositions' progressions reveals:

The VI chord, for example, occurs as VI7 almost as often as VImin7, though the latter is the one produced by the key signature of I. In such cases, it is generally headed for the II chord and therefore functions as V7 of II, since it is a dominant chord located the same distance from its object chord (II) as the ordinary V7 is from its object chord (I).⁶⁶

It is necessary to make a distinction in hearing the IImin7 chord. It serves a subdominant function and should not be played as a tonic chord. The solfege that must be utilized is a *re-* based minor, which is most compatible with the IImin7 chord. Figure 6.5 is a common progression with Outline 1 applied. The VI7b9 chord holds two non-diatonic notes to the tonic key when derived from harmonic minor. These pitches are # $\hat{1}$ and b $\hat{7}$ compared to the original key.

⁶⁶ Coker, *Complete Method for Improvisation*, 34.

Figure 6.5: The Imaj7-VI7b9-IImin7-V7 Progression

The musical notation for Figure 6.5 is as follows:

Measure	Chord	Lyrics
1	Imaj7	Bb: s f m r
2	VI7b9	di te l s
3	IImin7	f m r d
4	V7	t l s f

For study and application of closely related keys, the author has chosen the composition “If I Should Lose You,” composed by Ralph Rainger. It features temporary tonicizations to VImin7, IImin7, Vmaj7, Imaj7, and IVmaj7. The tonicized V chord is not sounded, however the II-V progressions are enough to indicate a brief departure from the tonic key.

Non-Harmonic Tones

Non-harmonic tones are those notes which are “disagreeable” or unconventional to a chord or chord scale. The study of resolving non-harmonic notes to harmonic tones (root, third, fifth and sixth or seventh) and allowable tensions (ninths, 11ths, and 13ths) will train the student to quickly recognize when they play a non-harmonic tone and guide its resolution by half-step.⁶⁷ Crook’s Direct Resolution Exercise presents resolutions for the five non-harmonic tones of the major scale, which creates a pentatonic scale a half-step away from the root.⁶⁸ Study of non-harmonic tones prepares students to hear the necessary accidentals that signal movement to closely related keys. Figure 6.6 reviews the closely related keys of C major, their secondary dominants, Roman numeral analysis, and lists the necessary accidentals needed to tonicize or modulate to the secondary keys.⁶⁹

⁶⁷ Crook, *How to Improvise*, 37.

⁶⁸ *Ibid*, 39.

⁶⁹ Ligon, *Jazz Theory Resources*, 114.

Figure 6.6: Closely Related Key Center Chart

New Key Area to Tonicize	Secondary Dominant	Necessary Accidentals
IImin7: Dmin7	A7 (V7/II)	Bb and C#
IIImin7: Emin7	B7 (V7/III)	F# and D#
IVmaj7: Fmaj7	C7 (V7/IV)	Bb
Vmaj7: Gmaj7	D7 (V7/V)	F#
VImin7: Amin7	E7 (V7/VI)	G#

Study of Repertoire

Students will identify the secondary keys within the composition “If I Should Lose You,” using solfege guide tones in Appendix D (page 106). Other activities will include identifying root motion, solfeging the melody, and playing with backing tracks. This composition contains three major key centers: Bb, Eb, and F major. The relative minor key of Bb major (G minor) and the relative minor key Eb major (C minor) are present and can be solfeged within their relative major keys. G minor functions as a II minor chord in F major because of its movement to C7 (V7/V), secondary dominant to F major (V).

Transcription

Students will study jazz guitarist Grant Green’s solo on “If I Should Lose You.” This solo represents a solo which uses elements discussed in this course. Students will participate in transcription, play along with the recording, sing melodies using solfege, and analyze the solo. The transcription of Green’s first chorus is presented and analyzed in Appendix D (page 112).

CHAPTER VII

The Blues

The musical form known as the blues is not a tune, but a musical framework. According to Jerry Coker, “our approach to a specific vehicle-type is largely determined by traits which are unique to that vehicle, and there is no vehicle with more unique characteristics than ‘the blues.’” The blues is a challenge to teach to beginning improvisers because it has unique melodic and harmonic characteristics.

Speaking to the unique melodic nature of the blues form, blues melodies “use many lowered thirds, fifths, and sevenths of the key, even at times when the note is not a member of the given chord-scale of that moment. In other words, the blues has its own system of tone color, phrasing, and dissonance.”⁷⁰ As stated by Coker, the blues’ tonic chord has a lowered seventh, “causing it to agree with what we normally expect on the dominant (V). The subdominant (IV) chord of the blues also has a lowered seventh.”⁷¹ This is unusual because the I and IV chords are generally major.

There are many variations of the 12-bar blues form and too many to teach in a one semester introductory improvisation course. To maintain continuity, the author will use a simple variant of the jazz blues progression to relate information from Chapter VI, Closely Related Key Centers. Figure 7.1 displays a simple 12-bar blues form with Roman numeral analysis.

⁷⁰ Coker, *Complete Method for Improvisation*, 66.

⁷¹ Ibid.

Figure 7.1: Blues Progression

The figure displays a 12-measure blues progression in G major, organized into three lines of four measures each. Each measure is represented by a treble clef staff with diagonal slashes indicating the chord. The chords are as follows:

- Line 1: Measure 1 (I7), Measure 2 (I7), Measure 3 (I7), Measure 4 (V7/IV)
- Line 2: Measure 5 (IV7), Measure 6 (IV7), Measure 7 (Imaj7), Measure 8 (V7/II)
- Line 3: Measure 9 (IImin7), Measure 10 (V7), Measure 11 (I7), Measure 12 (IImin7, V7)

Blues Solo Transcriptions

The previous chapter prepared students to play secondary dominant chords in the blues progression. The final part of the course will focus on the unique musical characteristics of the blues progression and will apply tonicizations studied in the previous chapter. These musical characteristics will be approached by listening and internalizing selected solos and transcriptions. The selected examples consist of four two-chorus excerpts of blues solos from jazz masters J.J. Johnson, Lou Donaldson, Paul Chambers, and Kenny Dorham. The excerpts were chosen because they are primarily diatonic and also reflect tonicizations of the major IV chord and the minor II chord. The IV and II chords do not always obtain a strong sense of local tonality, depending on the artist's choice of notes. Frequently, jazz improvisers do not approach the blues form by outlining each individual chord, but instead treat the whole form as one key center. An implication of this tonal generalization is that students may only play the minor blues scale throughout the form. This helps them focus on the manipulation of other musical elements such as rhythms, phrase lengths, inflections, and dynamics. However, many jazz blues solos do outline each individual chord or utilize multiple techniques when

approaching the solo. To clearly delineate the form, it is important that students have the ability to outline each secondary dominant, allowing students to sound the specific chord change when desired.

Solos from master improvisers will be studied to determine the balance of harmonic specificity to harmonic generalization. The author indicated when an artist performed a II-V-I phrase to tonicize IV or II in the analysis contained in Appendix E (pages 117-124). The previous chapters equipped students with aural skills to learn and play along with the selected solos. These activities remain central to studying the unique characteristics of the blues form. The primary focus of the last several weeks of class will be to transcribe, imitate, and listen to the four two-chorus blues solos. The topics resulting in the analysis will give students additional melodic and harmonic considerations for their blues performances.

Application of Solfege

Analysis of the four blues solo transcriptions reveals several helpful considerations when applying solfege on the blues form. Dorham (page 119) and Donaldson (page 121) utilize the same blues scale from the tonic key to traverse the I7 and IV7 chord. Consequently, the blues phrases should be labeled in the tonic key, even if the tonal center shifts underneath. The IV chord is brief and contains enough common tones with the tonic to justify the use of solfege in the tonic key.

CHAPTER VIII

Conclusion

The skills gained in this course are intended to prepare students to aurally identify melodic and harmonic information from recordings as they begin their journey as a jazz improviser. Review of jazz pedagogy resources indicated a lack of material that specifically addressed application of movable-*do* solfege to jazz compositions. This course aims to facilitate study of jazz improvisation through the development of students' aural perception, primarily through singing.

Throughout the course, students listen to examples of jazz solos and interact with repertoire from the jazz idiom by transcribing, singing, and playing with jazz recordings. The course is divided into four sections: "Fundamentals", "The II-V-I Progression," "Closely Related Key Centers," and "The Blues." The "Fundamentals" section provides exercises to gain familiarity with the major scale, major modes, and diatonic melodies. "The II-V-I Progression" explores Bert Ligon's II-V-I outlines in major and minor keys, which were formulated from improvised jazz solos on recordings. "The II-V-I Progression" also introduced the minor II-V-I progression in the context of tonicizing relative minor keys. The chapter entitled "Closely Related Key Centers" provides instructions to hear and practice II-V-I progressions that tonicize major or minor keys that are one sharp or one flat different from the initial key center. "The Blues" addresses the idiomatic melody and harmony and is supported with transcriptions of four jazz artists.

This aural skills approach to improvisation is intended to build students' confidence to learn jazz standards, participate in informal "jam sessions," and play

convincing melodic solos through development of audiation. As a result of learning to audiate diatonic melodies, students can begin to introduce chromatic pitches that are harmonically specific and outline the composition.

Suggestion for Further Study

Further study is needed to prove the effectiveness and scope of this course, which could be determined by methods used in investigations similar to field studies by Bash (1983) and Azzara (2015). Bash analyzed the effectiveness of three instructional methods on the acquisition of jazz improvisational skills by field testing the traditional, aural perception, and historical-analytical aspects of an improvisation course over seven weeks. He measured the effectiveness of the course against a control group to determine each instructional method's effectiveness. Azzara documented perspectives of collegiate students with limited improvisation experience who were learning to improvise. His experiment provided a "sequential and logical" course that contextualized the process of learning to improvise through repertoire and awareness of stylistic musical vocabulary.⁷²

⁷² Christopher Azzara, "Collegiate Musicians Learning to Improvise," *Bulletin of the Council for Research in Music Education* 204, (2015): 63-84, <https://www.jstor.org/stable/10.5406/bulcouresmusedu.204.0063>, 76.

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APPENDIX A: COURSE OUTLINE

Jazz Improvisation Course Outline

Prerequisites: A basic knowledge of major and minor scales, ability to sing the major scale with moveable-*do* solfege

Required Material

1. Musical Instrument
2. Manuscript paper
3. Sibelius or Finale Music Notation Software
4. Metronome
5. Speaker or headphones for listening to recordings

Suggested Supplementary Materials

1. *The Jamey Aebersold Series*
2. *Improvising Jazz, Patterns for Jazz* by Jerry Coker
3. *Inside Improvisation Series* by Jerry Bergonzi
4. *Connecting Chords with Linear Harmony, Jazz Theory Resources* by Bert Ligon

The student is responsible for:

1. Performance assignments assigned by instructor
2. Memorization of assigned melodies and chord progressions of songs
3. Assigned listening and transcribed solo study

Goals: Learning compositions effectively, improvising melodic melodies, understanding recordings by ear

The following pages outline a one semester course in 4 sections: Fundamentals, The II-V-I Progression, Closely Related Keys, and The Blues. Activities, Handouts, Assignments are given for each class meeting.

Section 1: Fundamentals

Class 1: Week 1, Day 1

Nomenclature
 Basic elements of jazz theory
 Key Signatures & Circle of Fifths
 Handouts: -Movable-*Do* and *La*-Based Minor
 -Modes of the Major Scale

Class 2: Week 1, Day 2

Practice singing and playing diatonic patterns
 Learn “Bye Bye Blackbird” melody
 Handouts: -Diatonic Triads and Seventh Chords
 -*Patterns for Jazz* (Coker)
 -How to learn melody (Crook, page 23)
 -Non-diatonic melody notes/ Pitch Hierarchy (Ligon)
 Assignment: Memorize “Bye Bye Blackbird” melody

Class 3: Week 2, Day 1

Diatonic note identification and melodic dictation from reference recordings
 Perform melody to “Bye-Bye Blackbird” in solfege
Patterns for Jazz: Play and sing scale patterns as a class in several keys
 Handouts: -Pentachords of the Major Scale,
 -Modal Configurations
 Assignment: Perform a diatonic scale pattern with solfege and transpose to 6 keys on primary instrument
 Listening: Louis Armstrong solo on “Hotter Than That”

Class 4: Week 2, Day 2

Pentachords of the Major Scale
 Handout: Modal Configurations
 Sing “Bye Bye Blackbird” melody memorized using solfege
 Transcription: Miles Davis Solo on “Bye Bye Blackbird”

Class 5: Week 3, Day 1

Solfege common phrases in each mode
 Sing common phrases in the context of “Bye Bye Blackbird”
 Assignment: Descending Fifths Solfege pattern
 Handouts: -Paul Chambers Bass Line on “Bye Bye Blackbird”
 -Phrases in Dorian, Mixolydian, and Aeolian Modes

Class 6: Week 3, Day 2

Sing Ascending 5ths solfege pattern
 Ear Training Fundamentals Quiz
 Handouts: -Simple Jazz Standard Melodies
 -Scale Patterns in 3rds and 4ths

Section 2: The II-V-I Progression

Class 7: Week 4, Day 1

Perform solfege of Miles Davis solo on “Bye Bye Blackbird”

Handouts: -The Dominant Bebop Scale

-“Autumn Leaves” Lead Sheet

Class 8: Week 4, Day 2

Major II-V-I Progression in all keys

Sing examples from Ligon’s Outlines

Handout: II-V-I Progression Guide Tones, II-V-I Outlines I-III (Ligon)

Class 9: Week 5, Day 1

Reinforce Major II-V-I in all keys

Apply Major II-V-I Outlines to “Autumn Leaves” and “Bye Bye Blackbird”

Class 10: Week 5, Day 2

Minor II-V-I Handout

Handout: II-V-I Progression in Minor Keys

Assignment: Tonicizing Minor Chords

Class 11: Week 6, Day 1

Minor II-V-I

-Locrian Half Diminished

-V7b9 Harmonic Minor

-Tonicizing II or VI

Handout: Chord Identification Practice and Secondary Dominant Charts

Class 12: Week 6, Day 2

Tonicization of the minor VI chord

Sing Minor Outlines, apply to “Autumn Leaves”

Class 13: Week 7, Day 1

Continue to reinforce Minor II-V-I to minor VI chord

Apply major and minor outlines to Autumn Leaves

Review for Midterm

Class 14: Week 7, Day 2

Midterm including Fundamentals and II-V-I in major and minor keys, bebop scales.

Aural identification of major modes, harmonic minor, and chord identification including major, minor, dominant, and dominant b9. Memorization of chords and melody of “Bye Bye Blackbird” and “Autumn Leaves.”

Handouts: -“If I Should Lose You” Lead Sheet

-“If I Should Lose You” Guide Tones

Section 3: Closely Related Key Centers

Class 15: Week 8, Day 1

Study tonicization of the minor II chord

-Ligon Chapter 5 diatonic harmony, Ch. 6 Harmonic progressions

Handouts: -Closely Related Key Signatures

-Non-harmonic Tones Chart

Listening: Grant Green solo excerpt on “If I Should Lose You”

Assignment: Transcription performance of Grant Green solo due in Class 20

Class 16: Week 8, Day 2

Study tonicization of the minor II chord

Chord Identification Practice

Handouts: -Secondary Dominant Chart

-“If I Should Lose You” Lead Sheet

-“If I Should Lose You” Guide Tones

Class 17: Week 9, Day 1

Study tonicization of the major IV

Apply to “If I Should Lose You”

Handout: Tonicizing Major Chords

Class 18: Week 9, Day 2

Study tonicization of major V chord

Apply to “If I Should Lose You”

Class 19: Week 10, Day 1

Study Grant Green solo “If I Should Lose You”

Identify common chord functions in listening examples

Listening: “Pennies from Heaven” by J.J. Johnson, “Almost Like Being in Love” by Red Garland, J.J. Satin Doll

Handout: Grant Green Solo Excerpt on “If I Should Lose You”

Class 20: Week 10, Day 2

Class Transcription performance of Grant Green solo “If I Should Lose You”

Assignment: Perform Kenny Dorham solo on “Chicago Blues,” J.J. Johnson solo excerpt on “Walkin’,” Lou Donaldson solo excerpt on “Now’s The Time,” or Paul Chambers’ solo on “Blue Train” memorized with the recording

Section 4: The Blues

Class 21: Week 11, Day 1

Introduce 12-bar blues form, list of jazz blues solo excerpts to transcribe

Transcribe the melody to “The P.C. Blues” as a class

Handout: Paul Chamber’s Bass Line on “The P.C. Blues”

Listening: Blues Solos by Kenny Dorham, J.J. Johnson, Paul Chambers, and Lou Donaldson

Assignment: Memorize “The P.C. Blues” melody and 12-bar blues progression

Class 22: Week 11, Day 2

Ligon (180, 187, 190, chapter 9) and Bergonzi (47, 52, 98) blues guide tones/voice leading

Blues 3rds, 7ths guide tones and apply II-V-I Outlines

Analyze solos as a class, determine phrases that tonicize IV and II chords

Listening: Blues Solos by Kenny Dorham, J.J. Johnson, Paul Chambers, and Lou Donaldson

Assignment: Perform blues solo transcription from list

Class 23: Week 12, Day 1

Major and Minor Blues Scales/Notes

Transcribe and Apply Blues Phrases from recordings as a class

Listening: Blues Solos by Kenny Dorham, J.J. Johnson, Paul Chambers, and Lou Donaldson

Class 24: Week 12, Day 2

Blues Transcription Performances

Class 25: Week 13, Day 1

Class improvisation practice on the blues

Apply tonicization of IV, II, blues phrases, transcription phrases

Class 26: Week 13, Day 2

Blues Performance Jury

Class 27: Week 14, Day 1

Final Exam

Class 28: Week 14, Day 2

Class Jam Session

-“Bye Bye Blackbird”

-“Autumn Leaves”

-“If I Should Lose You”

-“The P.C. Blues”

APPENDIX B: FUNDAMENTALS

Movable-do and La-based Minor

Major

C major scale

C: do re mi fa sol la ti do ti la sol fa mi re do

C major scale and its chromatic alterations

d di r ri m f fi s s l li t d t te l le s se f m me r ra

Relative Minor

C aeolian minor

Eb: l t d r m f s l s f m r d t l

Harmonic Minor (built from VI)

C harmonic minor in the context of Eb major

Eb: l t d r m f si l si f m r d t l

Harmonic Minor (built from II)

C harmonic minor in the context of Bb major

Bb: r m f s l te di r di te l s f m r

Sing the major scale with solfege syllables.

Sing the major scale with its chromatic alterations.

Sing the natural minor scale, derived from its relative minor key.

Sing the harmonic minor scale in the context of tonicizing the II and VI chords.

For additional practice of solfege syllables, practice “Sol-fa studies” in *Ear Training for the Contemporary Musician* by Steve Prosser.

Modes of the Major Scale

1st Mode of Major (Ionian)

arpeggio to the 9th scale degree
1 3 5 7 9

Cmaj⁹

C: d r m f s l t d r d t l s f m r d m s t r t s m d

2nd Mode of Major (Dorian)

C: r

Dm⁹

3rd Mode of Major (Phrygian)

C: m

Em^{7(b9)}

4th Mode of Major (Lydian)

C: f

Fmaj⁹

5th Mode of Major (Mixolydian)

C: s

G⁹

6th Mode of Major (Aeolian)

C: l

Am⁹

7th Mode of Major (Locrian)

C: t

B^{ø9}

Diatonic 7th Chords

I maj7 II min7 III min7 IV maj7 V maj7 VI min7 VII ϕ

Sing the modes of the of C major in solfege accompanied by piano. Use the top line to determine the appropriate solfege of each mode.

Sing each line while simultaneously playing the voicing at the end of the line.

Play the seventh chords at the bottom of the page that represent the modes derived from C major.

Perform this exercise in all 12 major keys.

Diatonic Triads and Seventh Chords

Diatonic Triads

Gmaj7 Amin7 Bmin7 Cmaj7 D7 Emin7 F#ø7 Gmaj7

G: d m s m r f l f m s t s f l d l s t r t l d m d t r f r d m s m d

Gmaj Amin Bmin Cmaj Dmaj Emin F#°

G: d m s d r f l r m s d m f l d f s t r s l d m l t r f t

Diatonic Seventh Chords

Gmaj7 Amin7 Bmin7 Cmaj7 D7 Emin7 F#ø7 Gmaj7

G: d m s t r f l d m s t r f l d m s t r f l d m s t r f l d m s t s m d

Gmaj7 Amin7 Bmin7 Cmaj7 D7 Emin7 F#ø7 Gmaj7

G: d m s t d l f r m s t r m d l f s t r f s m d l t r f l t s m d

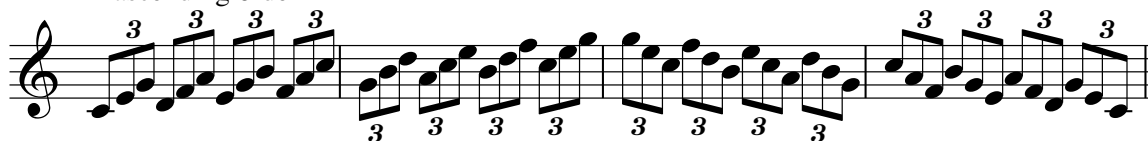
Sing each exercise and transpose to all keys on your instrument. Use the solfege syllables to facilitate transposition. If possible, play the accompanying chords symbols on the piano using the chords found on the “Modes of the Major Scale” sheet.

Exercises are continued on the next page.

Diatonic Triads and Seventh Chords (continued)

Ascending diatonic triads,
in ascending order

Descending diatonic triads,
in descending order

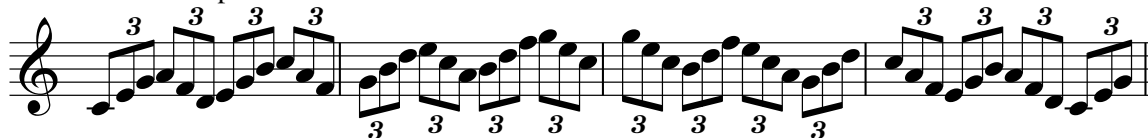


Descending diatonic triads,
in ascending order

Ascending diatonic triads,
in descending order



Diatonic "up-downs"



Diatonic 7th chord arpeggios (ascending)



Diatonic 7th chord arpeggios (descending)



Diatonic 7th chord "up-downs" (ascending)



Diatonic 7th chord "up-downs" (descending)



Play and sing these examples using solfege to gain a greater fluency and understanding of major scales. These exercises should be played in all 12 major keys.

Bye Bye Blackbird Lead Sheet

Composed by Ray Henderson
Transcribed by Andrew Peal

Fmaj7 C7 Fmaj7

5 Fmaj7 A \emptyset 7 D7 Gmin7 C7 D7(b9)

9 Gmin7 D7(b9) Gmin7 C7

13 Gmin7 C7 Fmaj7

17 Fmaj7 A \emptyset 7 D7(b9)

21 Gmin7 D7(b9) G7 C7

25 Fmaj7 C7 A \emptyset 7 D7

29 Gmin7 C7 F $\frac{6}{9}$

Memorize the melody using Hal Crook's method outlined in *How to Improvise*, presented on page 31. Apply solfege to the melody in the key of F major.

Note that one pitch within the melody, F#, is not diatonic to the key of F major.

Memorize the chord progression by singing the root notes using solfege. Every root note is contained within the key of F major.

Miles Davis Solo on Bye Bye Blackbird

Transcribed by Andrew Peal

1 *F*maj7 ┌ 3 ┐

5 *F*maj7 *B*♭maj7 *A*∅7 *D*7(b9) *G*min7

9 *G*min7 *D*7(b9) *G*min7 *C*7
lay back

13 *G*min7 *C*7 *F*maj7

17 *A*min7 *A*∅7 lay back *D*7(b9)

21 *G*min7 *C*7 *D*♭7 *C*7

25 *F*maj7 ┌ 3 ┐ *F*maj7 *B*♭maj7 *A*∅7 *D*7(b9)

29 *G*min7 *C*7 *F*maj7 *G*min7 *C*7

33 Fmaj7



37 Fmaj7 Bbmaj7 Aø7 D7(b9) Gmin7



41 Gmin7 D7(b9) Gmin7 C7



45 Gmin7 C7 Fmaj7



49 Amin7 Aø7 D7(b9)



53 Gmin7 C7 Db7 (Gb Major Bebop) C7



57 Fmaj7 Fmaj7 Bbmaj7 Aø7 D7(b9)



61 Gmin7 C7 Fmaj7 Gmin7 C7



Using solfege syllables in F major, memorize Miles Davis' solo on "Bye Bye Blackbird." Measure 55 contains four notes outside of the key of F major. Analyze measure 55 in the key of Gb. Transcribe by listening to the recording and learning the melodies by ear only. Relate each pitch to the tonic F. Printed music should only be used after transcribing by ear.

Pentachords of the Major Scale

Ionian and Mixolydian Dorian and Aeolian

F: d r m f s f m r d F: r m f s l s f m r
 Bb: s l t d r d t l s Bb: l t d r m r d t l

Phrygian Lydian Locrian

F: m f s l t l s f m F: f s l t d t l s f F: t d r m f m r d t

Pentachords built from a single pitch

Ionian/Mixolydian Dorian/Aeolian Phrygian Lydian Locrian

Sing each pentachord and perform on your primary instrument.

Note that the Ionian and Dorian pentachords are constructed with intervals that are identical to Mixolydian and Aeolian pentachords an ascending fourth away.

The pentachords in the first eight measures are constructed from their modes. The pentachords of the final five measures are constructed from a single pitch using the appropriate intervals.

Play the pentachords of every mode in every key.

Bye Bye Blackbird
Paul Chambers Bass Line*

Transcribed by Andrew Peal

Fmaj7 C7 Fmaj7 C7

F: d

5 Fmaj7 Bbmaj7 Aø7 D7 Gmin7 D7

9 Gmin7 C7

13 Gmin7 C7 Fmaj7

17 Aø7 D7(b9)

te fi di

21 Gmin7 D7 Gmin7 C7

25 Fmaj7 C7 Fmaj7 Bbmaj7 Aø7 D7(b9)

29 Gmin7 C7 Fmaj7

*Simplified

Apply solfege to the Paul Chambers bass line.

Note that most pitches are diatonic to the key of F. The most common accidental is F#, which leads to $\hat{2}$ in F, directly or shortly thereafter. Most other chromatic notes point to $\hat{5}$ or $\hat{6}$ in F.

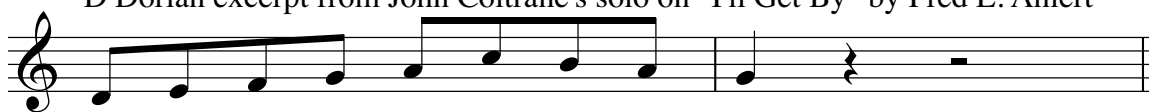
Phrases in Dorian, Mixolydian and Aeolian Modes

C Dorian excerpt from Chick Corea's solo from Quartet no. 2, pt. 2" by Chick Corea



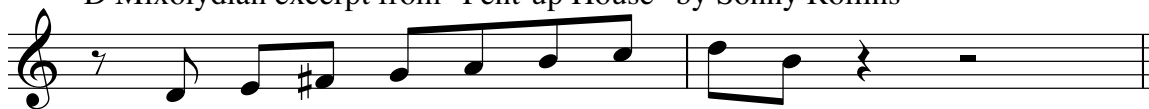
Bb: r

D Dorian excerpt from John Coltrane's solo on "I'll Get By" by Fred E. Ahlert



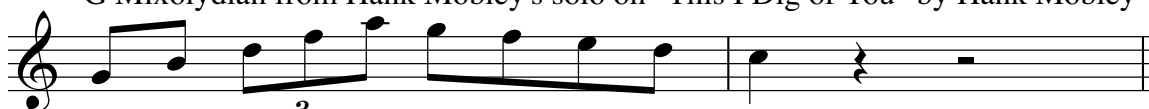
C: r

D Mixolydian excerpt from "Pent-up House" by Sonny Rollins



G: s

G Mixolydian from Hank Mobley's solo on "This I Dig of You" by Hank Mobley



C: s

E Aeolian from "Sly" by Herbie Hancock



G: l

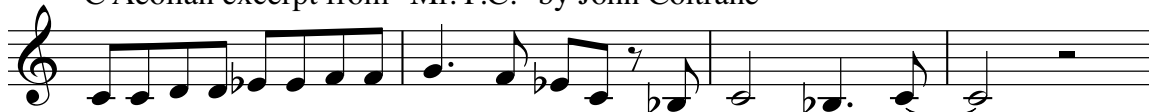
C Aeolian excerpt from "Softly as in a Morning Sunrise" by Sigmund Romberg



Eb: l



C Aeolian excerpt from "Mr. P.C." by John Coltrane



Eb: l



Sing each example and apply solfege within the given keys.


Find other examples to sing by listening to great jazz artists such as those listed above.

Memorize phrases, play in 12 keys, and apply to jazz standards.

Modal Configurations


David Baker

Ionian Dorian



C: d t l s f m r d Bb: r d t l s f m r

9 Phrygian Lydian




Db: t l s f m r d t G: f m r d t l s f

17 Mixolydian Aeolian




F: s f m r d t l s Eb: l s f m r d t l

25 Locrian Harmonic minor (from Eb major)



Db: t l s f m r d t Eb: l si f m r d t l

33 Harmonic minor (from Bb major)



Bb: r di te l s f m r

Sing and play “Joy to the World” in major modes and harmonic minor to practice identifying the intervallic construction and relationships between the modes. Play the exercise on the piano while singing reinforce pitch.

Simple Jazz Standard Melodies

Autumn Leaves (Chet Baker)

Bye Bye Blackbird (Miles Davis)

There Will Never Be Another You (Joe Williams and Count Basie)

My Shining Hour (Ella Fitzgerald)

Fly Me to the Moon (Frank Sinatra)

Cheek to Cheek (Louis Armstrong)

Pennies from Heaven (Sarah Vaughn)

My Funny Valentine (Chet Baker)

In a Mellow Tone (Duke Ellington)

Our Love is Here to Stay (Louis Armstrong)

Satin Doll (Duke Ellington)

I Got Rhythm (Benny Goodman)

If I Should Lose You (Grant Green)

East of the Sun (Frank Sinatra)

The Days of Wine and Roses (Frank Sinatra)

My Little Suede Shoes (Charlie Parker)

Softly as in a Morning Sunrise (Larry Young)

Stella by Starlight (J.J. Johnson)

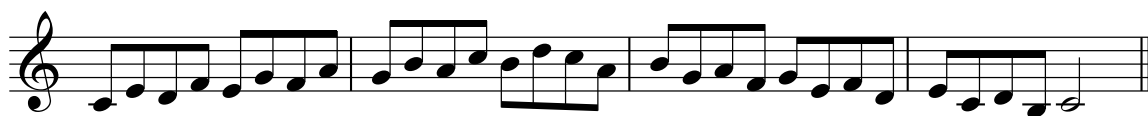
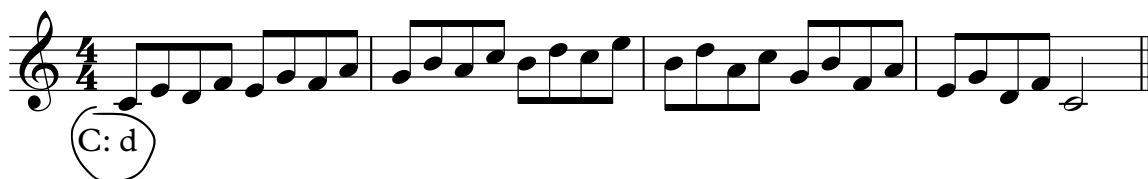
Tenor Madness (Sonny Rollins)

It Could Happen to You (Chet Baker)

Note: The author chose these compositions because the melodies are primarily diatonic and appropriate to sing in solfege. The artists given in parenthesis perform the melody clearly.

Scale Patterns in 3rds and 4ths

Scales in 3rds



Scales in 4rds



In all 12 keys, play and sing scales in thirds and fourths in each of the variations presented. Singing scales in fourths will prepare students to hear and sing common root motions such as descending fifths and descending thirds.

APPENDIX C: THE II-V-I PROGRESSION

II-V-I Progression Guide Tones

C: II V I Major II-V-I

D^{min}7 G⁷ C^{maj}7 G^{min}7 C⁷ F^{maj}7

C: d t m F: f d t f m t

C^{min}7 F⁷ B^bmaj7 F^{min}7 B^b7 E^bmaj7

B^bmin7 E^b7 A^bmaj7 E^bmin7 A^b7 D^bmaj7

A^bmin7 D^b7 G^bmaj7 C[#]min7 F[#]7 B^{maj}7

F[#]min7 B⁷ E^{maj}7 B^{min}7 E⁷ A^{maj}7

E^{min}7 A⁷ D^{maj}7 A^{min}7 D⁷ G^{maj}7

Sing the guide tones on the top and bottom lines with the solfege indicated in the top left corner of this sheet.

This exercise can be played in the right hand of the piano while the bass is played in the left hand to practice chord voicings.

Practice II-V-I in descending fifths as shown above. Then practice in descending major and minor seconds.

II-V-I Progression Guide Tones (Continued)

Minor II-V-I

Eb: VII	III	VI			
Bb: III	VI	II			
D \emptyset 7	G7(b9)	Cmin7		G \emptyset 7	C7(b9)
Fmin7					

Eb: l			Ab: f		
f			r		
r			l		
Bb: r			Eb: te		
te			s		
s			r		

C \emptyset 7	F7(b9)	Bbmin7		F \emptyset 7	Bb7(b9)
Ebmin7					

Db:			Gb:		
Ab:			Db:		

A \emptyset 7	D#7(b9)	G#min7	or	Bb \emptyset 7	Eb7(b9)	Abmin7		D \emptyset 7	G#7(b9)	C#min7
-----------------	---------	--------	----	------------------	---------	--------	--	-----------------	---------	--------

B:		Gb:		E:		B:
----	--	-----	--	----	--	----

G# \emptyset 7	C#7(b9)	F#min7		C# \emptyset 7	F#7(b9)	Bmin7
------------------	---------	--------	--	------------------	---------	-------

A:			D:		
E:			A:		

F# \emptyset 7	B7(b9)	Emin7		B \emptyset 7	E7(b9)	Amin7
------------------	--------	-------	--	-----------------	--------	-------

G:			C:		
D:			G:		

E \emptyset 7	A7(b9)	Dmin7		A \emptyset 7	D7(b9)	Gmin7
-----------------	--------	-------	--	-----------------	--------	-------

F:			Bb:		
C:			F:		

Sing each guide tone line with appropriate solfege syllables. The notes on the staff can be played simultaneously over the bass note while singing the individual lines.

The Roman numerals below the staff indicates the function of the II-V-I progression in two keys. The progressions are indicative of two popular tonicizations, the minor VI chord (relative minor) and minor II chord (subdominant).

Outline 1 (Continued)

Outline 1 with Diatonic Neighbor Tones and Arpeggiation

Fmin7 Bb7 Ebmaj7

Fmin7 Bb7 Ebmaj7

Fmin7 Bb7 Emaj7

Outline 1 Arpeggiated

Fmin7 Bb7 Emaj7

Outline 1 Examples

Charlie Parker

Tom Harrell

Gmin7 C7 Fmaj7 Aø7 D7(b9) Gmin7

F: f m r d t r f l s m

Bb: r d t l si t r f m d
F: s f m r di m s te l f

Freddie Hubbard (F Harmonic Minor)

Dexter Gordon

Gmin7 C7(b9)3 Fmaj7 Amin7 D7 Gmaj7

F: f

le

G: m

Outline 2

Outline 2 Outline 2, octave displacement 1

C^{min}7 F⁷ B^bma⁷ C^{min}7 F⁷ B^bma⁷

Bb: r Bb: r

Outline 2 variation Outline 2 with diminished harmonic rhythm

C^{min}7 F⁷ B^bma⁷ C^{min}7 F⁷ B^bma⁷

Bb: r Bb: r

Outline 2 in Minor

A^ø7 D⁷(b9) G^{min}7

Bb: t r f l s i f m r d
F: m s t e l d i t e l s f

Outline 2 Examples

John Coltrane Clifford Brown (Arpeggiated)

C[#]min⁷ F[#]7 B^{ma}7 C^{min}7 F⁷

B: r Bb: f

Sonny Stitt (Passing Tones) Jimmy Heath (Minor)

C^{min}7 F⁷ B^bma⁷ D^ø7 G⁷(b9)

Bb: r Eb/C^{min}: t

Clifford Brown (Passing Tones) Fats Navarro (Passing Tones)

G^{min}7 C⁷ B^bmin⁷ Eb⁷ Ab^{ma}7

F: r Ab: r

The Dominant Bebop Scale

David Baker

C⁷ Mixolydian Scale **C⁷ (Gmin7) Dominant Bebop Scale**

F: s F: s fi

Starting on chord tones

Detailed description: This block shows two musical phrases on a single staff. The first phrase is the C7 Mixolydian scale, starting on the root (F) and ending on the seventh (E). The second phrase is the C7 Dominant Bebop scale, which starts on the root (F) and includes the flat ninth (Fb) before ascending to the seventh (E). A box labeled 'Starting on chord tones' is positioned below the second phrase.

C⁷ Descending from the third **C⁷ Descending from the fifth**

F: t F: r f

Detailed description: This block shows two descending musical phrases on a single staff. The first phrase descends from the third degree (G) of the C7 scale. The second phrase descends from the fifth degree (G) of the C7 scale. The notes are labeled with their scale degrees: 't' for third, 'r' for second, and 'f' for first.

C⁷ Ascending, then Descending 1 **C⁷ Ascending, then Descending 2**

F: s F: s

Detailed description: This block shows two ascending-then-descending musical phrases on a single staff. The first phrase starts on the root (F) and follows a specific ascending and descending pattern. The second phrase also starts on the root (F) and follows a different ascending and descending pattern.

C⁷ Ascending, then Descending 3 **C⁷ Descending, then Ascending**

F: s F: s fi fi s

Baker Dominant Phrase Endings

Detailed description: This block shows two musical phrases on a single staff. The first phrase is an ascending-then-descending scale starting on the root (F). The second phrase is a descending-then-ascending scale starting on the root (F). A box labeled 'Baker Dominant Phrase Endings' is positioned below the second phrase.

C⁷ **C⁷**

F: s F: s

Starting on non-chord tones

Detailed description: This block shows two musical phrases on a single staff, both labeled 'C7'. The first phrase starts on the root (F) and ends with a quarter rest. The second phrase starts on the root (F) and ends with a quarter rest. A box labeled 'Starting on non-chord tones' is positioned below the second phrase.

C⁷ No chromatic alterations **C⁷**

F: m F: m

Begin bebop scale when landing on downbeat chord tones

Detailed description: This block shows two musical phrases on a single staff, both labeled 'C7'. The first phrase is labeled 'No chromatic alterations' and starts on the root (F). The second phrase is labeled 'Begin bebop scale when landing on downbeat chord tones' and starts on the root (F). A downward arrow points to the start of the second phrase.

C⁷ **C⁷**

F: l F: d

Syncopating the first chord tone of the phrase

Detailed description: This block shows two musical phrases on a single staff, both labeled 'C7'. The first phrase is labeled 'Syncopating the first chord tone of the phrase' and starts on the root (F). The second phrase is labeled 'Syncopating the first chord tone of the phrase' and starts on the root (F). A downward arrow points to the start of the second phrase.

These exercises from David Baker's *Jazz Improvisation* are derived from bebop pioneer Charlie Parker, who invented a methodical approach to playing scales in jazz. In contrast to the Mixolydian scale in first two measures, the dominant bebop scale contains an added half step to ensure that the primary notes are sounded on the downbeat. Sing and play these examples independently, attempt to combine several lines for longer phrases, and end the phrases with Baker Dominant Phrase Endings. Note that it is simpler to sing the syllable *fi* when confronted with the #4̂ in the tonic key F major to avoid having to switch between *fi* and *se*.

Minor II-V-I

Chord Scales

E \flat Ionian Major **C Aeolian (Natural) Minor**

D Locrian **5th Mode of C Harmonic Minor**

Minor II-V-I

D \emptyset 7 **G7(b9)** **Cmin7**

E \flat : r d t l si f m r d

Major II-V-I

Minor II-V-I **Major II-V-I**

D \emptyset 7 **G7(b9)** **Cmin7** **F7** **B \flat maj7**

B \flat : s f m r di te l s f m r d t l s f m

Descending Harmonic Minor Phrases G7b9

Outline 1 in Minor **Outline 2 in Minor**

D \emptyset 7 **G7(b9)** **Cmin** **A \emptyset 7** **D7(b9)** **Gmin**

E \flat : r d t l si f m r d B \flat : t r f l si f m r d
 B \flat : s f m r di te l s f F: m s te l di te l s f

Outline 3 in Minor

E \emptyset 7 **A7(b9)** **Dmin7**

F: f r t l si t r f m
 C: te s m r di m s te l

Minor II-V-I progressions often contain the natural minor, Locrian minor, and Harmonic minor scales. The half-diminished II chord of a minor II-V-I can be played with a Locrian scale that shares all pitches of the Aeolian minor chord it is approaching. The harmonic minor chord shares all but one note, the raised $\hat{7}$ in relation to the tonic minor chord it is approaching.

The minor II-V-I may tonicize the relative minor or the subdominant, which affects function and solfege label of pitches in minor II-V-I progressions.

Tonicizing Minor Chords

II-V-I to Relative Minor (VI Minor)

"Autumn Leaves"
 Bb: r d t l si f m r d
 Bb: r si
 Bb: t si
 Bb: f si

"Bye Bye Blackbird"
 F: s f m r di te l s f m r d t l s f m
 F: s di te F: s di te
 F: m F: te di

As previously mentioned, minor II-V-I progressions often tonicize closely related key centers. In these examples, the Roman numerals indicate function in relation to the tonic key.

Play the minor II-V-I outlines and label solfege with the appropriate context.

Play the minor II-V-I outline to tonicize the relative minor (minor VI) in “Autumn Leaves.” Perform with a backing track to practice execution during a solo.

Play the minor II-V-I outline to tonicize the subdominant (minor II) in “Bye Bye Black Bird.” Perform with a backing track to practice execution during a solo.

APPENDIX D: CLOSELY RELATED KEY CENTERS

Chord Identification Practice Chart from *Jazz Theory Resources* by Bert Ligon

Key	I _{maj} 7	II _{min} 7	III _{min} 7	IV _{maj} 7	V7	VI _{min} 7	VII \emptyset
C	C _{maj} 7	D _{min} 7	E _{min} 7	F _{maj} 7	G7	A _{min} 7	B \emptyset
F							
B \flat							
E \flat							
A \flat							
D \flat							
G \flat							
B							
E							
A							
D							
G							

Practice identifying the seventh chord qualities that are derived from the modes of the major scale. Note that the same minor and major chords will appear in different functions, but dominant chords are unique to one key. This makes minor and major chords more challenging to solfege, but one can determine the key by identifying the diatonic dominant chord.

Secondary Dominant Chart from *Jazz Theory Resources* by Bert Ligon

New Key Area to Tonicize	Secondary Dominant	Necessary Accidentals
II _{min} 7: D _{min} 7	A7 (V7/II)	B \flat and C \sharp
III _{min} 7: E _{min} 7	B7 (V7/III)	F \sharp and D \sharp
IV _{maj} 7: F _{maj} 7	C7 (V7/IV)	B \flat
V _{maj} 7: G _{maj} 7	D7 (V7/V)	F \sharp
VI _{min} 7: A _{min} 7	E7 (V7/VI)	G \sharp

This chart identifies dominant chords that appear in key of C major that signal closely related key centers. The necessary accidentals are outside of the tonic key of C major and suggest movement secondary key centers.

Closely Related Key Signatures

Vmaj7 Imaj7 IVmaj7
 Gmaj7 Cmaj7 Fmaj7

Emin7 Amin7 Dmin7
 IIImin7 VImin7 IImin7

I VII III VI
 Cmaj7 B ϕ 7 E7(b9) Amin7

I V I IV
 Cmaj7 Gmin7 C7 Fmaj7

I III VI II
 Cmaj7 E ϕ 7 A7(b9) Dmin7

I VI II V
 Cmaj7 Amin7 D7 Gmaj7

I #IV VII III
 Cmaj7 F# ϕ 7 B7(b9) Emin7

See the chart above which presents six closely related key centers. From C major, the other five key centers are signaled by accidentals. Most other notes are shared by the new key center and the old one. Performing the appropriate accidentals over these common modulations is generally what creates a sense of harmonic specificity and creates the sense of “outlining the song” by playing its most unique harmonic components.

Perform each guide tone over the indicated bass note. The Roman numerals above the staff indicate the root movement in relation to the tonic key. Apply solfege to the Roman numerals to practice identifying common root motions.

Tonicization of the major IV and major V chords is very common in jazz standards. It is useful to practice hearing which chromatic tones signal a departure from the tonic key. For example, a II-V-I to the major IV chord will contain a $b\hat{7}$ in the old key. As seen in the second half of the page, the major V chord is generally approached by a minor II-V progression to its relative subdominant. In the key of Bb, the major V chord is Fmaj7. In order to get to the II-V of Fmaj7, a minor II-V sets up Gmin7, the subdominant of Fmaj7. Ebmaj7 occurs naturally in the key of Bb, which creates a “home away from home,” as stated by Coker in *Improvising Jazz*. Fmaj7, does not naturally occur in the key of Bb major because the diatonic F chord is dominant.

Hal Crook's Non-Harmonic Tones exercise from *How to Improvise* utilizes the 5 non-harmonic tones of C major to point back to Harmonic Tones. Though F# is not diatonic to C major, jazz musicians play this tone with such frequency on major chords that it has generally become accepted as a harmonic tone. The diatonic $\hat{4}$, however, is undesirable on downbeats because it does not agree with the tonic chord. Crook notes that jazz musicians do not generally sustain a non-harmonic tone for an entire measure, but the purpose of the exercise is to hear the resolution.

If I Should Lose You Lead Sheet

Ralph Rainger

G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B^{b7}
 B^b: m Eb: s
 6 Eb^{maj7} F^{min7} B^{b7} Eb^{maj7} G⁷
 B^b: 1
 10 C^{min7} F⁷ B^b^{maj7} D^{7(b9)}
 14 G^{min7} C⁷ C^{min7} D^{7(b9)}
 18 G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B^{b7}
 Eb: s
 22 Eb^{maj7} F^{min7} B^{b7} Eb^{maj7}
 B^b: 1
 26 C^{min7} F⁷ B^b^{maj7} G⁷
 30 C^{min7} F⁷ B^b⁹ A^{ø7} D^{7(b9)}

If I Should Lose You Solfege Guide Tones

Gmin7 A \emptyset 7 D7(b9) Gmin7 Fmin7 B \flat 7


 B \flat : d
 te

5 E \flat maj7 Fmin7 B \flat 7 E \flat maj7 D \emptyset 7 G7(b9)


 te di

9 Cmin7 F7 B \flat maj7 A \emptyset 7 D7(b9)


13 Gmin7 C7 Cmin7 A \emptyset 7 D7(b9)


17 Gmin7 A \emptyset 7 D7(b9) Gmin7 Fmin7 B \flat 7


 si

21 E \flat maj7 Fmin7 B \flat 7 E \flat maj7 D \emptyset 7 G7(b9)


25 Cmin7 F7 B \flat maj7 D \emptyset 7 G7(b9)


29 Cmin7 F7 B \flat 7 A \emptyset 7 D7(b9)


This first chorus of “If I Should Lose You” contains guide tone lines that are mostly 3-7-3 in context to chord of the moment. Solfege in the key of Bb throughout reveals that much of the vertical harmony are diatonic to the tonic scale, with the exception of measures 4, 6, 8, and 16.

If I Should Lose You Solfege Guide Tones (Continued)

Harmonic Generalization Guide Tones in Bb

33 G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B^{b7}

A musical staff in B-flat major showing guide tones for six chords: G^{min7}, A^{ø7}, D^{7(b9)}, G^{min7}, F^{min7}, and B^{b7}. The notes are: G^{min7} (Bb, D, F, G), A^{ø7} (C, Eb, F, G), D^{7(b9)} (F, Ab, C, D), G^{min7} (Bb, D, F, G), F^{min7} (Ab, C, Eb, F), and B^{b7} (D, F, Ab, Bb).

Bb: d

37 E^bmaj⁷ F^{min7} B^{b7} E^bmaj⁷ D^{ø7} G^{7(b9)}

A musical staff in B-flat major showing guide tones for six chords: E^bmaj⁷, F^{min7}, B^{b7}, E^bmaj⁷, D^{ø7}, and G^{7(b9)}. The notes are: E^bmaj⁷ (D, F, Ab, Bb), F^{min7} (Ab, C, Eb, F), B^{b7} (D, F, Ab, Bb), E^bmaj⁷ (D, F, Ab, Bb), D^{ø7} (F, Ab, C, D), and G^{7(b9)} (Bb, D, F, G).

41 C^{min7} F⁷ B^bmaj⁷ A^{ø7} D^{7(b9)}

A musical staff in B-flat major showing guide tones for five chords: C^{min7}, F⁷, B^bmaj⁷, A^{ø7}, and D^{7(b9)}. The notes are: C^{min7} (Bb, D, F, G), F⁷ (Ab, C, Eb, F), B^bmaj⁷ (D, F, Ab, Bb), A^{ø7} (C, Eb, F, G), and D^{7(b9)} (F, Ab, C, D).

45 G^{min7} C⁷ C^{min7} A^{ø7} D^{7(b9)}

A musical staff in B-flat major showing guide tones for five chords: G^{min7}, C⁷, C^{min7}, A^{ø7}, and D^{7(b9)}. The notes are: G^{min7} (Bb, D, F, G), C⁷ (Eb, F, Ab, Bb), C^{min7} (Bb, D, F, G), A^{ø7} (C, Eb, F, G), and D^{7(b9)} (F, Ab, C, D).

49 G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B^{b7}

A musical staff in B-flat major showing guide tones for six chords: G^{min7}, A^{ø7}, D^{7(b9)}, G^{min7}, F^{min7}, and B^{b7}. The notes are: G^{min7} (Bb, D, F, G), A^{ø7} (C, Eb, F, G), D^{7(b9)} (F, Ab, C, D), G^{min7} (Bb, D, F, G), F^{min7} (Ab, C, Eb, F), and B^{b7} (D, F, Ab, Bb).

53 E^bmaj⁷ F^{min7} B^{b7} E^bmaj⁷ D^{ø7} G^{7(b9)}

A musical staff in B-flat major showing guide tones for six chords: E^bmaj⁷, F^{min7}, B^{b7}, E^bmaj⁷, D^{ø7}, and G^{7(b9)}. The notes are: E^bmaj⁷ (D, F, Ab, Bb), F^{min7} (Ab, C, Eb, F), B^{b7} (D, F, Ab, Bb), E^bmaj⁷ (D, F, Ab, Bb), D^{ø7} (F, Ab, C, D), and G^{7(b9)} (Bb, D, F, G).

57 C^{min7} F⁷ B^bmaj⁷ D^{ø7} G^{7(b9)}

A musical staff in B-flat major showing guide tones for five chords: C^{min7}, F⁷, B^bmaj⁷, D^{ø7}, and G^{7(b9)}. The notes are: C^{min7} (Bb, D, F, G), F⁷ (Ab, C, Eb, F), B^bmaj⁷ (D, F, Ab, Bb), D^{ø7} (F, Ab, C, D), and G^{7(b9)} (Bb, D, F, G).

61 C^{min7} F⁷ B^{b7} A^{ø7} D^{7(b9)}

A musical staff in B-flat major showing guide tones for five chords: C^{min7}, F⁷, B^{b7}, A^{ø7}, and D^{7(b9)}. The notes are: C^{min7} (Bb, D, F, G), F⁷ (Ab, C, Eb, F), B^{b7} (D, F, Ab, Bb), A^{ø7} (C, Eb, F, G), and D^{7(b9)} (F, Ab, C, D).

This second chorus demonstrates how a musician could decide to play as few accidental notes outside of the key as possible, while still playing either a 3-7-3 or 7-3-7 guide tone line. This approach does not provide harmonic specificity, but is harmonically general in one key.

If I Should Lose You Solfege Guide Tones (Continued)

Harmonic Specificity Guide Tones in Bb, Eb, and F

65 G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B⁷

Bb: d Eb: f

69 E^bmaj⁷ F^{min7} B^{b7} E^bmaj⁷ D^{ø7} G^{7(b9)}

Eb: m Bb: te

73 C^{min7} F⁷ B^bmaj⁷ A^{ø7} D^{7(b9)}

F: re di

77 G^{min7} C⁷ C^{min7} A^{ø7} D^{7(b9)}

t Bb: f

81 G^{min7} A^{ø7} D^{7(b9)} G^{min7} F^{min7} B⁷

Eb: f

85 E^bmaj⁷ F^{min7} B^{b7} E^bmaj⁷ D^{ø7} G^{7(b9)}

Bb: r

89 C^{min7} F⁷ B^bmaj⁷ D^{ø7} G^{7(b9)}

93 C^{min7} F⁷ B^{b7} A^{ø7} D^{7(b9)}

This guide tone chorus presents each tonicization as a local tonality in contrast to the general tonality of the second chorus. Note that there are three key centers present: Bb major (also G minor), Eb major, and F major. It is up to the improviser to understand ways of navigating these tonal shifts in thinking to create the smoothest transitions between keys. Transcribe solos of great jazz artists to gain insight into how little or how much specificity they use when soloing.

If I Should Lose You
Grant Green Solo Exerpt

Solo Break

Db: m 3 fi 3 si

3 B \flat min7 C \emptyset 7 F7(b9) B \flat min7 A \flat min7 D \flat 7

me fi

7 G \flat maj7 A \flat min7 D \flat 7 G \flat maj7 F \emptyset 7 B \flat 7(b9)

11 E \flat min7 A \flat 7 3 D \flat maj7 C \emptyset 7 F7(b9)

di si

15 B \flat min7 E \flat 7 E \flat min7 C \emptyset 7 3 F7(b9)

li

Grant Green Solo Excerpt Continued

19 $B\flat\text{min}7$ $C\emptyset7$ $F7(b9)$ $B\flat\text{min}7$ $A\flat\text{min}7$ $D\flat7$

me $G\flat:r$

23 $G\flat\text{maj}7$ $A\flat\text{min}7$ $D\flat7$ $G\flat\text{maj}7$ $F\emptyset7$ $B\flat7(b9)$

fi $D\flat:di$

27 $E\flat\text{min}7$ $A\flat7$ $D\flat\text{maj}7$ $F\emptyset7$ $B\flat7(b9)$

fi fi di te

31 $E\flat\text{min}7$ $A\flat7$ $D\flat\text{maj}7$ $C\emptyset7$ $F7(b9)$ $B\flat\text{min}7$

si

Similar to the local tonalities presented in the “If I Should Lose You” guide tones exercise, Grant Green plays local tonalities in the tonic key of I ($D\flat$ major/ $B\flat$ minor) and the key of IV ($G\flat$ major) in measures 22-25. Though measure six tonicizes the IV chord, Green performs notes that belong to both $D\flat$ and $G\flat$ major. Also note that measure 15 and 16 are a tonicization of V, however Green chose not to use notes outside of the tonic key, resulting in a melody that is harmonically general and fits the keys of I ($D\flat$ major) and V ($A\flat$ major). This is true of the written melody in “If I Should Lose You” as well, as both melodies fit diatonically in I and V.

APPENDIX E: THE BLUES

Paul Chambers frequently utilizes chromatic passing tones that prioritize smooth transitions to the next root note.

The simplified analysis shows that nearly every chord the root is present on the down beat. Almost every new root is preceded by a chromatic leading tone.

Sing this simplified exercise and Paul Chambers' walking bass line to practice identifying non-harmonic tones and the harmonic notes on the downbeat of each measure.

Walkin'

J.J. Johnson Solo Excerpt

1 F^7
3

6 Bb^7 F^{maj7} $A\emptyset^7$ $D^7(b9)$

10 G^{min7} C^7 F^7 C^7

14 F^7 A F^7

Bb: d ri m f fi

18 Bb^7 $F^{maj7/C}$ F^7 $D^7(b9)$

s m d t te te te te F: l d t s s

22 G^{min7} C^7 F^{maj7}

3 3 3 3 3

J.J. Johnson combines several elements discussed in this course. The third measure of F7, Johnson plays a bebop scale starting on the third and landing on the $b\hat{7}$. The $b\hat{7}$ is simultaneously a member of the tonic key and the secondary dominant which leads to IV. Johnson performs the major $\hat{7}$ in the first two bars to lend stability to the tonic F chord. After the transition to IV, Ab is the only diatonic note outside of F major, which is appropriate to solfege in only one key.

The next chorus, Johnson once again lands on the $b\hat{7}$ in the third measure of the form. His transition to the IV chord is solfaged in Bb because it is characteristic of Bb blues rather than F blues. This phrase would be expected on the tonic chord starting on F to capture the $b\hat{3}$, $\hat{3}$, $\hat{4}$, and $\#\hat{4}$. Johnson once again plays the chromatic part of the bebop scale on the IV chord in measure 18. The final four measures are diatonic to the tonic key. The II-V to Fmaj7 is an arpeggiation of Gmin11 in triplets.

Kenny Dorham performs a diatonic riff with a “blue note,” the added $b\hat{3}$, until measure 10. Measure 10 is Ligon’s Outline 2 in major. Measure 11 is an example of the dominant bebop scale. The chromatic line in measure 11 and 12 capture a major V-I resolution using half-steps to maintain appropriate chord tones on downbeats. Measure 12 contains a major bebop scale, a scale with half steps between $\hat{5}$ and $\hat{6}$, in order to reinforce the tonic function of G7.

In the second chorus, Dorham delays presentation of the $b\hat{7}$ until the third measure of the form, similar to Johnson. Dorham plays a blues scale fragment throughout the IV chord and returns by playing the same phrase as Johnson on measure 17 of “Walkin’”, only on the I chord instead of the IV chord. Measure 21 is a tonicization of the II chord and is Ligon Outline 2 in minor, which starts on the D in the fourth beat of measure 20. This leads to a major Outline 1 in measure 22 with chromatic and rhythmic embellishments. The solo ends with a fragment from the G Mixolydian scale.

Lou Donaldson withholds the $b\hat{7}$ until the fourth measure of the form. Prior to tonicizing the IV chord, Donaldson plays one non-diatonic note, $\#\hat{4}$, which quickly resolves to $\hat{4}$. The IV chord could easily be analyzed as the key of F or Bb. It is logical to solfege the phrase in F because it returns to the tonic key. Donaldson plays an F major scale with a quick chromatic passing tone over D7, but delays Outline 1 until beat two of the minor II chord. Measure nine is a harmonic generalization because the guide tone outside the key of F is not yet emphasized.

Donaldson begins the second chorus with a scale pattern and ends the phrase with a blues scale fragment. The blues scale continues through the IV chord until the anticipated return of the major third at the end of measure 19. The major II-VI-I in measure 22 is approached using the same blues scale.

Blue Train

Paul Chambers Solo

5 Eb7

3

Detailed description: This block contains the first four measures of the solo. The key signature is B-flat major (two flats). Measure 1 starts with a triplet of eighth notes (G2, A2, B2) followed by eighth notes (C3, D3, E3, F3, G3, A3, B3, C4). Measure 2 continues with eighth notes (D4, E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4). Measure 3 has eighth notes (C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2, F2, E2, D2). Measure 4 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

5 Ab7 Ebmaj7/Bb C7(b9)

3 3 3

Detailed description: This block contains measures 5-8. Measure 5 starts with a triplet of eighth notes (G2, A2, B2) followed by eighth notes (C3, D3, E3, F3, G3, A3, B3, C4). Measure 6 has eighth notes (D4, E4, F4, G4, A4, B4, C5, B4, A4, G4, F4, E4, D4). Measure 7 has eighth notes (C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2, F2, E2, D2). Measure 8 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

9 Fmin7 Bb7 Eb7 Bb7

3

Detailed description: This block contains measures 9-12. Measure 9 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 10 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0). Measure 11 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 12 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

13 Eb7

Detailed description: This block contains measures 13-16. Measure 13 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 14 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0). Measure 15 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 16 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

17 Ab7 Ebmaj7/Bb C7(b9)

3 3

Detailed description: This block contains measures 17-20. Measure 17 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 18 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0). Measure 19 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 20 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

21 Fmin7 Bb7 Eb7 Bb7

Detailed description: This block contains measures 21-24. Measure 21 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 22 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0). Measure 23 has eighth notes (G2, A2, B2, C3, D3, E3, F3, G3, A3, B3, C4, B3, A3, G3, F3, E3, D3, C3, B2, A2, G2). Measure 24 has eighth notes (C2, B1, A1, G1, F1, E1, D1, C1, B0, A0, G0, F0, E0, D0).

Paul Chambers plays chromatic phrases that emphasize Ebmaj7 in the first four measures of his solo. He plays the same chromatic phrase on the implied IV chord of measure two and the IV chord in measure five, which is identical to the $\hat{2}-b\hat{2}-\hat{1}$ in Dorham's solo at the end of measure 11. The $b\hat{7}$ is omitted from the first four measures, which is different from the previous three solos. The IV chord is treated as a major IV chord until measure six, which is an Ab7 arpeggiation. The return to Ebmaj7 in measure seven holds several chromatic elaborations of the tonic. The reiteration of E in measures eight, nine, and 10 tonicize the II chord.

Chambers begins the second chorus of his solo with a diatonic scale pattern. He plays $\hat{2}-b\hat{2}-\hat{1}$ which leads a scale that lands the $b\hat{7}$ on the downbeat of measure 16 to tonicize the IV chord. Once again, Chambers plays an Abmaj7 arpeggio and the $\hat{2}-b\hat{2}-\hat{1}$ phrase in 17 and 18 respectively. Upon returning to the I chord in both choruses, he plays an Eb major phrase before a 1 beat tonicization of the II chord and reiterates the leading tone to minor II. The phrase from measure 22 is mostly diatonic with the exception of the passing tone between C and Bb.