TONALITY AND THE EXTENDED COMMON PRACTICE IN THE MUSIC OF THAD JONES

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Tonality is a term often used to describe the music of the common practice period (roughly 1600-1900). This study examines the music of mid twentieth-century jazz composer Thad Jones in light of an extended common practice, explicating ways in which this music might be best understood as tonal.

Drawing from analyses of three of Jones's big band compositions: *To You, Three and One,* and *Cherry Juice,* this study examines three primary elements in detail. First is Jones's use of chord-scale application techniques in the orchestration over various chordal qualities represented by the symbols, revealing traditional as well as innovative methods by Jones. Second is Jones's use of harmonic progressions, demonstrating his connection to past practice as well as modern jazz variations. Third is Jones's use of contrapuntal connections and their traditional relationship to functional tonality, but in a chromatic scale-based environment.

Jones's music is presented in this study to demonstrate a tonal jazz common practice that represents an amalgamation of traditions including twentieth-century scale-based procedures, Renaissance and early twentieth-century modality, eighteenth- and nineteenth-century voice leading schemas, and Baroque and Classical descending-fifth progressions.

Also included as an appendix is a list of possible note errors in the published scores of *To You, Three and One,* and *Cherry Juice*.

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INTRODUCTION

In this post-tonal era, there has been renewed interest in reexamining tonality and its constituent elements. Recently, Dmitri Tymoczko has placed the subject of tonality under a new lens: one that stands apart from more traditional approaches to defining tonality, even by other modern authors.[1] Tymoczko outlines five features of tonality and argues that they provide the analyst with useful tools for studying the music not only of the accepted common practice, but also of music previously understood most generally to lie somewhere between tonality and atonality, understanding this literature in tonal terms as well. Exploring his five features, Tymoczko analyzes the music of jazz musicians such as Miles Davis and Bill Evans, making an argument for tonality in each case. And relating to jazz in general, he asserts that modern tonal jazz "synthesizes the contrapuntal preoccupations of late nineteenth-century chromaticism with the scale-based procedures of early twentieth-century modernism, creating a contemporary 'common practice,'" further arguing that studying jazz is the only way we can "obtain a full picture of twentieth-century tonality."[2]

In this study, I argue that the big-band compositions of Thad Jones represent a specific type of tonality that may only be understood as tonal by implementing analytical tools that represent a broader understanding of the term than what is usually associated with the common practice. These tools are provided by Tymoczko and are addressed below.

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[1] Dmitri Tymoczko, *A Geometry of Music: Harmony and Counterpoint in the Extended Common Practice* (Oxford: Oxford University Press, 2011), 195.

[2] Ibid, 352

In addition to Tymoczko's tonality components, I also demonstrate to what degree Thad Jones's music qualitatively relates to several notions of tonality presented by other authors, and in the process present a way of understanding this music as a tonal music that absorbed and adapted techniques from many traditions—functional harmonic progressions from the eighteenth-century (e.g., ii-V-I), non-diatonic collections from late nineteenth-/early twentieth-century (octatonic, whole tone, etc.), modal thinking from the Renaissance and early twentieth-century (including modes of the melodic minor scale), efficient chromatic voice leading from the nineteenth-century, and non-tertian chord voicings from the twentieth century. This amalgamation of several traditions present in Thad Jones's music all combine to create a unique tonal style, one that Tymoczko refers to as a jazz "common practice."[3]

I also demonstrate in this study that Jones's harmonies, while often consistent with the pedagogical books on jazz theory, occasionally depart from the norms, creating a unique sound-world filled with dissonant chromaticism, yet still understandable and explainable as tonal. Further, in explicating the various stylistic features (mentioned above) absorbed by jazz composers and represented in Jones's music, I provide an inclusive and comprehensive analytical methodology of harmonic procedures in jazz that may be applied to other jazz artists, beyond Thad Jones.

[3] Tymoczko, 164

Thad Jones

Thad Jones (1923-86) was a jazz trumpet player most closely associated with the "hard bop" style of the 1950s and 60s.[4] Primarily self-taught, Jones was heralded in the early 50s by Charles Mingus as "Bartok with valves for a pencil that's directed by God."[5] Exaggerations aside, Jones did receive the "new star" award from Downbeat magazine in 1956 based on his trumpet playing. Hailed in the *Oxford Companion to Jazz* as one of the jazz arranging "elite,"[6] as an arranger/composer (just as in his trumpet playing) Jones was primarily self-taught. Jones had arranged music before joining the famous Count Basie Orchestra in 1954, but it was with Basie in the late 1950s that his big band arrangements gained recognition due to widespread exposure in recordings by the band.

In 1963 Thad Jones left the Basie band and in 1965, with the partnership of drummer Mel Lewis, started a new big band in New York City. This band, known as the Thad Jones-Mel Lewis Orchestra became a mainstay of the New York City jazz scene for the next eleven years. And in spite of several changes in leadership over the last fifty years, the band continues to thrive even today as the Vanguard Jazz Orchestra. In 1965, the Thad Jones-Mel Lewis Jazz Orchestra represented a new paradigm in big bands, as it was a part-time "rehearsal" band playing only on Monday nights at an extremely small venue, the Village Vanguard. The band was seemingly organized not for commercial purposes such as dances, etc. as was the case with other bands, but rather as a medium of self-expression for professional New York studio

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[4] Mark C. Gridley, *Jazz Styles: History & Analysis*, 2nd ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1985), 352.

[5] Bill Coss, "Thad Jones: Horn of Plenty," *Downbeat* 30, no. 11 (May 1963): 16.

[6] Doug Ramsey, "Big Bands and Jazz Composing and Arranging After World War II," in *The Oxford Companion to Jazz*, ed. Bill Kirchner (Oxford; New York: Oxford University Press, 2000), 414.

musicians who were dissatisfied with the music they were paid to play by the studios. Rather than being audience-driven and designed to generate income, the band was rather musician-driven—an artistic outlet for the composer and musicians alike. And it was in this context that Thad Jones composed his big band pieces for the Thad Jones-Mel Lewis Orchestra—a context that allowed him complete artistic freedom.

In 1977, Jones relocated to Copenhagen, Denmark. There he led the Danish Radio Big Band and in 1979 formed a new big band, Eclipse. In 1985, Jones returned to the U.S. to lead the Count Basie Orchestra upon Basie's death. Jones ultimately died in Denmark in 1986 following an extended battle with cancer.

Mark Gridley describes Jones's arranging style as "one of the most original to appear since Duke Ellington's," stating further that "the Jones harmonies were rarely ordinary."[7] And as a testament to the newness and complexity of Jones's harmonies, Sir Roland Hanna, who played piano for the band, would sometimes call in Dick Katz to substitute just to watch him struggle to play the chords and would later show Katz how to play them.[8] The fact that a working jazz piano player in New York would come to a big band rehearsal/performance and struggle speaks to the innovation of Jones's chords in jazz writing at the time. Indeed, these vertically extended harmonies with many chromatic alterations were innovative in big band writing in the 1960s, harmonies that are explicated in detail in this study.

To represent Jones's oeuvre I have selected three original compositions that are examined in detail and offered as musical examples throughout this work. These pieces are "To

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[7] Gridley, 352.

[8] Leslie Gourse, "In the Heyday of the Studio Musician, Thad Jones and Mel Lewis Start a Big Band at the Village Vanguard," *Massachusetts Review* 39, no. 4 (January 1, 1998): 591.

You," "Three and One," and "Cherry Juice," representing three different styles (a ballad, a straight ahead swing piece, and a modally driven piece, respectively). To a lesser degree these pieces may also reflect Jones's stylistic development based on dates of composition.[9]

Definitions of Tonality and Analytical Considerations

Brian Hyer, in the New Grove entry for "tonality," states: "Within Western musical traditions, 'tonal' is often used in contrast with 'modal' and 'atonal', the implication being that tonal music is discontinuous as a form of cultural expression from modal music (before 1600) on the one hand and atonal music (after 1910) on the other."[10] And although the expression "tonality" (or more specifically "common-practice tonality") is often referenced generally to refer to music composed in this period (1600-1910), very few authors have attempted to define the term in detail, specifying its essential components.

Two authors who have endeavored to codify the constituent elements of common practice tonality are Joseph Straus[11] and Henry Martin.[12] Straus, in his *Introduction to Post-Tonal Theory* lists six "characteristics" of "common practice tonality:"[13]

1. Key: A particular note is defined as the tonic (as in "the key of C#" or "the key of A") with the remaining notes defined in relation to it.
2. Key relations. Pieces modulate through a succession of keys, with the keynotes often related by perfect fifth, or by major or minor thirds. Pieces end in the key in which they begin.

[9] See the introduction of each piece in the analysis sections for more specific information regarding dates of composition and publication.

[10] Brian Hyer, "Tonality," *Grove Music Online*. *Oxford Music Online*. http://www.oxfordmusiconline.com/subscriber/article/grove/music/28102 (accessed February 19, 2015).

[11] Joseph N. Straus, *Introduction to Post-Tonal Theory*, 3rd ed. (Upper Saddle River, NJ: Prentice-Hall, 2005).

[12] Henry Martin, "Seven Steps to Heaven: A Species Approach to Twentieth-Century Analysis and Composition," *Perspectives of New Music* 38, no. 1 (2000).

[13] Straus, 130.

3. Diatonic scales. The principal scales are the major and minor scales.
4. Triads. The basic harmonic structure is a major or minor triad. Seventh chords play a secondary role.
5. Functional harmony. Harmonies generally have the function of a tonic (arrival point), dominant (leading to tonic), or predominant (leading to dominant).
6. Voice leading. The voice leading follows certain traditional norms, including the avoidance of perfect parallel consonances and the resolution of intervals defined as dissonant to those defined as consonant.

Prior to Straus, Henry Martin offered what he refers to as "tonal cues," listed in "decreasing order of importance."[14]

1. Principal pitch class collections usually reducible to major or minor scales.
2. Normative dependence of dissonant melodic intervals on consonant intervals prolonged at a higher structural level.
3. Functional harmonic succession based on triads; in two-part writing, on consonances that may imply functional harmonic succession.
4. Harmonic rhythm arising from functional harmonic succession.
5. Presence of *Stufen* arising from hierarchical, nested prolongations that ultimately give rise to tonal center and key.
6. Norms of melodic writing in which conjunct intervals predominate;
7. Half, full, and deceptive cadences.
8. Meter.
9. Phrase and section groupings that project two-, four-, and eight-bar symmetries.

Because I assert that Thad Jones's music aligns only slightly to commonly held definitions of tonality in the common practice (represented here by Straus and Martin), I provide below a comparison of these definitions with musical excerpts from Jones (drawing from the three pieces cited above). The focus is to investigate to what degree the above tonality definitions of Straus and Martin map onto Jones's music.

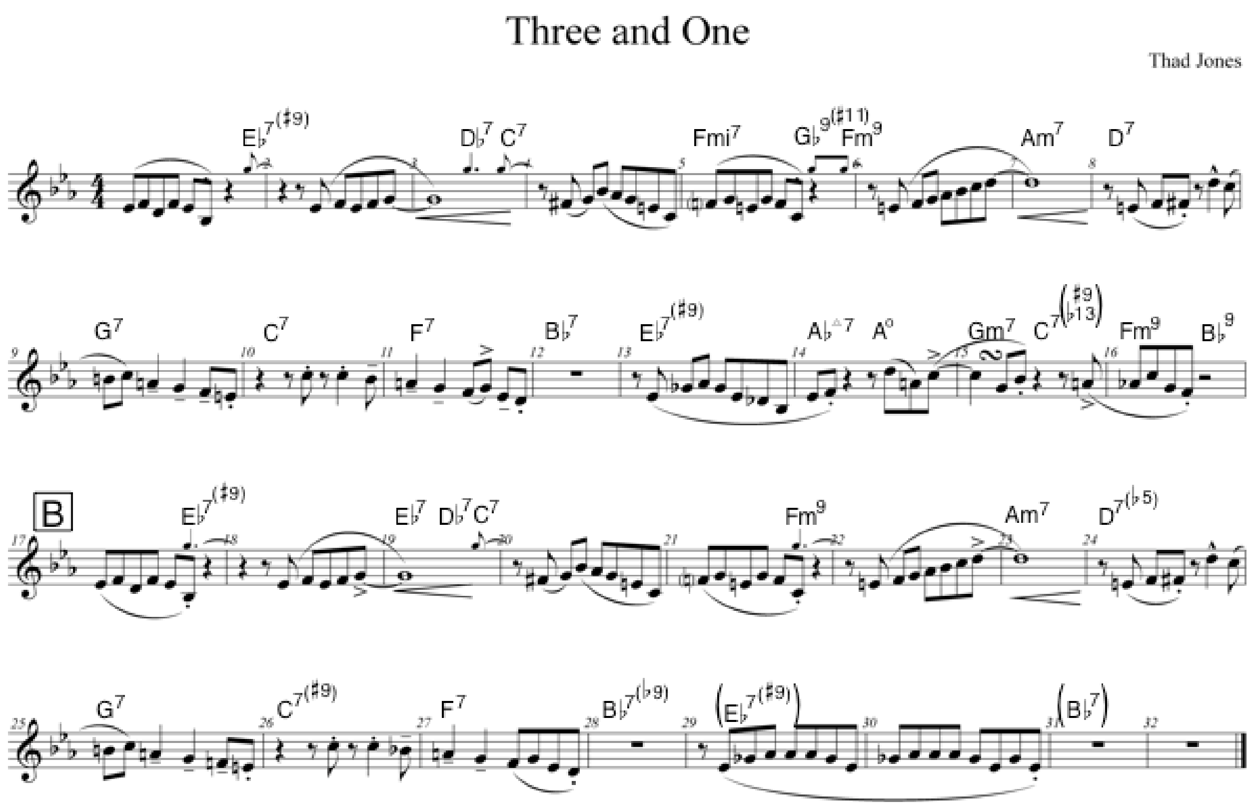
[14] Martin, 132.

Straus's Common Practice Tonality Characteristics

We begin by looking at Straus's list. The first of Straus's tonal "characteristics" is that of key. He asserts, "a particular note is defined as the tonic (as in "the key of C#" or "the key of A") with the remaining notes defined in relation to it."

Example 1.1 below shows the lead sheet to Jones's "Three and One."

Example 1.1 "Three and One" lead sheet



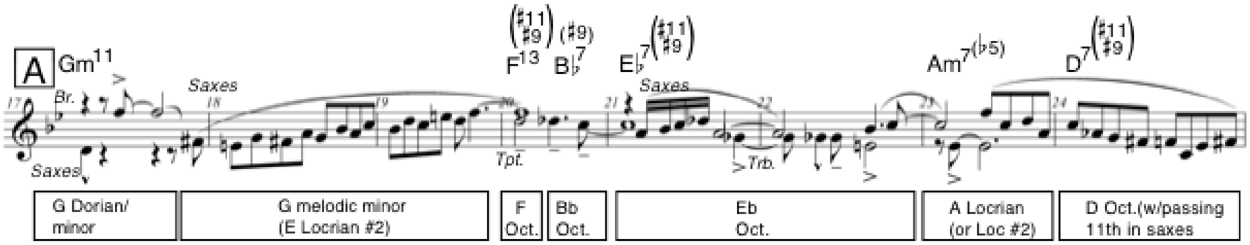
In this piece, we see an indication from the key signature of Eb major. The piece does indeed begin and end with the pitch class Eb as the centric pitch. A trio of musicians from within the ensemble plays the opening motive in unison while the remainder of the winds answers the opening statement with a chordal interjection. Interestingly, the initial motive contains the leading tone (D) while the first chord symbol (accompanying the ensemble's chordal answer) contains the dominant seventh (Db). This pattern is repeated at letter B. The final motive in measure 29 is again accompanied by an Eb dominant chord, and features a minor third rather than a major third. The final sonority in the piece (not shown in the example) is labeled Eb7#9b13, also emphasizing Eb dominant rather that Eb major.

While it is clear that Eb is the key in this piece, it is equally clear that although Eb major is used, Eb Mixolydian (with scalar variations) functions as the tonic sonority. So while Straus's first tonal characteristic of "key" does indeed resonate with this music, it does so with the caveat that keys in this literature are not restricted to only major or minor modes functioning as tonic.

In regard to "key relations" (Straus's second characteristic), there are no modulations in this piece (or in Jones's other pieces used in this study). There are harmonic allusions to G in measures 9 and 25 (each preceded with a II-V), but the key of G is never reached. Instead, it is immediately reinterpreted as III in a III-VI-II-V-I turnaround back to Eb (G7-C7-F7-Bb7-Eb7). This type of harmonic treatment is typical for Jones, as he favors tonicization over modulation. Because there are no true modulations in the three pieces under study, Jones's music does not agree with Straus's second characteristic of tonality.

Third, Straus lists diatonic major and minor scales as primary. Example 1.2 below shows the initial melodic statement in "Cherry Juice" following the 16-bar introduction.

Example 1.2 “Cherry Juice” letter A; Representative example of chord-scale applications in relation to key



The initial harmonic statement in measure 17 (letter A) is a Gm11 sonority. Taking into consideration all of the sounding voices (not shown in the reduction), the sonority constitutes a G minor scale without the Eb. Because Eb/E is the difference between G minor and G Dorian, and because Jones uses Dorian more frequently that pure minor, I label this sonority as G Dorian/minor.

As the saxophone melody enters at the end of measure 17, the melodic material is based on the G melodic minor scale, but then immediately the melody and harmonic accompaniment moves through a series of other scales. Interestingly, the G melodic minor material is initially presented in mode 6 of the scale, a common scale in the jazz theory books known as “Locrian #2.”[15] So while the melody begins with a presentation of the G melodic minor collection, it is actually presented modally as E Locrian #2 on the musical surface.

Measures 20-21 move through three dominant chords. F13#9#11 maps onto the F half-whole octatonic collection.[16] Bb7#9 maps onto the Bb half-whole octatonic collection. Eb7#9#11 maps onto the Eb half-whole octatonic collection.

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[15] Jazz musicians frequently use the terms “mode” and “scale” interchangeably

[16] In jazz, the octatonic collection is usually referred to as a diminished scale, and designated by its starting interval (i.e., half-whole diminished or whole-half diminished). I use the term octatonic throughout the study to refer to this scale and retain the jazz parlance or half-whole or whole-half to differentiate the types.

The voices sounding over the Am7b5 chord in measure 23 constitute an A Locrian scale without the 9th. Because Jones typically applies the major ninth to this chord, I label it here as Locrian but also consider the possibility for Locrian #2.

At the end of the excerpt, the voices sounding over the D7#9#11 map onto the D half-whole octatonic collection with an added G in the saxophone melody as part of a chromatic descent.

These brief but rapid presentations of different scale materials in this eight-bar segment demonstrate that the melodic and harmonic material, while initially loosely based on the G melodic minor scale (in accordance with the G minor key), only briefly reflects the key of G minor before presenting various other, often unrelated, scales and collections. Not only are two variations of G minor represented in this brief example (G pure minor and melodic minor), all of the three possible octatonic collections appear as well.[17]

The use of non-diatonic materials is common in Jones's music and this segment is fairly typical of the proportional distribution of diatonic versus non-diatonic materials. Because dominant quality chords outnumber all other chord types in this music (65% of all symbols in this music are dominant quality), and because Jones rarely uses Mixolydian collections, the amount of non-diatonic scale usage in this literature far outweighs diatonic usage. In regard to Straus's assertion that the principal scales in tonal music are major and minor, this music does not resonate with that statement.

[17] The F13 chord maps onto the octatonic collection containing C,D; The Bb7 chord maps onto the octatonic collection containing C#,D; The Eb7 chord maps onto the octatonic collection containing C,C#.

Straus's fourth tonal characteristic is music based primarily on triads with seventh chords playing a secondary role. While there are chord symbols present in these three pieces that might appear to indicate a triad due to the lack of extensions attached to the symbol (e.g., F, Bb, etc.), there is not a triad to be found in this music. Over symbols containing a single letter, Jones typically applies a sonority comprised of six pitch classes that map onto a common chord-scale. The same is true of symbols indicating seventh chords. While Jones's sonorities range from four to nine pitch classes, they average six pitch classes per chord when all voices in the ensemble are sounding.

The vertical harmonies used by Thad Jones in this music (as well as jazz compositions by other composers) represent what Daniel Arthurs refers to as "the reification of linear phenomena, frozen into a vertical form."[18] This normative use of chordal extensions results in a music that is not triad-based at all, i.e., in the sense that Straus suggests (e.g. the triad being the primary harmonic object). And while possibly theoretically conceived as triads with extensions, I posit that (1) due to the large number of pitch classes per chord that generally map onto a common family of chord-scales, and (2) the fact that there are consistently chord members in the sonority not represented in the symbol, and (3) because multiple collections may be applied to the same symbol, this music might be better understood as scale based rather than triad based. This is a fundamental argument made in this study. Jones's harmony does not reflect Straus's fourth tonal characteristic of music based primarily on triads with seventh chords playing a secondary role.

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[18] Daniel Arthurs, "Reconstructing Tonal Principles in the Music of Brad Mehldau" (PhD diss., Indiana University, 2011), 15.

Functional harmony including predominant-dominant-tonic, Straus's fifth tonal characteristic, is part of the fundamental harmonic grammar in this music, but with modifications common to the jazz literature. Schoenberg, in his *Theory of Harmony* states that "the development of harmonic resources is explained primarily through the conscious or unconscious imitation of a prototype: every imitation so produced can then itself become a prototype that can in turn be imitated."[19] Perhaps the most common jazz harmonic prototype is the ii-V7-I progression. One of the most common chord substitutions, mentioned in nearly every jazz theory book that mentions chord substitutions, is the tritone substitution chord, which is a variation of the ii-V7-I prototype. The substitution itself consists of inserting a dominant chord a tritone away from V in the place of V. This results in a descending chromatic bass line and a ii-bII7-I progression. The frequent occurrence of this substitution, especially in the jazz tradition, seemingly created its own new prototype that is then further imitated. The ii-bII7-I tritone substitution progression seems to have led to two normative models that are frequently found in Thad Jones's compositions: (1) the descending semitone root movement in harmonic progressions (which are not tritone substitutions themselves, but rather derived from the practice), and (2) a tritone root movement in harmonic progressions (inspired by a tritone substitution, but now a tritone root movement for its own sake).

These harmonic features (descending semitone and tritone root movement), along with traditional root movement by descending fifth account for a majority of the harmonic progressions in Thad Jones's music (over 72% of all progressions found in these three pieces).

[19] Arnold Schoenberg, *Theory of Harmony*, trans. Roy E. Carter (Berkeley: University of California Press, 1978), 385.

A look at the lead sheet of “To You” demonstrates the typical dominant-tonic relationship and its adaptation in jazz as discussed above (see example 1.3 below).

Example 1.3 “To You” lead sheet

The harmonies leading into letter A and B in this example are typical dominant-tonic progressions in F (the key of the piece). Letter D shows a typical II-V-I in F with alterations of the V chord as it is repeated. The final two chords of the piece are Gb-F. Here the Gb serves dominant function, but is the tritone substitute for C.

Two before E is an interesting progression. The highlighted progression is Gm7-Db13#9#11-C13#9#11-Gb9-F. Stripping away the extensions and alterations, this may be understood as Gm7-C7-F (II-V-I in F) with tritone-based embellishments of Db7 and Gb7 inserted into the prototype. This Schoenbergian concept of a prototype embellishment becoming a new prototype is on display here, resulting in root movements of tritones and semitones. The dominant-tonic functionality is retained, but with embellishments peculiar to the jazz style. These types of dominant-tonic progressions in these various forms are found throughout Jones's music and typical of the jazz style. Straus's fifth tonal characteristic, then, of functional harmony including predominant-dominant-tonic functions resonates well with this literature, but as stated, with modifications common to the jazz harmonic tradition.

The sixth and final characteristic listed by Straus is voice leading. He asserts the avoidance of perfect parallel consonances and the resolution of dissonance to consonance. Regarding the avoidance of perfect parallel consonances, Jones's music within each instrumental section often moves primarily in similar motion as a section group (i.e., saxes, trombones, trumpets). And while there are not a lot of parallel perfect consonances, there are several perfect parallel consonances found in Jones's music—enough to assert that they are not being "avoided" (as Straus describes as a condition for tonal music). One example of parallel perfect consonances is seen in "Three and One, measures 20-21. Here, as the trombone section is moving primarily in similar motion, the lower two trombone parts have a number of consecutive parallel fifths. There are also other perfect parallel consonances as well. See example 1.4 below.

Example 1.4 “Three and One” (mm. 20-21)

The idea provided by Straus of dissonant intervals resolving to consonant ones is problematic in this music. Schoenberg asserts that consonance/dissonance is not an antithesis, but rather a continuum of degrees.[20] Others have echoed this idea, including Hindemith, who categorizes the degree of dissonance in particular chords based on a graded series of dissonant intervals.[21] And because dissonance is not an either/or proposition, but rather a graded phenomenon, it stands to reason that dissonant perception can be skewed when listening to music saturated with dissonance. Daniel Harrison asserts that “increasing levels of dissonance allow a higher setting of the consonance band.”[22] And in reference specifically to jazz, James McGowan calls for a new conception of consonance and dissonance. He argues that (regardless of the vertical acoustic conditions) consonance refers to stable/passive harmonic entities, while dissonance refers to unstable/active ones, within he musical grammar of a distinct cultural system.[23]

[20] Schoenberg, 21

[21] Paul Hindemith, The *Craft of Musical Composition,* book 1, trans. Arthur Mendel (Mainz: Schott, 1970).

[22] Daniel Harrison, “Dissonant Tonics and Post Tonal Tonality,” a slightly modified version of a paper read at the Music Theory Society of New York State, April 28, 2002, http://pantheon.yale.edu/~dh287/research/DisTonic.pdf, p.2 (accessed Oct. 22, 2013).

[23] James McGowan, “Consonance” in Tonal Jazz: A Critical Survey of its Semantic History,” *Jazz Perspectives* 2, no. 1 (May 2008): 17.

In the music of Thad Jones, the harmonies are generally altered to the point that if one measures the vertical dissonances and tracks them from chord to chord, the result is often dissonant intervals moving to the next dissonant interval, albeit implementing efficient voice leading. That being said, there is an interior voice leading schema found throughout this music in which the 7th moves to the 3rd in descending fifth progressions.[24] This is, of course, traced back to eighteenth century functional voice leading norms. Due to the fact, however, that this 7th to 3rd resolution is often accompanied by dissonant intervals resolving to other dissonant intervals in the same voicings, and that stable melodic pitches are often dissonant themselves, Straus's concept of dissonant intervals resolving to consonant ones is not to be found in this music, at least not as a normative property in all voices.

Martin's Tonal Cues

Of Straus's six characteristics, only those of key and functional harmony seem to be descriptive of Thad Jones's music (both with modifications peculiar to the jazz style). But what of Martin's nine "tonal cues?"

His first (and most important) tonal cue is the use of pitch-class collections usually reducible to major or minor scales. This somewhat echoes Straus, and I have shown above that Jones's music weaves through several scales/collections, many of which are not major or minor. In fact, (as alluded to previously), this study will show a preference for the octatonic collection by Jones. And when the minor collection is used, it usually is manifested as melodic minor, a collection whose modes produce the Lydian dominant scale as well as the diminished-whole

[24] This contrapuntal connection is discussed in the first part of chapter 4.

tone scale, both also favorites of Jones. The diatonic major and minor collections are rarely found in this music.

Martin's second tonal cue is the "normative dependence of dissonant melodic intervals on consonant intervals prolonged at a higher structural level." Joseph Straus and Steve Larson debated the condition of dissonance prolonging consonance. Straus claimed that the consonance of the triad is prolonged by dissonant extensions of the triad.[25] Larson, while not in disagreement of the nature of consonance and dissonance and their relationship to the triad, argued that prolongation is not based on consonance/dissonance factors, but rather is better understood as embellishment based on contextual stability.[26] Nevertheless, the commonality that seems to run through these two authors, as well as Martin, is that the triad and its constituent intervals are consonant, while others are dissonant.

The problem with application of this principle, as stated previously, is the definition of consonance itself, and how it relates to the "broadening of the consonance band," and how that in turn relates to the perception of dissonance in Thad Jones's music with its normative use of altered chordal extensions. Although it might be possible, it would be difficult to discover dissonant intervals prolonging consonant ones in this music, especially since the destination chords are often acoustically dissonant themselves.

Third, Martin lists "functional harmonic succession based on triads." As has been noted, bare triads are not found in this music and are extremely rare in jazz. In fact, there is only one

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[25] Joseph N. Straus, "The Problem of Prolongation in Post-Tonal Music," *Journal of Music Theory* 31, no. 1 (Spring 1987): 2.

[26] Steve Larson, "The Problem of Prolongation in *Tonal* Music: Terminology, Perception, and Expressive Meaning," *Journal of Music Theory* 41, no. 1 (Spring, 1997): 107.

triad written into the winds in this music. It is in “Cherry Juice,” 8 after letter H. A triad composed of Bb-D-F is written in the trumpets and saxophones, but the underpinning chord symbol played by the rhythm section is D+7#9. Here the triad Jones writes into the music is the upper sonority in a Bb/D7 polychord.

And as stated earlier, while it is possible to think of this music as *triadic* in the sense of base triads with extensions, I argue that a triadic base of any of these extended sonorities stripped of its extensions lacks musical meaning in this style due to the fact that the entire stacked chord (and its implied scale) *is* the musical object. I posit the deep structural significance of the upper extensions of these stacked sonorities, supported by the fact that the stable melodic pitches are often members of the extensions themselves.

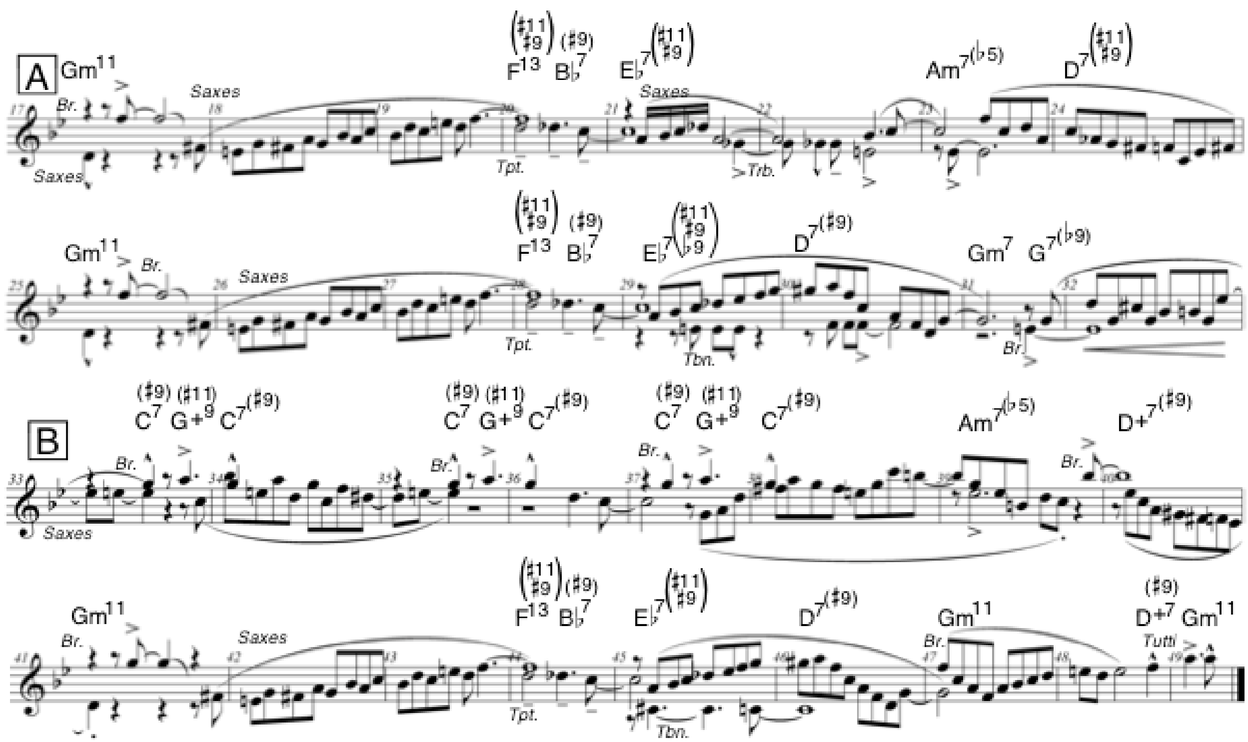
“Harmonic rhythm arising from functional harmonic succession” is Martin’s fourth criterion. I have shown previously that functional harmony is used in this music, but with modifications peculiar to jazz. These modifications also often affect the harmonic rhythm so that it is less predictable. And although the harmonic rhythm is often obscured, there is usually an identifiable and consistent harmonic rhythm in this music.

“Presence of *Stufen* arising from hierarchical, nested prolongations that ultimately give rise to tonal center and key” is the fifth tonal cue of Martin. The problem of melodic prolongation I have addressed above. While it might be possible to apply Schenkerian analysis to the melodic lines in this music, the dissonance issue (i.e., determining what is and what is not dissonant), along with the fact that the melodic notes often cadence on scale degrees other than tonic would make such an analysis at best problematic.

While I do not believe that Martin's fifth tonal cue agrees with this music from a melodic perspective (presence of Stufen), I do believe that there are harmonic prolongations in this music based on Jones's prototypical norm of descending fifth progressions. I examine this in chapter 4 as I discuss passing chords in this music. I also discuss the concept in detail in some of the harmonic analyses, most notably the analysis of "To You."

The sixth tonal cue of Martin is "norms of melodic writing in which conjunct intervals predominate." This is an interesting observation as it relates to tonality, and one condition that will again be picked up by Tymoczko. Example 1.5 below is a lead sheet reduction of "Cherry Juice." Let's take a look at this melody in relation to Martin's sixth tonal cue of the predominance of conjunct intervals.

Example 1.5 "Cherry Juice" lead sheet



The initial melody of the piece is in the saxophones, extending from letter A (m. 17) to the end of the excerpt. Measures 17-20 move primarily in thirds. Measures 21-23a move primarily by step. Measures 23b-25a are a fairly equal combination of steps and skips. Measures 25b-28 are a repetition of 17-20, moving mostly in thirds. Measures 29-31a show an equal distribution of steps and skips. Measures 31b-33a (letter B) are primarily moving by skips. Measures 33b-35 represent melodic motion primarily by skip. Measures 36-39 are a fairly equal combination of steps and skips. In measures 40-41a, the melody moves primarily by step, but with skips also. Measures 41b-47a are a repetition of measures 25b-31a and move by skips and steps. Measures 47b-49 show melodic motion primarily by step.

An analysis of this fairly typical Thad Jones melody demonstrates a tendency for melodic "jaggedness" with conjunct motion also playing an important role. Not surprisingly, this type of angular melodic motion accompanied by stepwise movement characterizes Jones's trumpet improvisations as well.[27] As to whether Jones's compositions fit the "conjunct melodic motion" criteria, the answer is ambivalent. Yes, conjunct motion plays a significant role, but disjunct motion seems to play an equally important role.

In regard to the "half, full, and deceptive cadences" criteria Martin lists as number seven, these are not prevalent in this music. A contributing factor to this fact is the form for which Thad Jones is writing. The big band form is most generally a 32-bar form that is sectioned off with an introduction, a melodic presentation, an improvisation section, a tutti "shout" section, a D.S. and Coda. Due to its continuous forward momentum, the form does not

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[27] Randy Sandke, "The Trumpet in Jazz," in *The Oxford Companion to Jazz*, ed. Bill Kirchner (Oxford; New York: Oxford University Press, 2000), 624.

generally offer opportunities for cadential stops, save for the end, and Jones tends to stay within this general form in his big band writing.

In regard to “meter” (criterion 8), this music does comply with this condition. Although metric displacement is a primary feature in this music, there is a definite perceived, regular meter throughout.

Lastly, Martin lists phrase and section groupings that project two-, four-, and eight-bar symmetries. Thad Jones music does seem to fit this category as well. As was mentioned, this music is often based on the 32-bar song form, and can naturally be understood and perceived as a combination of smaller symmetrical subgroups.

In summary of Straus’s six tonal characteristics and Martin’s nine tonal cues, Thad Jones’s music fits two of Straus (key and functional progressions with modifications), and two of Martin (meter, phrase symmetries), with a third criterion of Martin being an ambivalent proposition (predominance of conjunct melodic motion). And significant in regard to Martin is that the “most important” tonal cue (pitch classes reducible to major or minor scales) does not agree with Thad Jones’s music, as was noted previously. Also significant is that both of these authors list the triad as the primary harmony, which would negate the tonality of music based on chords built with an average of six pitch classes, as is the case with Jones.

Tymoczko’s Expanded View of Tonality

Use of the tonality descriptors provided by Straus and Martin places Jones’s music as lying somewhere between tonal and non-tonal, even though when listening to the music, it has a firm sense of tonality in the jazz tradition. Using the more encompassing terms offered by

Tymoczko allows us to understand this music as tonal in a broader sense. In his book (as stated previously), Tymoczko lists five features of tonality that he claims allows for a broader understanding of tonality, and an "extended common practice," ranging from the eleventh century to present day. Although Tymoczko's list does not map onto Jones's music in every detail, two of his criteria resonate especially well with Jones's music and offer useful analytical tools for understanding this music as tonal. Tymoczko's "five features" are as follows:[28]

> 1. *Conjunct melodic motion*. Melodies tend to move by short distances from note to note.
> 2. *Acoustic consonance*. Consonant harmonies are preferred to dissonant harmonies, and tend to be used at points of musical stability.
> 3. *Harmonic consistency*. The harmonies in a passage of music, whatever they may be, tend to be structurally similar to one another.
> 4. *Limited macroharmony*. I use the term "macroharmony" to refer to the total collection of notes heard over moderate spans of musical time. Tonal music tends to use relatively small macroharmonies, often involving five to eight notes.
> 5. *Centricity*. Over moderate spans of musical time, one note is heard as being more prominent than the others, appearing more frequently and serving as a goal of musical notation.

Conjunct melodic motion (Tymoczko's first feature of tonality) was also listed by Martin, and as we discovered, Thad Jones's music demonstrates a condition in which conjunct and disjunct melodic motion have somewhat of an equal share.

In regard to acoustic consonance, Tymoczko avoids strictly defining what is and what is not consonant, but does mention that "many styles make heavy use of consonant intervals such as the octave and perfect fifth, assigning them privileged melodic and harmonic roles."[29]

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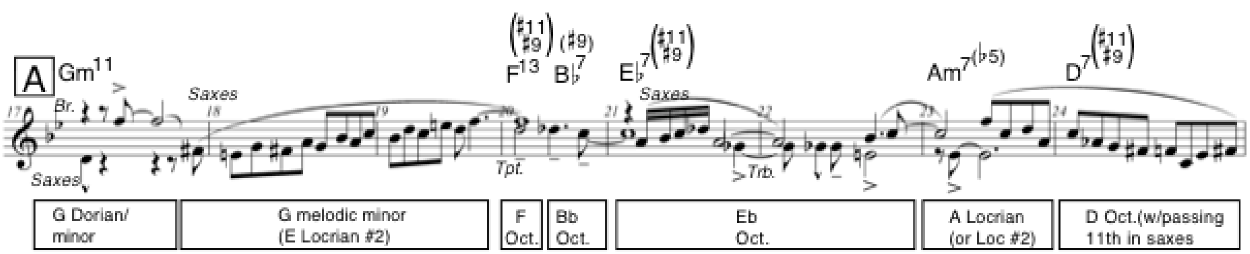
[28] Tymoczko, 4.
[29] Ibid., 5

Regardless of one's definition of acoustic consonance, the vertical sonorities of Thad Jones do not seem to be acoustically consonant by any definition.

Tymoczko's third feature, harmonic consistency, asserts that the same kinds of harmonic structures are found consistently. This feature provides a broader, more inclusive, category of harmonic structures that might be understood as tonal than the previous more rigid requirement of music based on the triad. This is the feature that perhaps resonates best with Thad Jones's music. While it is not based on the triad (i.e., the triad *itself* is not the primary harmonic object), it does have a harmonic consistency throughout. In this study, I demonstrate the predominance of chords in Jones's music that average five to seven pitch classes each, drawn primarily from three collections—octatonic, melodic minor, and diatonic (in order of frequency).

Limited macroharmony, Tymoczko's fourth feature, states that one pitch collection is used over "moderate spans of musical time." This does not seem to be the case with Thad Jones. Another look at example 1.2 (reproduced below as ex. 1.6) will demonstrate this.[30]

Example 1.6 "Cherry Juice" letter A; Representative example of chord-scale applications in relation to Tymoczko's macroharmony



[30] We looked at this passage earlier in terms of diatonic versus non-diatonic scales, now we examine it in light of collections and their relation to Tymoczko's "macroharmony."

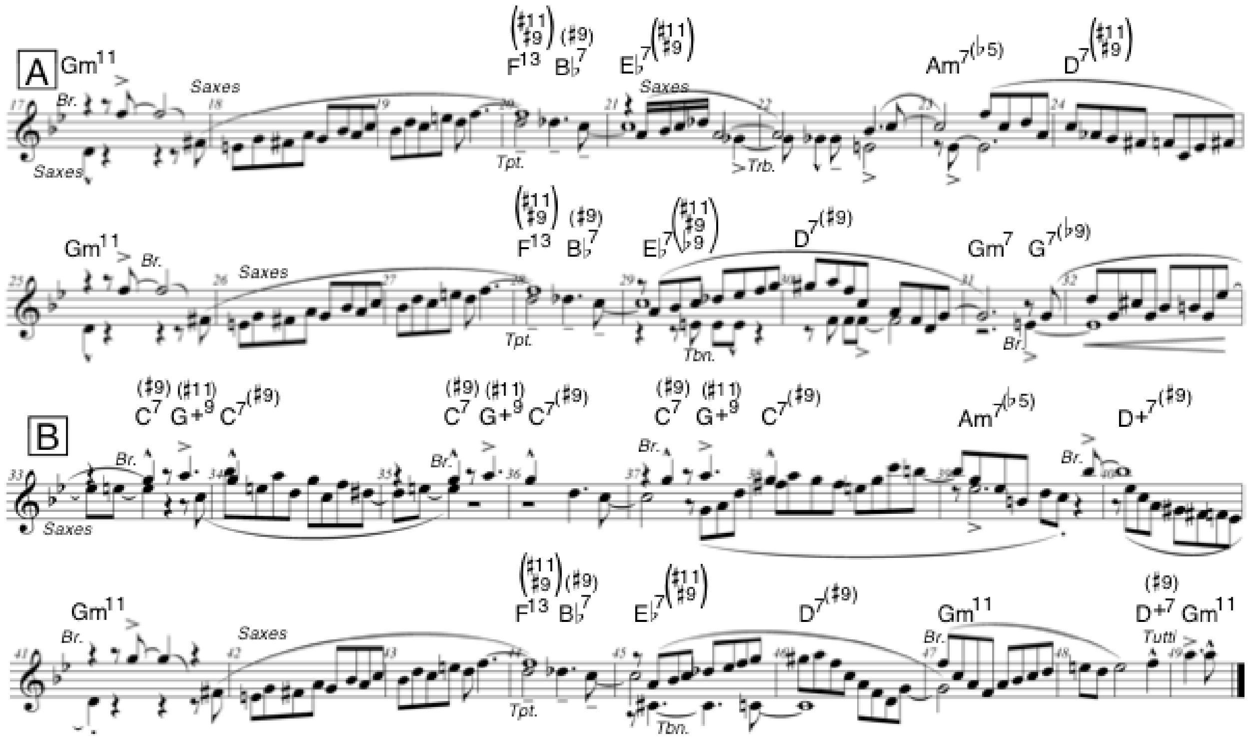
The initial harmony here is G Dorian/minor (the lack of E/Eb in any of the parts makes the distinction ambiguous). In measure 18-19, the G melodic minor collection replaces the G Dorian/minor collection. Measures 20-22 cycle through all three octatonic collections. In measure 22, A Locrian (which maps onto G minor) replaces Eb octatonic. In measure 24, the D half-whole octatonic collection (which maps onto the F half-whole octatonic collection) replaces the A Locrian collection.

In this brief 8-bar passage, several macroharmonies are represented: G minor (possibly G Dorian), G melodic minor, and all three of the possible octatonic collections. Considering all of the applied notes not shown in the reduction, all twelve chromatic pitch classes are sounded within the first four measures (three chord symbols) of the melodic exposition.

These rapidly changing collections stand in stark contrast to other tonal music in which several chords in a row will come from the same collection, which is what Tymoczko's "limited macroharmony" seems to suggest. Because of the brisk change in chromatic harmony resulting in very quick full chromatic saturation, this music does not reflect a situation in which one pitch collection is used over moderate spans of time, thus disqualifying it to meet Tymoczko's fourth tonal feature.

The final feature listed by Tymoczko is centricity. While the focus of his definition appears to point to a single melodic pitch as the centric pitch, often Jones abandons a *melodic* centricity in favor of a *harmonic* centricity. In other words, the centric pitch may appear at cadential points in the bass as a chordal root, but not in the melody. Looking back at ex. 1.5 (reproduced below as ex. 1.7), this may be observed in the lead sheet for "Cherry Juice."

Example 1.7 “Cherry Juice” lead sheet



At letter A, the tonic chord to begin the first statement of the form following the introduction is Gm11, but the melodic note in the lead trumpet is F. Measure 49 begins the second statement of the form. The tonic sonority again is Gm11, but the melody note in the lead trumpet is now A. The final chord in the piece (not shown here) is also marked Gm11. There the melody note in the lead trumpet is F.

While there are times when the centric pitch in the melody aligns with the tonic of the key (e.g., the melody of “Three and One”), there are other occasions in which the melodic pitches at points of stability are notes other than the tonic, although the centric pitch may still be found in the bass. I refer to this phenomenon as *chord* centric as opposed to *pitch* centric—i.e., the tonic sonority continues to appear at syntactically strong positions, but the melodic pitches in these situations vary from one appearance to another.

Two features of Tymoczko's list in particular allow more inclusivity in tonal thinking than the two lists we looked at previously. First is the fact that while the former authors seem to assert that *all* the items listed be present to some degree or another to understand a piece of music as tonal, Tymoczko makes no such claim, but rather states that tonal music might feature only a few of these in some combination. Second, Straus and Martin limit tonality to triad-based music while Tymoczko generalizes the broader category of "harmonic consistency." This allows triad-based music as well as other musical styles to be understood as tonal, provided the harmonic presentation within the composition is somewhat consistent with itself.

In regard to Tymoczko's five tonal features, Thad Jones's music resonates best with those of harmonic consistency and centricity (and to some degree, conjunct melodic motion).

So while Jones's music aligns somewhat with all three authors to varying degrees, Straus and Martin's tonal assertions of a triad-based music in which dissonance is prolonged by consonance seems most at odds with Jones's music. Tymoczko's broader category of harmonic consistency allows this dissonant, scale-based music into the tonal realm.

This study will explore in detail the nature of Jones's harmonic consistency in three specific areas: chord-to-scale application (chapter 2), harmonic progression (chapter 3), and contrapuntal paths between sonorities (chapter 4). Along the way, I will show this music to be an amalgamation of traditions including Renaissance/early twentieth century modality, Baroque and Classical descending fifth progressions, eighteenth and nineteenth century efficient voice leading, and twentieth century scale-based procedures.

CHAPTER 2

SCALARITY

Scalarity in the Literature

"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)."[31]

Today, chords and scales are inextricably linked in modern jazz thinking. When a jazz musician is improvising, each chord in the progression suggests a scale or scales that share common tones with the chord that is sounding at any given time. The improviser may choose to apply notes from one of these chord-scales in order to be melodically compatible with the sounding chord, or he may choose to ignore the agreeable chord-scale(s) for something more dissonant. Jazz arrangers also carefully manipulate extensions and alterations beyond those shown in the chord symbol, considering how these alterations and extensions sound against each other and how they align with the symbol. These compositional choices most often combine to form a pitch collection that maps onto some known scale. These chord-scales and their compatibility with various kinds of chord symbols comprise a significant portion of the jazz theory and pedagogy literature. The *process* of applying scales to chord symbols I refer to as "scalarity." This process may occur as a jazz musician is improvising a melody over a given progression, or as is the case in our study, by a composer writing instrument parts to accommodate certain chord symbols in a notated score.

[31] Mark Levine, *The Jazz Theory Book* (Petaluma, CA: Sher Music, 1995), 31.

To my knowledge, the first to write about scales mapping onto chords was George Russell in 1953.[32] In his book (which has editions as recent as 2001), Russell attempts to systematize the relationship between chord and scale so that improvisers will know which scales may be played over which chords in jazz improvisations. The process of converting a chord into a scale he refers to as "vertical polymodality."[33] Unlike his successors, who assign the diatonic scales to chords as a principal option, Russell uses the Lydian mode as his primary source scale. For example, over a CM7 chord, he shows that the C Lydian scale (rather than C Ionian) is the initial choice for deriving melodic material. Of note is that after Thad Jones left the Count Basie band in 1963, he played with George Russell for about six months and toured to Paris with him in 1964. The extent of Russell's influence on Jones regarding chord-scale thinking, however, is indeterminate.

John Mehegan was another early jazz practitioner/pedagogue. Although he falls short of fully connecting the ideas of scales and chords, his books for jazz pianists deal extensively with guidelines for adding chord extensions beyond the written symbols in jazz piano playing. In his 1961 book *The Jazz Pianist*, he explains 9ths, 11ths, and 13ths as "ornamental tones" providing "color and substance."[34] He lists each seventh chord quality and the allowable extensions and alterations to each chord type. For the M7, he allows 9, #11. For dominant quality he allows 9, 11(explained as #3), 13 OR their alterations b9/#9, #11, b13. For minor/half dim/diminished, he allows 9 and 11.

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[32] George Russell, *The Lydian Chromatic Concept of Tonal Organization*, 4th ed. (Brookline, Massachusetts: Concept Pub. Co., 2001).

[33] Ibid., 2.

[34] John Mehegan, *The Jazz Pianist: Studies in the Art and Practice of Jazz Improvisation* (New York: Sam Fox Publishing Company, Inc., 1961), 4:10.

Beginning in the 1970s and 1980s, discussion and cataloguing of scales that coincide with various chords became more common and highly systematized. And although there are nearly an endless number of synthetic scales that may be applied to various types of chords, there is a repository of common scales that recur throughout the literature when discussing chord-to-scale connections over the various chordal qualities. Representative of this literature is Dan Haerle's *Scales for Jazz Improvisation,*[35] David Baker's *How to Play bebop*,[36] and Jamey Aebersold's *How to Play Jazz and Improvise*.[37] Along with the prose, these authors all provide a concise scale syllabus that lists chord qualities, extensions, and suitable scales that may be applied.

In this section I provide a cursory overview of the suggestions made by Haerle, Baker, and Aebersold regarding which scales may be applied to which chords and how to properly apply them. Later, I will compare these suggestions to Thad Jones's own use and application of chord-scales to the various chord types in his big band compositions.

Major Chords

The following chart represents a combination of the scale discussions and syllabi in the cited books of Dan Haerle, David Baker, and Jamey Aebersold in regard to major chords and suggested scale applications. The name of the scale, its spelling based on C as tonic, and the chord members produced by the scale are given. The three columns on the far right show which

[35] Dan Haerle, *Scales for Jazz Improvisation: A Practice Method for All Instruments* (Miami, FL: CPP/Belwin, 1975) 50-52, etc.

[36] David N. Baker, *How to Play Bebop,* vol. 1 (Van Nuys, CA: Alfred Publishing Co., 1985) 40-42, etc.

[37] Jamey Aebersold, *How to Play Jazz and Improvise*, vol. 1, 6th ed. (New Albany, IN: Jamey Aebersold Jazz, Inc., 1992) 53, etc.

authors (Haerle, Baker, Aebersold) include the given scale in his discussion of possible major chord-scale applications (see table 2.1).

Table 2.1 Major chord-scales

Major Chord-Scales											
Name	Spelling (in C)	Chord Members*							H	B	A
Major (Ionian)	C D E F G A B C	1	3	5	7	9	11	13	√	√	√
Major Pentatonic	C D E G A C	1	3	5	—	9	—	13	√	√	√
Lydian Major	C D E F# G A B C	1	3	5	7	9	#11	13	√	√	√
Lydian Aug. (3rd mode mel. min.)	C D E F# G# A B C	1	3	#5	7	9	#11	13	√	√	√
Augmented	C D# E G Ab B C	1	3	5/#5	7	#9	—	—	√	√	√
Bebop Major	C D E F G G# A B C	1	3	5/#5	7	9	11	13		√	√
Harmonic Major	C D E F G Ab B C	1	3	5	7	9	11	b13		√	√
6th Mode Harm. Min.	C D# E F# G A B C	1	3	5	7	#9	#11	13	√		√
Octatonic (1/2 W)	C Db D# E F# G A Bb C	1	3	5	b7	b9/#9	#11	13		√	√
Blues Scale (Aebersold, Haerle)	C Eb F F# G Bb C	1	—	5	b7	#9	11/#11	—			√
Blues Scale (Baker)	C Eb E F F# G Bb C	1	3	5	b7	#9	11/#11	—		√	
3rd Mode Harm. Min.	C D E F G# A B C	1	3	#5	7	9	11	13	√		
Minor Pentatonic	C Eb F G Bb C	1	b3	5	b7	—	11	—		√	

* All unaltered numbers assumed to be consistent w/ the major (Ionian) scale

The first five scales in the chart are listed as compatible major chord-scales by all three authors. The remainder of the scales are suggested as major chord-scale options in either one or two but not all three books. Haerle and Baker divide their syllabi into sub-categories, showing how specific alterations of major chord symbols are compatible with certain chord-scales while Aebersold offers a more general list similar to what I provide here. Some of the suggested chord-scales contain notes that are a semitone away from the root, third, fifth, or seventh of the base chord. Applying these chord-scales over an unaltered major chord symbol would require either implementing a subset of the scale that avoids these dissonant pitches, or using the entire chord-scale, making a deliberate choice to play “outside.” Some of the more dissonant chord-scale choices offered here are the octatonic, blues, and minor pentatonic.

A few of the scales in the chart require a bit of explanation: the octatonic scale, the blues scale(s), the pentatonic scales, and the bebop scale.

The octatonic scale is generally called the diminished scale in jazz theory books. I use the term octatonic throughout this study. This symmetrical scale may begin with a half step or a whole step, and the one suggested here by Baker and Aebersold begins with a half step.

Baker spells the blues scale differently than the other two authors. Baker’s scalar spelling of the blues scale is 1, b3, 3, 4, #4, 5, b7, while Haerle and Aebersold leave off the major third (1, b3, 4, #4, 5, b7). Regarding the blues scale spelling, Joe Mulholland and Tom Hojnacki in *The Berklee Book of Jazz Harmony* state, “There is no single blues scale. Rather, there is a large variety of scales that share common blues characteristics. Each scale is appropriate to a particular style of blues.”[38]

To my knowledge, David Baker coined the term “bebop scale” in the mid 1980s where it first appears and is explained in his *How to Play bebop* series. In these volumes, Baker discusses two bebop scales: the major bebop scale (listed here), as well as the dominant bebop scale (to be discussed in the dominant scale section). Because Dan Haerle’s *Scales for Jazz Improvisation*

[38] Joe Mulholland and Tom Hojnacki, *The Berklee Book of Jazz Harmony* (Boston: Berklee Press, 2013), 135.

was written ten years before Baker developed the concept of bebop scales, Haerle of course does not discuss or list these scales in his book.

Most Jazz authors treat the pentatonic scales as separate from the major (Ionian) scale. Because the pentatonic is merely a subset of the major scale, I treat it is as a major chord-scale application in this study when Jones applies it. Modes of the pentatonic scales listed in Haerle, Baker, and Aebersold's scale syllabi for application over certain chord qualities have been left off of this list. As an example, Haerle lists the "minor pentatonic on the 3rd" and "minor pentatonic on the 7th" as possible chord-scale choices over particular major chord symbols. I do not include these because they are generally already a subset of some other scale in the chart.[39]

Of note in this and subsequent scale charts in this section is the subjective nature of chordal numbering in some of the scales. Scales that contain either more or less than seven different pitch classes often result in inconsistent scale degree numberings in different jazz theory and pedagogy books. As an example here, the C augmented scale listed in this chart contains only six pitch classes. The Ab might be labeled in a chordal numbering either as #5 or as b13. Several other scales in this and subsequent charts have either more or less than seven distinct pitch classes, and are therefore subject to more than one interpretation in regard to chordal numbering of some of the pitch classes within the scales.

[39] Although the minor pentatonic scale is a mode of the major pentatonic, I do include it when suggested by these authors. Including every possible pentatonic mode, however, seems a bit tedious as the parent scales are already merely subsets of some other scale in the chart.

Dominant Chords

Table 2.2 below represents a compilation of possible dominant chord-scale options discussed and listed in the texts of Haerle, Baker, and Aebersold.

Table 2.2 Dominant chord-scales

Dominant Chord-Scales											
Name	Spelling (in C)	Chord Members*							H	B	A
Mixolydian	C D E F G A Bb C	1	3	5	7	9	11	13	√	√	√
Major Pentatonic	C D E G A C	1	3	5	—	9	—	13	√	√	√
Lydian Dominant (4th mode mel. min.)	C D E F# G A Bb C	1	3	5	7	9	#11	13	√	√	√
Octatonic (1/2 W)	C Db D# E F# G A Bb C	1	3	5	7	b9/#9	#11	13	√	√	√
Diminished Whole Tone (7th mode mel. min.)	C Db D# E F# G# Bb C	1	3	#5	7	b9/#9	#11	—	√	√	√
Whole Tone	C D E F# G# Bb C	1	3	#5	7	9	#11	—	√	√	√
Dominant Bebop	C D E F G A Bb B C	1	3	5	7/#7	9	11	13		√	√
5th Mode Harm. Min. (aka Spanish/Jewish)	C Db E F G Ab Bb C	1	3	5/#5	7	b9	11	—	√		√
Blues Scale (Aebersold, Haerle)	C Eb F F# G Bb C	1	—	5	7	#9	11/#11	—	√		√
Blues Scale (Baker)	C Eb E F F# G Bb C	1	3	5	7	#9	11/#11	—		√	
Minor Pentatonic	C Eb F G Bb C	1	b3	5	7	—	11	—	√	√	
Dorian	C D Eb F G A Bb C	1	b3	5	7	9	11	13	√	√	
5th mode mel. Min. (aka Hindu)	C D E F G Ab Bb C	1	3	5/#5	7	9	11	—			√

* All unaltered numbers assumed to be consistent w/ the Mixolydian scale

All three authors are consistent in suggesting the first six scales in the chart as possible chord-scale application choices over dominant chords with various extensions and alterations.

The remainder of the chord-scales in the table are discussed by one or two but not all three men.

As stated regarding the major chords, Haerle and Baker subdivide this list based on particular alterations, offering different scale suggestions for different types of chord symbol alterations. For example, both of these authors list the Dorian scale as an option for dominant chords with a #9 alteration. This is because the b3 in the Dorian scale maps onto the #9 in the dominant chord alteration. Even though they subdivide their lists based on particular chordal alterations, however, some of their chord-scale suggestions contain notes that disagree with the symbol even within these specific subcategories. For example, while Haerle suggests the minor pentatonic scale as a possible application over dominant chords with a #9, Baker lists the minor pentatonic scale as an option for dominant chord symbols with no alterations. Baker's choice would integrate the #9 into a chord possibly sounding a simultaneous ∂9. These sorts of scalar dissonant suggestions permeate the charts.

While some of the #11 designations may be interpreted as b5 and some of the #5 designations may be interpreted as b13, I consistently use #11 and #5 chordal numberings for all dominant chords for ease of comparison between chord-scales.

Minor Chords

Table 2.3 below lists all of the chord-scales discussed by Haerle, Baker, and Aebersold in relation to minor chord quality symbols.

Table 2.3 Minor chord scales

Minor Chord-Scales											
Name	Spelling (in C)	Chord Members*							H	B	A
Dorian	C D Eb F G A Bb C	1	3	5	7	9	11	13	√	√	√
Pure Minor (Aeolian)	C D Eb F G Ab Bb C	1	3	5	7	9	11	b13	√	√	√
Minor Pentatonic	C Eb F G Bb C	1	3	5	7	—	11	—	√	√	√
Mel. Minor (ascending)	C D Eb F G A B C	1	3	5	#7	9	11	13	√	√	√
Harmonic Minor	C D Eb F G Ab B C	1	3	5	#7	9	11	b13	√	√	√
Octatonic (W 1/2)	C D Eb F F# G# A B C	1	3	#5	#7	9	11/#11	13	√	√	√
Phrygian	C Db Eb F G Ab Bb C	1	3	5	7	b9	11	b13	√	√	√
Bebop Minor	C D Eb E F G A Bb C	1	3/♮3	5	7	9	11	13		√	√
Bebop Minor #2	C D Eb F G G# A B C	1	3	5/#5	#7	9	11	13			√
Blues Scale (Aebersold, Haerle)	C Eb F F# G Bb C	1	3	5	7	—	11/#11	—	√		√
Blues Scale (Baker)	C Eb E F F# G Bb C	1	3/♮3	5	7	—	11/#11	—		√	
4th Mode Harm. Min	C D Eb F# G A Bb C	1	3	5	7	9	#11	13	√		

* All unaltered numbers assumed to be consistent w/ the Dorian scale

As seen in the table, Haerle, Baker, and Aebersold all suggest the first seven chord-scales as compatible with minor chords. The remaining five scales are offered by one or two, but not all three authors.

In Baker's syllabus of scales compatible with minor chords, he subdivides his list into minor chords functioning as i and those functioning as ii.[40] Most of his minor chord-scale suggestions appear in both lists, but a few are specific to only one category. He suggests pure minor (Aeolian) and Phrygian only over tonic minor chords (but not on ii chords), and lists the

[40] Interestingly, he does not have a separate entry for minor chords functioning as iii.

whole-half octatonic scale only over minor chords functioning as ii, but not over minor chords functioning as i.

Also, a clarification is likely necessary here regarding the bebop scales labeled in the chart as bebop minor and bebop minor #2. As stated, Baker was the first to explicate bebop scales. He discusses only two bebop scales—dominant and major. For a minor chord, Baker suggests the dominant bebop scale a perfect fifth below as a compatible chord-scale. In other words, in a ii-V progression, Baker explains that the dominant bebop scale matching the V chord in a key may be applied to the ii chord as well. Essentially, this scale when applied to a minor ii chord is an application of the dominant bebop scale, mode 5. In this chart, that scale is labeled as bebop minor. Baker does not discuss the scale listed in this table as bebop minor #2. It is a variation of Baker's major bebop scale, but with b3 rather than ∂3. Regarding these two bebop scales, Mark Levine labels them as Dorian bebop and melodic minor bebop, respectively.[41]

Half Diminished Chords

Having looked at major, dominant, and minor chord-scales, we now turn our attention to half diminished chords. Haerle, Baker, and Aebersold's chord-scale suggestions regarding half diminished chords are integrated in the chart below (see table 2.4).

[41] Levine, 173-175.

Table 2.4 Half Diminished chord-scales

Half Diminished Chord-Scales					
Name	Spelling (in C)	Chord Members*	H	B	A
Locrian	C Db Eb F Gb Ab Bb C	1 b3 b5 b7 b9 11 b13	√	√	√
Locrian #2 (6th mode Mel. Min.)	C D Eb F Gb Ab Bb C	1 b3 b5 b7 9 11 b13	√	√	√
Octatonic (W 1/2)	C D Eb F F# G# A B C	1 b3 b5/#5 #7 9 11 13	√	√	
Bebop (C^{ø} as VII/Db=Ab Dom. Bebop)	C Db Eb F Gb G Ab Bb C	1 b3 b5/5 b7 b9 11 b13		√	√
Bebop (C^{ø} as ii/Bbm=F Dom. Bebop)	C D Eb E F G A Bb C	1 b3/3 5 b7 9 11 13		√	
2nd Mode Harm. Min.	C Db Eb F Gb A Bb C	1 b3 b5 b7 b9 11 13	√		
Blues Scale (Baker)	C Eb E F F# G Bb C	1 b3/3 b5/5 b7 — 11 —		√	

* all unaltered numbers assumed to be consistent with the major scale

Of the seven scales in the table, the Locrian and Locrian #2 scales are the only ones suggested by all three authors.

The two bebop scales listed here require a bit of explanation. None of Baker's bebop scales are listed in his chord syllabus in the back of his book, but rather only explained in the text itself.[42] Baker discusses only two bebop scales: dominant bebop and major bebop. And as explained earlier, he recommends the dominant bebop on V as a possible chord-scale application over minor chords functioning as ii. In tonal jazz (as well as other tonal music), half diminished chords usually function either as ii^{ø} in minor or vii^{ø} in major. In both of these situations, Baker suggests applying the bebop scale of the related V7 chord to the half diminished chord.

[42] For bebop chord-scale applications over half diminished chords see Baker, 1-2, 12.

For example, a $C^{ø}$ chord functioning as $vii^{ø}$ suggests a key of Db major. Therefore, the dominant is Ab, and the Ab dominant bebop chord-scale may be applied to the $C^{ø}$ chord. This is essentially applying mode 3 of the bebop dominant to the $vii^{ø}$ chord (which makes sense because if V=1, then $vii^{ø}$ is the third mode). A $C^{ø}$ chord functioning as $ii^{ø}$ suggests the key of Bb minor. In this case, the dominant is F and Baker suggests applying the F dominant bebop scale over the half diminished chord. Essentially, this is an application of dominant bebop mode 5 as was the case earlier in the minor chord-scale section. Applying dominant bebop mode 5 over this half diminished chord results in a ∂5 rather than the b5 defined by the chord symbol.

As was the case with major, dominant, and minor chords, some of the notes in the suggested chord-scales do not map onto the base seventh chord. In these cases, it is assumed that these incompatible notes would either be omitted in the scalar application or played intentionally to provide an additional level of dissonance.

Diminished Chords

The chord quality with the least amount of chord-scale options is clearly the diminished chord. Combining Haerle, Baker, and Aebersold's chord-scale application suggestions for diminished chords yields only two scales (see table 2.5 below).

Table 2.5 Diminished chord-scales

Diminished Chord-Scales					
Name	Spelling (in C)	Chord Members*	H	B	A
Octatonic (W 1/2)	C D Eb F Gb Ab A B C	1 b3 b5 bb7/#7 9 11 b13	√	√	√
7th Mode Harm. Min.	C Db Eb Fb Gb Ab Bbb C	1 b3/3 b5 bb7 b9 — b13	√		

* all unaltered numbers assumed to be consistent with the major scale

Of the two scales above, all three authors list the whole-half octatonic scale while only Haerle lists 7th mode harmonic minor. This may be the result of Haerle dealing extensively with the modes of the harmonic minor scale in his book, finding a place to apply each of its modes over the different chord qualities.

Scalarity Types in Thad Jones

Simple Scalarity

While the jazz theory/pedagogy books discuss one general application of how scales may be applied to certain chord symbols (the process I refer to as “simple scalarity,”) Jones uses this procedure in more than one way. In the following sections, I discuss four scalarity types found in Jones’s music— simple scalarity, scalar toggling, polyscalarity, and blended scalarity.

I begin here with “simple” scalarity. What I refer to by this designation is the most basic type of scalarity, i.e., a single chord-scale is applied to a given chord symbol for the temporal duration of that symbol. This is the basic process described in the jazz theory books, and discussed above.

Although some jazz theory books offer a seemingly endless plethora of possible chord-scale choices,[43] Mark Levine states that almost any chord symbol and possible alteration may map onto one of four scales (or its constituent modes). These scales are the major scale, the melodic minor scale, the diminished (octatonic) scale, or the whole tone scale.[44]

Having looked at what the jazz theory books suggest for chord-scales in relation to each chord type, we now turn to Thad Jones's chord-scale application and how he actually implements the various collections over certain chord symbol qualities (major, dominant, minor, half diminished, diminished).

Major Chords

Although (as seen in the above tables) the theory books list many possible chord-scale options over the various qualities, Jones typically draws from a few select collections over each chord type that are consistent with Levine's observation regarding the major, melodic minor, octatonic, and whole tone scales. Of the 13 chord-scale suggestions provided by Hearle, Baker, and Aebersold over major chords, Jones generally only uses two of these—Ionian and Lydian major. Of these two scales, Jones applies Ionian in 65% of the cases, and Lydian major in the other 35%. In the cases I have classified as Ionian usage, the 11th is nearly always missing. In such cases, it is theoretically possible to understand the scale to be Lydian major without the #11, but because this pitch is the characteristic tone of Lydian (and the only note distinguishing the two collections) it seems logical to classify these usages as derived from the Ionian scale.

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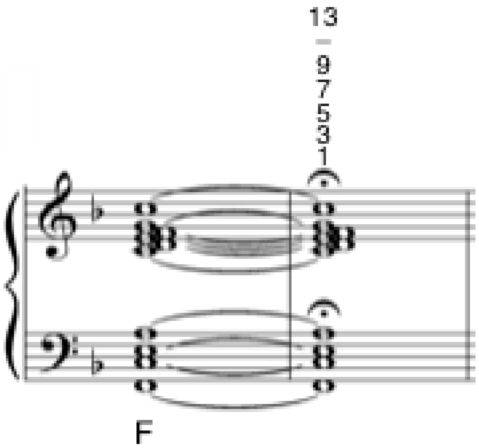
[43] See e.g., Yusef Lateef, *Repository of Scales and Melodic Patterns* (Amherst, Mass: Fana Music, 1981).
[44] Levine, 32.

The most common Ionian application over a major chord when all instruments are playing is a six-note chord (with some doublings) without the 11th. A typical example is the opening tonic chord of “To You” (ex. 2.1). Here Jones writes the chord symbol simply as “F,” but the pitches applied in the actual voicing are all of the notes in the F major scale except Bb (the 11th).

Example 2.1 Opening of “To You”; Ionian chord-scale application without 11th

The final chord symbol of “To You,” as above, is simply labeled “F.” As in the opening, the actual pitches applied encompass all of the notes of the F major scale except for the 11th, Bb. The melody note is the same as in the example above (C5 played by trumpet 1) but the voicing is significantly different (see ex. 2.2).

Example 2.2 “To You” ending; Ionian chord-scale application without 11th

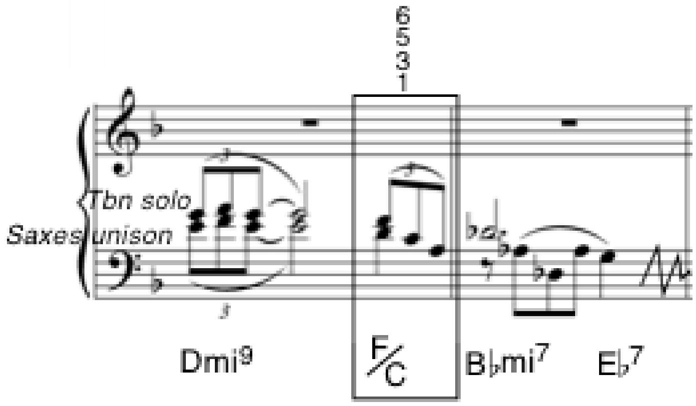


Often, Jones applies the major pentatonic scale over major chord symbols. As stated previously, because these are merely subsets of the Ionian collection, I group these uses as Ionian. There is, however, a distinction in the sound when the major seventh is sounding versus when it is not. For this reason, it is worth noticing how Jones uses the pentatonic collection over major chord symbols.

When only a few voices are sounding, Jones sometimes adds only the sixth[45] to the triad for a simple sound. In ex. 2.3, the trombone soloist outlines the notes of the F triad while the saxes provide the added sixth.

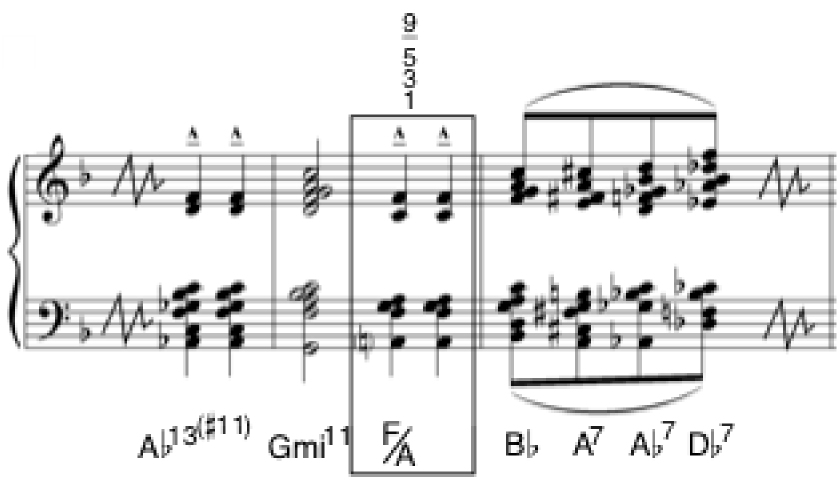
[45] I refer to this chord member as a thirteenth elsewhere in this study. In jazz parlance, the presence of a thirteenth implies the inclusion of a chordal seventh. When the seventh is not included, this chord member is commonly referred to as a sixth.

Example 2.3 “To You” 3 after C; Pentatonic chord-scale application (added 6th)



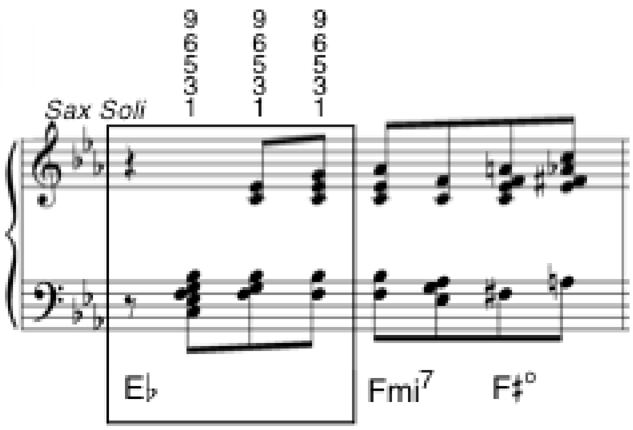
Although rare, there are times when Jones adds only the ninth to the notated triad. In ex. 2.4, the trumpets are in unison on F while the trombones (doubled by the saxes) sound the remaining pitches below. The only tone not in the basic triad (G) is voiced in a secundal cluster, providing a dense texture to the middle of the sonority.

Example 2.4 "To You" 5 after E; Pentatonic chord-scale application (added 9th)



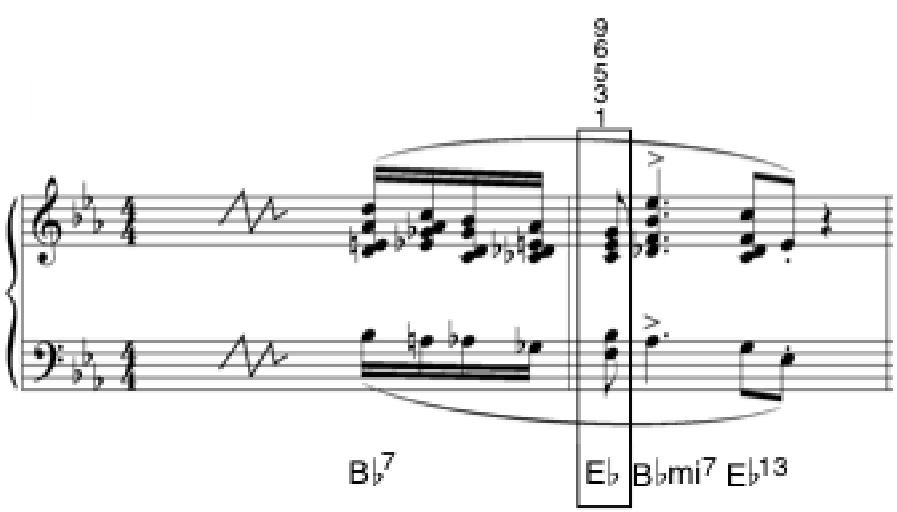
Although Jones sometimes adds only a sixth or ninth to a major chord symbol indicating only a triad, more often he adds them both, for the characteristic 6/9 pentatonic sound. Ex. 2.5 shows a melodic application of the pentatonic scale. Here, all of the notes in the measure labeled “Eb” are generated from the Eb major pentatonic scale, and all of the notes in the pentatonic collection are present in each vertical sonority.

Example. 2.5 "Three and One" 2 after C; Pentatonic chord-scale application



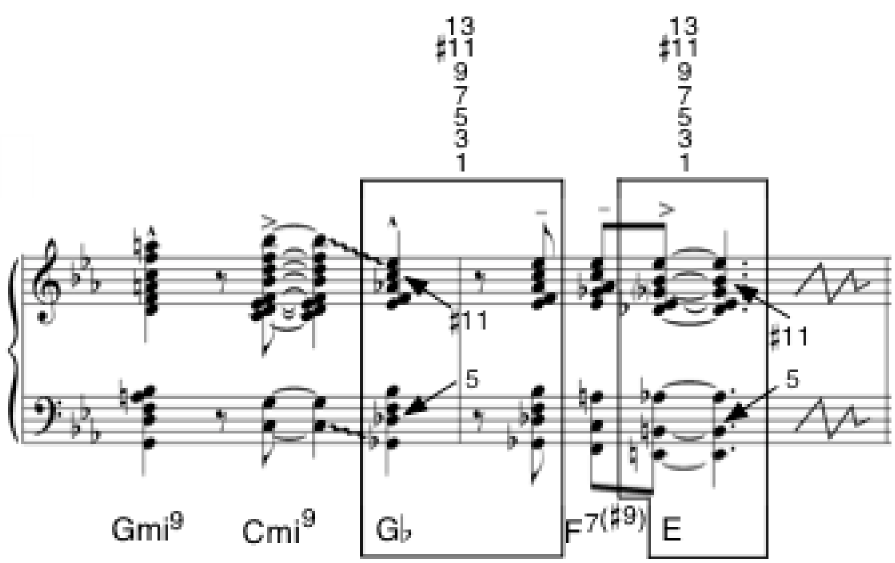
A typical example of a more isolated 6/9 pentatonic application is in “Three and One,” four measures before rehearsal letter D (ex. 2.6). Here the single major chord symbol occurs within a rapidly moving harmonic rhythm, lasting only an eighth note in duration, and Jones applies the Eb pentatonic scale.

Example 2.6 "Three and One" 4 before D; Pentatonic chord-scale application



I noted earlier that the most common scale application by Jones over major chord symbols is the Ionian, and the examples above have been based on Ionian or one of its subsets, the major pentatonic scale. Although not as frequent, there is also substantial use of the Lydian major scale in these works. And although some of the theory books advise against the simultaneous use of the fifth and lowered fifth (or raised fourth) in the same chord, Jones implements these tones together in nearly all of his Lydian major applications over major chord symbols.[46] Sometimes the #11 and the ∂5 are in separate registers and sometimes Jones juxtaposes them together. Ex. 2.7 below demonstrates typical Lydian major scale applications to major chord symbols. Here, as before, Jones uses merely a letter to indicate a major sonority, but now applies the (entire) Lydian collection to both the Gb and E chord symbols.

Example 2.7 "Three and One" 2 before Coda; Lydian major chord-scale applications (#11/5 in separate registers)

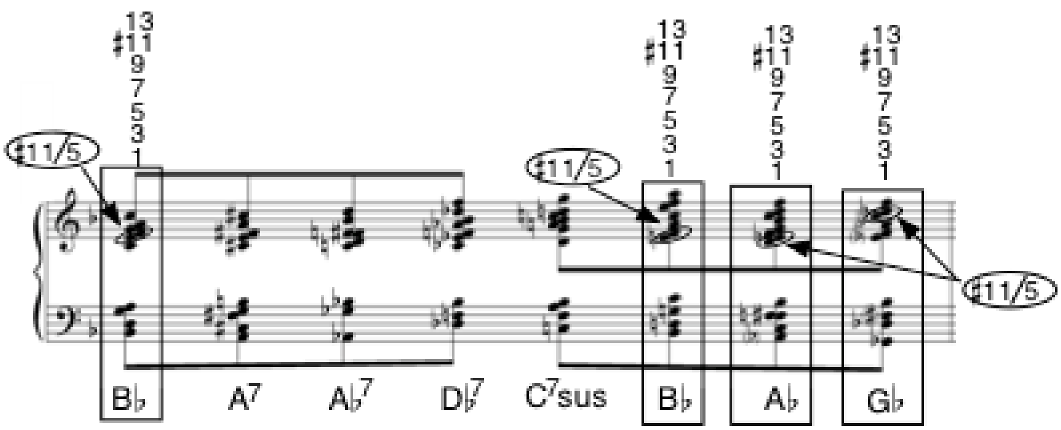


[46] For an example of this type of prohibition, see Richard Lawn and Jeffrey L. Hellmer, *Jazz: Theory and Practice* (Los Angeles: Alfred Pub. Co, 1996), 139. Also, note that the #11 and b5 distinctions are somewhat inconsistent in jazz parlance, varying somewhat from author to author and from scale to scale.

He voices the ∂5 below and the #11 above in both the Gb and E chords, creating a compound major 7th between the 3rd trombone and 2nd trumpet in each case.

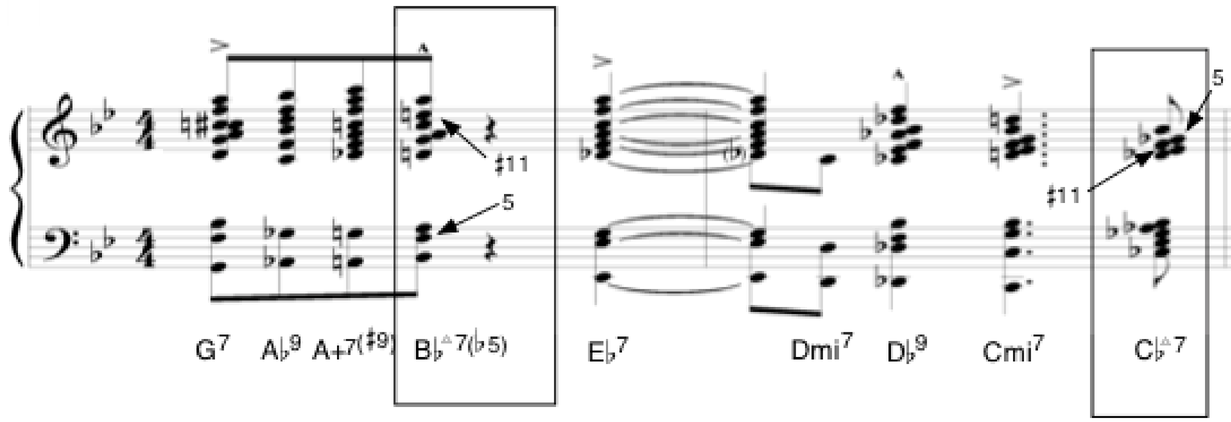
As mentioned, sometimes Jones voices the Lydian major collection so that there is a minor second between the ∂5 and #11. Ex. 2.8 shows some typical occurrences.

Example 2.8 "To You" 3 from the end; Lydian major chord-scale applications (#11/5 in same register)



From the above examples, it might appear that Jones prefers to voice the #11 and 5 apart in some sections of music and together in different sections for consistency of sound. Such is not the case. Sometimes the ∂5 and #11 are voiced apart in one chord and then together in a chord in close proximity. See ex. 2.9 from “Cherry Juice.”

Example 2.9 "Cherry Juice" Letter I; Lydian major chord-scale applications (#11/5 in separate registers then in same register in close proximity)



Dominant Chords

For dominant chords, Jones consistently draws from one of four scales—Mixolydian, Lydian dominant, octatonic, and diminished whole tone. Use of the whole tone collection is rare, with only one occurrence in the three pieces under study. Interestingly, these five scales are the only ones common to all three authors (Haerle, Baker, and Aebersold) in their discussions of dominant chord-scales.[47]

Interestingly, the prominent usage of each of these four dominant chord-scales varies by Jones from piece to piece. Table 2.6 below shows all of the dominant chord-scale applications Jones uses in each piece under study and what percentage each collection is applied.[48]

[47] The major pentatonic scale is also common to all three, but I treat this as a trivial subset of Mixolydian.
[48] The dates listed in the Table represent publication dates on the printed scores. Actual composition and recording dates of these pieces are earlier.

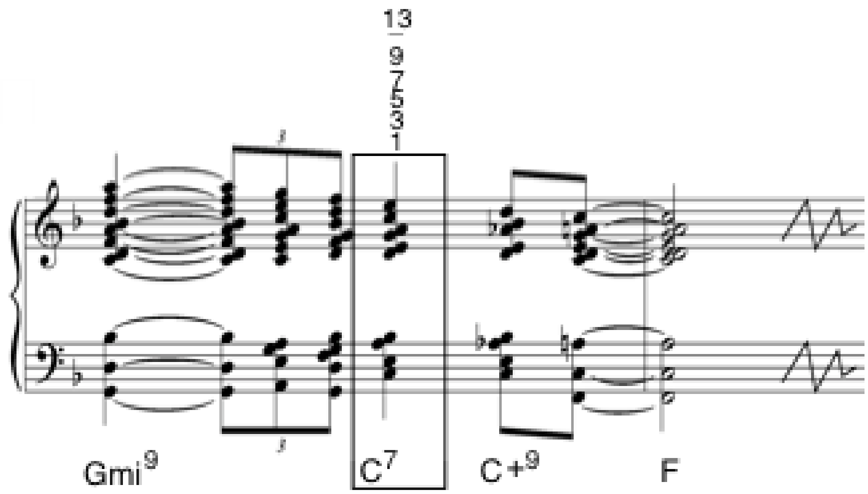
Table 2.6 Dominant chord-scale usage

	Mixolydian	Lydian Dominant	Octatonic	Diminished Whole Tone	Whole Tone
To You (1961)	**35.49%**	25.80%	28.23%	8.87%	1.61%
Three and One (1970)	29.67%	9.03%	**30.97%**	30.01%	0.32%
Cherry Juice (1977)	12.18%	19.79%	**47.72%**	20.06%	0.25%

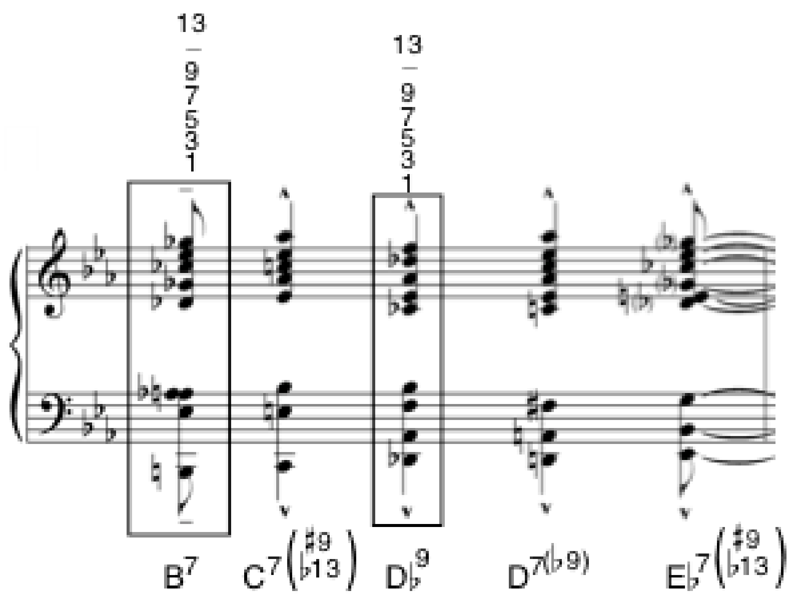
In "To You," Mixolydian is the most used, accounting for about 35% of all dominant chord-scale applications. For "Three and One," the octatonic is the most used at roughly 31%, with Mixolydian and diminished whole tone closely behind at approximately 30% each. In "Cherry Juice," the octatonic is clearly the most used at about 48% application and the others all 20% or lower. Given the fact that these three pieces are listed in order of composition by date, the usage shown in this chart is interesting in that it possibly mirrors a chronological shift by Jones in which the Mixolydian scale becomes less used in his compositions while the octatonic scale proportionally gains in prominence.

The most common Mixolydian chord-scale application when all voices are playing is similar to that of the Ionian—a six-note collection in which the 11th is not used simultaneously with the 3rd. Below are two examples.

Example 2.10 "To You" letter D; Mixolydian chord-scale application without 11th



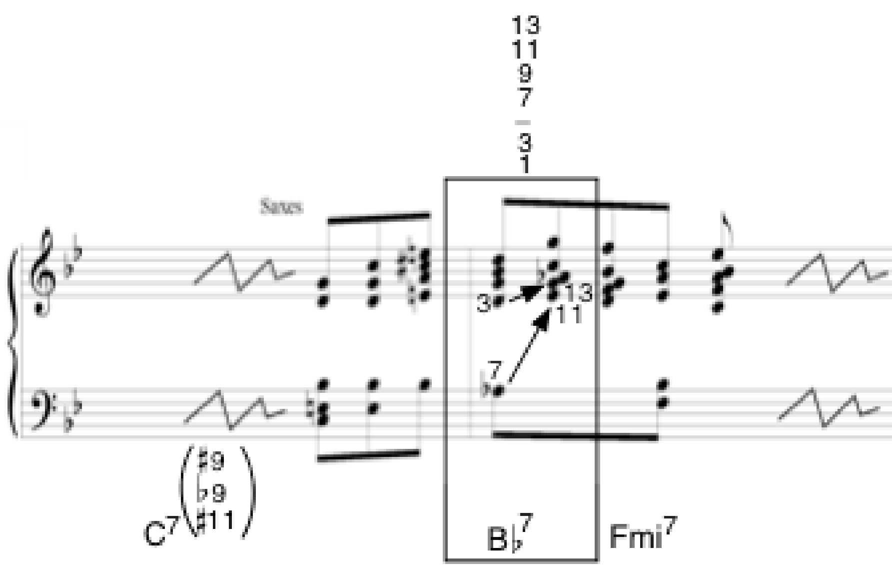
Example 2.11 "Three and One" letter G; Mixolydian chord-scale application without 11th



In the first example (2.10), Jones creates a polychord by forming an Am7 in the upper voices. In the next two chords (ex. 2.11), he does not create polychords at all, but rather reinforces the base triad in the upper voices. In all three cases, Jones takes advantage of the opportunity for a semitone dissonance between the 7th and the 13th, voicing these together in the middle of the texture each time. The technique of forming secundal dissonances in the middle of the voicing while forming a third or more between the upper two and the lower two voices is a consistent orchestrational staple in this literature. In regard to the interval of a third or more between the top two voices, this is often the result of what jazz arranging books refer to as a “drop-two” voicing. The meaning is that after the top pitch in the chord is assigned, the next available tone in the chord is not given to the next voice down, but rather “dropped” an octave so as to not clutter the top of the sonority.[49]

There are cases in which the 3rd and 11th are both employed in a Mixolydian chord-scale application over a dominant chord symbol, but these two pitches are never found in a vertical simultaneous combination in these pieces under study. Ex 2.12 shows a melodic application of the Mixolydian chord-scale in which the 3rd and 11th are both used, but not simultaneously.

Example 2.12 "Cherry Juice" 6 after O; Mixolydian chord-scale application with 3rd and 11th both used but not simultaneously (3rd does not move to 11th)

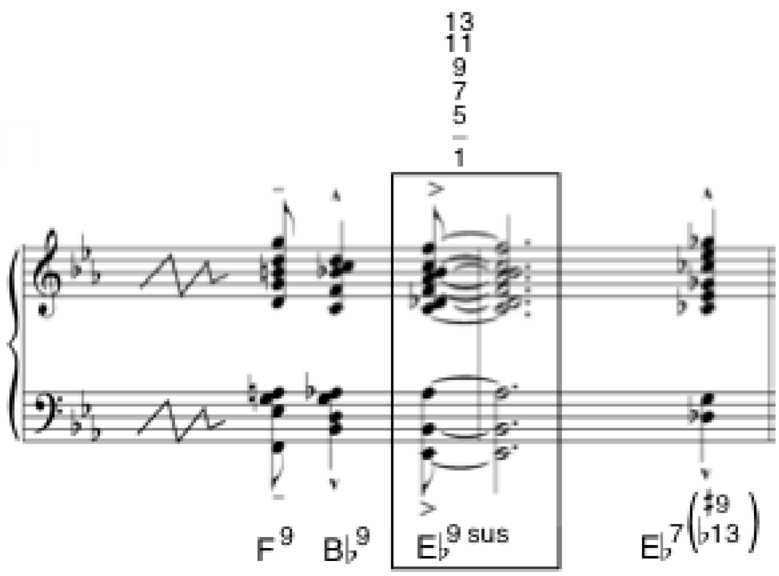


[49] See for example, Rayburn Wright, *Inside the Score* (New York: Kendor Music, Inc., 1982), 49. As a jazz studies student at the University of North Texas in the early 90s I remember Paris Rutherford in Jazz Arranging classes refer to these kinds of voicings as “hourglass voicings” because the shape resembled that of an hourglass.

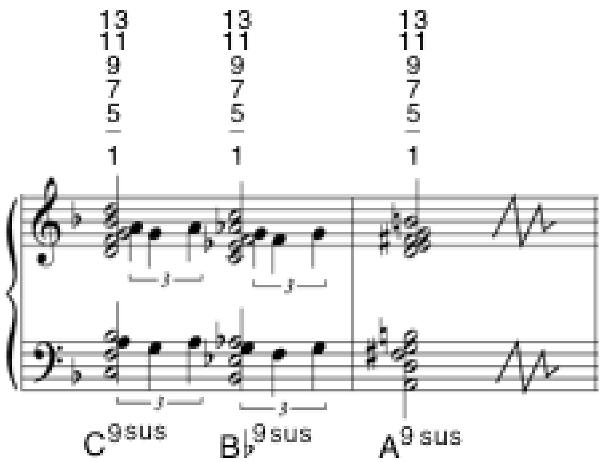
In the above example, the 3rd sounds in the first chord without the 11th and in the second chord the 11th sounds without the 3rd. From a voice leading perspective, it is interesting to note that the 3rd does not move to the 11th in the same voice. Rather, the 3rd (Tenor 2) skips up to the 13th while the 7th (Bari Sax) skips up to the 11th. These large intervallic voice-leading motions are common in Jones's writing when the melody is leaping.

Of course, when the 3rd is omitted from a Mixolydian chord-scale application over a dominant symbol, it might be interpreted as a suspension. In these cases, the suspension is often notated in the chord symbol. Below are a few examples (see ex. 2.13 and 2.14).

Example 2.13 "Three and One" 5 before D.S.; Mixolydian chord-scale application without 3rd (marked as suspension in symbol)

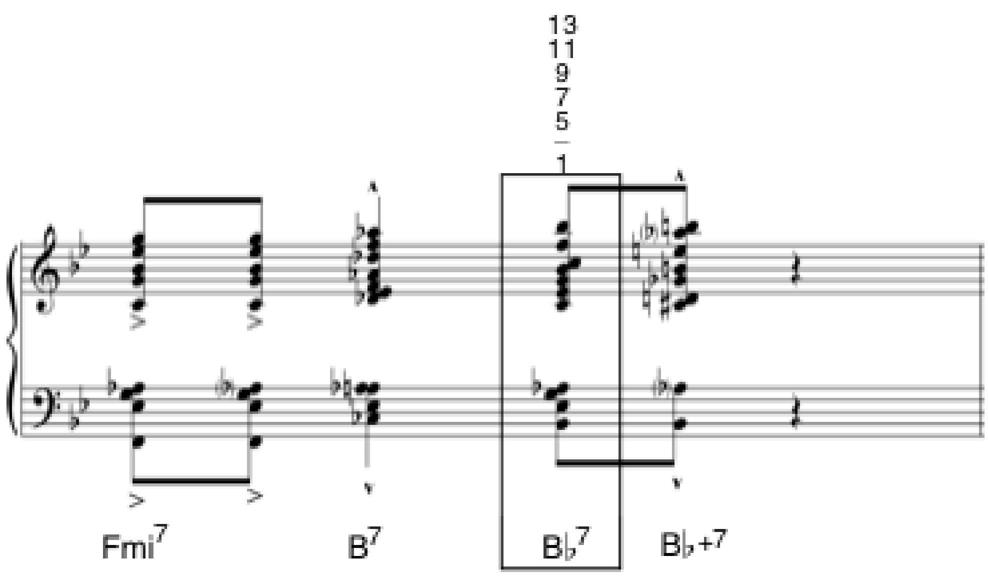


Example 2.14 "To You" 9-10 after B; Mixolydian chord-scale application without 3rd (marked as suspension in symbol)



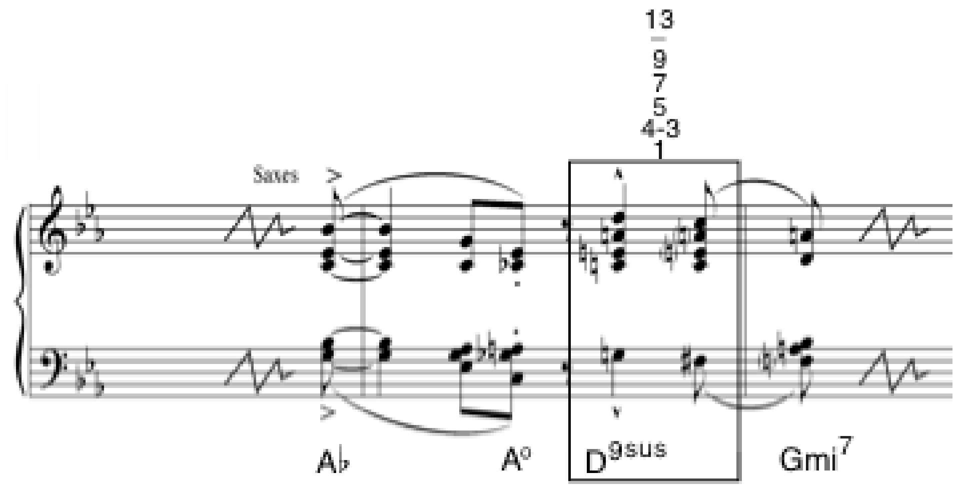
And although the suspension is usually notated in the symbol, there are many times in this literature in which it is not. Below is an example from Cherry Juice in which a Bb7sus chord is marked simply as Bb7 (see ex. 2.15).

Example 2.15 "Cherry Juice" 4 after J; Mixolydian chord-scale application without 3rd (not marked as suspension in symbol)



The following excerpt from “Three and One” shows a Mixolydian chord-scale application in which there is a suspension as well as a resolution in the actual voicing, with only the suspension reflected in the chord symbol (see ex. 2.16).

Example 2.16 "Three and One" 3 before D; Mixolydian chord-scale application with 11th moving to 3rd (marked as suspension in symbol)



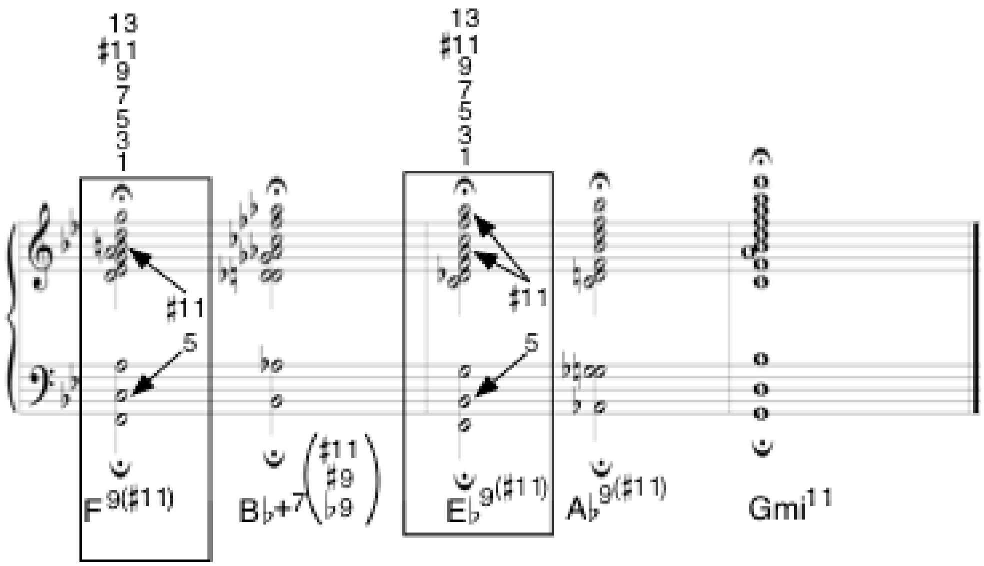
The next dominant chord-scale to examine is Lydian dominant. The Lydian dominant chord-scale differs from the Mixolydian only in that it employs the #11 rather than the ∂11. In the application of this chord-scale, the 5th is omitted from the voicing in this literature 75% of the time. Example 2.17 represents the most typical appearance of the Lydian dominant chord scale when all instruments are playing—a chord with six pitch classes in which the 5th is absent.

Example 2.17 "To You" 11 after B; Lydian dominant chord-scale application without 5th

Omitting the 5th in Lydian dominant applications as a normative approach stands in stark contrast to the applications of Lydian major in this same literature. Remember that in the Lydian major chord-scale applications, nearly every occurrence contained both the #11 and the ∂5 simultaneously.

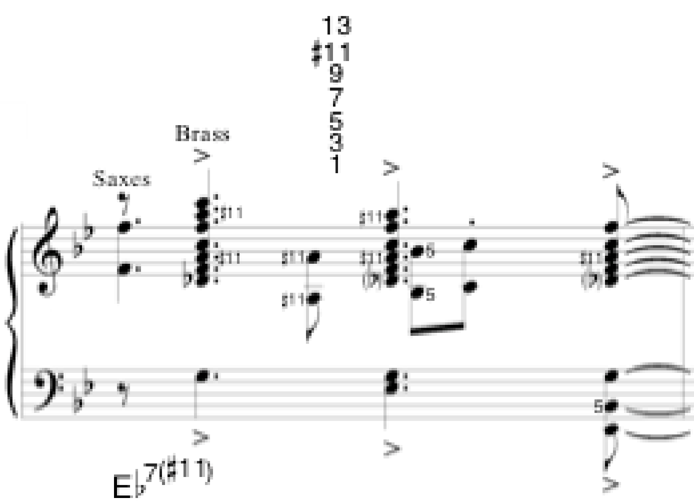
In the 25% of the Lydian dominant chord-scale applications in which the #11 and ∂5 are used together vertically, they are usually not in the same register, but rather separated by a M7 (or compound M7) with the ∂5 below and the #11 above. See ex. 2.18 below for some typical occurrences of this voicing.

Example 2.18 "Cherry Juice" 3 from the end; Lydian dominant chord-scale application with 5th below and #11 above



Example 2.19 shows a rare occurrence in which the ∂5 and #11 occur in the same register in a Lydian dominant chord-scale application. Here the ∂5 initially appears as a melodic tone in the saxes against the #11 in the brass chordal accentuations.

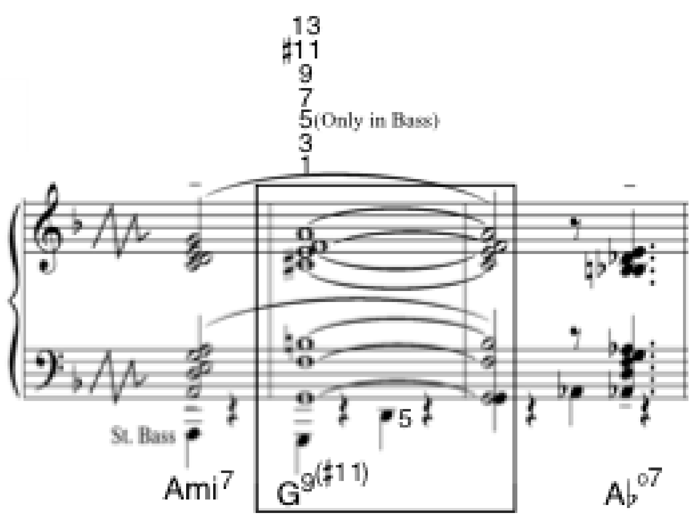
Example 2.19 "Cherry Juice" 5 after E; Lydian dominant chord-scale application with 5th and #11 in same register



One reason that Jones rarely places the ∂5 and #11 together in the Lydian dominant chord-scale might be a preference for the polychordal voicing in which the upper voices (usually trumpets) sound a major triad built a major second above the chordal root. This voicing can be seen in ex. 2.18. Above the F9#11 chord symbol, the trumpets sound a G major triad with an added 2nd, and above the Eb9#11 chord the upper voices sound an F major triad. In the case of the F9#11 chord, if the 5th (C) were to be placed in the upper voices it would conflict with the sound of the 3rd (B) of the upper triad, G major. Similarly, in the case of the Eb9#11 chord, the 5th (Bb) would conflict with the 3rd (A) of the upper triad, F major. For these reasons, Jones usually omits the 5th in these chord-scale applications, and when the 5th is present, it is generally found below.

In some of the Lydian chord-scale applications, Jones voices the winds without the 5th, but writes out an arpeggiated bass line in which it is included (see ex. 2.20 below).

Example 2.20 "To You" 7 after A; Lydian dominant chord-scale application with 5th in bass only



The polychordal voicing in ex. 2.20 reflects a variation of the voicing in which a triad is built a major second above the chordal root. Here, the 7th of the chord is inserted in the upper voices along with the expected upper triad creating what might be understood as an augmented triad built on the 7th of the original chord with an added M7 (in this case, F+M7). Compare this chord to that in ex.2.17 above in which Jones uses a very similar voicing over the same chord symbol.

Because the diminished whole tone chord-scale varies significantly from the Mixolydian and Lydian dominant, it seems beneficial at this point to review the differences between the various dominant quality chord-scales Jones uses. Table 2.7 below shows the chord-scales Jones applies to dominant chords.

Table 2.7 Jones's dominant chord-scales

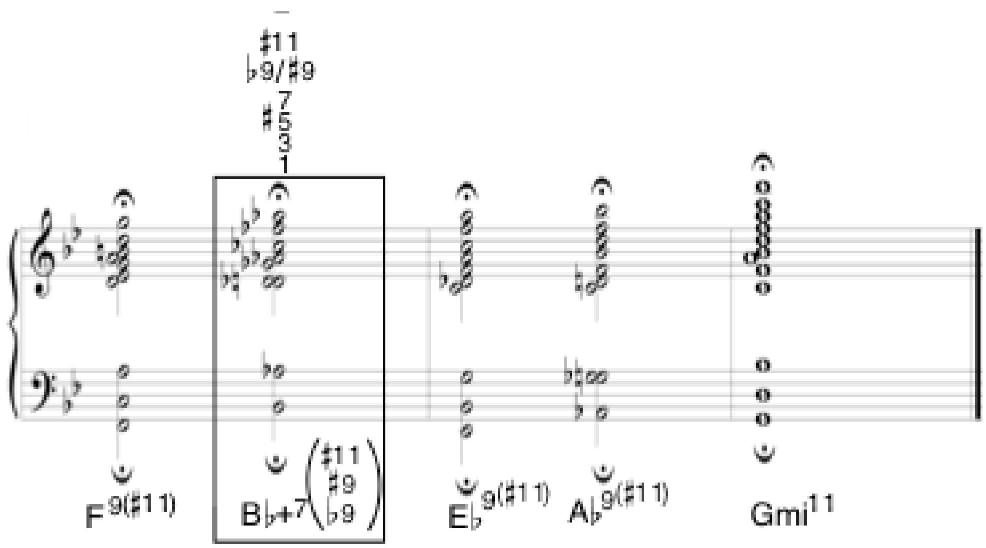
Jones's Dominant Chord-Scales								
Name	Spelling (in C)	Chord Members*						
Mixolydian	C D E F G A Bb C	1	3	5	7	9	11	13
Lydian Dominant (4th mode mel. min.)	C D E F# G A Bb C	1	3	5	7	9	#11	13
Octatonic (1/2 W)	C Db D# E F# G A Bb C	1	3	5	7	b9/#9	#11	13
Diminished Whole Tone (7th mode mel. min.)	C Db D# E F# G# Bb C	1	3	#5	7	b9/#9	#11	—
Whole Tone	C D E F# G# Bb C	1	3	#5	7	9	#11	—

* All unaltered numbers assumed to be consistent w/ the Mixolydian scale

As seen in the table above, the diminished whole tone scale is characterized by the raised 5th, and distinguished from the whole tone scale by containing both altered 9ths rather than the natural 9th.

Jones applies the diminished whole tone scale over dominant chord symbols in a variety of combinations of raised 5th, altered 9ths, and raised 11th. Ex. 2.21 below shows an application in which all tones in the chord-scale are present.

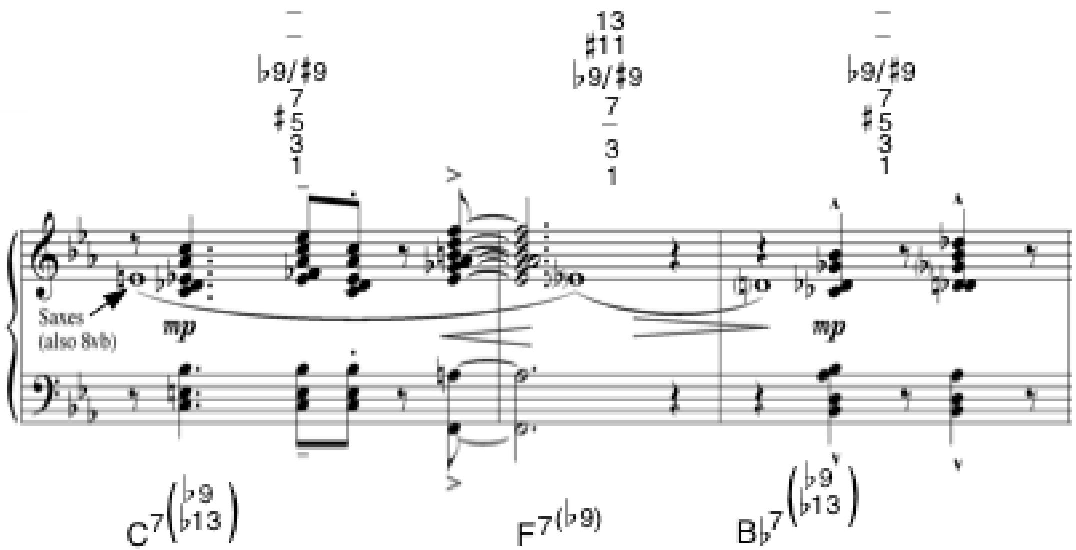
Example 2.21 "Cherry Juice" 3 from the end; Diminished whole tone chord-scale application (all tones present)



The above example is also a case in which Jones notates every chord extension and alteration into the chord symbol. This is actually more rare than it is normative. Looking at the top four pitches reveals a polychordal structure in this chord, as was the case previously with some of the Lydian dominant chords. With diminished whole tone chords, Jones frequently forms a polychord with a major triad in the top voices built a tritone above the chordal root, as is the case here (Fb/Bb7).

Although the above example contained all seven pitch classes of the diminished whole tone scale, it is more common to have a partial representation of the scale present which requires some analysis to determine which scale is actually being presented over a given symbol. Ex 2.22 below will serve as an example of this type of chord-scale application analysis.

Example. 2.22 "Three and One" 7 before G; Differentiating diminished whole tone and octatonic chord-scale applications

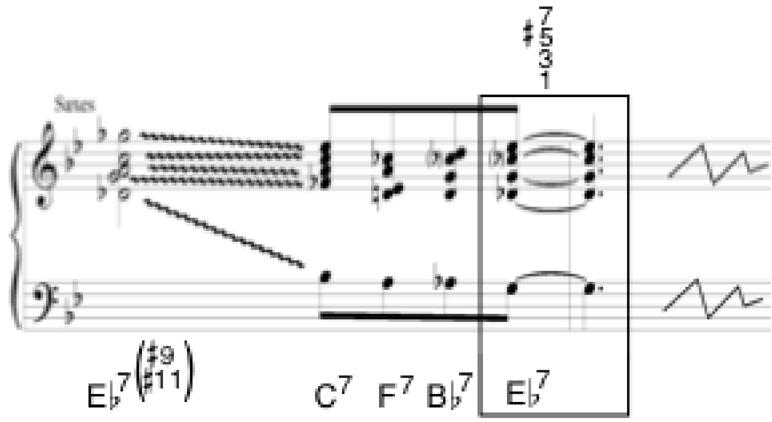


In the first and third chords of the above example, the #5 narrows down the choices of Jones's chord-scale application to either the diminished whole tone or whole tone scales. Because of the presence of the altered 9ths, the possibility of whole tone usage is negated and it becomes apparent that the diminished whole tone scale is being used.

The middle chord contains no 5th, but the presence of the altered 9ths narrows the choices to diminished whole tone or octatonic. The presence of the 13th, however, negates diminished whole tone as a possibility, leaving the octatonic collection as the only scale that the written chord can fully map onto. The octatonic collection is discussed in detail shortly.

There are a few cases in this literature in which there are only a few tones present in a chord, and they map onto more than one scale. Ex. 2.23 below demonstrates one of these rare cases.

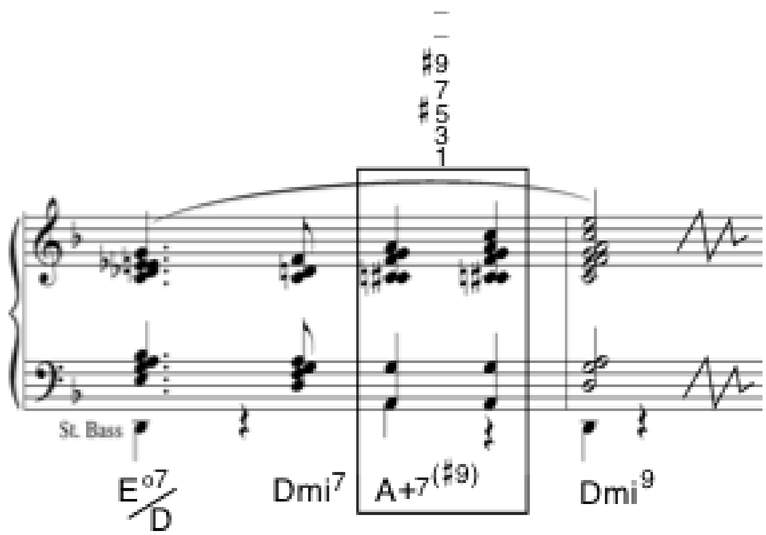
Example 2.23 "Cherry Juice" 5 after M; Ambiguous chord-scale application (diminished whole tone or whole tone)



The ƒ5 in the above example narrows down the chord-scale option to either the diminished whole tone or whole tone scales. The distinguishing factor between these two scales is that the diminished whole tone scale contains both altered 9ths while the whole tone scale contains the natural 9th. Because this chord contains no 9th, the notes may be understood as derived from either collection. There are only two occurrences of this particular sonority in the pieces under study. For purposes of statistics and chord-scale counting I have assigned these two ambiguous sonorities as 1/2 diminished whole tone and 1/2 whole tone.

As stated, the diminished whole tone chord-scale appears in various combinations of raised 5th, altered 9ths and raised 11th. By far, the most common application of this collection is in the form 1-3-#5-7-#9 as in the example below.

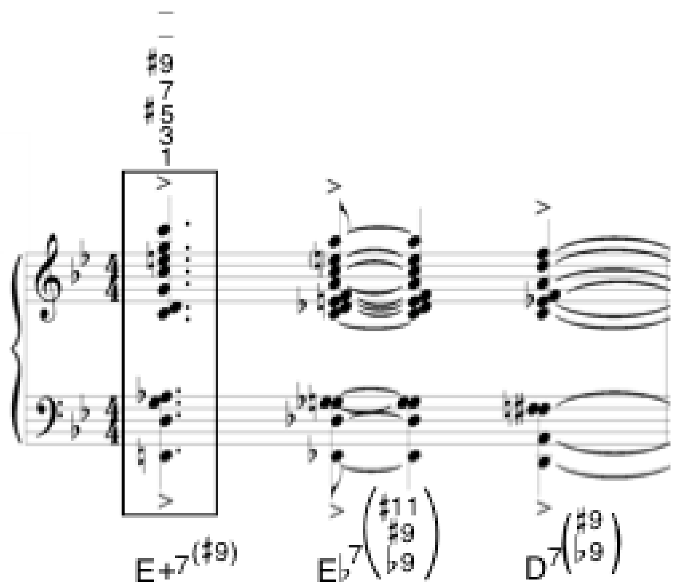
Example 2.24 "To You" 6 before B; Diminished whole tone chord-scale application (most common presentation 1-3-#5-7-#9)



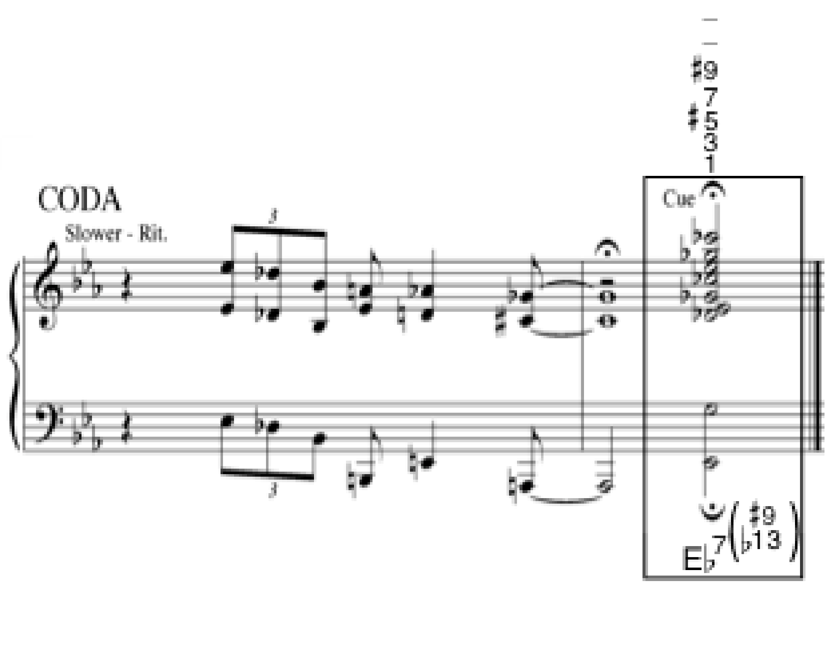
A fairly common polychordal voicing of this collection is for the upper voices to form a triad built on the raised 5th (or lowered 6th) above the chord root. This #V/bVI upper sonority is seen in the above example with an added tone to form F^{add2}/A7. And as was the case previously, Jones creates semitone clashes in the middle of the chords while generally leaving a third or more between the upper and lower two voice pairs. Previously, we saw these semitone dissonances between the 7th and 13th while here they occur between the 3rd and raised 9th.

As stated, this particular subset of the diminished whole tone chord-scale (1-3-#5-7-#9) is a favorite of Jones, occurring in 62% of all appearances of the diminished whole tone collection in this literature. It has a prominent place in “Cherry Juice” as the opening chord, and in “Three and One” as the closing chord. See examples 2.25 and 2.26 below.

Example 2.25 "Cherry Juice" opening chord; Diminished whole tone chord-scale application (most common presentation 1-3-#5-7-#9)



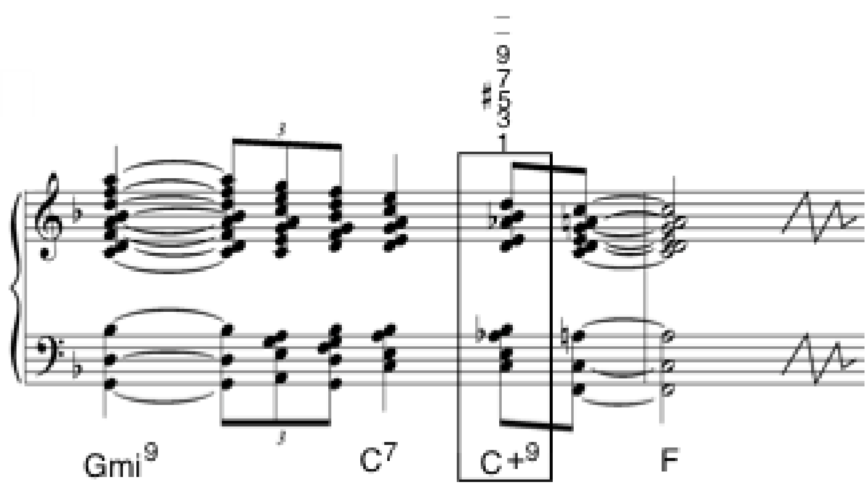
Example 2.26 "Three and One" closing chord; Diminished whole tone chord-scale application (most common presentation 1-3-#5-7-#9)



As was the case previously, each of these chords may be understood as polychordal with the upper sonority being a triad built on the raised 5th/lowered 6th above the root. In ex.2.25 it is manifested as C/E7, and in ex.2.26 it is Cb/Eb7.

As stated, there are two examples in the pieces under study in which the chord-scale application could be mapped onto either the diminished whole tone or whole tone scales. And although dominant chords are the most frequently found chord symbol quality in these pieces (65% of all chords in these three pieces are dominant quality), a clear application of the whole tone chord-scale is found only once in all three of these pieces. Ex 2.27 shows this single application. The voicing consists of several secundal clusters separated by intervals of a third or larger.

Example 2.27 "To You" letter D; Whole tone chord-scale application



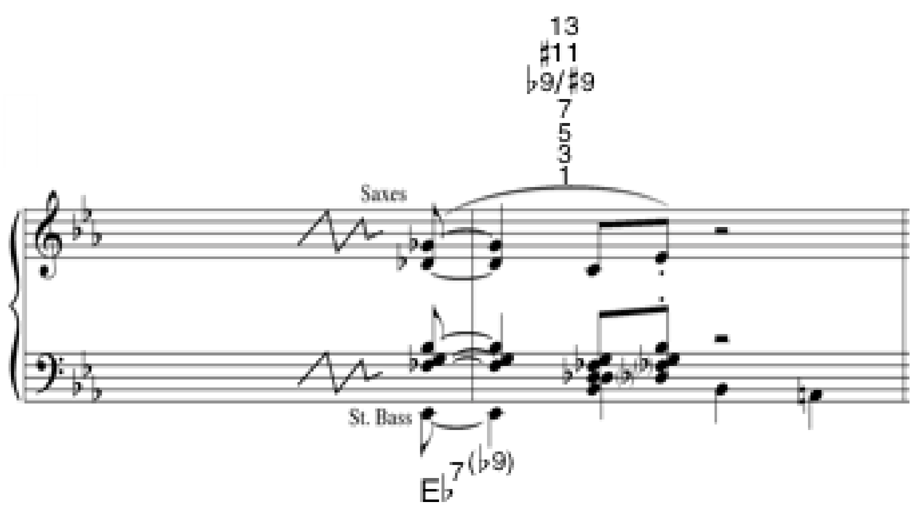
Having discussed dominant chord-scale uses of Mixolydian, Lydian dominant, diminished whole tone, and whole tone, there remains only one other collection used by Jones over dominant chord symbols—octatonic.

As was noted previously, the octatonic collection is less used in “To You” (first published in 1961), gains prominence in “Three and One” (published 9 years later), and finally becomes far and away the most common chord-scale application used by Jones over dominant chord symbols in Cherry Juice (published 7 years after “Three and One.”)

As a reminder, the octatonic chord-scale is a symmetrical scale that may begin either with a half step or a whole step. For dominant chord-scale applications, the octatonic scale always begins with a half step. This allows the scale to map onto the root, third, fifth, and seventh of a dominant chord while providing other alterations. For the remainder of this discussion regarding octatonic applications over dominant chords, the octatonic scale is understood to be the half-whole octatonic chord-scale.

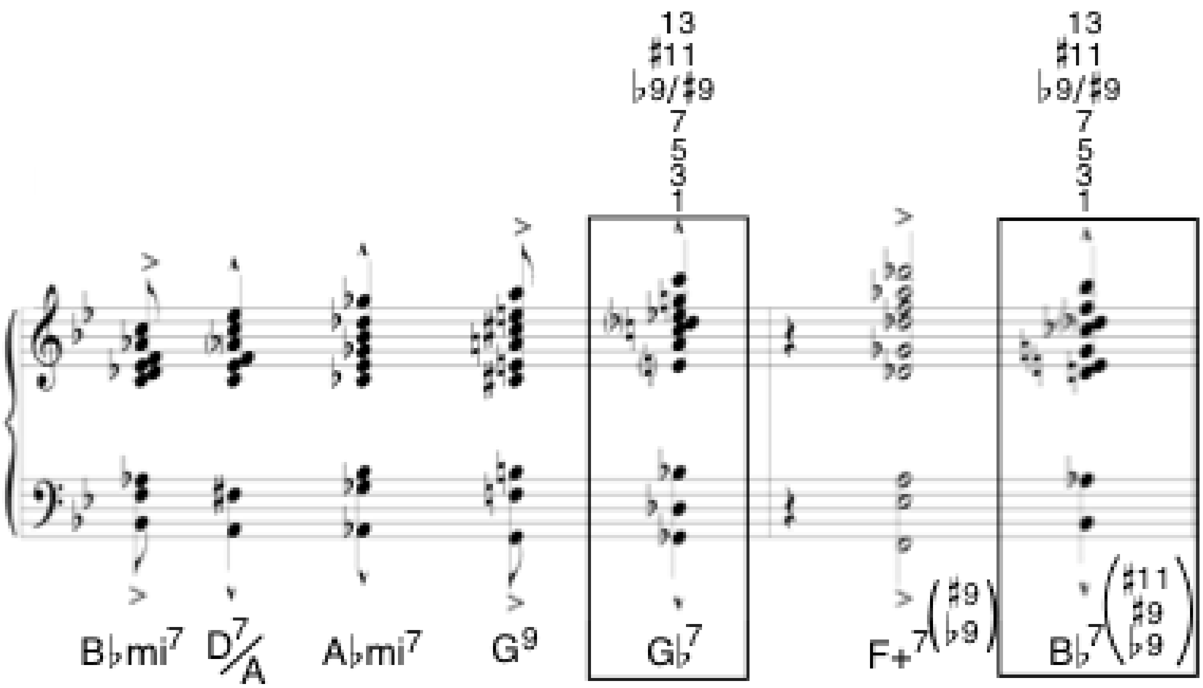
As with the other chord-scales, octatonic scales sometimes found with all notes present, and at other times various subsets of the collection are employed. Ex. 2.28 shows a typical octatonic application over an Eb7b9 chord in which all the pitch classes from the scale are used.

Example 2.28 "Three and One" letter C; Octatonic chord-scale application with all tones present



In the above example, not every note in the applied chord-scale is represented in each vertical sonority, but every tone in the octatonic collection sounds at some point within the duration allotted to the chord symbol. Below is an example in which the entire chord-scale is applied in a more rapid harmonic fashion over two of the dominant chord symbols in the excerpt. Of additional interest is the variety of chord symbol types and extensions to which Jones applies the octatonic collection in examples 2.28 and 2.29.

Example 2.29 "Cherry Juice" 3-4 after I; Octatonic chord-scale application with all tones present



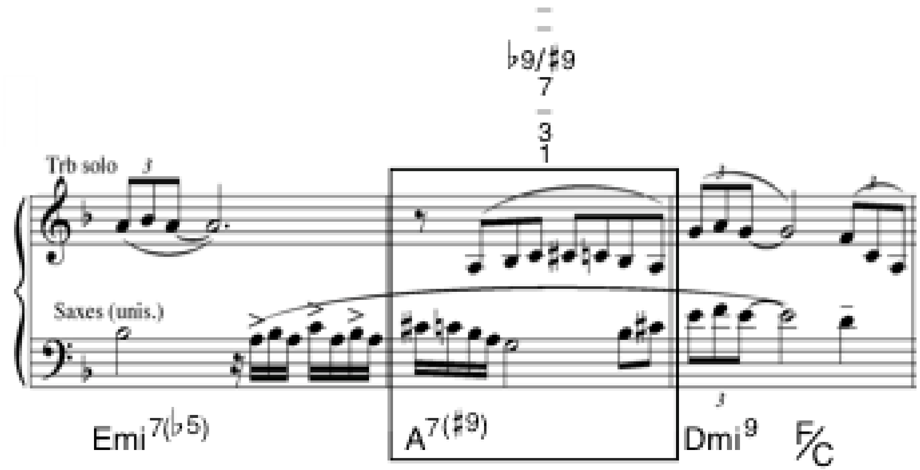
Using all tones from the chord scale simultaneously is the most common application of the octatonic collection in "Cherry Juice." In contrast to this usage, in "To You" the full scale is never employed in any single octatonic chord-scale application. The most common application of the octatonic chord-scale in "To You" is 1-3-7-b9-#11-13 as in the opening shown below (see ex. 2.30).

Example 2.30 "To You" opening chord; Octatonic chord-scale application (most common application)

The application of the octatonic chord-scale above omits the 5th and the raised 9th. In this voicing, Jones creates a polychord with the top sonority being a minor seventh chord built a tritone above the chordal root (in this case F#m7/C7). This is a very common voicing of this collection throughout these pieces when the 5th is omitted or used only in the lower register.

Earlier, we saw a case where a particular chord mapped onto both the whole tone and diminished whole tone scales because it contained only a few pitch classes. The following excerpt similarly shows a chord-scale fragment that appears to be octatonic due to its altered 9ths, but because there is no 5th or 13th to distinguish the collection, it maps onto both the octatonic and diminished whole tone scales. For purposes of statistics and chord counting, I assign this particular chord-scale application 1/2 octatonic and 1/2 diminished whole tone (see ex. 2.31 below).

Example 2.31 "To You" 2 after C; Ambiguous collection (either octatonic or diminished whole tone)



Having examined how Jones treats the combination of #11/5 in the Lydian major and Lydian dominant chord-scale applications, it is of interest to examine the same usage in the octatonic applications. Table 2.8 below shows the various combinations of #11 and 5 and how they appear in the various chord scales in the three pieces under study.

Table 2.8 #11/5 uses

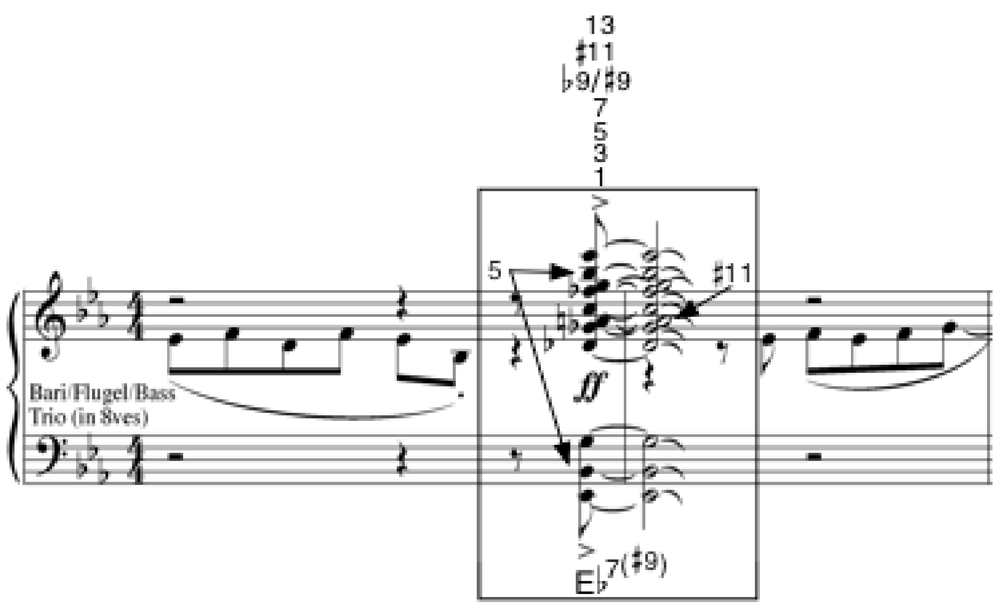
	Lydian Major		Lydian Dominant		Octatonic	
	#11/5	#11 no 5	#11/5	#11 no 5	#11/5	#11 no 5/5 no #11
To You	100%	—	25%	75%	11.76%	11/4 = 88.24%
Three and One	90%	10%	28.54%	71.46%	17.50%	7/26 = 82.50%
Cherry Juice	100%	—	25.65%	74.35%	52.71%	9/26 = 47.29%

The table above reveals some interesting facts. For Lydian major, the #11 and 5 appear together almost exclusively in all three pieces. In Lydian dominant chord-scale applications, Jones has a clear tendency to use the #11 without the 5 in all three pieces. For the octatonic chord-scale applications, Jones's tendencies are inconsistent between the three pieces. In "To You" and "Three and One" he clearly favors using this collection in a way in which the #11 and 5 are not found together (as was the case for Lydian dominant). For "Cherry Juice," however, the use of #11 and 5 in the octatonic collection applications is much less specific, as he freely uses these tones in all combinations fairly evenly. This change of octatonic usage in "Cherry Juice" may be attributed to the style of the music warranting a more free application of #11 and 5, or it could represent a chronological shift in how Jones treats the octatonic collection over the course of time in his compositions. Recall also how that the octatonic chord-scale itself gains in usage when examining these pieces by chronological order of publication. One might posit that as the use of the scale increased, so did the manner in which it was employed.

In cases where the #11 and 5 are used together in octatonic chord-scale usage, sometimes the #11 and 5 are voiced a minor second apart and sometimes separated by an octave or more (see examples 2.32 and 2.33 below).

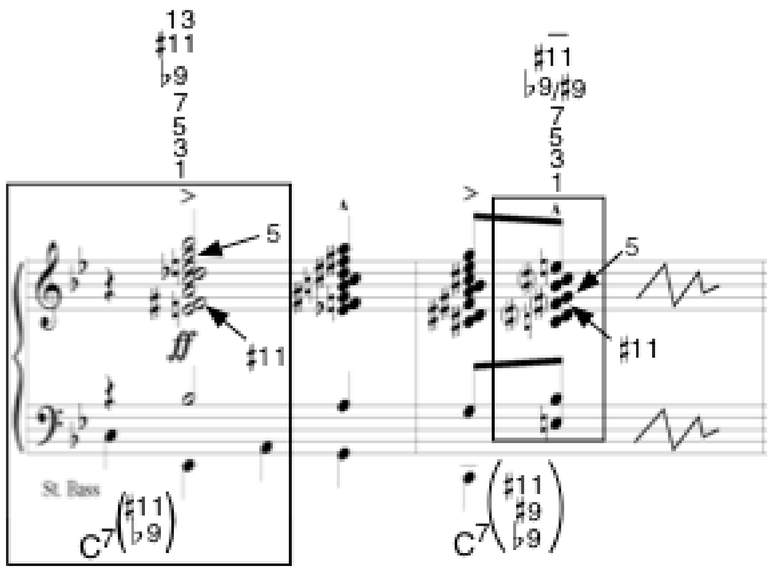
Example 2.32 "Three and One" 9 after I; Octatonic chord-scale application (#11 and 5 in same register)

Example 2.33 "Three and One" opening chord; Octatonic chord-scale application (#11 and 5 in different registers)



And although the 5 is more commonly found below the #11 in octatonic applications than vice versa, a particular polychordal voicing is often featured when the #11 is found below 5. This particular voicing is a polychord in which the top sonority is a diminished seventh built a semitone above the chordal root. Ex. 2.34 below demonstrates this polychordal voicing (note the two instances of C#^{0}7/C7 in the excerpt below.)

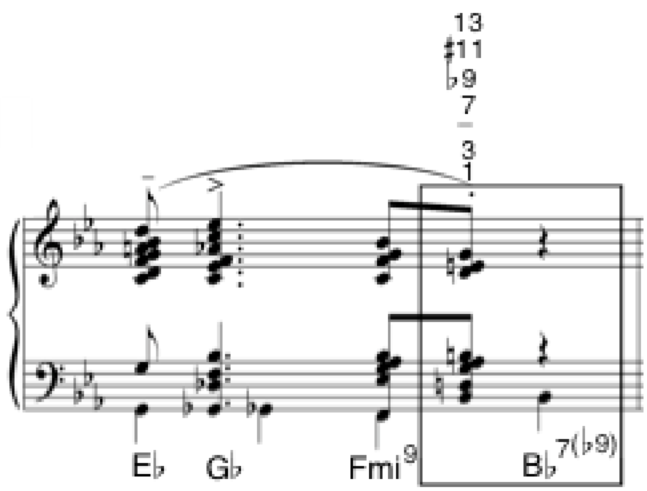
Example 2.34 "Cherry Juice" letter K; Octatonic chord-scale application (#11 below 5)



Of the octatonic chord-scale applications in which either the #11 or the 5 is used but not together, it is interesting to note the prominence of one tone over the other in the three different pieces (Table 2.3 above). In "To You," the #11 is used nearly three times more often than the 5. In "Three and One" and "Cherry Juice," the roles are reversed, as 5 is found roughly three times more often than the #11 when only one is used.

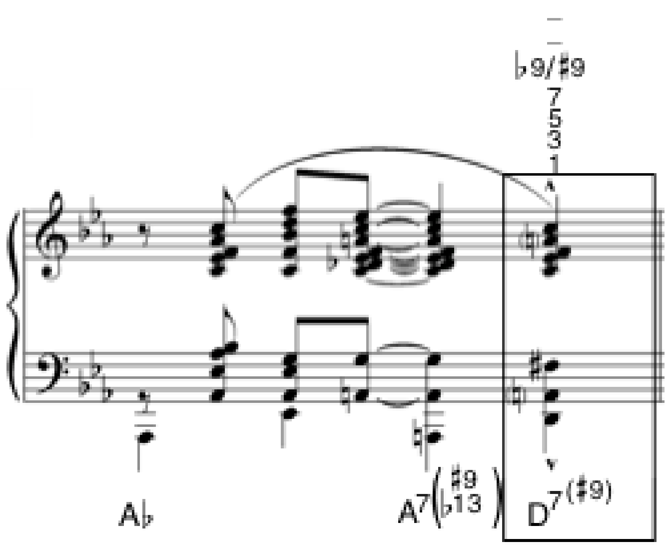
Example 2.35 below shows an octatonic chord-scale application in which the #11 is used but not the 5. As was the case in ex. 2.30, notice the polychord in which the top sonority is a minor seventh chord built a tritone above the chordal root (in this case, Em7/Bb7).

Example 2.35 "Three and One" 2 after I; Octatonic chord-scale application without the 5th (in polychordal voicing)



Ex. 2.36 below shows a typical example in which the octatonic chord-scale is employed with the 5th and not the raised 11th. Notice the polychordal voicing in which the upper sonority is a dominant chord built a minor third above the chordal root (in this case, F7/D7). In cases where Jones uses the octatonic collection without the #11 this is a favorite polychordal voicing.

Example 2.36 "Three and One" 3 before J; Octatonic chord-scale application without the #11 (in polychordal voicing)



Minor Chords

Having discussed the major and dominant chord-scale applications, we now turn our attention to Jones's use of minor chord-scales and their use. Of interest in the discussion of minor chords is the manner in which the chords are functioning in the overall progression and how this function does or does not influence the chord-scale to accompany the chord symbol in each case.

The major chords in this literature (many examined above in regard to scalarity) function as I, IV, VII, or several other possibilities, some indeterminate. Regardless of the local function, Jones freely applies the Ionian or Lydian major chord-scales without altering function. For the dominant chords, Jones freely applies any of the dominant chord scales, also without altering function.

For the minor chords in this literature, most either function as i, ii, or iii in the local progression.[50] One wonders if Jones might treat a minor chord functioning as i differently than a minor chord functioning as ii or iii in regard to chord-scale application (remember that Baker considered chord function in his minor chord-scale application suggestions). If diatonic agreement is desired, then chords that function as i, ii, or iii require three different chord-scales, namely Aeolian (1-3-5-7-9-11-b13), Dorian (1-3-5-7-9-11-13), and Phrygian (1-3-5-7-b9-11-b13) respectively.[51] Then again, we ought not to expect Jones to implement purely diatonic chord-scales with minor chord symbols when he did not do so with the major or dominant

[50] The vi chord in major and the iv chord in the minor modes are conspicuously absent.

[51] The assumption in these numeric chord stacks is that minor seventh chords already contain a minor third and minor seventh. Unless altered, the ninth, eleventh, and thirteenth are understood to be a compound major second, compound perfect fourth, and compound major sixth respectively. It is interesting that although not standardized, the unaltered numbers in minor chord stacks are commonly understood in jazz to correspond to the Dorian scale rather than the minor scale.

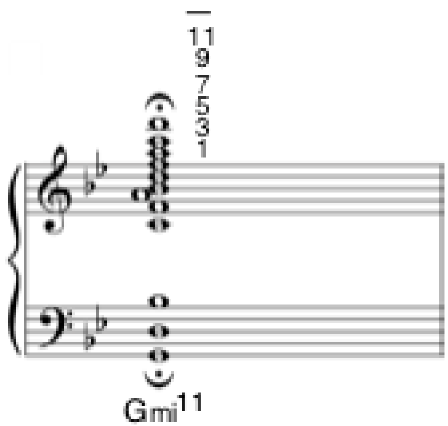
chords (else the only chord-scale options we would have seen thus far would be Ionian for major chords functioning as I, Lydian for major chords functioning as IV, Mixolydian for all dominant chords, etc.)

Interestingly, although the iii chord is used in several iii-VI-ii-V-I turnarounds, the Phrygian chord-scale is never applied.[52] Instead, for all minor chords (regardless of function) Jones draws primarily from the pure minor and Dorian chord-scales in these pieces. The difference between these two collections lies in one tone, the 13th. For pure minor, the 13th is a compound minor sixth above the root, and for Dorian it is a compound major sixth above the root.

By far, the chord-scale that Jones most commonly applies to minor chord symbols in this music is a pure minor scale in which the 13th is absent. This particular collection is applied 83% of the time a minor chord symbol appears. Because the missing 13th is the distinguishing tone between the minor and Dorian collection, it is ambiguous as to whether the chord-scale is minor or Dorian. For these cases, I categorize them as Dorian/minor. A common application of this chord-scale is the last chord of "Cherry Juice," which is a G minor piece concluding with a Gm11 chord symbol. See ex. 2.37 below.

[52] Indeed, this chord-scale, which requires a lowered 9th and 13th, is rarely found in jazz although it is in diatonic agreement with the parent scale. In most cases in this specific literature, the vi in the iii-vi-ii-V turnaround is altered to major quality. Because of this, the iii-VI actually becomes like a ii-V followed by another ii-V.

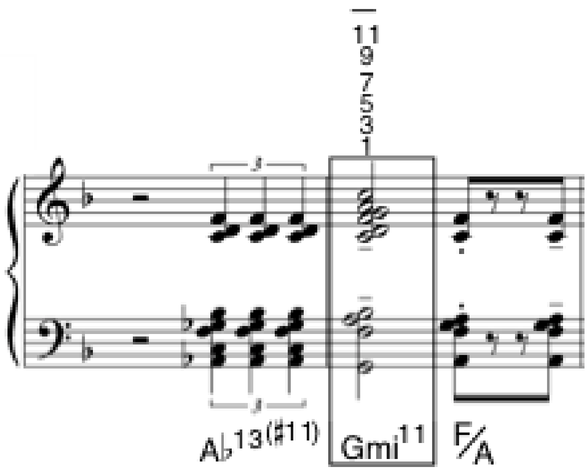
Example 2.37 "Cherry Juice" last chord; Dorian/minor chord-scale application



The above example is primarily an extended tertian harmony in the treble clef up until pitch class C, the 11th. Instead of stacking another third above that which would be the missing 13th (E or Eb), Jones chooses a perfect fourth as the top interval in the sonority. This puts F in the lead trumpet and forms a chord without the 13th. This chord may be interpreted in a polychordal context in several different ways—F/Gm, Dm7/Gm, or BbM7/Gm.

Ex.2.38 demonstrates another application of the Dorian/minor chord-scale (minor scale without the 13th). Here the voicing is much lower than in the previous example, and may be understood as an F2/Gm from a polychordal perspective.

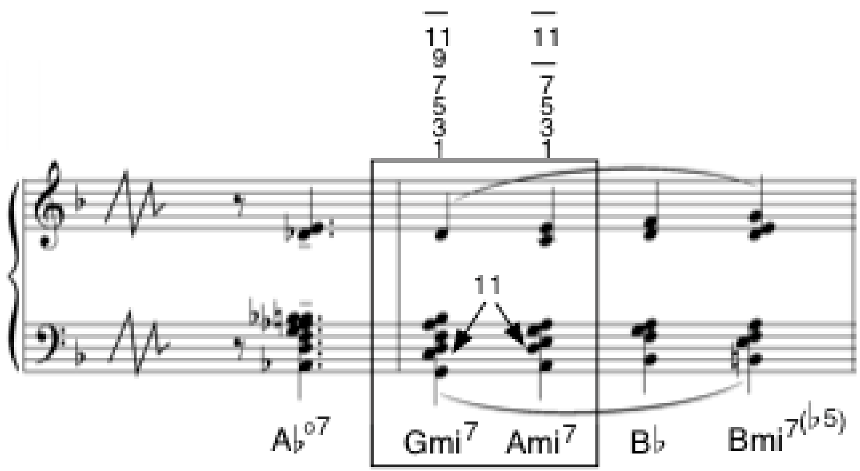
Example 2.38 "To You" 4 before C; Dorian/minor chord-scale application



Note that the chord symbols in the last two examples are Gm11, which imply within the symbols themselves all the pitches present in the chord-scale actually applied. Such is not usually the case, as the most common minor chord symbol, regardless of the chord-scale application, is simply a designation of “Xm7.”

The previous two examples show voicings in which the notes directly above the bass are the 5th or the 7th. These are extremely common jazz voicings. When Jones is writing all of the voices in the lower register, he often chooses to voice the chords in which the 11th is the pitch directly above the bass. See ex. 2.39 below.

Example 2.39 "To You" 8 before B; Dorian/minor chord-scale application (11th directly above bass)



Bill Evan’s minor chord voicings on Miles Davis’s tune “So What” have become standard in the jazz community. The 1959 recording of “Kind of Blue” (the album title on which the tune “So What” is found) took place in New York City. And although Jones did not permanently settle in New York until the mid 60s, he would likely have been familiar with the music by the time the three pieces under study here were composed (’61, ‘70, and ‘77).

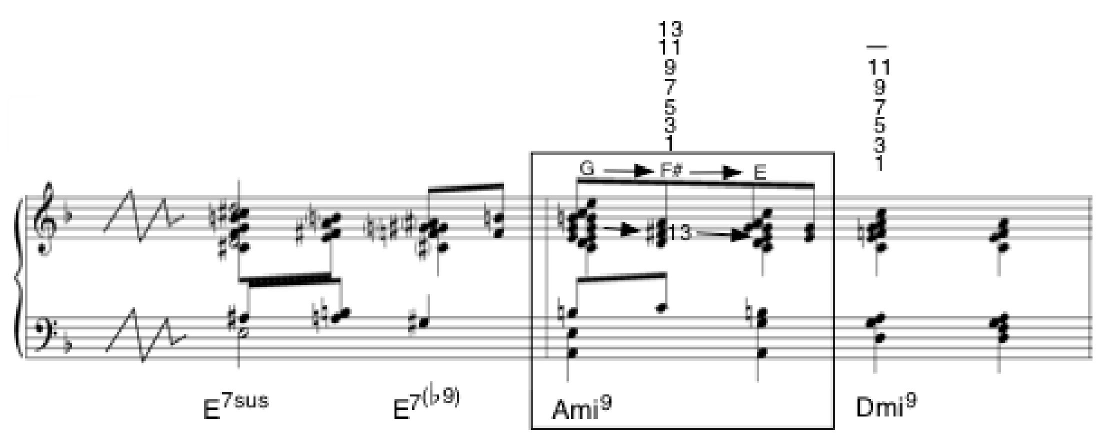
The “So What” voicing is a quartal-based minor voicing that omits the 9th and 13th. Starting from the root as bass, it is a series of three ascending perfect fourths and a major third. In E minor (from Evans’s original), the pitches from the bottom up are E-A-D-G-B. If the G had ascended another perfect fourth, it would have produced C, the ß13.

And while Jones generally prefers a more dense and dissonant texture, he will occasionally use Evans’s “So What” voicing. Ex. 2.40 below shows a brief use of the quartal-based voicing in a sax soli in “Three and One.”

Example 2.40 "Three and One" 6 after C; Dorian/minor chord-scale application (“So What” voicing)

As mentioned, the examples above represent the most common use of minor chord-scale applications in this music, namely a pure minor (or Dorian) scale without the 13th (the “So What” voicing is a subset of this collection). And although the 13th is generally avoided in minor chord-scale applications, it is used occasionally. When the 13th does appear, it usually moves melodically to another scale tone within the duration of the chord symbol. Below is an example of a Dorian chord-scale application over an Am9 chord symbol in which the 13th moves melodically through the voicing.

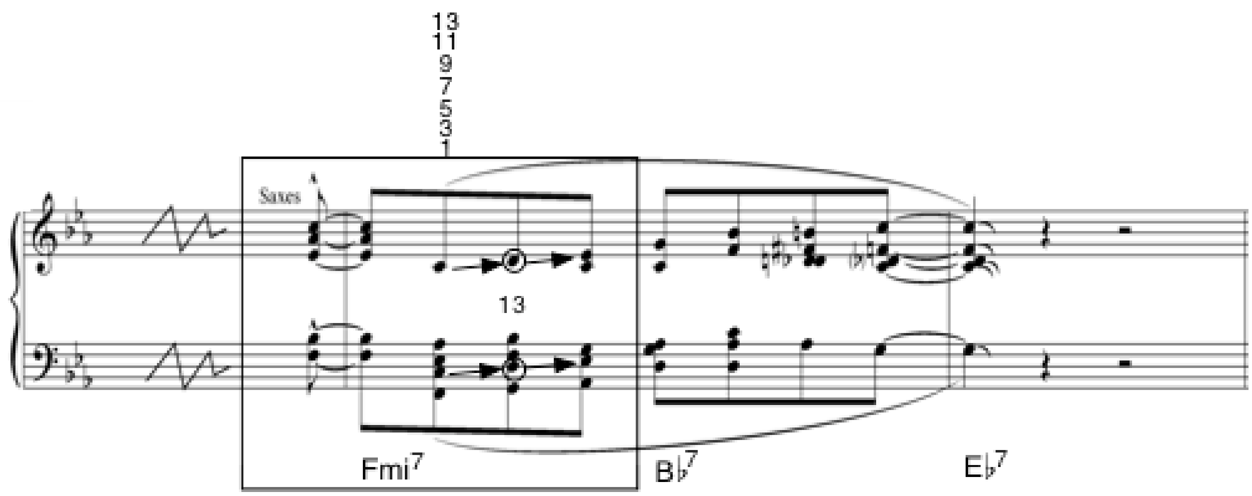
Example 2.41 "To You" 3 after A; Dorian chord-scale application (13th moving melodically on weak beat) followed by Dorian/minor chord-scale application



In the above example, the ∂13 (in this case, F#) that distinguishes the Dorian mode from the pure minor is implemented.[53] It sounds on a weak part of the beat and moves to another scale tone within the duration of the chord-scale. Immediately following the A Dorian chord-scale application is a Dm9 symbol to which Jones applies the more common Dorian/minor without the 13th as we saw in examples 2.37-2.39.

Below is a Dorian chord-scale application in which the 13th moves to another scale tone within the duration of the chord-scale, but this time it occurs on the strong part of the beat (see ex. 2.42).

Example 2.42 "Three and One" 5 before F; Dorian chord-scale application (13th moving melodically on strong beat)



Although examples 2.41 and 2.42 both demonstrate Dorian chord-scale applications, the functions of the two minor chords over which the scale is applied are different. The first example is an Am9 chord functioning as i, and the second is an Fm7 chord functioning as ii.

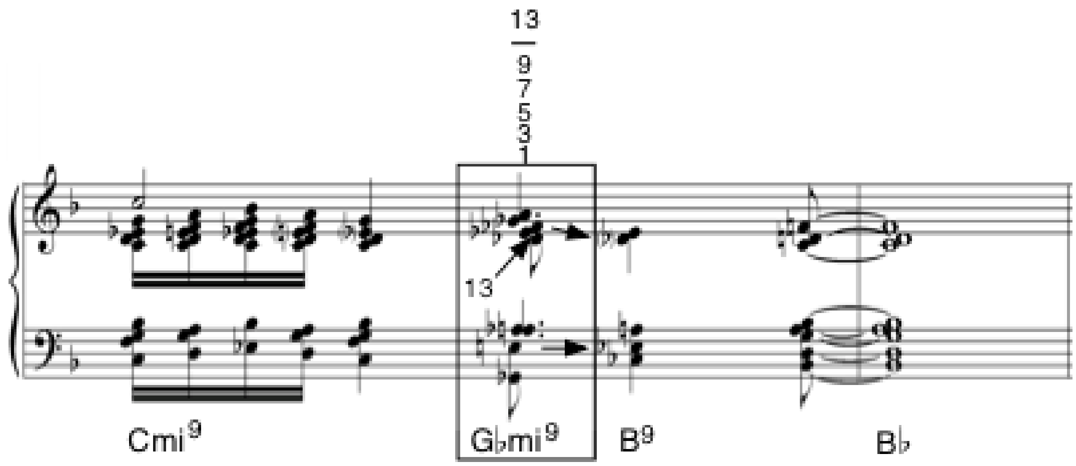
[53] In this context, ∂13 indicates the note a M6 above the root whether it be ƒ, ß, or ∂.

A more extended use of the Dorian chord-scale is seen below in ex. 2.43. Here the Dorian mode is presented over four measures as the trumpet voicings move in descending fashion and the trombones echo. As the trumpets move through the pitch space that includes the 13th, Jones chooses the Dorian E∂ rather than pure minor Eb. The Gm11 chord here functions as a i chord.

Example 2.43 "Cherry Juice" 4 before A; Dorian chord-scale application (13th sounding on strong beat)

As stated earlier, when the 13th is used in these collections (whether natural of flat) it usually moves melodically to another scale tone within the duration of the chord-scale. There are only two examples in this literature in which this is not the case. One of these is seen below (see ex. 2.44).

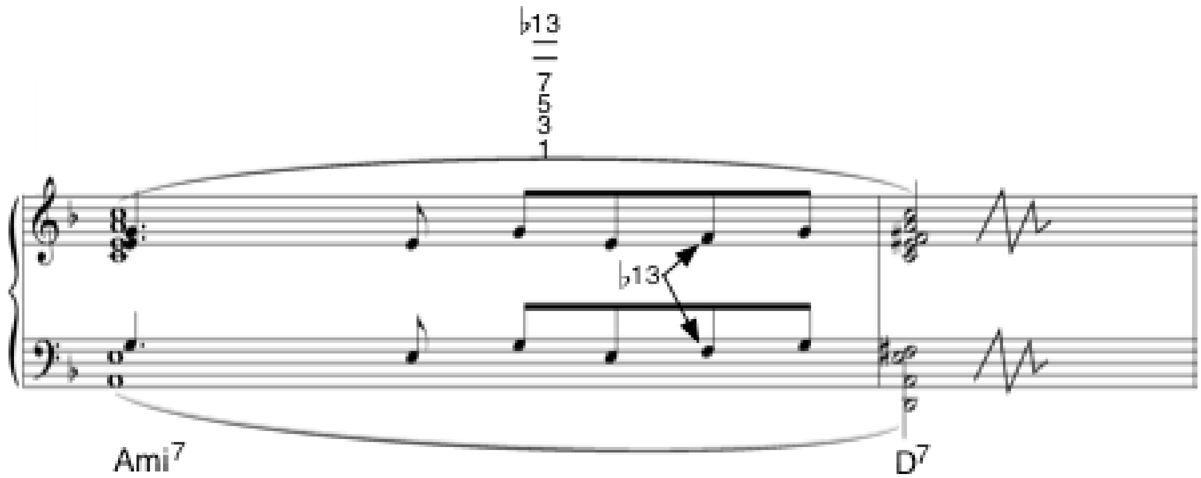
Example 2.44 "To You" 4 after B; Dorian chord-scale application (13th sounding on strong beat)



In the example above, the Gbm9 chord symbol is in effect for the duration of an eighth note. This chord is functioning as ii in a ii-V progression and the 13th in the chord, Eb, sounds in the upper cluster. Note that while the eight notes move to quarter notes of a different pitch as the chord changes, the dotted quarters sustain into the V chord on the same pitch as common tones. And although there is an Eb in both chords, instead of keeping the Eb from the ii chord as a common tone, Jones chooses to approach the Eb in the V chord from a half step above (E-Eb in the bass clef) while the Eb in the treble clef moves down to Db in the V chord.

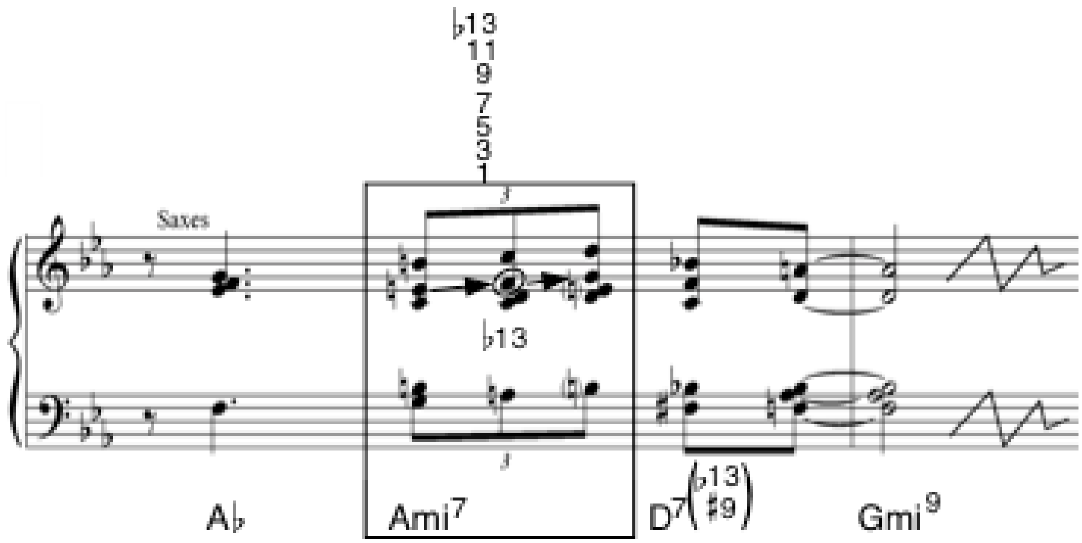
The use of the 13th in the previous examples has been the ∂13, which indicates the Dorian chord-scale. I have also noted that the Dorian collection was used over i chords as well as ii chords. When the b13 is implemented in a minor application, it most generally indicates the pure minor collection. And as was the case with the ∂13, the b13 usually moves melodically to another scale tone within the duration of the applied chord-scale. The example below shows an application of the pure minor chord-scale over an Am7 symbol, functioning here as a ii chord. The b13 moves to another scale tone within the duration of the symbol, as noted above.

Example 2.45 "To You" 6 before C; Pure minor chord-scale application (b13 sounding melodically on weak beat)



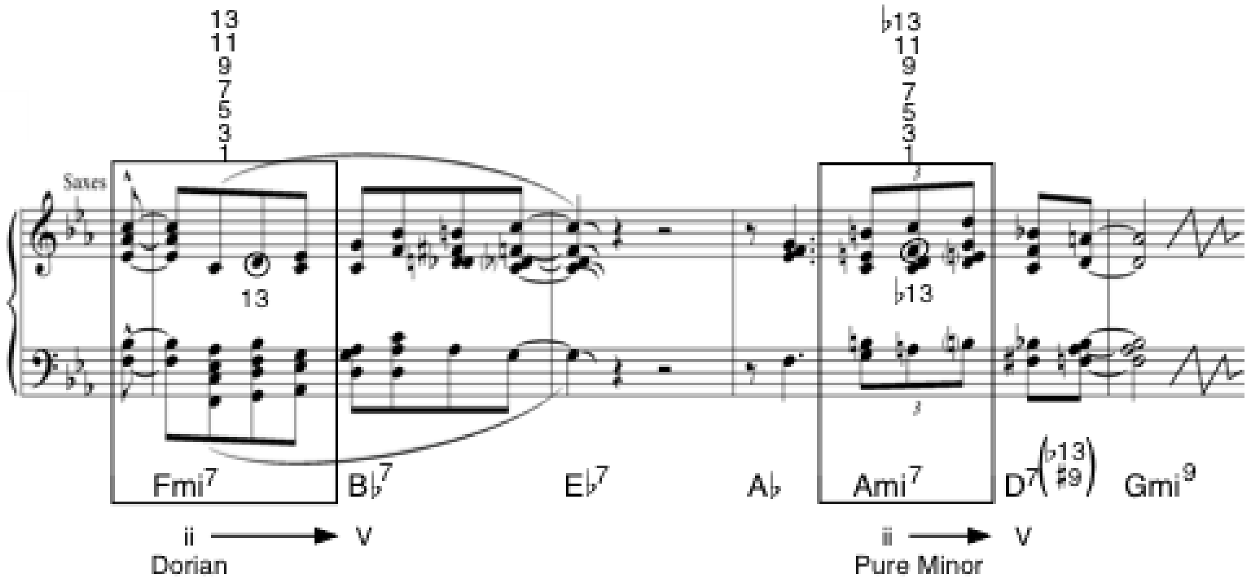
Below is a similar example of a pure minor chord-scale application over a ii chord in which the b13 moves to another scale tone within the duration of the symbol. Unlike ex. 2.45 above, the b13 occurs here on a weak part of the beat (the middle note of a triplet) whereas in ex. 2.45 it occurs on a strong part of the beat (the downbeat of four). Also note that this example contains all the pitches of the pure minor chord-scale over an Am7 symbol (see ex. 2.46).

Example 2.46 "Three and One" 3 before F; Pure minor chord-scale application (b13 sounding melodically on weak part of beat)



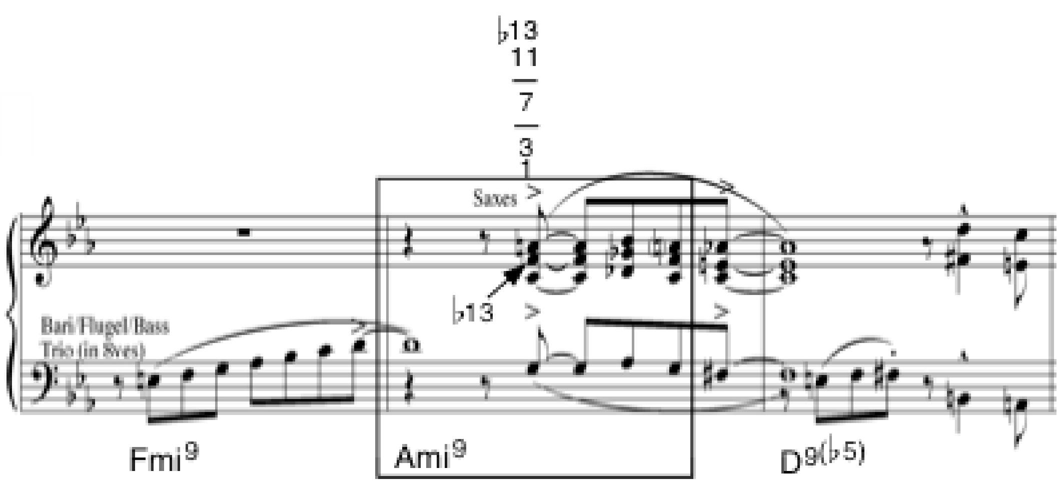
Ex. 2.42 showed a ii chord with a Dorian application in “Three and One,” five measures before F. Ex.2.46 immediately above shows a ii chord just two measures later in which Jones applies the pure minor collection to a ii chord. The example below shows the measures in examples 2.42 and 2.46 consecutively to see how that Jones treats these ii chords differently in close proximity, applying the Dorian chord-scale to one and the pure minor scale to the other, (see ex. 2.47).

Example 2.47 "Three and One" 5 before F; chords functioning as ii receiving different chord-scale applications (Dorian and pure minor respectively)



Although rare, there is a single occurrence in this literature in which the pure minor collection is implemented and the b13 does not move to another scale tone within the duration of the chord-scale application. See ex. 2.48 below.

Example 2.48 "Three and One" 7 after B; Pure minor chord-scale application (b13 harmonically stable)



Although the b13 in the example above (F) does move up to Gb and back to F, the move to Gb is not movement within the chord-scale, but rather movement to an unnotated chromatic upper neighbor chord and back. These types of chords are discussed later.

All of the examples of pure minor chord-scale applications have been over minor chords functioning as ii. Interestingly, although Jones applies the Dorian collection to i chords as well as ii chords, he applies the pure minor collection exclusively to ii chords in this literature. There are no examples of pure minor applications to tonic minor chords.

Having examined Dorian and pure minor applications, there are a few spots in these pieces in which there are other minor collections applied.

As a progenitor scale, the melodic minor scale plays a vital role in this music as several of its modes are used extensively—Lydian dominant (mode 4), Locrian #2 (mode 6), and diminished whole tone (mode 7). As an applied chord-scale over minor chord symbols, the melodic minor scale itself is not used often in this music, but it does occur. One example is found in the melody of "Cherry Juice" (see ex. 2.49)

Example 2.49 "Cherry Juice" letter A; Melodic minor scale usage

This theme occurs in the saxophones to begin each A section of the AABA form. Although manifested here as E Locrian #2 (mode 6 of the G melodic minor scale), the collection is G melodic minor and is applied over a Gm11 chord symbol each time.

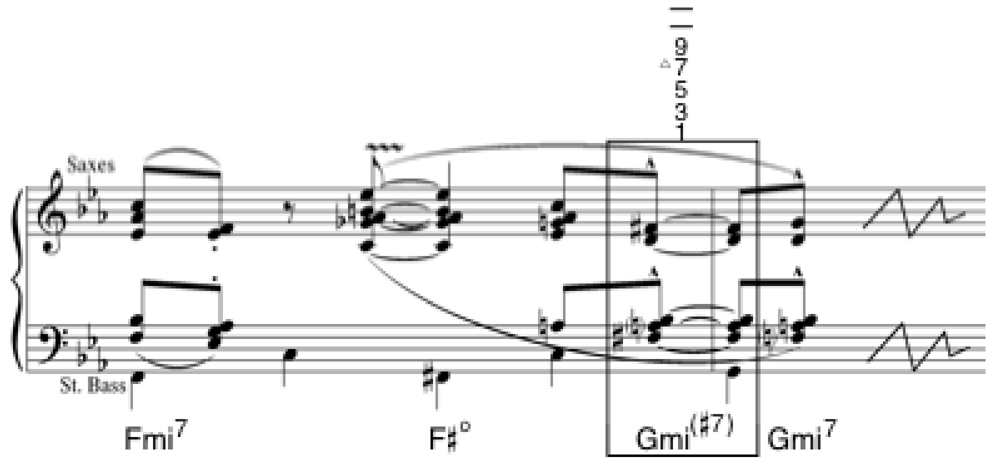
The only other clear application of the melodic minor chord scale in these pieces is found in the melody of “Three and One” (see ex. 2.50 below).

Example 2.50 "Three and One" m. 5 trio melody; Melodic minor scale usage

The melody here is a trio consisting of baritone sax, flugelhorn (Jones), and string bass. The initial statement (four measures prior) is in Eb major and sequenced here a diatonic step higher. Over the Fm chords which function here as i, Jones chooses to use the melodic minor chord-scale. The D (∂13) occurs here only as the melody moves into the Am7 chord and may be analyzed as only belonging to that chord. The sound, however, is striking in that spot as the D appears to serve the dual function of ∂13 in the Fm9 chord and 11 in the Am7 chord.

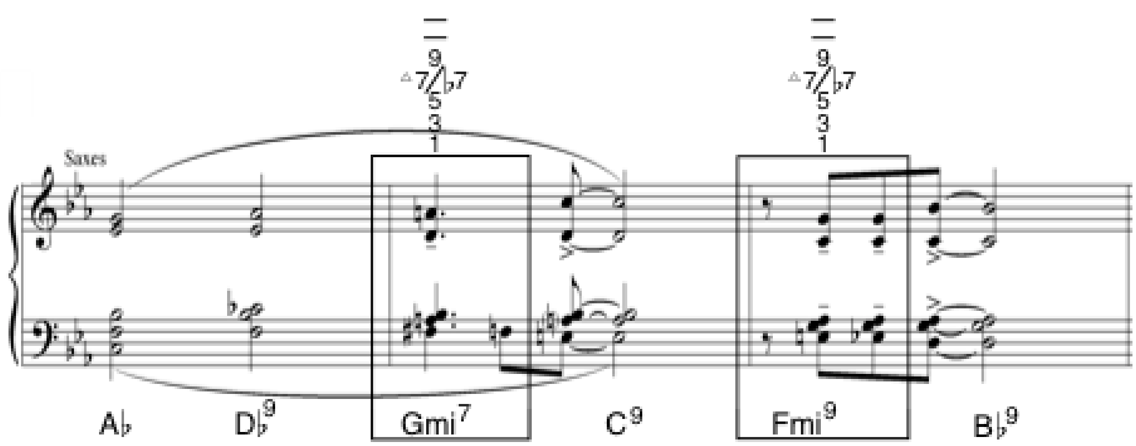
Ex. 2.51 (below) shows a rare occurrence of a minor chord symbol indicating a major seventh (Jones notates it as “#7”). The pitches applied in scale order are G-A-Bb_D_F#. This collection maps onto both the harmonic and melodic minor, due to the lack of a 13th (Eb or E∂). Jones follows this symbol immediately with Gm7 and applies the more common 1-3-5-7-9 collection, a subset of Dorian/minor, which contains the lowered seventh.

Example 2.51 "Three and One" 2 before E; Ambiguous chord-scale application (harmonic or melodic minor)



The excerpt in ex. 2.51 above is two measures before letter E. The next corresponding place in the song form is two measures before letter G, shown in ex. 2.52 below. Here the 7th of the Gm symbol is not marked raised as before, but in the part writing Jones treats it as such. Essentially, Jones writes into the voices a Gm#7 chord followed by a Gm7 chord as before, but does not notate it in the symbol. The second highlighted chord in the excerpt is a rhythmically modified sequence a step below.

Example 2.52 "Three and One" 2 before G; Both 7ths applied over generic minor symbols



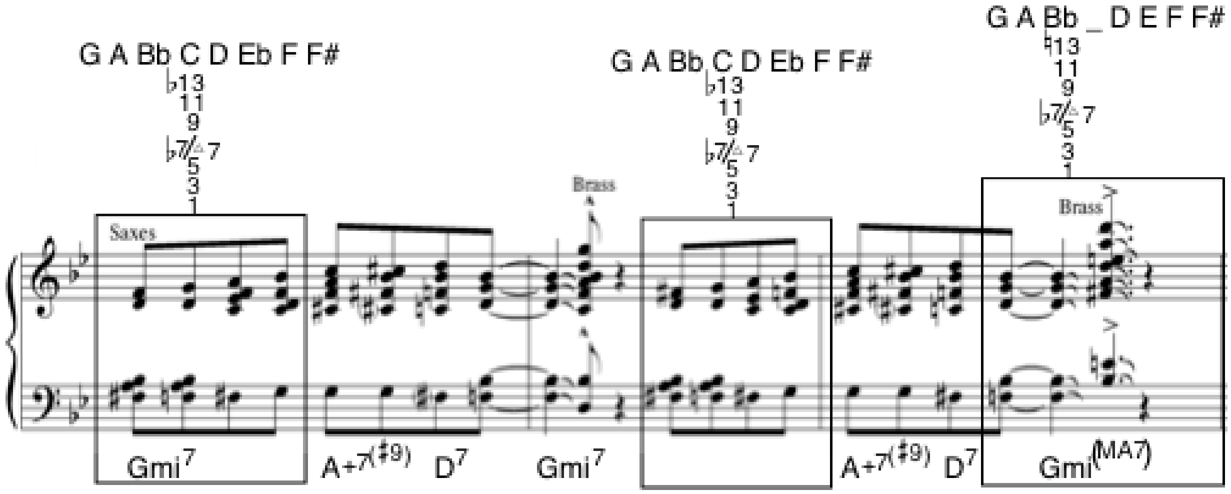
The pitches in the chord-scale applied to the Gm7 chord above (in scale order) are G-A-Bb_D_F-F#. There is no common minor chord-scale that corresponds to this collection. It is a minor-based collection with an added major seventh. Because Jones uses minor chord-scales several times with both forms of the seventh (with variations of the 13th), I am considering this collection a variation of the minor bebop scale.

As discussed previously, there are two forms of the minor bebop scale commonly taught in jazz theory books. The first contains both forms of ^3 with a minor 7th (1-2-b3-∂3-4-5-6-b7). The other contains both forms of ^5 with a major 7th (1-2-b3-4-5-#5-6-#7). The dominant bebop scale contains both forms of ^7 (1-2-3-4-5-6-b7-#7).

As seen from the three bebop scales above, the bebop concept involves an inserted chromatic tone into an existing scale. The minor bebop scale variation Jones uses in the example above contains a minor third and both the lowered and raised seventh. It is a blending of the dominant and minor bebop scales. Although not discussed in any theory books (to my knowledge), this scale applies the bebop principle of the added chromatic tone (resulting in consecutive semitones) inserted in such a way as to place the added tone on an upbeat rather than a downbeat. Because the chord-scale Jones applies here reflects the bebop principle of the added chromatic tone, it may be understood as a minor bebop scale in its own right. I am unaware of a melodic manifestation of this scale by Jones, but there are a few harmonic occurrences.

Jones continues to use variations of this collection in “Cherry Juice.” Ex 2.53 below shows three Gm7 chords (one notated as “MA7”) to which Jones applies variations of this minor bebop scale to each of these chord symbols.

Example 2.53 "Cherry Juice" letter P; Jones's minor bebop chord-scale applications



The first chord-scale is a minor scale with both sevenths as before, but now including the b13. The second chord-scale is the same as the first, occurring over a slight variation of the initial melodic content. The third chord-scale application (this time over a Gm chord symbol indicating the MA7) is similar to the first two, but with a ∂13 rather than b13.

Combining examples 2.52 and 2.53 yields what might be understood as one chord-scale with a variable tone. This minor-based scale always contains a minor third, both sevenths, and allows either the b13 or the ∂13, but not both simultaneously. The numeric scale spelling of Jones's minor bebop chord-scale is 1-2-b3-4-5-[b6(or)∂6]-b7-#7. And although Jones generally treats the b7 and #7 of this chord-scale melodically, he does pair them harmonically in the first vertical sonority of ex. 2.53 above.

Having discussed all of Jones's minor chord-scale applications in detail, below is a chart detailing the use of the various applications of each, and how often they are used in each piece (see table 2.9). As stated previously, the most used is the Dorian/minor chord-scale (minor collection without the 13th). Although Haerle, Baker, and Aebersold all list the Phrygian, whole-half Octatonic, and harmonic minor scales as suggested minor chord-scale applications, these three scales play virtually no role in this literature.

Table 2.9 Minor chord-scale uses

	Dorian	(Pure) Minor	Dorian/ Minor	Mel. Minor	Harm./ Mel.Minor	Jones Minor Bebop (♭7/♮7)
To You	4	2	35	—	—	—
Three and One	2	2	51	$2^{\text{Trio melody x 2}}$	1	$2^{\text{no13 x 2}}$
Cherry Juice	9	—	60	$3^{\text{Sax melody x 3}}$	—	$3^{\flat 13 \text{ x } 2,\ \natural 13 \text{ x } 1}$
Total	15	4	146	5	1	5
%	8.52%	2.27%	**82.96%**	2.84%	0.57%	2.84%

Half Diminished Chords

Having now examined Jones's use of major, dominant, and minor chord-scales, we now turn our attention to half diminished chords and their scalar applications. The only two chord-scales that Jones applies to half diminished chords in these works are the Locrian and the Locrian#2 scales. These two chord-scales are also the only ones suggested by all three authors (Haerle, Baker, Aebersold) in their discussion of half diminished chord-scale applications. The difference between the two scales lies in the second scale degree. For the Locrian scale it lies a semitone above the tonic and in the Locrian #2 scale it is a whole step above tonic. From a chordal perspective, this results in the difference between b9 and ∂9. Both scales include a b13 and of course a b5.

For half diminished chords functioning as ii (which almost all of these do), Locrian is the diatonic choice because all of the notes in the Locrian scale map directly onto the pitches of the key-scale indicated by the tonic chord. For example, in G minor the A Locrian chord-scale (coinciding with the ii chord, Am7b5) maps directly onto the G pure minor scale.[54] Jones however, like many other composers, tends to prefer the ∂9 over the b9 for half diminished chords. And although the 9th is often absent from these voicings, when Jones includes it his preference is clearly for the ∂9. This results in the Locrian #2 chord-scale being applied in a vast majority of situations, while the Locrian plays almost no role.

As stated previously, the chord-scale application over half diminished chords is often indeterminate due to the absence of the 9th in the chord. In the example below, the six-note chord-scale applied to the half diminished chord symbol maps onto both the Locrian and the Locrian #2 scale. The note that distinguished the two collections (B/Bb) is the only one absent (see ex. 2.54).

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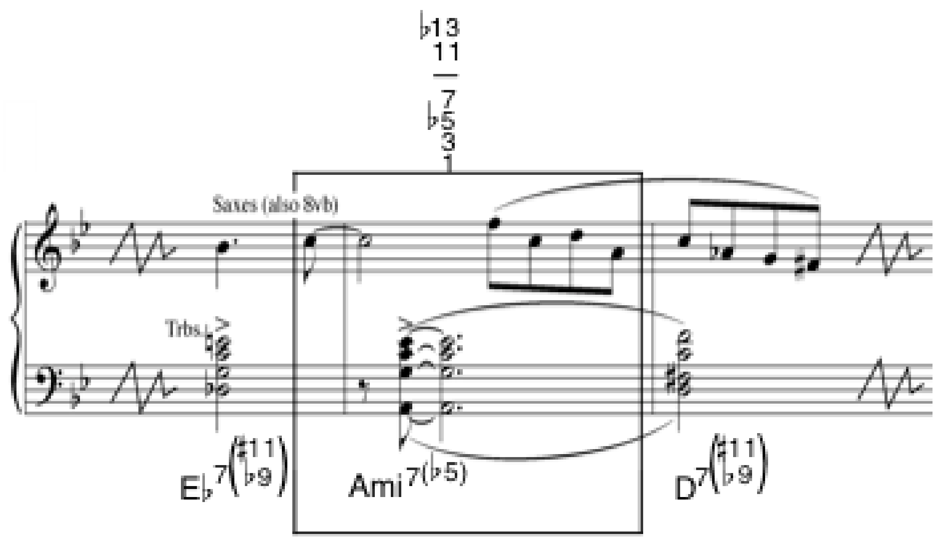
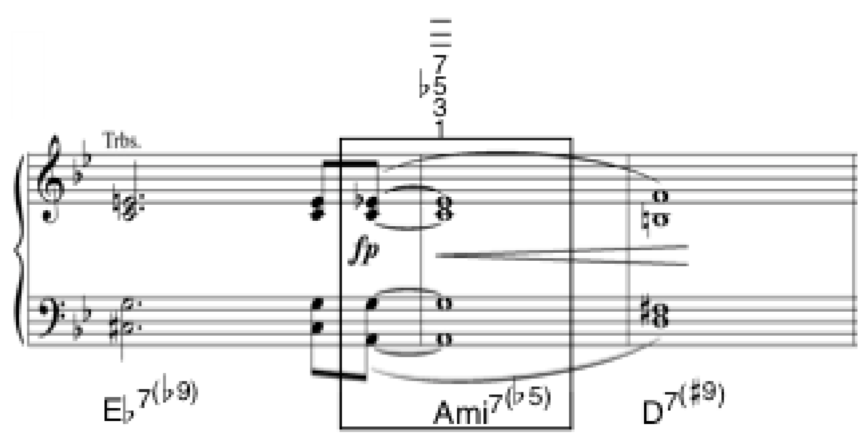
[54] In jazz nomenclature, m7b5 is preferred over ∅7.

Example 2.54 "Cherry Juice" 7 after A; Ambiguous chord-scale application (Locrian or Locrian #2)



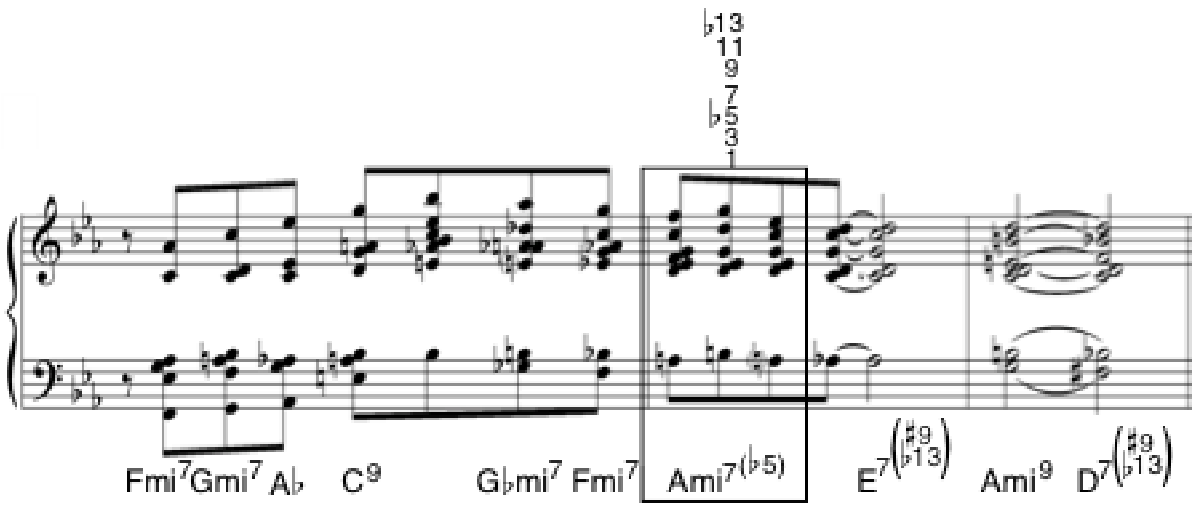
When only a few voices are present, Jones sometimes applies from the chord-scale only the four pitch classes represented in the original symbol. Because there is no 9th, these pitches map equally onto both the Locrian and the Locrian #2 scales (see ex.2.55 below).

Example 2.55 "Cherry Juice" 7 after G; Ambiguous chord-scale application (Locrian or Locrian #2)



As discussed above, when the 9th is applied, it is almost always the ∂9, indicating Locrian #2. Below is an example of a Locrian #2 chord-scale application in which all the notes of the scale sound at some point within the duration of the symbol. The distinguishing ∂9 (B∂) is found in this example in the lowest voice (bari. sax) as it moves in similar motion to the upper voices in the melodic line (see ex. 2.56).

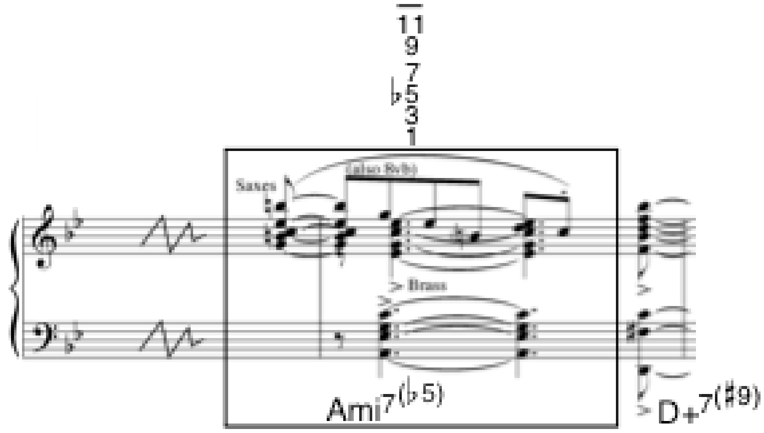
Example 2.56 "Three and One" 7 after J; Locrian #2 chord-scale application (9th is melodic tone)



Incidentally, ex. 2.56 above represents the only time in these pieces in which a half diminished chord does not function as ii in a minor ii-V progression. The function of this Am7b5 chord is unclear, but it seems to foreshadow the coming Am9 chord that functions dually as i (E7-Am = V-i) and as ii (Am-D7 = ii-V).

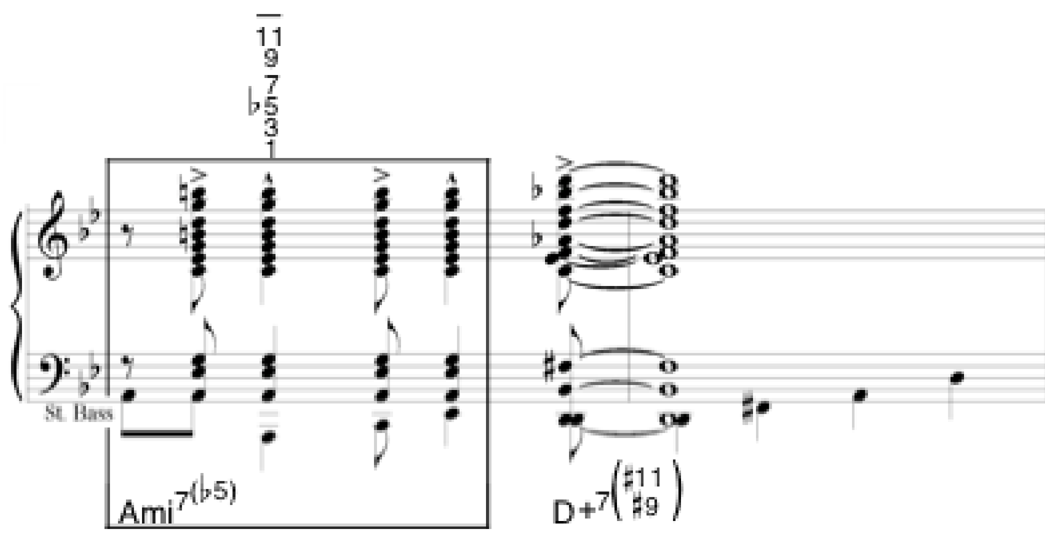
Ex. 2.57 below shows another Locrian #2 chord-scale application over a half diminished chord. In this case, all of the notes in the chord-scale are represented except for the 13th. The 9th (B) is again treated as a melodic note in the saxophones as they weave through the thick texture of the sustained brass notes.

Example 2.57 "Cherry Juice" 7 after B; Locrian #2 chord-scale application; Locrian #2 chord-scale application (9th is melodic tone)



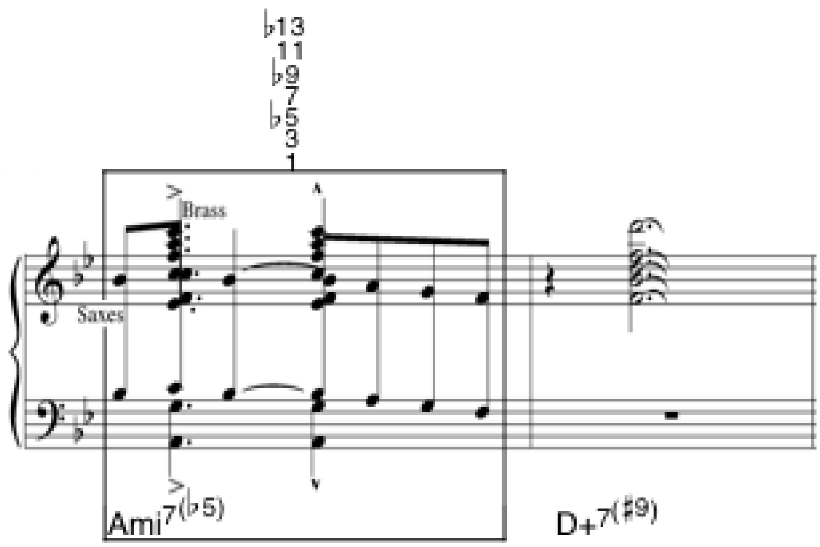
The previous examples of Locrian #2 chord-scale applications have shown the ∂9 used melodically as a tone that moves to another scale tone within the duration of the symbol. Ex. 2.58 below shows a Locrian #2 chord-scale application in which the ∂9 (B) is not only a prominent tone, but also the melody note in the lead trumpet (doubled an octave below).

Example 2.58 "Cherry Juice" 7 after I; Locrian #2 chord-scale application (9th is melody in lead trumpet)



As stated, the Locrian scale plays almost no role in this music. The only clear example of a Locrian chord-scale application in these pieces is shown below in ex.2.59. Here, all of the tones in the chord-scale are represented and the b9 (Bb) is a prominent melodic pitch in the saxophone melodic line.[55]

Example 2.59 "Cherry Juice" 7 after H; Locrian chord-scale application (9th is accented melodic tone is saxes)



Diminished Chords

The last chord quality type to examine in relation to Jones's use of simple scalarity is diminished. Unlike all the other chord quality types, Jones consistently applies only one collection to diminished chords—the whole-half octatonic collection. Incidentally, this is the only chord-scale application for diminished chords common to Haerle, Baker, and Aebersold in their discussions of diminished chord-scales.

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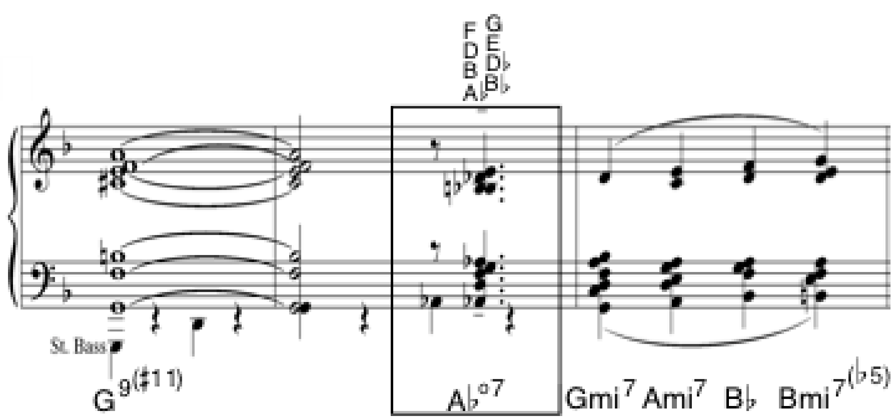
[55] Incidentally, the only sonority in all of these pieces composed of only three pitch classes is shown in the second measure of ex 2.59. It is a Bb major triad but sounds over a D+7#9 chord played in the piano. Thus it is truly not a triad per se, but rather the upper portion of a polychord in which the piano carries the lower pitches.

The half-whole octatonic chord-scale was examined previously in dominant chord usage. In this section, Jones applies the whole-half octatonic chord-scale to diminished chords. Either variation of the octatonic scale (whether beginning with a half or whole step) yields a pair of diminished seventh chords. In the half-whole octatonic scale used for dominant chords, the root of the upper diminished seventh chord lies a semitone above the chordal root. In the whole-half octatonic scale used for diminished chords, the root of the upper diminished seventh chord lies a whole step above the chordal root.

Below is an example of this octatonic collection applied to a diminished chord in “To You.” Here all instruments are playing and all eight pitch classes of the whole-half diminished chord-scale are present. As was the case in many of Jones’s other voicings, there is an interval of a third or more in the outer two voice pairs, with dissonant secundal pairings reserved for interior voices. The diminished seventh chord pair is shown above the measure.

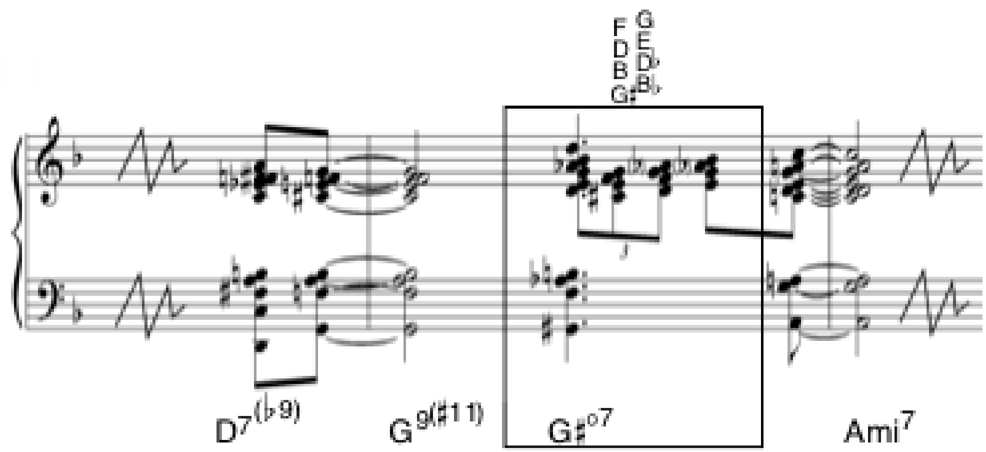
Example 2.60 "To You" 8 after A; Whole half diminished chord-scale application



Ex. 2.61 is another example in which all instruments in the ensemble are playing and all tones of the chord-scale sound within the duration of the chord. The initial articulation of the

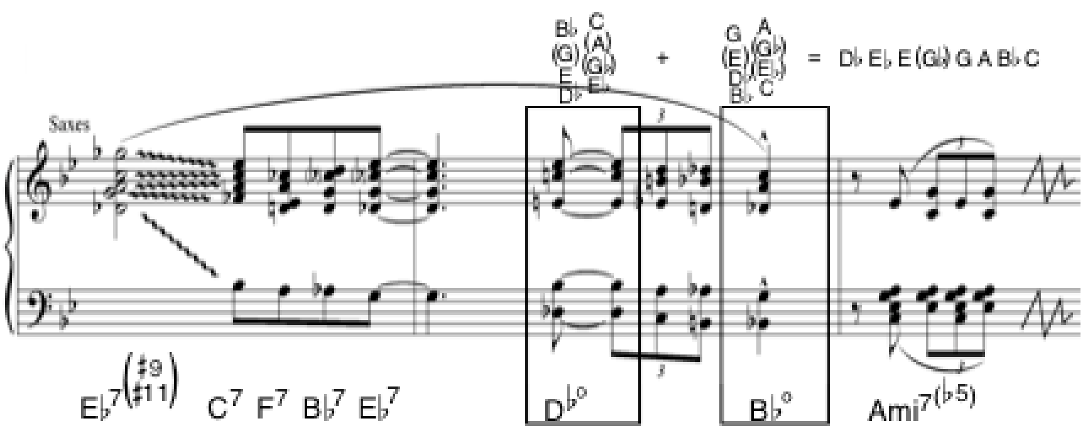
chord contains all of the notes in the chord-scale except Db (C#), which is picked up as the inner parts continue to weave through the harmony.

Example 2.61 "To You" 9 before C; Whole half diminished chord-scale application



In ex. 2.62 below, Jones writes two diminished chords in succession, the second a minor third below the first (Db°-Bb°). Regardless of the two different chord symbols which reference a diminished triad, because these chords are diminished chords a minor third apart, the seventh chord as well as the chord-scale for each is the same collection of pitches distinguished only by a different root.

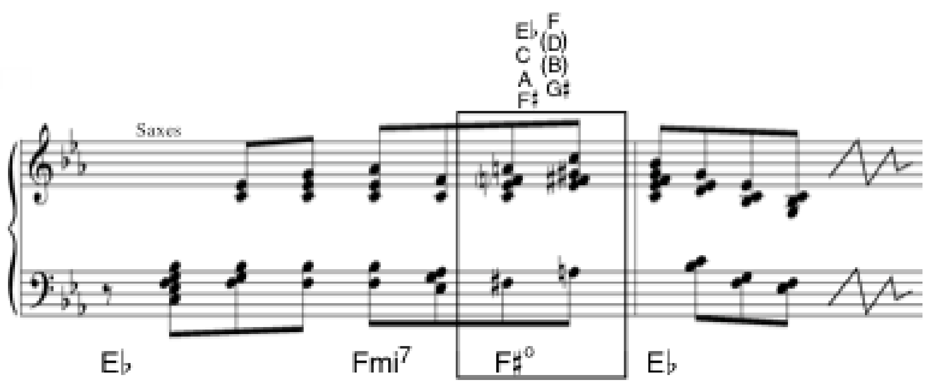
Example 2.62 "Cherry Juice" 3 before N; Whole half diminished chord-scale application (same collection over different symbols)



The two chords in this example are separated by chromatic passing chords. The letters I have put in parenthesis above the example are notes in the full chord-scale but not sounding in the chord. Each chord contains a collection of five pitches from the chord-scale, and when both chords are combined all of the pitch classes from the chord-scale are represented except Gb.

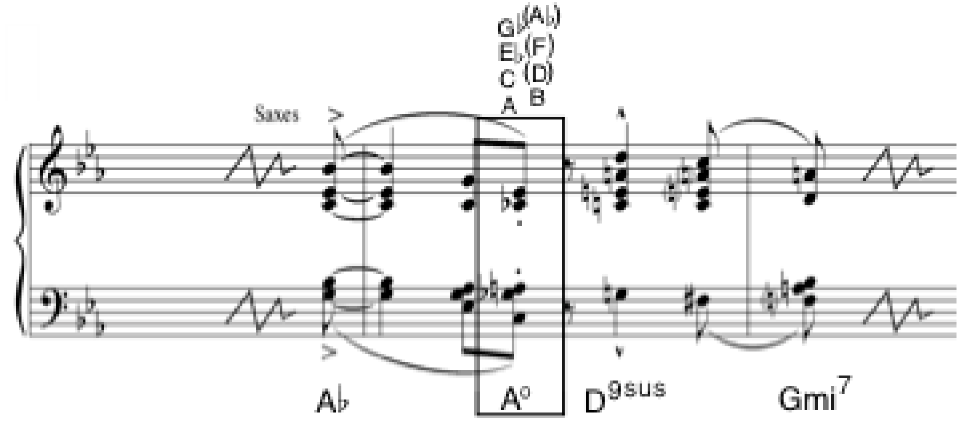
Ex. 2.63 shows a whole-half octatonic chord-scale application to a diminished chord that includes only the initial seventh chord plus two additional tones. Again, the letters above the example in parenthesis are notes in the chord-scale but not sounding in the chord.

Example 2.63 "Three and One" 2 after C; Whole half diminished chord-scale application (diminished seventh chord plus two tones)



Occasionally, when only the saxophones are playing, the diminished chord-scale application consists of only the four pitches of the base seventh chord plus one tone from the diminished seventh pair. Here again, Jones writes in this example a third or larger interval between the outer two voice pairs, with secundal pairings reserved for interior voices (see ex. 2.64).

Example 2.64 "Three and One" 3 before D; Whole half diminished chord-scale application (diminished seventh chord plus one tone)



Although Jones's diminished chord-scale applications range from five to eight pitch classes, they consistently map onto the whole-half octatonic chord-scale.

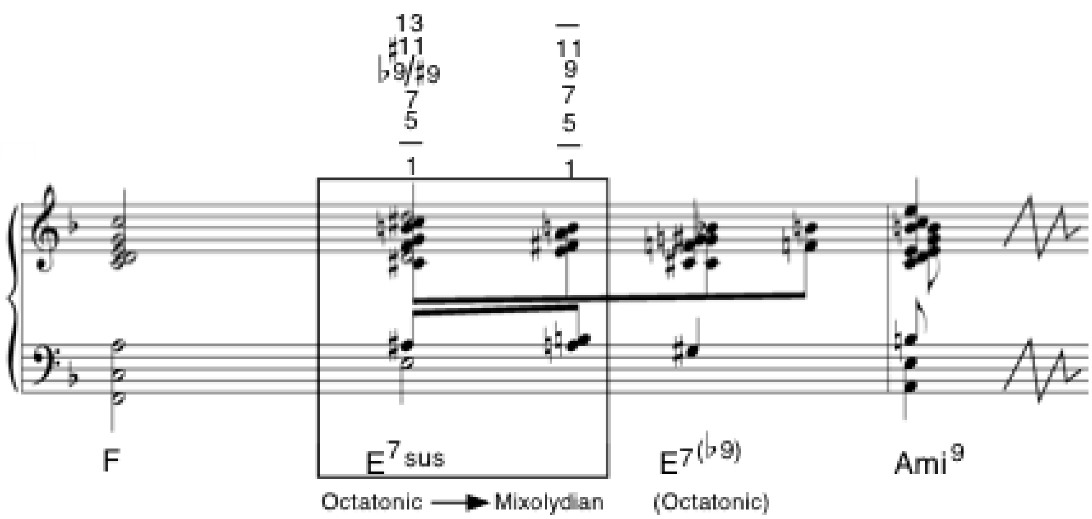
Scalar Toggling

Having now thoroughly examined Jones's use of single chord-scale applications to each of the chord quality types (the process I refer to as simple scalarity), we now examine other scalarity types—scalar toggling, polyscalarity, and blended scalarity. We begin with scalar toggling.

Scalar toggling is the process of applying two or more chord-scales to the same chord symbol, but not simultaneously. It represents a process of "toggling" from one collection to another within the duration of a chord symbol. As we have seen, the commonly applied chord-scales differ by only a few pitch classes, and in some cases, even a single pitch class. When the differentiating pitch class (or pitch classes) is adjusted by a semitone, it may be understood not only as the toggling of that pitch class but also as a toggling of the collections wherein it is contained. And while this toggling process may occur over any of the chord quality types, Jones uses this technique primarily over dominant quality chord symbols.

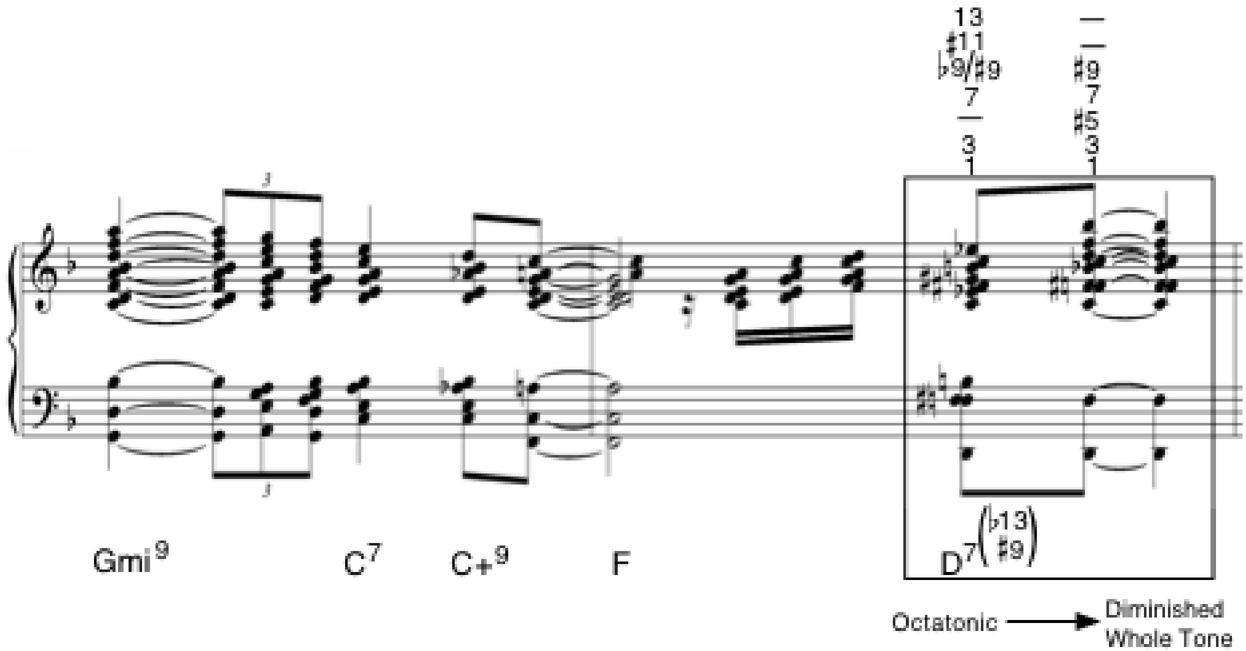
Below is an example of two different chord-scales applied to an E7sus chord. The first chord-scale applied is Eb octatonic, which lasts for the duration of an eighth note. This is followed immediately by a Mixolydian application that occupies the remainder of the duration of the symbol. The next chord symbol in the excerpt is E7b9 to which Jones applies the Eb octatonic collection. The end result is a toggling of octatonic and Mixolydian collections as the E7 resolves to Am (see ex. 2.65).

Example 2.65 "To You" 2 after B; Scalar toggling (octatonic to Mixolydian)



The next example shows a D7#9b13 chord symbol lasting two beats over which Jones applies two chord-scales. The first is D octatonic (which contains a ∂13 that actually disagrees with the symbol) and lasts an eighth note in duration. For the remainder of the symbol, Jones applies the D diminished whole tone chord-scale in a familiar polychordal voicing in which the upper sonority is built on the pitch a minor sixth (or augmented fifth) above the chord root. In this case it is Bb/D7 (see ex. 2.66).

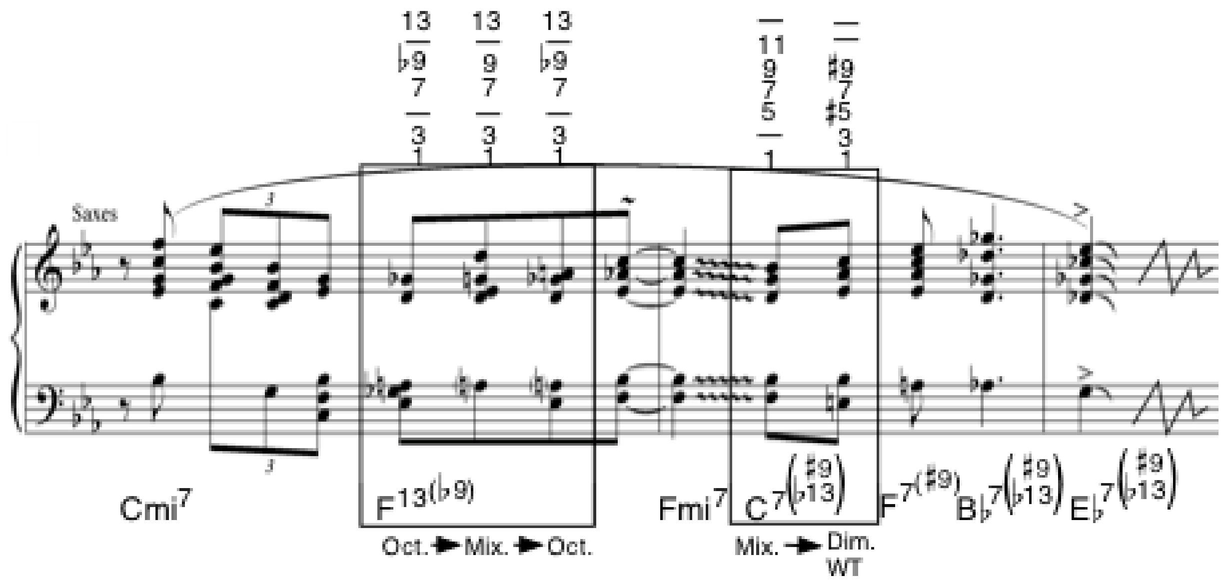
Example 2.66 "To You" 2 after D; Scalar toggling (octatonic to diminished whole tone)



Ex. 2.67 below shows two cases of scalar toggling in close proximity. The first is over an F13b9 chord symbol. For this symbol Jones initially applies the F octatonic collection, which contains the b9 indicated in the symbol. For the second eighth note duration of the symbol, Jones toggles to the F Mixolydian collection, which contains the ∂9. Then for the third eighth note Jones toggles back again to the original F octatonic chord-scale. While there is only a single pitch class differentiation between these three chords, toggling a single pitch class also toggles collections differentiated by that pitch class.

The second occurrence of chord-scale toggling in this example is over a C7#9b13 symbol. The initial chord-scale application is C Mixolydian, which contains a ∂9 and (if all the pitches were included in the orchestration) a ∂13 which both disagree with the symbol. For the second eighth note duration of the symbol, Jones applies the C diminished whole tone chord-scale, which agrees with the symbol.[56] The diminished whole tone chord scale is here again in its familiar bVI/I7 voicing.

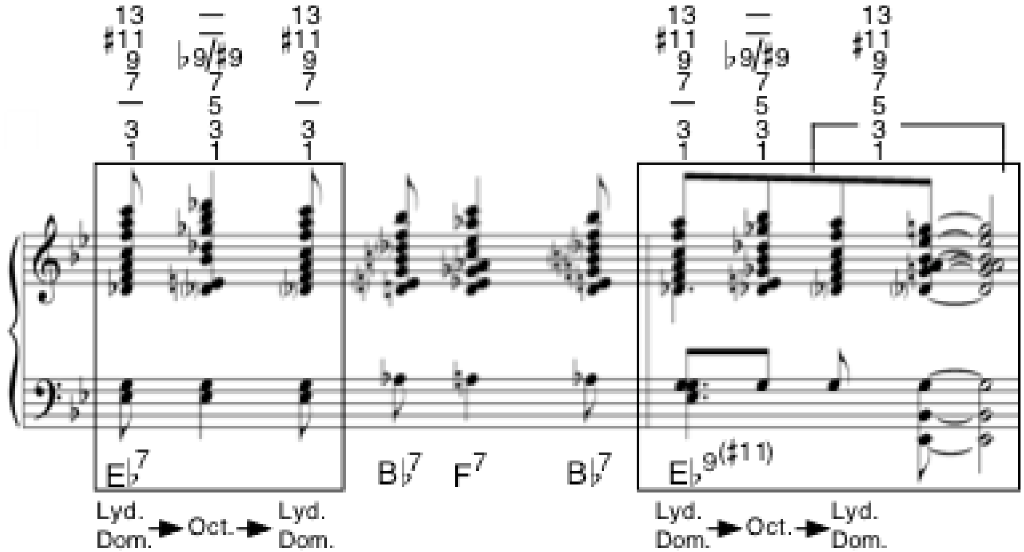
Example 2.67 "Three and One" 6 before E; Scalar toggling (octatonic to Mixolydian; Mixolydian to diminished whole tone)



The example below shows two Eb dominant chords, one marked only Eb7 and the other marked Eb9#11. Both chords are treated exactly the same by Jones. For each of the two chord symbols, Jones toggles between the Eb Lydian dominant and the Eb octatonic chord-scales. These two collections are differentiated only by the quality of the ninth. The Lydian dominant contains the ∂9 while the octatonic contains both altered 9ths. Aurally, the second chord over each symbol sounds like a neighbor chord but in reality it represents multiple chord-scale realizations in rapid succession over a single chord symbol (see ex. 2.68).

[56] Note that Jones sometimes chooses #5 and sometimes b13. I use #5 for all dominant chords for ease of comparison. Here (as in some other examples) Jones uses b13.

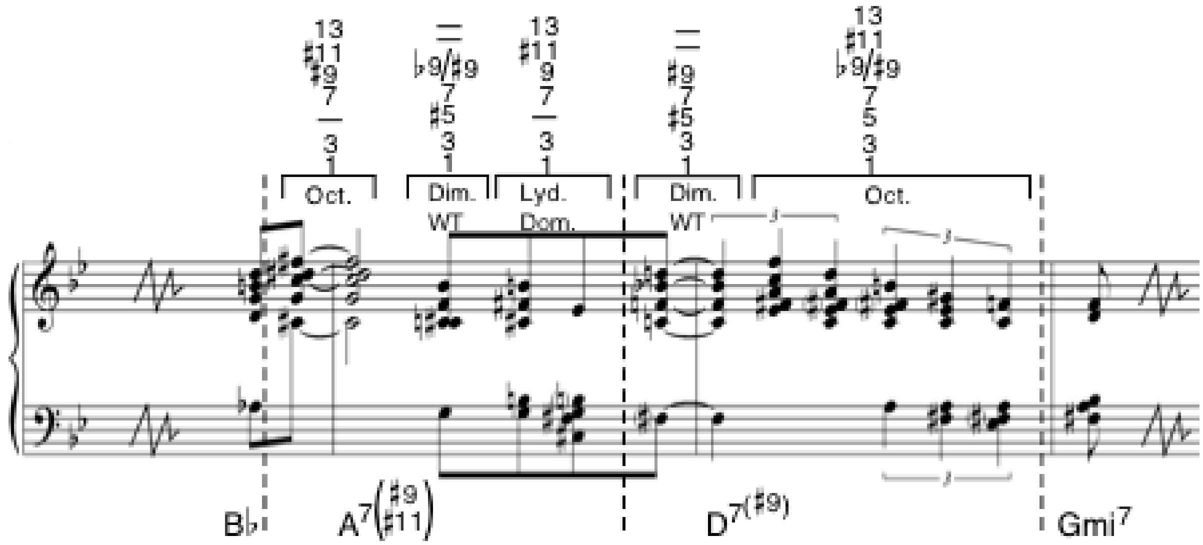
Example 2.68 "Cherry Juice" 4 before J; Scalar toggling (Lydian dominant to octatonic)



Example 2.69 below from “Cherry Juice” demonstrates scalar toggling between more than two collections over a single chord symbol. The first chord symbol involved in the toggling technique is labeled A7#9#11. The first chord-scale Jones applies to this symbol is A octatonic, which contains the altered extensions in the symbol. On beat three of the measure Jones toggles from A octatonic to A diminished whole tone. The difference between these chord-scales when all pitches are sounding is the 13th (not found in the diminished whole tone) and the 5th (∂5 in octatonic and #5 in diminished whole tone). The altered extensions listed in the chord symbol map onto both of these collections. After only an eighth note duration of the diminished whole tone collection, Jones toggles again. This time he toggles to a Lydian dominant application containing the ∂9, which conflicts with the symbol. The result of these chord-scale choices results in a scalar toggling over the A7#9#11 symbol that travels from octatonic to diminished whole tone to Lydian dominant.

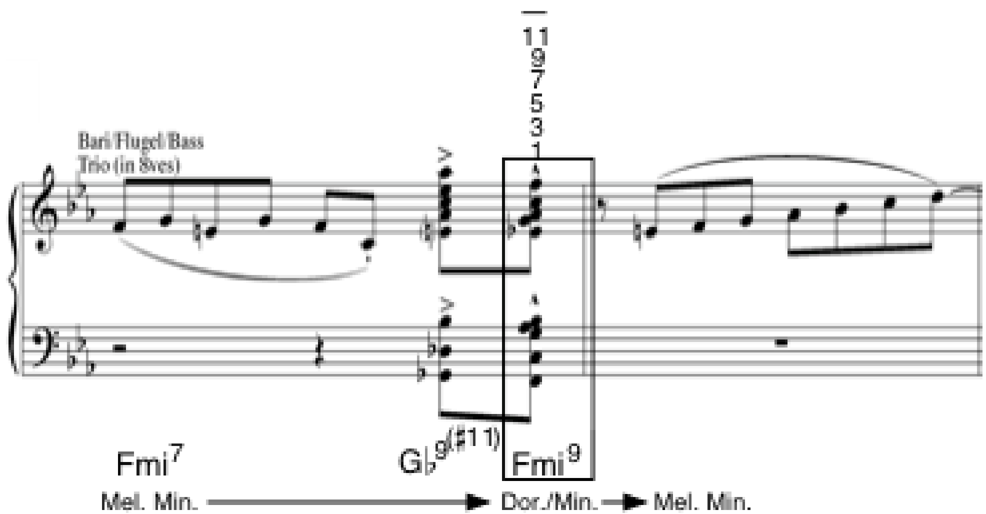
The second chord symbol involved in scalar toggling in this example is labeled as D7#9. The initial chord-scale application over this symbol is D diminished whole tone. After the initial sound, Jones toggles to the D octatonic collection for the remainder of the chord symbol duration. And although Jones toggles between two collections here, the altered extension in the symbol (#9) is common to both.

Example 2.69 "Cherry Juice" 2 before P; Scalar toggling (octatonic/diminished whole tone/Lydian dominant; diminished whole tone/octatonic)



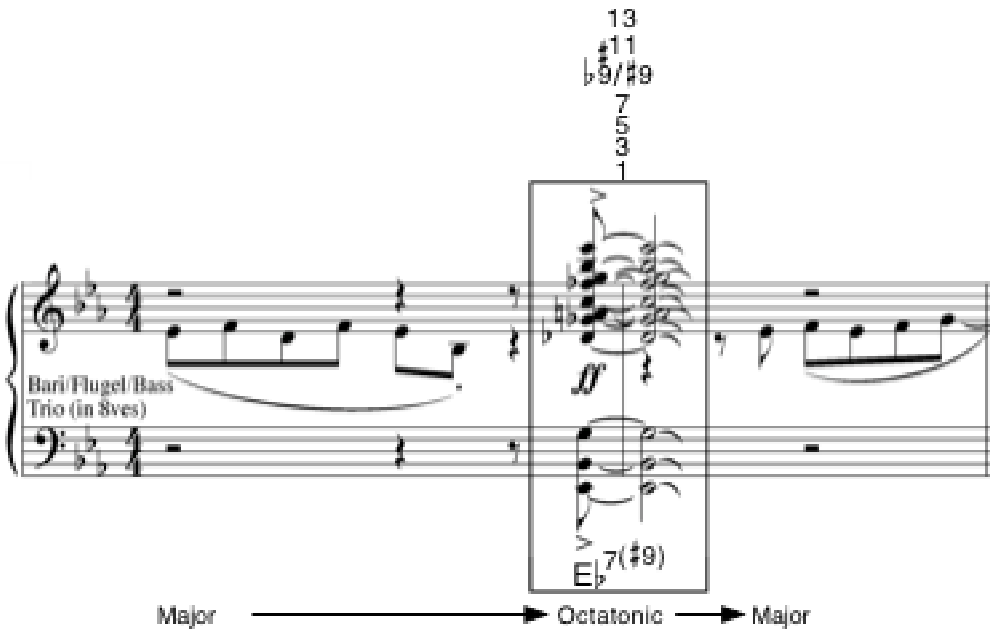
Example 2.70 below shows measures 5-6 of “Three and One.” This example of scalar toggling is one in which the harmony and melody are treated independently. Over the Fm9 chord, Jones applies the familiar F Dorian/minor chord-scale (the F minor scale without the 13th) to the tall harmonic chords. The melody that immediately precedes and follows this harmonic interjection is an application of the F melodic minor chord-scale. The chord-scale toggling in this example moves from melodic minor to Dorian/minor and back to melodic minor as shown.

Example 2.70 "Three and One" m. 5; Scalar toggling (melodic minor to Dorian/minor)



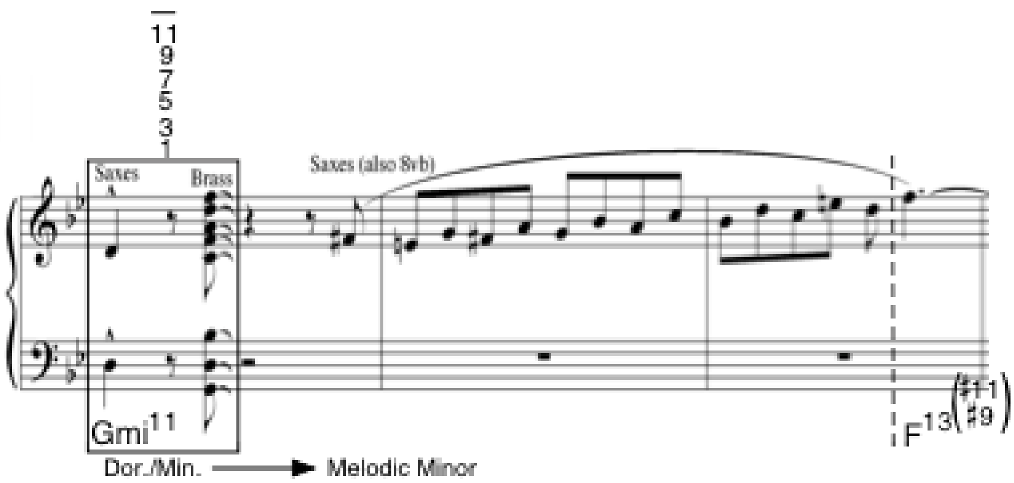
In opening measures of “Three and One” we find a specialized type of scalar toggling. Ex. 2.71 below shows the opening melodic motive with a dominant chord interjection played by the full band. Unlike what we have seen thus far, the chord-scale toggling here is not *within* a single quality (i.e., toggling between two dominant scales, two minor scales, etc.) but rather *across* qualities (in this case, major to dominant). In this excerpt from the opening of “Three and One,” Jones begins with the Eb major (Ionian) scale, moves to the Eb octatonic chord-scale, and then returns to major. And like the last example, it involves the interplay between the melody and accompaniment.

Example 2.71 "Three and One" mm. 1-2; Scalar toggling across qualities (major to octatonic)



The primary theme in “Cherry Juice” represents a similar melodic/harmonic treatment of scalar toggling as that seen in “Three and One.” Here the chord symbol is Gm11. Jones gives the brass a harmonic application of G Dorian/minor while the saxes immediately follow melodically with a G melodic minor chord-scale application. As mentioned previously, the saxes actually emphasize mode 6 of the G melodic minor scale (E Locrian #2) but the collection is G melodic minor which matches the chord symbol (see ex. 2.72 below).

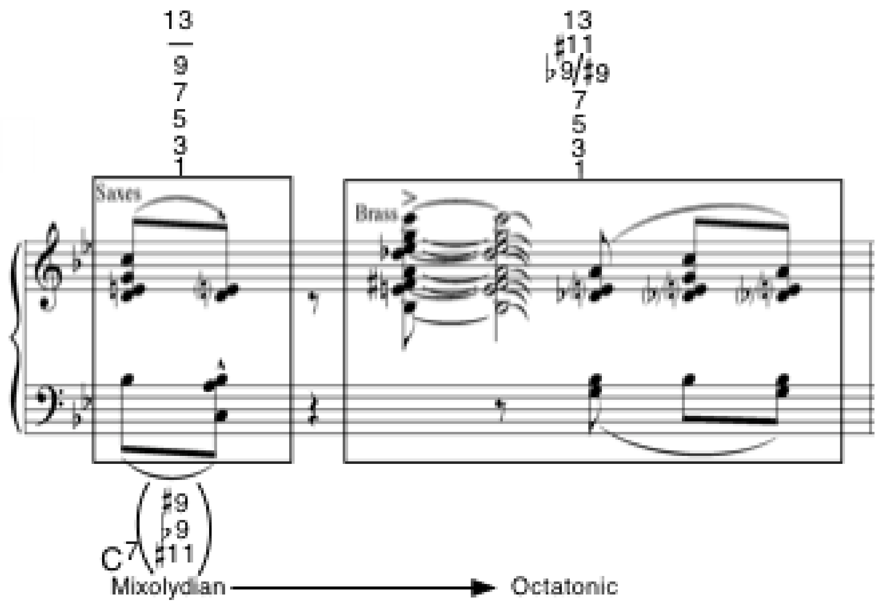
Example 2.72 "Cherry Juice" letter A; Scalar toggling (Dorian/minor to melodic minor)



Example 2.73 below represents another example of scalar toggling involving melodic and harmonic interplay. Here the melody is harmonized in the saxophones with a chordal insertion by the brass, as before. The chord symbol governing the length of the example is C7#9b9#11. For the first two eighth notes, however, Jones applies the C Mixolydian collection, which contains the ∂9 and (if all the pitches from the chord-scale were included) the ∂11. This conflicts with the chord symbol, which indicates altered ninths and the #11.

Beginning with the brass chordal accentuation and as the saxophones continue the melody, Jones applies the C octatonic chord-scale, which contains the alterations written into the symbol. The end result is a scalar toggling from the C Mixolydian to the C octatonic chord-scale over a C dominant symbol with alterations.

Example 2.73 "Cherry Juice" 3 after O; Scalar toggling (Mixolydian to octatonic)



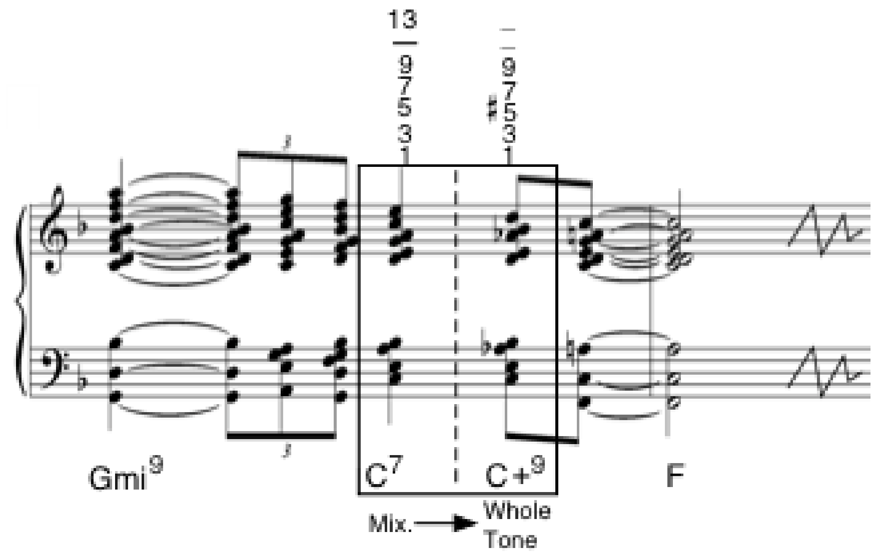
Although we have seen Jones toggle multiple chord-scales over a single symbol, there are times when he actually writes the toggling into the symbols themselves. The example below shows a case in which Jones toggles between the C Mixolydian and the C diminished whole tone collections, but instead of doing so over a single chord symbol Jones supplies a symbol for each (see ex. 2.74 below).

Example 2.74 "Three and One" 8 before F; Scalar toggling notated into symbols

Comparing this to a previous example (ex. 2.67), there are striking similarities and both are found in the same piece of music. In the earlier example, Jones also toggles between the C Mixolydian and the C diminished whole tone chord-scales as he does here except before he uses only a single chord symbol over which both chord-scales are applied. Interestingly, the chord symbol used previously during which he applied the scalar toggling technique is the same as one of the symbols in this example, C7#9b13.

Example 2.75 below shows another case of scalar toggling in which the chord symbols are written into the music. This excerpt is from To "You," occurring at the climax of the piece. Here Jones toggles from the C Mixolydian chord-scale to the C whole tone scale before resolving to F major.

Example 2.75 "To You" letter D; Scalar toggling notated into symbols



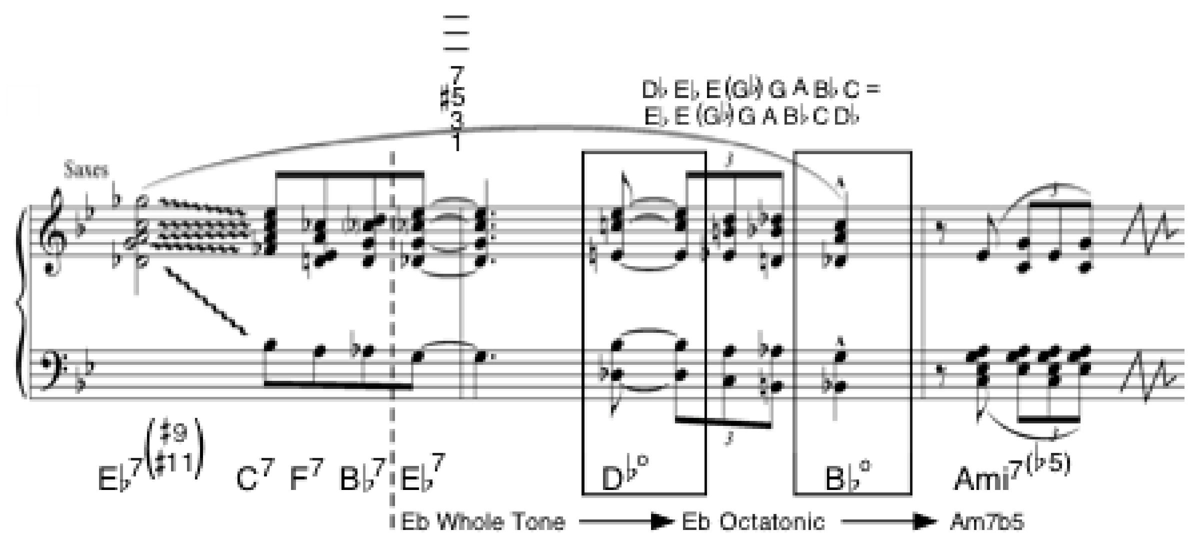
Diminished Chords as Scalar Toggling Facilitators

Often, Jones uses diminished chords in this literature to facilitate a specific scalar toggling technique. Ex. 2.76 below demonstrates how Jones takes advantage of the flexibility of diminished chord-scales, using them to function as dominant toggling collections within the progression.

This example, taken from “Cherry Juice” was examined previously in the study of diminished scales within the context of simple scalarity (see ex. 2.62). It was noted earlier that the Db° chord and the Bb° chord are both part of the same pitch collection. It was also noted that when applying octatonic collections to diminished chords, Jones uses the whole-half octatonic scale rather than the half-whole octatonic used for dominant chords. In this specific case, the Db whole-half octatonic chord-scale applied to the Db° symbol is equivalent to the Eb half-whole octatonic collection that corresponds with Eb dominant chords. When analyzing the progression with this in mind, we see an Eb7 symbol with an Eb whole tone (or diminished whole tone) chord-scale application, which is followed immediately by an Eb octatonic collection (with chromatic passing chords) over the Dbᵒ and Bbᵒ symbols.

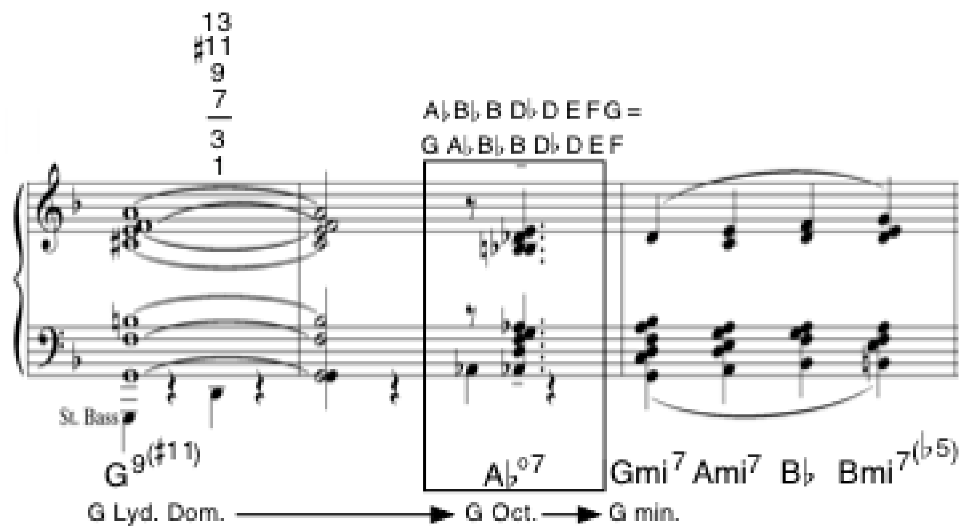
This passage occurs in an extended circle of fifths progression (C-F-Bb-Eb-A) that eventually continues to D7 and settles on Gm, the tonic. As the harmony moves through Eb in the cycle, Jones is essentially extending the Eb section by toggling from the Eb whole tone chord-scale to the Eb octatonic chord scale via these two diminished chords.

Example 2.76 "Cherry Juice" 3 before N; Diminished chords used to facilitate scalar toggling (Eb whole tone to Eb octatonic)



Another example of diminished chords being used to toggle dominant collections is seen below in ex. 2.77. This example was also mentioned previously (c.f. ex. 2.60). Here the diminished chord is labeled Abᵒ7 and as expected, Jones applies the Ab whole-half octatonic chord-scale. The Ab whole-half octatonic chord-scale is equivalent to the G half-whole octatonic chord-scale. Because of this, the passage can be understood as the G Lydian dominant chord-scale toggling to G octatonic via the diminished chord symbol. The resolution of the G octatonic collection, instead of moving to tonic (C), is itself a special kind of toggling. Here the G octatonic collection toggles again, but not *within* the dominant family as before, but rather *across* qualities, to G minor. This specialized toggling across qualities was seen previously in the opening of “Three and One” (c.f. ex. 2.71).

Example 2.77 "To You" 8 after A; Diminished chord used to facilitate scalar toggling across qualities (G Lydian dominant/G octatonic/G minor)



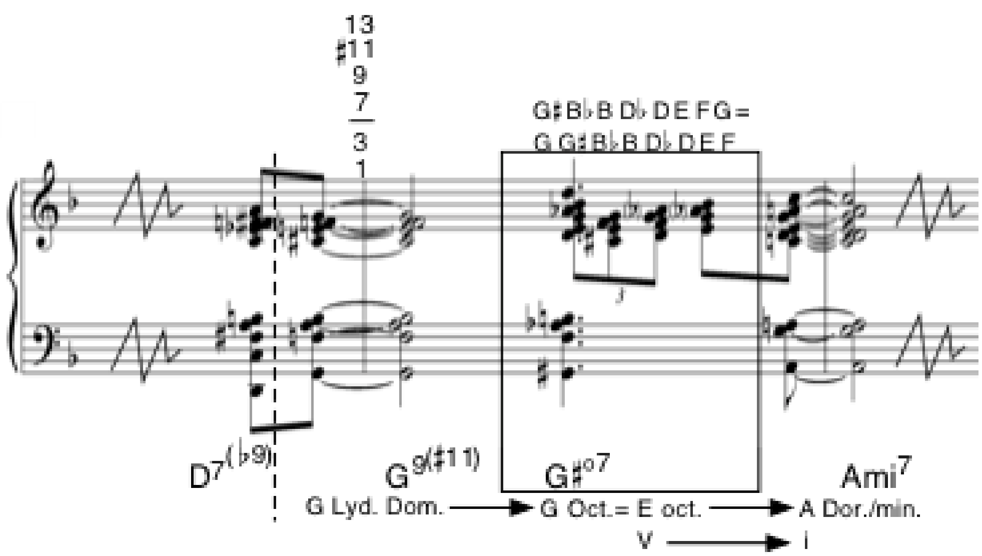
Example 2.78 below also demonstrates Jones’s technique of using diminished chords as dominant scalar toggling facilitators, but here Jones takes even further advantage of the reinterpretive possibilities of these symmetrical diminished chord-scales.

The diminished chord in this example is labeled G#°7 and again Jones applies the G# whole-half octatonic chord-scale (this excerpt was also mentioned briefly in ex. 2.61). Because the G# whole-half octatonic and the G half-whole octatonic scales are modes of the same collection, this passage can be understood as G Lydian dominant toggling to G octatonic via the diminished chord.

As is the case with symmetrical chord-scales, more than one pitch in the scale may serve as the root depending on the functional situation. The G half-whole octatonic collection inherently contains four possible chordal roots coinciding with dominant chords. In this specific case, the collection applied to the G#º7 chord may be understood as G, Bb, Db, or E half-whole octatonic, with each of these pitches serving as a possible dominant chord root.

With this in mind, the collection applied to the diminished chord here may be understood as serving a dual function. It serves as G octatonic toggling from G Lydian dominant, and also serves as E octatonic, functioning as V of A minor to which it resolves. The diminished chord then not only serves as a facilitator for scalar toggling, but also as a dual function chord-scale within the progression.

Example 2.78 "To You" 9 before C; Diminished chord used as dual function chord (scalar toggling/dominant reinterpretation)



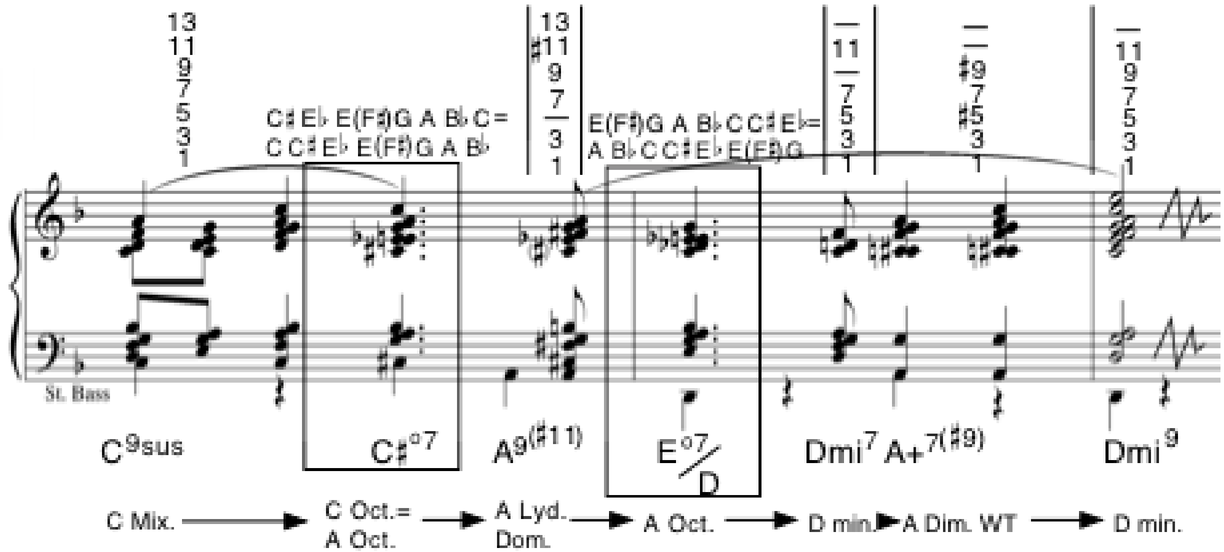
The final example in this section (2.79 below) is a complicated one, further demonstrating Jones's use of diminished chords as both scalar toggling facilitators as well as dual function chords within the progression.

This example begins with a C9sus chord over which Jones applies the C Mixolydian chord-scale. The next chord is C#º7 to which Jones applies the C# whole-half octatonic chord-scale. Because the C# whole-half octatonic chord-scale and the C half-whole octatonic chord-scale are modes of the same collection, this may be understood as dominant scalar toggling from C Mixolydian to C octatonic via the diminished chord. This octatonic collection is then followed immediately by an A9#11 chord to which Jones applies the A Lydian dominant collection.

Because the C octatonic chord-scale and the A octatonic chord-scale are modes of the same collection, this may be seen as a reinterpretation of this collection, functioning dually as C octatonic as well as A octatonic. This reinterpretation as A octatonic facilitates scalar toggling to the A Lydian dominant chord-scale immediately following.

The chord symbol following is $E^{o}7$ with a D pedal anticipating the root of the following chord. Jones applies the E whole-half octatonic chord-scale here, which may also be understood as A half-whole octatonic coinciding with A dominant. Understood in this way, we see Jones toggling from A Lydian dominant to A octatonic via the diminished chord. The A octatonic chord-scale then resolves to D minor which in turn moves to A diminished whole tone before settling back to D minor at the end of the excerpt.

Example 2.79 "To You" 7 before B; Diminished chords used as dual function toggling chords



Polyscalarity

Having examined Jones's use of simple scalarity and scalar toggling, we now look at the next scalarity type—polyscalarity. Simple scalarity is the process of applying a single chord-scale over a given chord symbol. Scalar toggling describes the process of toggling between collections within the duration of a single chord symbol, or as we have seen, using diminished chords to facilitate the technique. Polyscalarity, on the other hand, is a process in which multiple chord-scales are applied simultaneously over a single chord symbol. This most often occurs between instruments in homogenous groupings in a contrapuntal context. For example, Jones might apply one chord-scale to the saxophones carrying the melody while applying a different chord-scale to the brass accompaniment simultaneously. The result is a logical separation of collections based on instrument groupings and/or contrapuntal function in the passage, but also a synthesis of pitches from different chord-scales creating simultaneous scalar dissonances within the contrapuntal fabric.

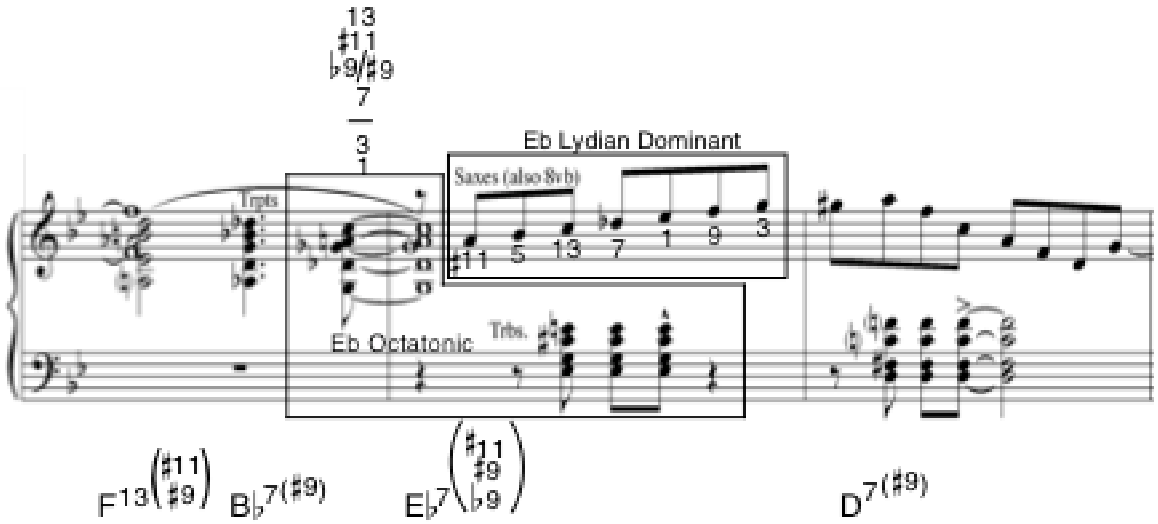
Example 2.80 below demonstrates this technique. The chord symbol over which the polyscalarity occurs is Eb7#11#9b9. This symbol suggests either an Eb octatonic or Eb diminished whole tone chord-scale application. The trumpets have a whole note for the duration of the chord symbol while the trombones have eighth notes accenting the harmony. Together, the trumpet and trombone pitches map onto the Eb octatonic collection.

The saxophones enter after beat one with an eighth note ascending scalar run that begins on A. The pitches Jones chooses for the saxophones, however do not line up with the octatonic chord-scale Jones applies to the brass. Although presented as A diminished whole tone, the saxophone pitches all map onto the Eb Lydian dominant chord-scale. I have labeled the saxophone chord-scale with Eb as ^1 to orient the saxophone notes to a scale that shares the chordal root as tonic.[57] The simultaneous application of these two chord-scales results in a scalar dissonance in which the ∂9 of the Lydian dominant collection in the saxophone melody sounds against the altered ninths of the octatonic chord-scale applied to the brass accompaniment (F against E, Gb).

The application of Eb Lydian dominant in the saxophones and Eb octatonic in the brass results is a kind of temporary bitonality as the saxophones and brass receive individual harmonic realizations of the same chord symbol. This technique I am referring to as polyscalarity may be thought of as a harmonic stratification, in which each layer has its own logic, but is dissonant against the other.

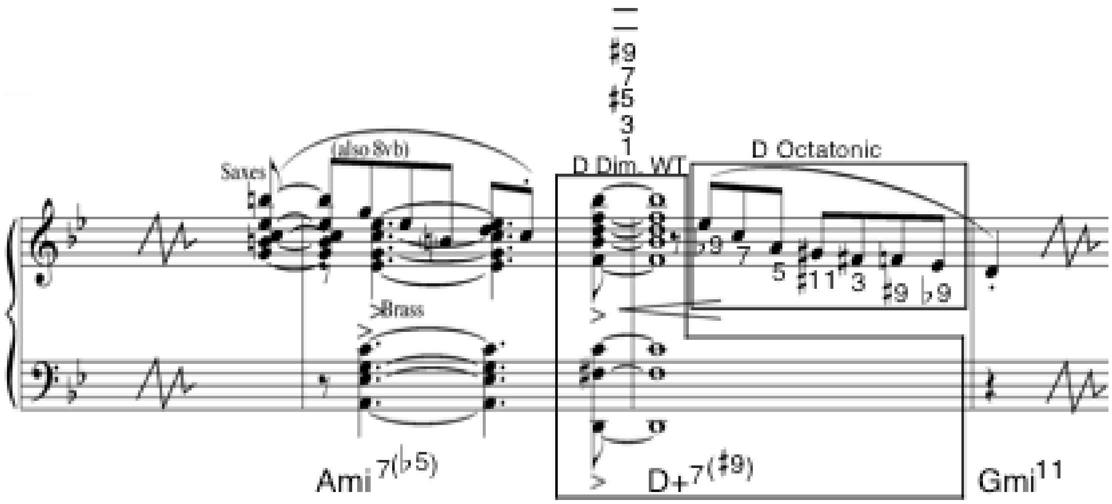
[57] Also note that I use chordal numbering rather than scalar numbering (e.g. 9, 11, 13 instead of 2, 4, 6 for ease of comparison between the melodic and harmonic pitches).

Example 2.80 "Cherry Juice" 4 before B; Polyscalarity (octatonic/Lydian dominant)



The next example also comes from “Cherry Juice” twelve measures later. The saxophones again carry the melodic line and are in counterpoint against the brass chordal accentuations. The polyscalarity occurs here over a D+7#9 chord, indicating a diminished whole tone chord-scale containing the raised fifth and altered ninths. Jones does indeed apply the diminished whole tone collection to the brass with a familiar bVI/I7 polychordal voicing. The saxophones however are treated differently. The saxophones have a descending melodic line to finish out the phrase as the D+7 chord resolves to Gm. Instead of applying the diminished whole tone chord scale to the saxophones as he did to the brass, Jones gives the saxes the octatonic collection. While the octatonic chord-scale (when all pitch classes are represented) contains a ∂5 and the 13th, the diminished whole tone has a #5 and no 13th. Jones’s polyscalar application here results in a dissonance between the ∂5 (A) in the saxophone melodic line and the #5 (Bb) in the brass harmony (see ex. 2.81 below).

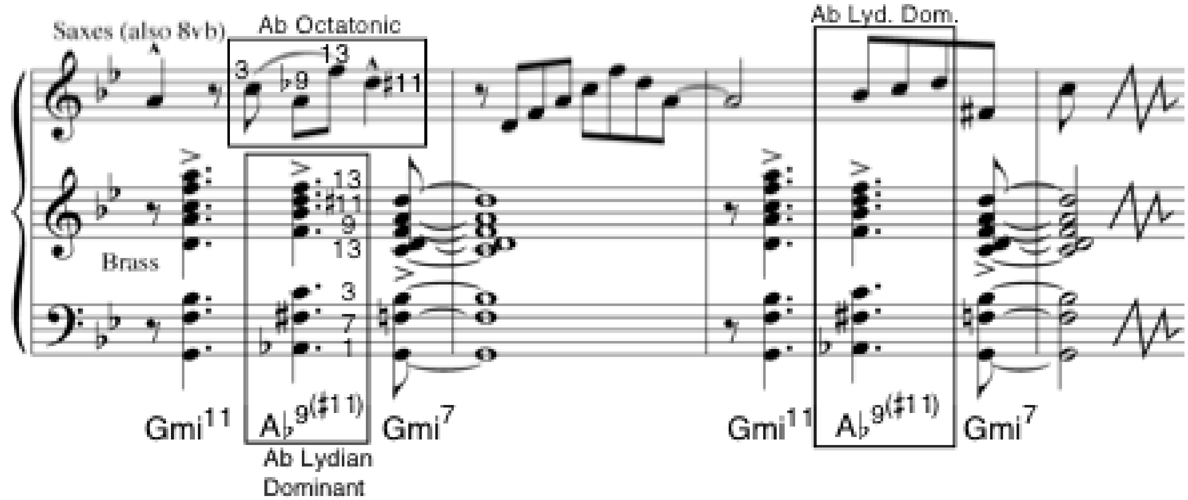
Example 2.81 "Cherry Juice" 8 after B; Polyscalarity (diminished whole tone/octatonic)



The next example comes from “Cherry Juice” letter E. The melody here is in the lead trumpet playing the highest brass notes in the condensed example and supported harmonically by the rest of the brass voiced below in homophonic texture (see ex. 2.82 below). The chords are moving quickly between Gm11 and Ab9#11 as they support the descending trumpet melodic line while the saxophones carry a countermelody to that of the brass.

The Ab9#11 chord symbol suggests a Lydian dominant application, and indeed Jones applies the Ab Lydian dominant chord-scale in the brass over this symbol. For the saxophones, however, Jones applies a melodic chord-scale fragment over this briefly sounding sonority that contains the b9 (A) rather than the ∂9 (Bb). The presence of the b9 indicates an octatonic application in the saxophones simultaneously against the Lydian dominant application in the brass. This polyscalar application results is a dissonance between collections as the b9 (A) sounds against the ∂9 (Bb). In the chord repetition immediately following, Jones brings the saxophones into alignment with the brass, as he assigns the ∂9 (Bb) to the saxophone countermelody there.

Example 2.82 "Cherry Juice" letter E; Polyscalarity (octatonic/Lydian dominant)



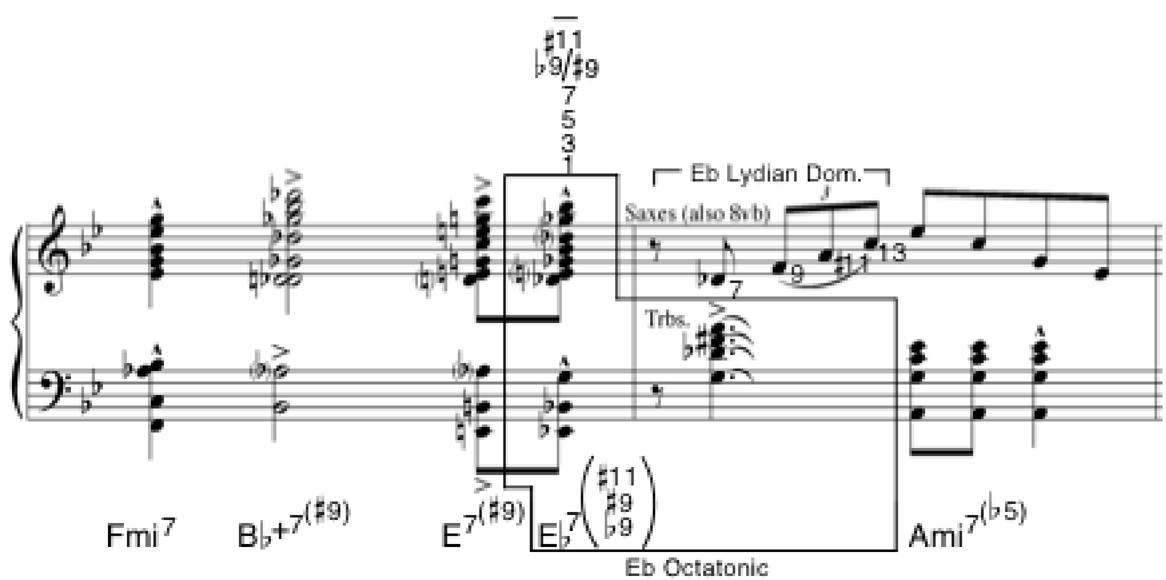
The next example of polyscalarity (ex. 2.83 below) begins with all instruments in homophonic texture with the melody carried in the lead trumpet (the highest pitches in the voicing). This texture lasts for the first measure of the example. In the second measure of the excerpt, the saxophones present an angular melodic line over the trombone harmonic accentuations.

The chord symbol over which the polyscalarity takes place is Eb7#11#9b9, which indicates either the Eb octatonic or diminished whole tone collections. The initial sounding of this chord occurs at the end of the first measure of the example when all instruments are in homophonic texture and continues two beats into the second measure. Jones initially applies the Eb octatonic chord-scale to all instruments here at the end of the first measure and the trombones continue this collection into the following measure.

As the saxophones leave the homophonic texture to begin a melodic line in the second measure, the chord-scale fragment Jones applies contains the ∂9 (F) which conflicts with the altered ninths (E, Gb) in the chord symbol and that Jones uses in the octatonic application. The

F in the saxophones here suggests that Jones is applying an Eb Lydian dominant chord-scale against the octatonic collection that had begun at the end of the first measure and continues in the trombones. Because neither of the octatonic altered ninths is present in the trombones as the saxophones sound the Lydian dominant collection, this excerpt may be analyzed as all of the instruments toggling together from Eb octatonic to Eb Lydian dominant (i.e., the trombones and saxophones toggle together). Because there are so many examples of Jones applying different chord-scales simultaneously to the saxophones and brass, I hear this as polyscalar with the saxophones sounding Lydian dominant and the trombones continuing the octatonic collection.

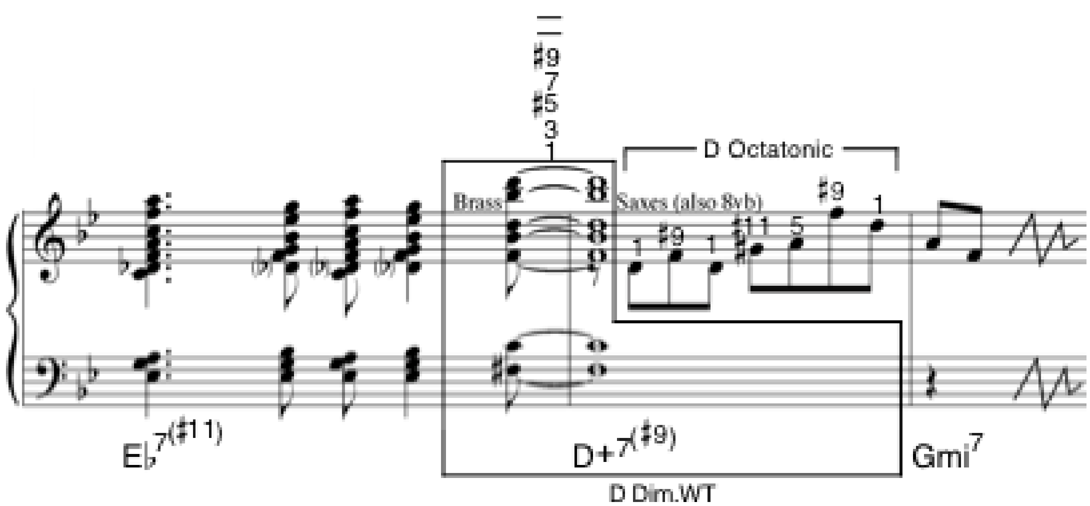
Example 2.83 "Cherry Juice" 5 after L; Polyscalarity (octatonic/Lydian dominant)



In example 2.84 below, the lead trumpet is again carrying the melody with all instruments in homophonic texture at the beginning of the excerpt. As before, the lead trumpet plays the highest notes in the condensed example. At the end of the first measure, the melodic note (D6) is articulated over the D+7#9 chord, harmonized in the rest of brass, and elongated through the next measure. At the initial articulation of the D+7#9 chord, the saxophones leave the brass texture and come in again with eighth notes in the next measure in a melodic flourish.

The chord-scale Jones applies to the D+7#9 chord in the brass is the diminished whole tone scale, here again in the familiar bVI/I7 polychordal voicing. As the diminished whole tone chord-scale is sounding in the brass, Jones applies a different chord-scale to the saxophone countermelodic fill. The #11, #9, and ∂5 in the saxophone line suggest that Jones is applying the octatonic chord-scale. The presence ∂5 (A) in the octatonic chord-scale application in the saxophones creates a scalar dissonance against the #5 (Bb) in the diminished whole tone chord-scale application in the brass.

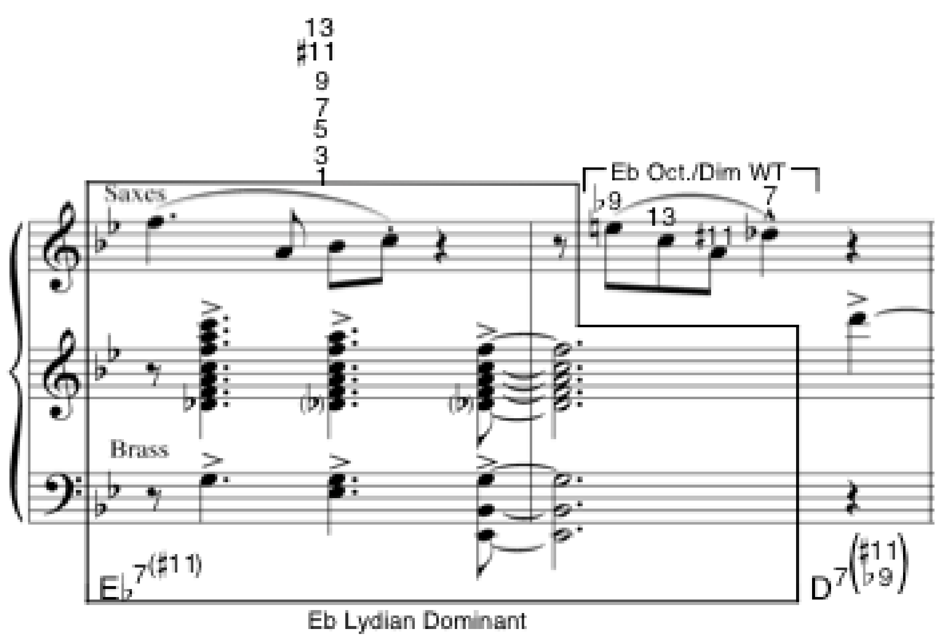
Example 2.84 "Cherry Juice" 3 before S; Polyscalarity (diminished whole tone/octatonic)



The next example of polyscalarity is similar to example 2.83 in that the saxophones initially agree with the brass before toggling to a different collection. Here the melody is again in the lead trumpet while the saxophones offer a counter melodic line (see ex. 2.85 below).

The chord symbol at the beginning of the excerpt is Eb7#11 and lasts until the last beat of the example. Initially, Jones applies the Eb Lydian dominant chord-scale to the brass as well as to the saxophones. In the second measure of the example, however, the saxophones toggle to a different collection containing a b9 that disagrees with the Eb Lydian dominant collection, which contains the ∂9. The b9 (E) in the saxophones in the second measure creates scalar dissonance against the ∂9 (F) in the Lydian dominant collection carried by the brass. The 7, b9, #11, 13 in the saxophones in measure two map onto either the Eb octatonic or Eb diminished whole tone collections, but not the Eb Lydian dominant chord-scale. In this example, Jones is applying the Eb Lydian dominant chord-scale in the brass while the saxophones toggle from Eb Lydian dominant to Eb octatonic (or diminished whole tone). All the while, the saxophones are carrying a counter melody to the thickly harmonized melodic line in the lead trumpet.

Example 2.85 "Cherry Juice" 6 after E; Polyscalarity (Lydian dominant/octatonic or diminished whole tone)

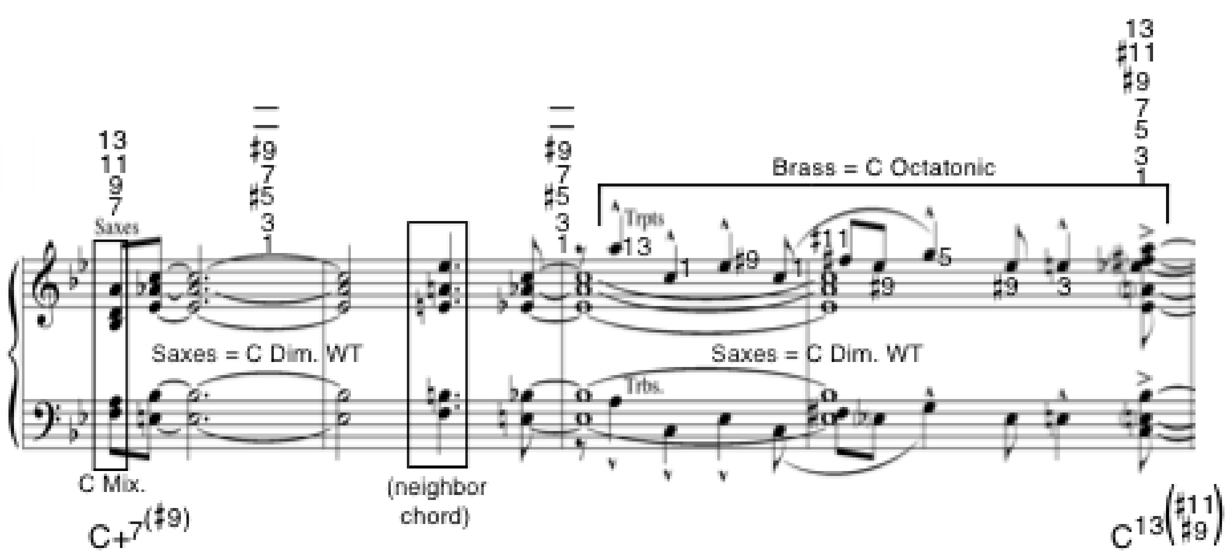


The next example of polyscalarity is also from “Cherry Juice,” letter D (see ex. 2.86 below). In this example, all of the instruments are sounding background figures to the flugelhorn solo, originally played by Thad Jones. The lead alto sax in this example carries the initial melody which is harmonized in the rest of the saxophones while the brass enter in measure two of the excerpt in a unison 8ve countermelodic line.

The first chord in this example is marked C+7#9 which indicates the C diminished whole tone chord-scale containing the raised fifth and both altered ninths. As the saxophones initially enter, however, Jones applies the Mixolydian chord scale, which disagrees with the alterations in the symbol. This Mixolydian application only lasts for an eighth note however, and the saxes immediately toggle to the expected C diminished whole tone collection with the same bVI/I7 polychordal voicing as in previous examples. After one embellishing neighbor chord, the saxophones settle back into the same diminished whole tone chord-scale application for the rest of the example.

As the brass enter in the second measure of the excerpt, Jones applies the C octatonic chord-scale rather than the C diminished whole tone chord-scale given to the saxophones. The ∂5 (G) and the 13th (A) in the brass octatonic application create a scalar dissonance against the #5 (Ab) in the saxophones.

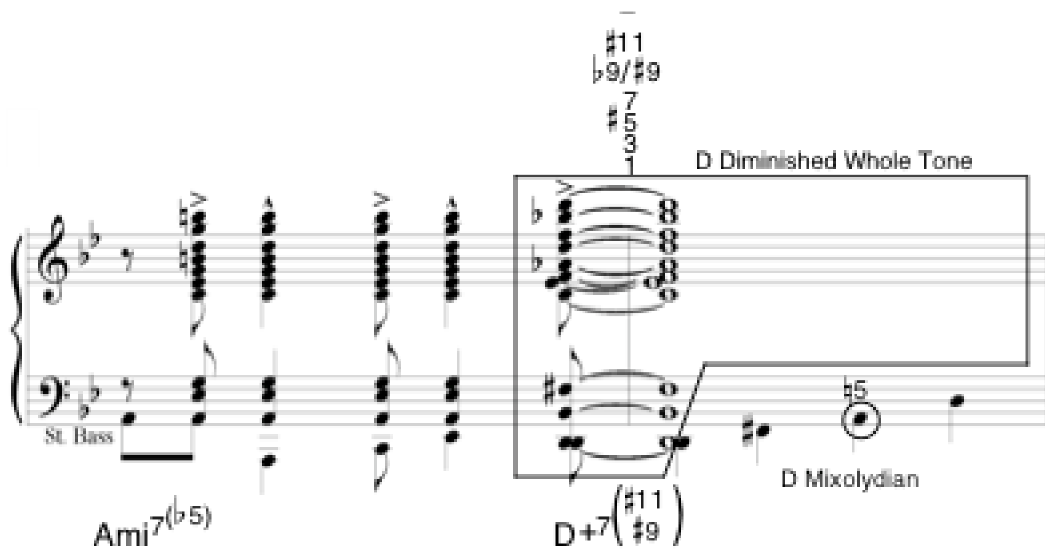
Example 2.86 "Cherry Juice" letter D; Polyscalarity (octatonic/diminished whole tone)



All of the examples of polyscalarity thus far have involved the saxophones in one homogenous grouping and the brass in another. Jones also occasionally applies this technique with all of the winds paired together against only the string bass. Example 2.87 below shows the polyscalar technique with that instrument grouping. Here, Jones applies the D diminished whole tone chord-scale to all the winds over the D+7#11#9 chord symbol. The voicing in the winds is similar to that of other examples involving diminished chord-scale applications as Jones forms a bVI chord in the upper structure. The addition of the #11, b9, and the placement of one of the #5s (Bb) in the bass clef make this voicing a bit more complex than some of the simpler bVI/I7 polychordal voicings we have seen previously. All of the pitch classes in the D diminished whole tone chord scale are represented in the winds.

Simultaneously voiced against the #5 in the winds, Jones places the ∂5 in the string bass as he notates an arpeggiated bass line against the elongated sonority in the winds. The presence of the ∂5 in the bass likely suggests a D Mixolydian chord-scale application in the bass against the D diminished whole tone scale elsewhere. This creates semitone and compound minor ninth dissonances between the ∂5 (A) in the bass and the #5 (Bb) in the winds.

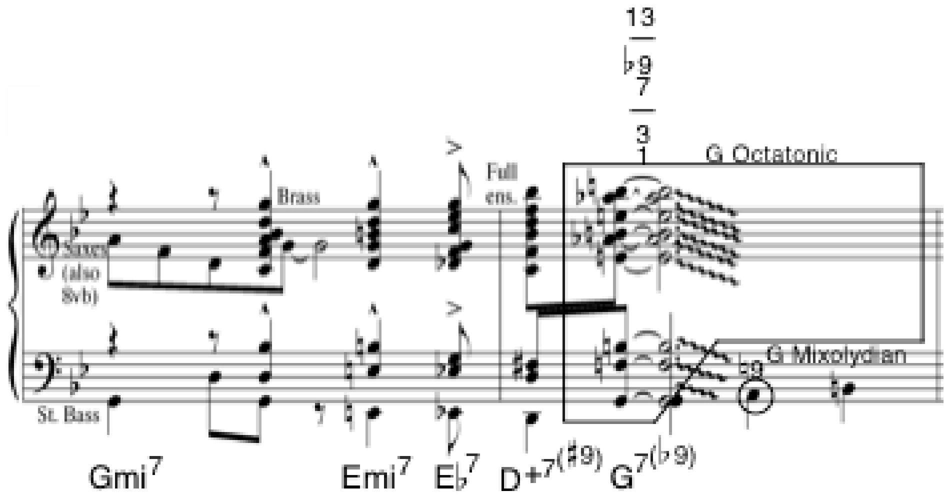
Example 2.87 "Cherry Juice" 1 before J; Polyscalarity with winds against bass (diminished whole tone/Mixolydian)



The next example, also from “Cherry Juice,” demonstrates a similar treatment. Here Jones applies the G octatonic chord-scale in the winds over a G7b9 chord symbol. The voicing here is somewhat sparse for Jones in a case where all winds are playing, as only five pitch classes from the scale are represented in the chord (he usually incorporates 6-7 pitch classes when all instruments are playing). As is the case with many of Jones’s voicings, this one is a polychord with E/G7 (VI/I7). The upper sonority (E triad) is doubled in octaves, accounting for the lack of pitch classes represented.

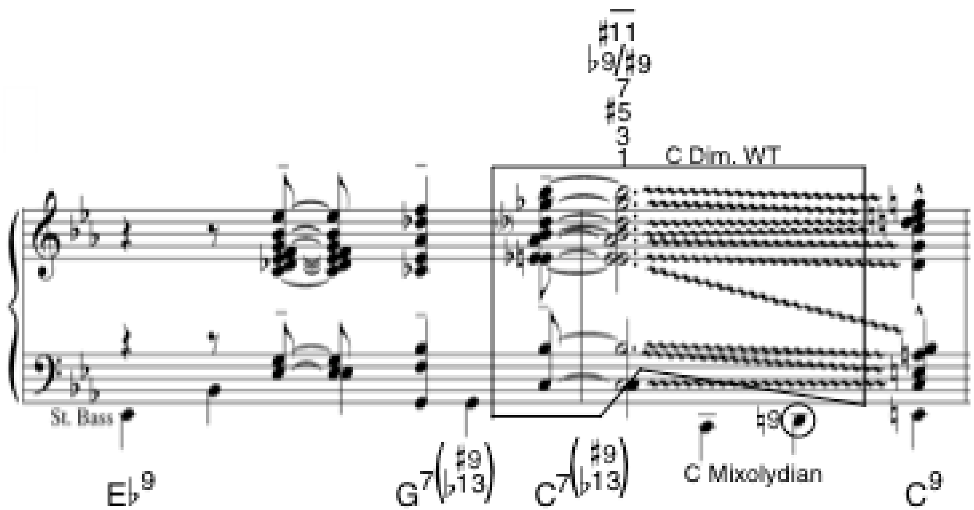
While Jones applies the G octatonic collection to the winds over this chord symbol, he writes a walking bass line that ascends through the ∂9 rather than the altered ninths suggested by the chord symbol. The ∂9 in the bass line suggests a probable G Mixolydian application. The result of this polyscalar application is a scalar dissonance between the b9 (Ab) in the winds and the ∂9 (A) in the bass (see ex. 2.88 below).

Example 2.88 "Cherry Juice" 1 before S; Polyscalarity with winds against bass (octatonic/Mixolydian)



As was the case in the last two examples, ex. 2.89 below also involves an elongated note in the winds against a walking bass line. Here the chord symbol involved is C7#9b13. In the winds, Jones applies the C diminished whole tone chord-scale in a polychordal voicing, but with bV (Gb) in the upper voices rather than bVI (Ab) as we have seen in many other voicings of this chord-scale. All of the pitch classes from the scale are represented in the winds. And while Jones applies the C diminished whole tone chord-scale (which contains the altered ninths) to the winds, he simultaneously writes a ∂9 in the bass as in the previous example. The ∂9 again likely suggests a C Mixolydian chord-scale application to the bass against a C diminished whole tone application to the winds. The result is a simultaneous sounding of b9, ∂9, and #9 in this polyscalar application.

Example 2.89 "Three and One" 4 after J; Polyscalarity with winds against bass (diminished whole tone/Mixolydian)



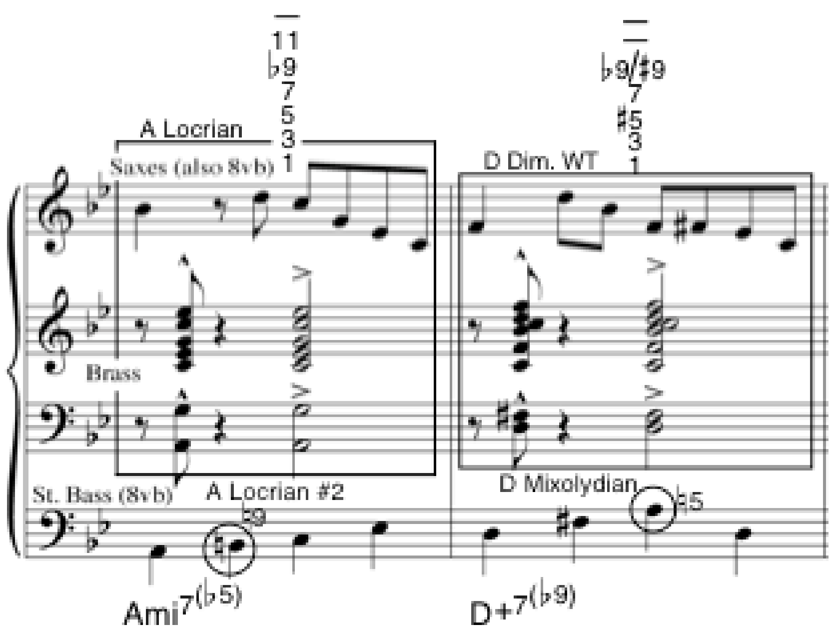
The next example of bass-versus-winds polyscalarity is from "Cherry Juice," two measures before letter R. This excerpt demonstrates Jones's polyscalar technique applied to two successive chord symbols (see ex. 2.90 below).

The two chord symbols in the example represent a ii^{ø}-V7 progression in g minor, the key of the piece. The melody is in the lead trumpet (the highest brass pitches) with the saxes providing countermelodic flourishes. In the first measure, the chord symbol is Am7b5, the diatonic symbol for a ii chord in g minor. In the winds Jones applies the A Locrian chord-scale, which includes the b9 (Bb), a prominent note in the saxophone countermelody. In the bass line Jones writes a ∂9, which suggests an application of the other commonly applied chord-scale over this symbol, Locrian #2. The independent scalar applications in this measure result in the ∂9 in the bass conflicting with the b9 in the saxophones as the Locrian and Locrian #2 scales are applied simultaneously.

In the second measure of the example, the chord symbol is D+7b9, which suggests the D diminished whole tone scale. Over this symbol Jones applies the expected D diminished whole tone scale in the winds. The brass voicing is a slight variation of the common bVI/I7 polychordal voicing Jones commonly uses with this scale. The saxophones begin the measure by arpeggiating the bVI upper sonority of the polychord (BbM) and continue through the measure melodically, exploring other scale tones.

As the winds are sounding the D diminished whole tone chord-scale (containing the #5) Jones writes the ∂5 in the arpeggiated bass line underneath. This use of ∂5 in the bass most likely suggests a D Mixolydian application. The juxtaposition of the diminished whole tone scale in the winds against the Mixolydian scale in the string bass creates scalar dissonance as the #5 (Bb) in the winds sounds against the ∂5 (A) in the bass.

Example 2.90 "Cherry Juice" 2 before R; Polyscalarity with winds against bass (Locrian/Locrian#2; diminished whole tone/Mixolydian)



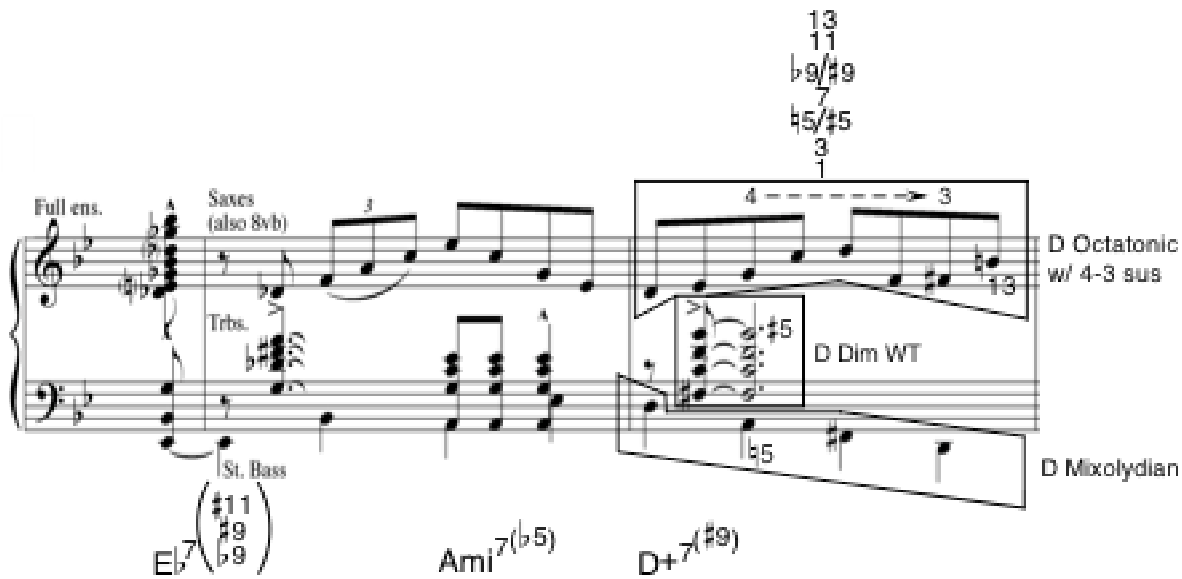
The final example of polyscalarity also involves an individual chord-scale application to the bass guitar, but also features a separate application to the brass than that of the saxophones (see ex. 2.91 below).

The first full measure in this example was discussed previously as an example of polyscalarity between the saxophones and the rest of the ensemble (c.f. ex. 2.83). The chord symbol in the measure presently under examination is D+7#9, indicating a diminished whole tone chord-scale application. The pitches in the trombone voicing map onto that scale, containing the 3, 7, #9, and #5 with a quartal voicing in the upper parts. Conflicting with the #5 in the trombones is the ∂5 in the descending arpeggiated bass line. The ∂5 in the bass most likely indicates a Mixolydian chord-scale application, as has been the case with all of the written bass lines.

The saxophones have an interesting melodic line over this symbol containing the pitches D, Eb, F, F#, G, B, C. Except for the G, these pitches map onto the D octatonic chord-scale (D, Eb, F, F#, G#, A, B, C). What it appears that Jones is doing here is applying the D octatonic chord-scale but with a suspension occurring on beat two that is resolved on beat four.

The end result of these three individualized chord-scale applications by Jones in this passage is polyscalarity in three layers. The saxophones have a D octatonic application with a suspension, the trombones have a D diminished whole tone application, and the bass has a Mixolydian application. The polyscalar application produces scalar dissonance between instrument groups as the ∂5 sounds in the bass, the #5 sounds in the trombones, and the 13 sounds in the saxophones.

Example 2.91 "Cherry Juice" 6 after L; Polyscalarity in three layers (octatonic/diminished whole tone/Mixolydian)



As mentioned previously, the polyscalar technique in these works may be thought of as a harmonic stratification in which different layers of voices in homogenous groupings receive different harmonic realizations of the same chord symbol. The technique usually involves a melodic/accompaniment or contrapuntal texture. The instrument groupings are most often saxophones versus brass, but may also involve the combined wind section against string bass or a combination, as we have seen. These individualized chord-scale applications between different instrument groups, although logical and usually consistent within each group in the texture, create scalar dissonances between group pairings.

Blended Scalarity

Having examined simple scalarity, scalar toggling, and polyscalarity, one more scalar type remains—blended scalarity. There are times in which Jones takes elements from two chord-scales and combines them into a single chord-scale application. This process of synthesis

I refer to as blended scalarity, i.e., blending certain elements of two chord-scales into a single application. And while this technique may be applied over any quality chord symbol, with Jones it usually involves the blending of natural and altered ninths or fifths over dominant chord symbols.

This blending of natural and altered ninths or fifths is discouraged and in some cases prohibited by jazz theorists. One example of this type of regulation is from Mark Boling in the *Jazz Theory Workbook*. In it, he states, "jazz pianists and arrangers usually avoid the harmonic interval of a minor ninth except between the root and the flat nine of a dominant seventh chord." He further states explicitly "the use of a ß9 or a ƒ9 precludes the use of a ∂9."[58] Joe Mulholland and Tom Hojnacki in *The Berklee Book of Jazz Harmony* offer a similar prohibition regarding scale degree five, specifying "either 5 or ß13 can be used in a voicing, but not both at the same time."[59]

Richard Lawn and Jeffrey Hellmer in their book entitled *Jazz: Theory and Practice,* state, "care must be taken to make sure that a diatonic 5th or 9th is not used in conjunction with a raised or lowered 5th or 9th. This type of usage of an altered tone creates either a major 7th or a minor 9th interval that can be disturbing to the ear and is considered dissonant in functional harmonic situations."[60]

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[58] Mark Boling, *The Jazz Theory Workbook*, ed. Jerry Coker, 2nd ed. (Rottenburg N., Germany: Advance Music, 1993), 30.

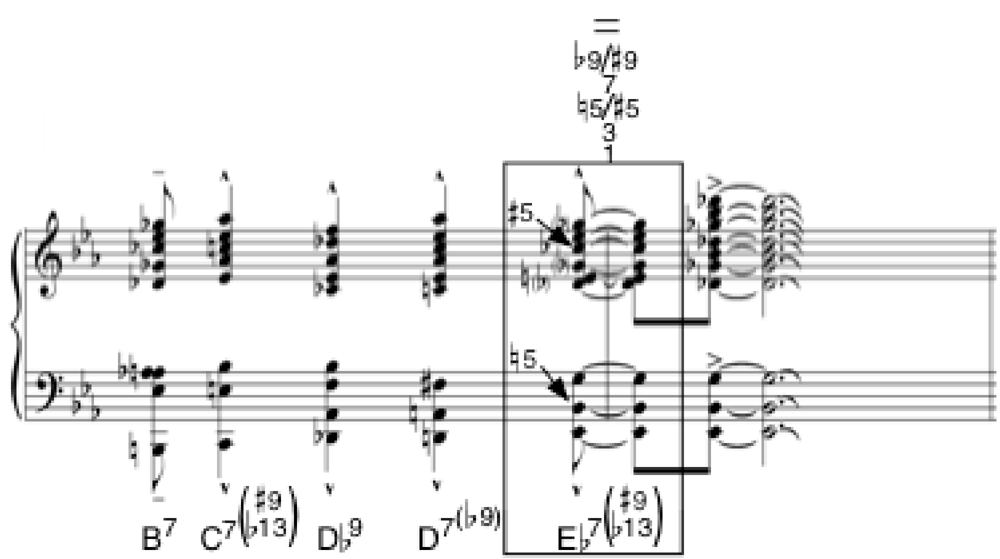
[59] Joe Mulholland and Tom Hojnacki, *The Berklee Book of Jazz Harmony* (Boston: Berklee Press, 2013), 33.

[60] Richard Lawn and Jeffrey L. Hellmer, *Jazz: Theory and Practice* (Los Angeles: Alfred Pub. Co, 1996), 139.

And while most of Jones's simultaneous uses of diatonic and altered fifths or ninths in these works may be explained as scalar toggling or polyscalarity, there are cases in which Jones blends different chord scales in a way that is inconsistent with either of these categories.

Example 2.92 below is a case of blended scalarity that combines the natural and raised fifth over an Eb7#9b13 chord symbol. The dominant #9b13 symbol suggests a diminished whole tone application containing the raised fifth and both altered ninths. In the upper voices we see the raised fifth and a common application of the diminished whole tone chord-scale in a polychordal voicing of bVI/I7 (in this case Cb/Eb7). The primary difference in this voicing and previous bVI/I7 polychords in these pieces is that Jones usually omits the ∂5 from the lower sonority in the polychord while here he writes it in. The result is a blended scale that might best be described as an Eb diminished whole tone scale with an added tone—the ∂5, Bb. This use of a natural as well as a raised fifth creates a compound minor ninth dissonance between the Bb below and the Cb above.

Example 2.92 "Three and One" letter G; Blended scalarity (diminished whole tone with added ∂5)



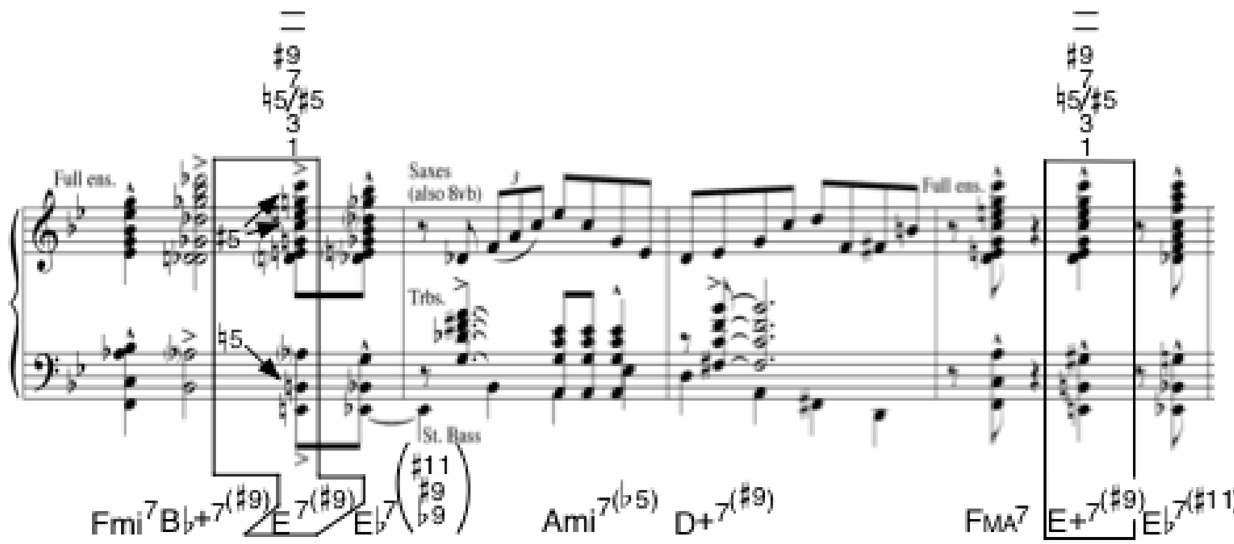
The next example of blended scalarity is over almost the same chord symbol as the previous example, only this time with F as the root rather than Eb as before. The chord symbol is F7#9b13, again suggesting the diminished whole tone chord-scale containing the raised fifth and altered ninths (see ex. 2.93 below).

What Jones does in this example is create a polychord in which the upper sonority in the polychord descends by semitone, thus toggling collections. For octatonic applications, Jones sometimes creates a VI/I7 polychord (c.f. ex. 2.88). This is what he does in the first chord of this example (D/F7) in which all voices are consistent with the F octatonic collection containing the ∂5 and ∂13, but inconsistent with the symbol that specifically calls for a b13. As the upper sonority descends down by semitone, the polychord becomes bVI/I7 (Db/F7). The upper voices now become aligned with the chord symbol and a diminished whole tone chord-scale application. Because the lower voices remain static as the upper voices toggle, a blending of ∂5 and #5 is the result. The ∂5 (C) in the bass clef and the #5 (Db) in the treble clef combine to form a compound minor ninth. If Jones had removed the C∂ from the second sonority, the remaining notes would have been wholly consistent with the F diminished whole tone scale, and this would have simply been an example of scalar toggling. Because he leaves the ∂5 in both sonorities as the upper voices toggle, he creates a blended chord-scale in the second sonority that might best be described as an F diminished whole tone scale with an added ∂5, C.

Example 2.93 "Three and One" 2 after J; Blended scalarity resulting from polychordal manipulation (diminished whole tone with added ∂5)

The first measure in example 2.94 below is similar to that of the last two examples. Here the chord symbol is E7#9 and all the instruments are again in homophonic texture. Jones applies the E diminished whole tone chord-scale in the same polychordal voicing of bVI/I7 (C/E7). As was noted previously, Jones usually leaves the ∂5 out of the lower sonority in these polychords, resulting in an collection of tones that map directly onto the diminished whole tone scale. By adding the ∂5 to the lower portion of the bVI/I7 polychordal voicing, Jones again creates a blended scale containing the #5 from the E diminished whole tone scale and the ∂5 from E Mixolydian. Interestingly, the second chord in the last measure of the example is the exact same voicing as the one in the first measure of the example, but the accompanying chord symbols are different. Although both chords contain the ∂5 as well as the #5, the symbol in the last measure explicitly indicates the #5 (E+7#9) while the symbol in the first measure is simply E7#9. The second and third measures of the example were examined in examples 2.83 and 2.91 respectively as examples of polyscalarity.

Example 2.94 "Cherry Juice" 4 after L; Blended scalarity (diminished whole tone with added ∂5)



The next example of blended scalarity comes from the opening of “Cherry Juice” (see ex. 2.95 below). The melody is in the lead trumpet (the highest notes in the texture) in a descending minor third, major third pattern (C-A-F). All of the winds move together for each chordal statement with the saxophones leaving the homophonic texture to provide unison melodic fills during each elongated harmony. The harmonic progression is a series of three dominant chords that descend by semitone and contain various alterations. This series of three chords are themselves sequenced two more times, again with saxophone fills breaking the homophonic texture. The voicings of the three chords in the initial statement are exactly the same in the sequences, differing only in transposition.

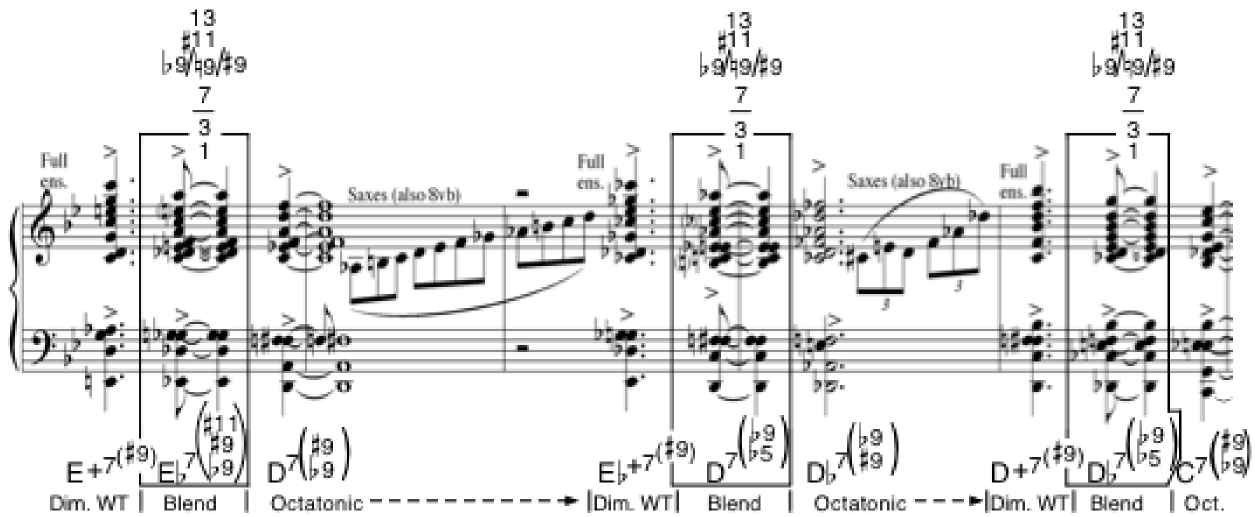
The middle chord symbol in the initial statement is marked Eb7#11#9b9. These alterations suggest an Eb octatonic chord-scale application, which features the #11, #9, and b9 listed in the symbol as well as the ∂5 and 13. Jones does apply this chord-scale, but with an added tone not in the scale as well. And as is common in the octatonic scalar applications, Jones omits the ∂5 in this application.

Recall that for octatonic chord-scale applications, Jones often creates a polychord with a minor seventh chord on top built a tritone above the chordal root (c.f. examples 2.30, 2.35). In this case that would be Am7/Eb7. The voicing Jones uses here is similar to that, but with some variation. He does voice an Am chord on top, but instead of using G4 to make the minor seventh chord, he uses F4. The F4 in the middle of the voicing is the ∂9 of the chord and is not in the Eb octatonic chord-scale. The F4 is in a semitone pairing with E4. Below this are two other semitone pairings, C4/Db4 and Gb3/G∂3. Recall that Jones usually reserves the secundal pairings for the interior voices in a chord while maintaining a third or more in the outer voices.

If Jones had used G4 instead of F4 in this chord, this would have been consistent with some of his other octatonic voicings (bV7/I7) and all of the pitches would have mapped onto the Eb octatonic chord-scale. The use of F in the upper sonority of this polychord instead of G creates a bit more dissonance as the F (∂9) sounds against the E (b9) and the Gb (#9). And while the choice of either F4 or G4 creates a polychord here, the decision to use F4 results in a more dissonant upper sonority with FM7 on top rather than Am7. Jones's decision to use F in this voicing results in a more dissonant polychordal sonority whose pitch classes combine to form a blended chord-scale containing all three ninths.

As stated previously, this three-chord pattern is sequenced (as seen in the example). I have highlighted the three occurrences of this sonority containing the blended chord-scale containing all three ninths. Of note is that although the voicing is identical in each subsequent transposition, the chord symbol applied to the middle sonority in each three-chord pattern is inconsistently labeled. The alterations attached to the symbol in the first statement are #11, #9, and b9, while the next two occurrences are b9 and b5.

Example 2.95 "Cherry Juice" mm. 1-5; Blended scalarity (octatonic with added ∂9)



The last example of blended scalarity is also from “Cherry Juice” at the beginning of the “B” section in an AABA form. The harmony here is a three-chord progression that is repeated twice. The brass articulate each harmony in homophonic texture while the saxophones provide melodic fills. The three chords in the progression are C7#9, G+9#11, and C7#9. All of the C7#9 chords in the excerpt have identical brass voicings, as do all of the G+9#11 chords. Jones applies blended chord-scales in each of the brass chords in this excerpt.

The first chord is labeled C7#9, which implies an application of a chord-scale containing altered ninths—most likely octatonic or diminished whole tone. As Jones often does, he creates a polychord over this symbol. Assuming the root to be in the bass (the bass part includes only chord symbols in this section), the polychord Jones creates here is most similar to Cm9/C7. The simultaneous use of the ∂9 and the #9 forms an uncommon chord-scale, one prohibited in the jazz theory books.

If Jones had written the upper sonority of the polychord as a C minor triad, all of the pitch classes in this chord-scale application (as well as those in the saxophones) would map onto the C octatonic collection. What Jones does here in the brass is use a variation of a common i/I7 polychordal application of the octatonic collection. Instead of the upper sonority being a C minor triad over the C7 below, he adds the ninth of the upper C minor sonority and apples a typical minor ninth voicing with the 9th (D) placed a semitone below the 3rd (Eb). Choosing to insert the D into the upper structure creates scalar dissonance in the overall chord as the ∂9 (D) sounds against the #9 (Eb) in the context of C dominant. The end result is a blending of ninths from the octatonic and Mixolydian collections.

In the second chord of the example, all brass players ascend by either a tone or semitone from the previous voicing. The chord is labeled G+9#11. The symbol implies the G whole tone collection, which is the only common chord-scale containing the alterations in the symbol. All of the pitch classes in the chord align with the G whole tone chord-scale application except for E∂, which is the 13th.

To understand what Jones is doing here contrapuntally, it might be beneficial to look at the three-chord sequence as a whole to see the voice leading in and out of this chord. The trumpets sound the top four pitches in the brass voicing while the trombones sound the lower four. The melody in the lead trumpet is G5-A5-G5, which is doubled by the lead trombone an octave below. The third trumpet has D5-Eb5-D5, and is nearly doubled by trombone 2 below. Instead of playing D-Eb-D to double the third trumpet, Jones writes D-E∂-D into the second trombone. If Jones had written Eb into the trombone part to double the trumpet above, this would have simply been a G whole tone chord-scale application over the G+9#11 chord symbol.

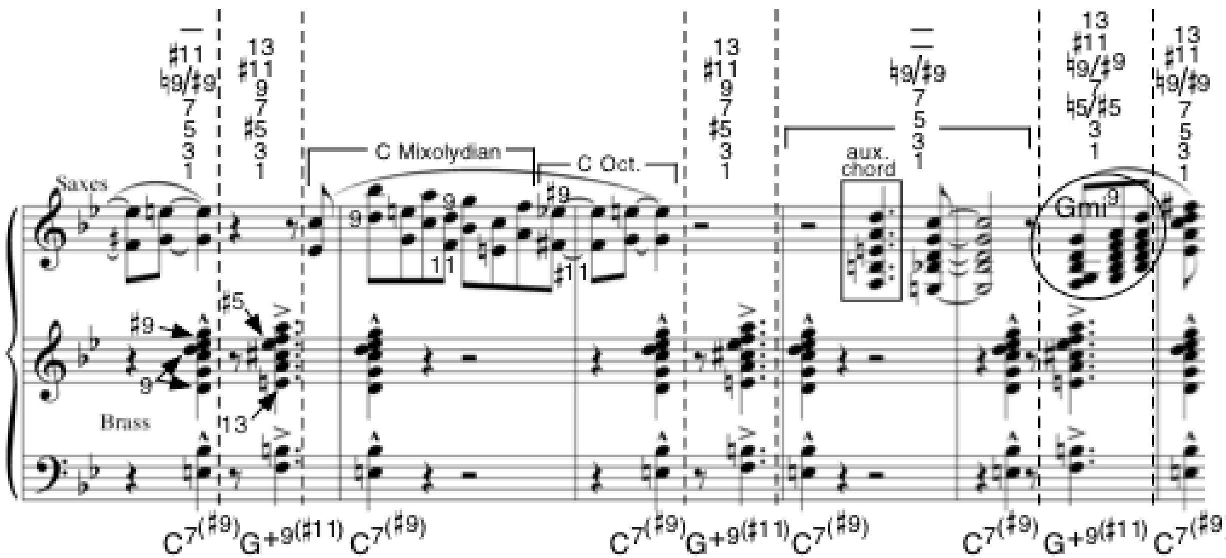
Using the E∂ in the trombone voicing there rather than Eb creates minor ninth between E4 and Eb5, a minor ninth prohibited by some jazz theorists and cited above.

And as was the case with the first chord in the sequence, Jones creates a polychord over the G+9#11 symbol as well. The upper sonority formed by the trumpets is F+7 while the trombones below form a fairly typical quartal voicing of the G Mixolydian chord-scale. The combined result is a F+7/G13 polychord.

Jones's choice of this unique polychord results in a blended chord-scale application over the G+9#11 symbol. This blended chord-scale contains all of the pitch classes from the G whole tone collection, but with an added 13th creating the dissonances described above.

Of additional interest in the example is Jones's use of these blended collections in a polyscalar context against the saxophones. In the second measure of the example, the saxophones toggle from C Mixolydian to C octatonic over the blended chord-scale in the brass. Also, over the last of the three G+9#11 symbols, Jones applies the G minor collection in the saxophone melody over the blended G dominant collection below.

Example 2.96 "Cherry Juice" letter B; Blended scalarity (several occurrences of mixed 5ths and 9ths)



Blended scalarity, as we have seen, involves the simultaneous use of pitch classes from different commonly applied chord-scales fused into a single application. And while the usage of pitch classes from different commonly applied chord-scales over a single symbol may sometimes be explained as polyscalarity or scalar toggling, there are times when Jones is simply blending elements from different scales into one combined synthetic collection.

As we have seen, most of these blended applications are the result of Jones using some familiar orchestration technique with a slight variation, a variation that involves integrating a pitch class in the voicing foreign to the collection to which the remainder of the notes belongs. By blending complementary chord-scales into a single application, Jones typically violates the rules given in the jazz theory books regarding simultaneous usages of diatonic and altered fifths and ninths and also creates dissonant intervals that are discouraged as well. But it is precisely these kinds of techniques that give Jones's music a unique sound.

Although the majority of Jones's chord-scale applications are what I refer to as simple scalarity, his use of scalar toggling, polyscalarity, and blended scalarity all contribute to achieve his signature sound—a sound often characterized by dissonance and dense voicings, with polychords playing an important role.

The increase in usage of the scalarity types through the three pieces in this study mirror that of the increase in octatonic usage tracked earlier (c.f. Table 2.6). In "To You," Jones uses simple scalarity primarily and a few cases of scalar toggling. There are no cases of polyscalarity or blended scalarity in "To You." In "Three and One," there are a few examples of scalar toggling and blended scalarity and only a single polyscalar passage. In "Cherry Juice," although simple scalarity is still the most prominent technique, scalar toggling, polyscalarity, and blended scalarity play a significant role. As a reminder, the original publication dates for "To You," "Three and One," and "Cherry Juice" are 1961, 1970, and 1977 respectively. This increase in use of other scalarity types through each piece may be attributed to a chronological shift in Jones's compositional approach. It also may be explained by the type of piece each one represents. It is possible Jones is simply less experimental on a ballad like "To You" and much more apt to use different techniques in a modal piece like "Cherry Juice."

CHAPTER 3

HARMONIC PATHS IN PITCH CLASS SPACE

Chapter 2 deals with the vertical. In it I discuss Jones's use of chord-scales and attempt to categorize his various strategies for their implementation. This chapter deals with the horizontal. Here I examine Jones's use of harmonic motion and the manner in which his progressions relate to functionality. Because octave specificity of chord roots is not relevant to functionality, I discuss these root movements and chord progressions in terms of pitch class space. Pitch specific movement through musical space and the manner in which Jones implements chordal connections are examined in chapter four.

Descending Fifth Paradigm and its Variations

1st Level Variation: Dominant Substitution via Replacement/Insertion

The descending perfect fifth interval (or ascending perfect fourth) is the most common harmonic root movement in Thad Jones's compositions. Approximately 50% of his chord progressions in the pieces under study are based on this root motion. A full diatonic progression of descending fifths contains all perfect fifths save for one, which is diminished (see table 3.1).

Table 3.1 Diatonic descending fifth progression in C major

	$^{\circ}5$						
CM7	FM7	Bm7b5	Em7	Am7	Dm7	G7	CM7

In tonal jazz (as in other tonal music), the qualities of any or all of these chords are frequently altered to become dominant seventh chords, replacing the diatonic chord with its dominant quality counterpart. And because all of the chord pairs except one are part of a descending perfect fifth sequence, five of these chords become secondary dominant seventh chords when altered to dominant quality.[61] Table 3.2 below shows the harmonic descending fifth progression with all non-dominant chords replaced with their dominant substitutes.

Table 3.2 Descending fifth major progression with dominant substitute replacement chords

C7	F7	B7	E7	A7	D7	G7	CM7

Often, rather than replace a diatonic chord in the cycle with its dominant substitute, the dominant seventh alteration is inserted after its diatonic counterpart, extending the original progression rather than merely altering it. The bracketed chords below are dominant chords inserted into the progression (see table 3.3).

Table 3.3 Descending fifth major progression with dominant substitute insertions

CM7	[C7]	FM7	[F7]	Bm7b5	[B7]	Em7	[E7]	Am7	[A7]	Dm7	[D7]	G7	CM7

The minor version of the diatonic sequence represents similar phenomena to major but with a few exceptions. First, the chord built on scale degree seven is already dominant quality.

[61] Because the seventh chord built on ^4 in the major mode (FM7 above) is a tritone away from the following chord (Bm7b5), it can not serve as a secondary dominant when altered to dominant quality. Also, the chord built on ^7 is half diminished, and therefore cannot function as a tonic. The V7 of the key is the *primary* dominant. This leaves five secondary dominant chords when all diatonic chords are altered to dominant quality.

Second, the chord built on scale degree five is generally altered to dominant quality in this music. Table 3.4 shows the minor diatonic descending fifth progression.

Table 3.4 Diatonic descending fifth progression in A minor

				°5			
Am7	Dm7	G7	CM7	FM7	Bm7b5	E7	Am7

Because the root movement in the minor mode is simply a rotation of the major mode, one diminished fifth occurs in the progression as before, but now in a different position in the sequence (what was IVM7, vii7b5 in major now becomes VIM7, ii7b5 in minor). As in the major mode progression, any non-dominant chord may be replaced by its dominant substitute, producing a string of secondary dominants.

Table 3.5 Descending fifth minor progression with dominant substitute replacement chords

A7	D7	G7	C7	F7	B7	E7	Am7

And as in the major mode, these dominant substitutes may be used as insertion chords rather than replacement chords.

Table 3.6 Descending fifth minor progression with dominant insertions

Am7	[A7]	Dm7	[D7]	G7	CM7	[C7]	FM7	[F7]	Bm7b5	[B7]	E7	Am7

These two strategies of *replacement* and *insertion* of dominant substitution chords into the original paradigm of descending diatonic fifths are used frequently in jazz, and are often used in combination within the same progression.

2nd Level Variation: Tritone Substitution via Replacement/Insertion

The harmonic strategies of implementing dominant substitution chords via replacement and/or insertion (or combination of each) into the descending diatonic circle of fifths may be understood as the first level of variation to a harmonic paradigm. The second level of variation to the cyclic descending fifth paradigm also utilizes replacement and insertion techniques, but implements dominant chords whose roots are a tritone apart from any dominant or secondary dominant seventh chord in the first level of variation progression.

Any dominant seventh chord may be replaced by the dominant seventh chord a tritone away, because both chords share the same essential contrapuntal tones, the third and seventh. G7 and Db7, for instance both share the tones B and F (enharmonically), although their function as third and seventh of their original chord is reversed in the chord a tritone apart. In the major diatonic paradigm, the V7 is often replaced by its tritone substitute (sometimes referred to as subV or subV7).[62] Therefore, ii7-V7-IM7 becomes ii7-bII7-IM7 (see Table 3.7).[63]

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[62] See, e.g., Robert Rawlins and Nor Eddine Bahha, *Jazzology: The Encyclopedia of Jazz Theory for All Musicians,* ed. Barrett Laxton (Milwaukee, WI: Hal Leonard Corporation, 2005), 100. The term "subV" (rather than subV7) is also sometimes used in jazz theory books for the dominant seventh tritone substitute chord. In these cases the seventh is assumed as part of the chord in this labeling.

[63] The symbol bII7 here shows that the chord is built in the lowered second scale degree, but does not reveal its origin as a tritone substitution of some other chord. When I apply Roman numerals to tritone substitution chords in harmonic analyses in the remainder of this study, they will indicate the root of the original chord that is being substituted and the letters "TT" will appear below. In the case of Dm7-Db7-CM in the Table above, my analysis would show ii7-V7-I, with the letters TT beneath the V7 symbol.

Table 3.7 Tritone substitution chord replacement in ii-V-I paradigm

CM7	FM7	Bm7b5	Em7	Am7	Dm7	G7	CM7
					ii7	V7	IM7
becomes							
CM7	FM7	Bm7b5	Em7	Am7	Dm7	Db7	CM7
					ii7	bII7	IM7

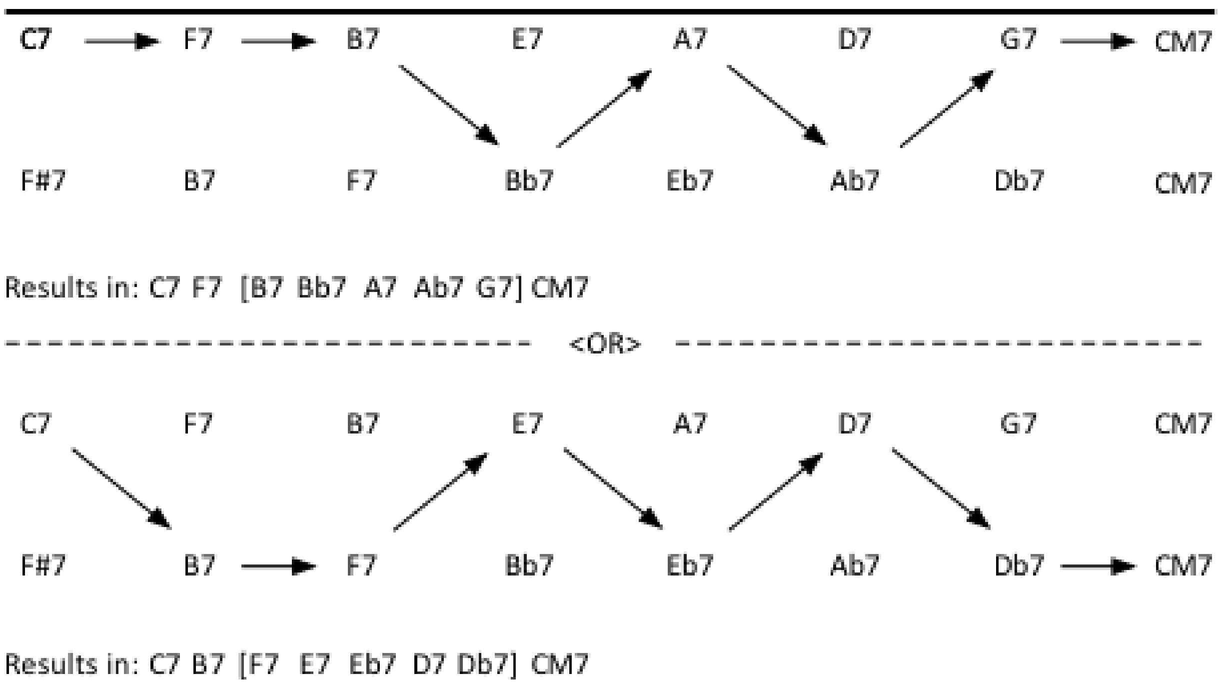
And just as secondary dominant chords often replace their diatonic counterparts in the cycle, tritone substitution chords may replace these secondary dominants as well, as a second level of alteration to the original diatonic descending fifth paradigm.

Table 3.8 Tritone substitution replacements as second level variation chords

Diatonic desc. 5th progression	CM7	FM7	Bm7b5	Em7	Am7	Dm7	G7	CM7	Paradigm
------------				becomes					------------
Dom. 7th sub replacements	C7	F7	B7	E7	A7	D7	G7	CM7	1st level variation
------------				becomes					------------
Tritone sub replacements	F#7	B7	F7	Bb7	Eb7	Ab7	Db7	CM7	2nd level variation

A common strategy in jazz composition is to alternate the secondary dominant replacement chords in the progression (first level of variation) with tritone substitution replacement chords (second level of variation). The result is a progression in which several of the dominant seventh chords descend by semitone. And although these may occur in any combination, a few options for alternating secondary dominant and tritone substitution replacement chords are demonstrated below. The bracketed chords represent a descending semitonal progression string (see Table 3.9).

Table 3.9 Alternating between secondary dominant and tritone substitution replacements in descending fifth progression



The tritone substitute chords seen thus far have been used as replacement chords, i.e., they are used in the progression *instead of* the dominant chord a tritone away. In the same way that secondary dominant substitutes may be used as either replacement or insertion chords, the same is true for their tritone substitutes. Using the tritone substitutes as replacement chords in the preceding chart consists of using *either* a chord from the dominant substitution row *or* its counterpart from the tritone substitution row. Using these chords as insertion chords, however, allows *both* the chord from the dominant substitution row *and* its counterpart from the tritone substitution row. And as was the case for the dominant substitutes being used as inserts rather than replacements, the tritone substitute insert chords extend the progression rather than merely altering it. Table 3.10 below shows the tritone substitute chords inserted into the dominant substitute line.

Table 3.10 Tritone substitute chords as insert chords

C7	F7	B7	E7	A7	D7	G7	CM7
F#7	B7	F7	Bb7	Eb7	Ab7	Db7	CM7

Results in: C7 [F#7] F7 [B7] B7 [F7] E7 [Bb7] A7 [Eb7] D7 [Ab7] G7 [Db7] CM7

As with the secondary dominant substitutes, these tritone substitution strategies of replacement and insertion may appear in any number of combinations in the descending cyclic fifths cycle to either advance or embellish the harmonic argument. These techniques are frequently integrated and coalesced in Thad Jones's music. In addition, all of the strategies for use of the tritone substitution chords in the major mode also apply to the minor mode.

Tritone Substitution Effect by Ellipsis

In a progression consisting of a series of descending perfect fifths, every other chord descends by one step.[64] There is a mathematical reason for this. A descending perfect fifth consists of 7 semitones. Descending two perfect fifths consecutively, then, results in -14

[64] This fact is of course exploited in many Baroque sequences that descend by step.

semitones. In a mod 12 system the net result is -2, a descent of two semitones, or a whole step (see table 3.11).

Table 3.11 Consecutive perfect fifth descent results in whole step descent

			-14 = -2				
C7	F7	B7 $\xrightarrow{-7}$	E7 $\xrightarrow{-7}$	A7	D7	G7	CM7

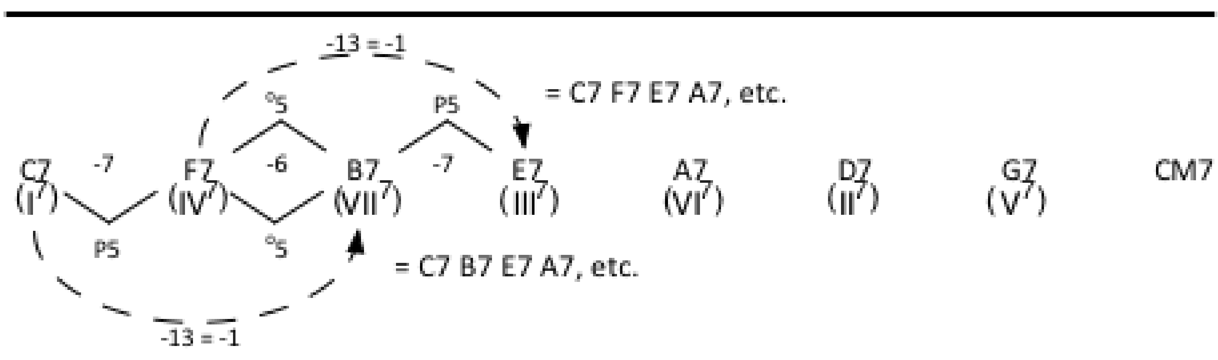
As noted in 3.9 above, alternating between dominant substitute and tritone substitute replacement chords in the progression often results in a descending semitone root movement. The mathematical reason for this phenomenon is as follows. Traveling to the right in the dominant substitute line of the descending fifth paradigm in the case of roots a perfect fifth apart results in a descent of seven semitones (-7). Moving from there vertically downward to the tritone substitute line results in a descending tritone (-6). The net result is -13, and in a mod 12 system, -1. Moving directly from the dominant substitute chord in the top line to the tritone substitute of the following chord in the succession essentially traverses the same pitch space as if all three chords were included, and results in a semitone descent (see table 3.12).

Table 3.12 Semitone descent as the result of tritone substitution

C7	F7	B7 $\xrightarrow{-7}$	E7	A7	D7	G7	CM7
		-13 = -1	-6 $\downarrow$				
F#7	B7	F7	Bb7	Eb7	Ab7	Db7	CM7

Because the pitch space traversed to the tritone substitution chord is -7 plus -6 (resulting in -1, mod 12), it stands to reason that if this same pitch space is navigated in two successive horizontal chords on the same line (e.g. two adjacent chords in the secondary dominant sequence), it will yield the same result of a descending half step root movement. And because every diatonic descending fifth progression contains six perfect fifths and one tritone in the sequence, bypassing one of the two chords that form the tritone interval results in this semitone descent. In the major mode, this occurs as I moves directly to VII, or when IV moves directly to III.[65] See Table 3.13 below.[66]

Table 3.13 Descending semitone root movement via harmonic ellipsis



This method of bypassing a chord in a functional paradigm is sometimes referred to as a harmonic ellipsis in which the missing chord is implied to some degree due to its place in the paradigm, but not actually used. In cases where the harmonic ellipsis results in a semitone descent, the technique is equivalent to implementing a tritone substitute replacement chord

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[65] When referring generically to root movement progressions using Roman numerals, I use all uppercase Roman numerals. When referring to specific chords in a progression, I use upper and lowercase numerals to represent the quality of the actual chord being referenced.

[66] While F7-B7 is actually a +4, I indicate it here as a °5 for better comparison with the P5 preceding and following it. Enharmonic spellings permeate this literature.

into the progression. For example, C7-B7 above using the harmonic ellipsis technique is equivalent to C7-F7, but replacing F7 with its tritone substitute (see Table 3.14 below).

Table 3.14 Tritone substitution effect and tritone substitution use comparison (I-VII major mode)

C7 (I^7)	F7 (IV^7)	B7 (VII^7)	E7 (III^7)	A7 (VI^7)	D7 (II^7)	G7 (V^7)	CM7
F#7	B7	F7	Bb7	Eb7	Ab7	Db7	CM7

$$C7 \xrightarrow{-7} F7 \xrightarrow{-6} B7 \qquad C7 \xrightarrow{-6} B7$$

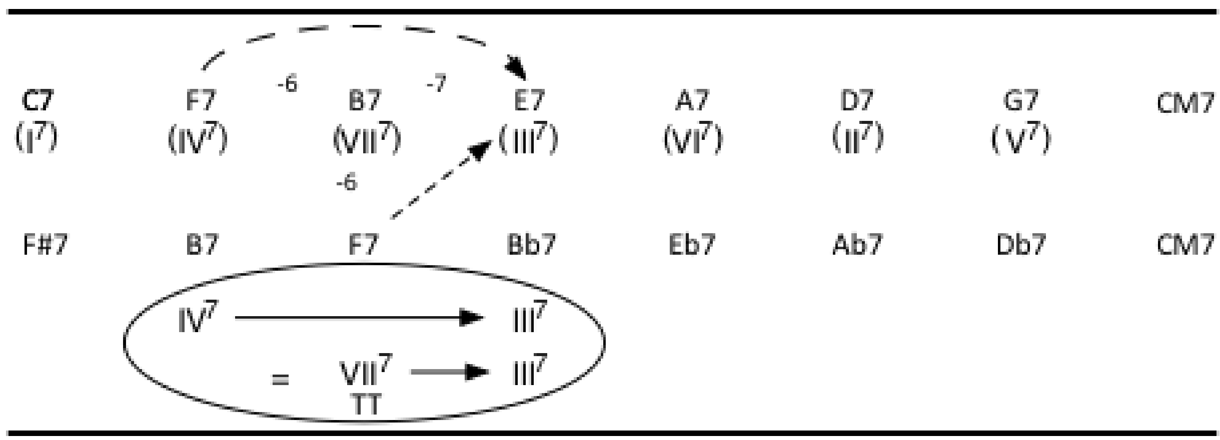
$$I^7 \longrightarrow VII^7$$

$$= I^7 \longrightarrow \underset{TT}{IV^7}$$

Although the chord progressions in the above Table are identical (C7-B7), the root movement in relation to scale degree is not. Understanding the progression as using tritone substitution results in an understanding of I-IV with IV replaced with its tritone substitution. Understanding the progression as the result of harmonic ellipsis technique yields an understanding of I-VII (bypassing IV). If this progression is understood to be the result of harmonic ellipsis, it might also be understood as creating the tritone substitution *effect* (i.e. a descending semitone root movement) without actually shifting vertically to the tritone substitution line in harmonic pitch space.

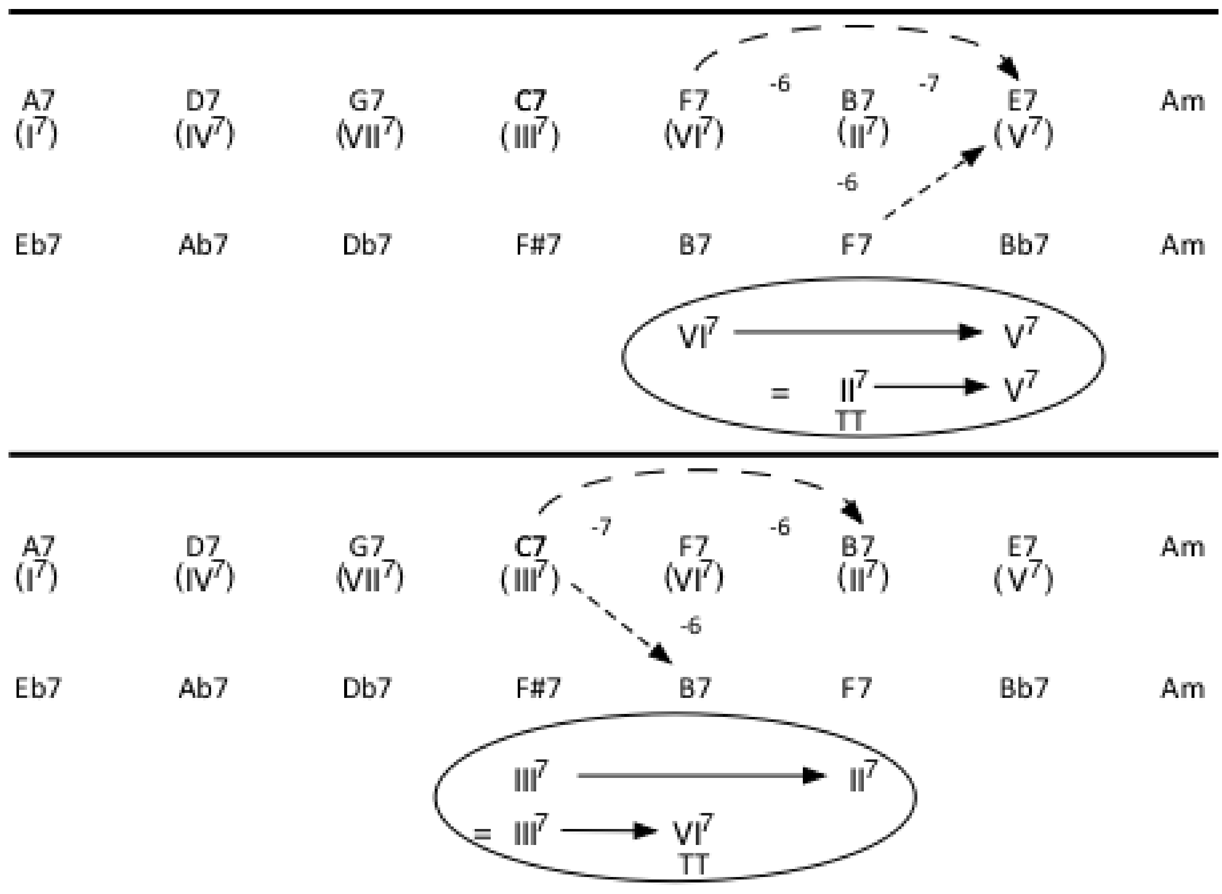
The other tritone substitution effect by ellipsis that occurs in the major mode is IV moving directly to III (omitting VII by ellipsis). This movement is also equivalent to VII -III with VII replaced with its tritone substitute. See Table 3.15 below.

Table 3.15 Tritone substitution effect and tritone substitution use comparison (IV-III major mode)



The tritone interval in the descending fifth sequence in major occurs between IV and VII. In the minor mode, this interval is rotated three positions to the right in the sequence, occurring between VI and II. And as was the case in major, bypassing either of the chords that form the tritone interval results in a tritone substitute effect via harmonic ellipsis. And as in the major mode, this tritone substitution effect via harmonic ellipsis may also be understood as implementing tritone substitution chords into the descending fifth sequence. Table 3.16 below demonstrates the tritone substitute effect possibilities via harmonic ellipsis in the minor mode and their relationship to the actual use of tritone substitute chords.

Table 3.16 Tritone substitution effect via harmonic ellipsis and tritone substitution use comparison (minor mode)



In the major mode, the tritone substitution effect via harmonic ellipsis occurs as I moves directly to VII and as IV moves directly to III. In the minor mode (as seen in the example above), this occurs as VI moves to V and as III moves to II. Because the use of tritone substitution chords and the technique of harmonic ellipsis occasionally result in the same chord progression, it is sometimes ambiguous which technique is actually being used.

The diatonic descending fifth paradigm along with its first and second levels of variation via dominant and tritone substitution chords implemented as replacement or insertion chords is used extensively in this literature as is the use of harmonic ellipsis. Three root movements emerge as the result of using the diatonic descending fifth sequence and the variations described here: descending P5, descending m2, and tritone. A study of Jones's harmonic progression root movements in the three pieces under examination reveal that these three root movements encompass over 72% of all the root movements in this music, and align exactly with the techniques described above.

Jones's Use of Harmonic Pitch Class Space in "Three and One"

"Three and One" Original Progression

"Three and One" was originally conceived as a small group piece and recorded in 1958 on an album titled "Keepin' Up With The Joneses." This is a recording date set by Leonard Feather in which the three Jones siblings—Thad (trumpet/flugelhorn), Hank (piano), and Elvin (drums) join with (unrelated) Eddie Jones on bass. The title likely refers to the three brothers plus Eddie Jones. The melody features Jones on the flugelhorn, and Hank's piano fills in the accompaniment foreshadow much of what the horns will do in the later big band arrangement.

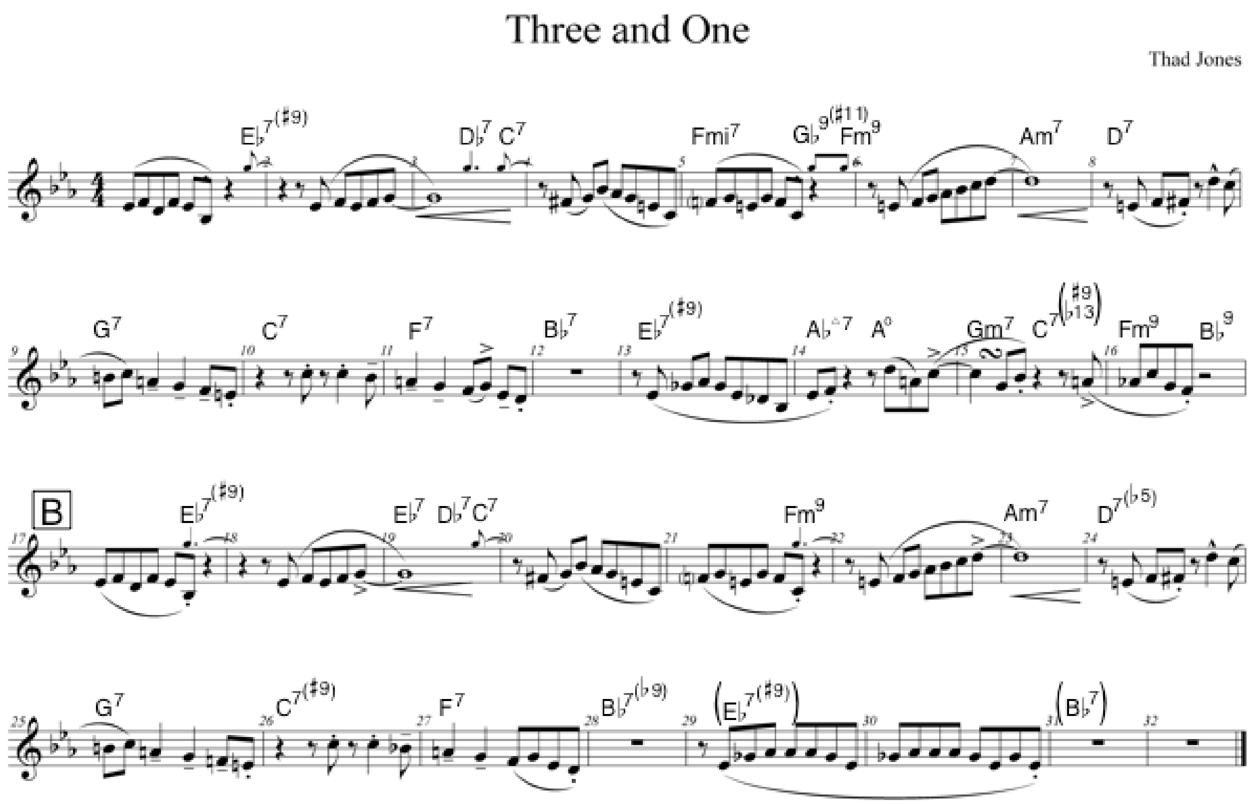
In 1966 Thad created a big band arrangement of this piece for the Thad Jones-Mel Lewis Orchestra. Although incorrectly labeled on the outside cover of the album as "Three in One," the arrangement premieres on the band's inaugural studio album titled "Presenting Thad Jones, Mel Lewis & the Jazz Orchestra 1966."[67] Jones creates a small group feel in the big band arrangement by assigning the melody in the opening primarily to a trio consisting of bari sax,

[67] This studio recording took place in May, 1966. The opening night live concert (informally recorded by Alan Grant, a local radio DJ who promoted and emceed the event and released the tapes in 2000) took place in February, 1966. Because the opening night recording does not include "Three and One," it is likely that the arrangement was done sometime between opening night at the Village Vanguard (February 1966) and the first studio session (May, 1966).

flugelhorn, and string bass. The full ensemble alternates between engaging in playful interaction against the trio and joining with them for a large homophonic ensemble sound.

The form of “Three and One” is a 32-bar song form consisting of four eight-bar segments in an ABAB’ phrasing which is repeated throughout the work. Example 3.1 below is a lead sheet representing the first 32 measures of the big band arrangement used in this study. These 32 bars represent the first full exposition of the ABAB’ form that is repeated several times in the full composition.

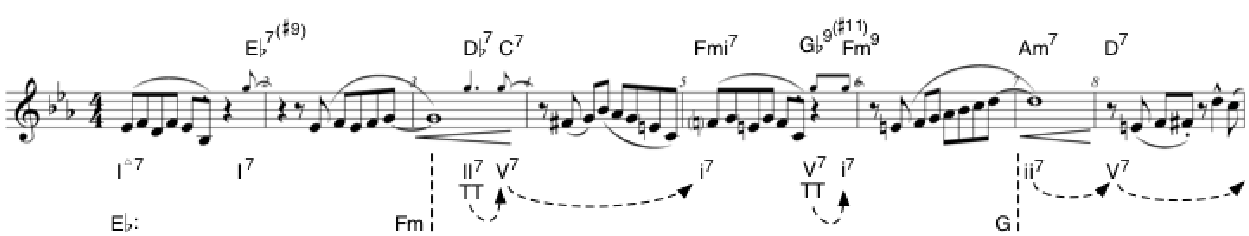
Example 3.1 "Three and One" lead sheet



The first eight measures represent the initial A section. The trio plays the opening statement (m. 1) without any harmonic accompaniment from the rhythm section or any of the other instruments. This motive highlights the key of Eb major and includes the leading tone of the key. At the end of measure one, the ensemble answers the trio statement with a single chordal accentuation labeled Eb7#9.[68] And although the harmony toggles between Eb major and Eb dominant qualities, they both serve tonic function.[69] The possibility of dominant quality chords being understood as serving tonic function is peculiar to jazz and stems from the Blues tradition in which the tonic sonority invariably includes the dominant seventh. Jones often borrows from this tradition, using dominant seventh chords to serve either local or global tonic function.

When the trio reenters in measure 2 following the ensemble's chordal interjection, the leading tone is omitted. At this point, whether the harmony is Eb major or Eb dominant is ambiguous. In either case, Eb is clear as a key center in the opening measures. Melodically, measure 4 is transitional material setting up a sequence of the opening motive. The sequence (beginning in m. 5) is stated a step higher than the original, this time in F minor. Harmonically, the large ensemble signals the modulation by sounding Db7-C7 in measure 3. Db7-C7-Fm is a variation of the II-V-I paradigm in F minor, but with the tritone substitute of II replacing II (see ex. 3.2 below).[70]

Example 3.2 "Three and One" mm. 1-8



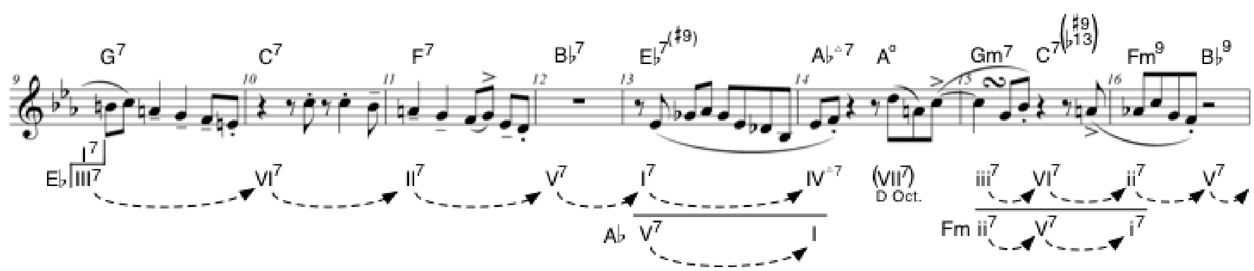
[68] This passage was previously explained as an example of scalar toggling (see ex. 2.71).

[69] In discussing chord function here and throughout the study, I consider the chordal root and the quality of the seventh chord. Extensions of the seventh and chordal alterations are a matter of *color* as a particular chord-scale is applied.

[70] Note that the arced arrows with dashes indicate descending perfect fifths or their tritone substitutes in this and following examples.

Continuing in reference to example 3.2 above, we see the key of F minor reinforced at the end of measure 5. Here the Gb9#11-Fm9 is a variation of V-I in F minor, but with the tritone substitute of V replacing V. Melodically, measure 8 mirrors measure 4 in that is serves as a transition into the next melodic statement. That statement begins in measure 9, the B section. Harmonically, the B section begins in G (III of the original key). The modulation is set up in measures 7-8 with a typical II-V in G. Measures 9-16 comprise the initial B section (see ex.3.3 below).

Example 3.3 “Three and One” mm. 9-16



The G7 chord serves dual function to begin the B section. Because it is preceded by its own II-V, it serves as a local tonic. Simultaneously, it also functions as III in the original key of Eb. Following the G7 chord is an extended series of dominant chords moving in descending perfect fifths. This progression represents the secondary dominant line in Eb, i.e., the first level of variation of the diatonic descending fifth progression.

In measure 14, Jones uses the AbM7 diatonic chord in Eb rather than continue the secondary dominant string. Because he breaks the dominant string here, this chord may be understood to serve as a local tonic. Following Ab, Jones reaches the tritone interval in the descending diatonic fifth progression and he opts to alter the progression slightly. Instead of continuing through the series moving through chordal roots Ab and D, he replaces the D chord

(VII) with A°. The A° chord serves three purposes in this passage. First, it provides a smoother root movement for the passage by avoiding the tritone leap in the bass that would have occurred had Jones continued through the diatonic circle of fifths. Second, because the chord-scale applied to diminished chords is invariably the octatonic collection that begins with a whole step, the collection potentially applied maps onto the Ab7 chord with alterations.[71] This results in the diminished chord serving as a toggling chord as Ab major essentially moves to Ab dominant (specifically, Ab half-whole octatonic). Thirdly, because the Ab half-whole octatonic collection is equivalent to D half-whole octatonic, the diminished cord also essentially serves as the VII chord that would have appeared had Jones continued through the circle, but here in an inversion, as A is the chordal root. By choosing this chord, Jones is taking full advantage of the functional flexibility of the symmetry of diminished chords and chord-scales. Because of the chord-scale commonly applied to diminished chords, the A° chord may have also been written as Ab7 or D7 (with certain alterations) and resulted in the same pitch collection, the only difference being the chordal root.

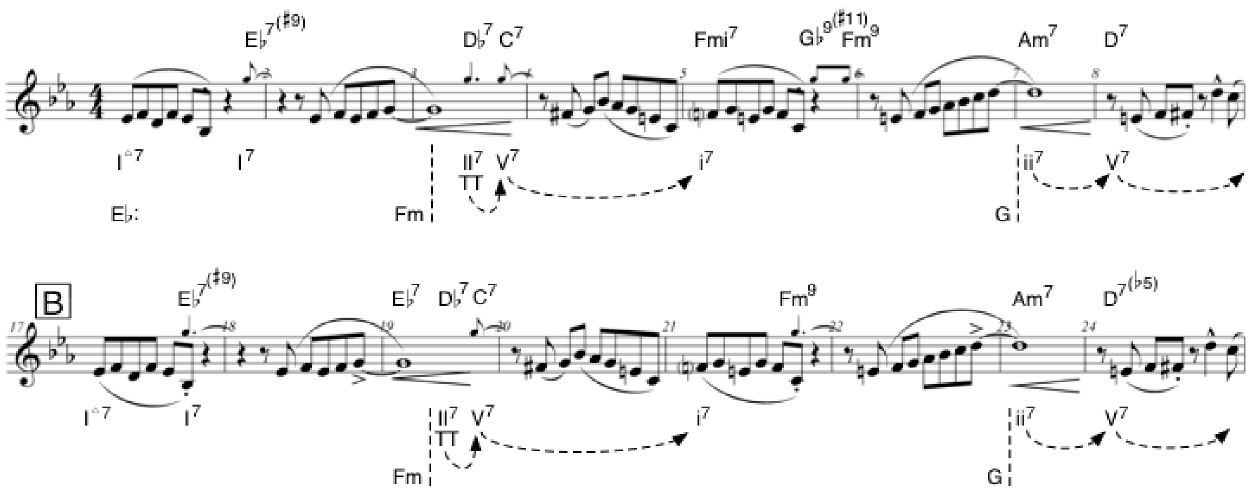
Following the diminished chord (which I interpret here as essentially serving as VII in the circle), Jones continues through the circle a second time. This time, however, he does not use the secondary dominant line exclusively through the III-VI-II-V chords as he did previously. Measures 15-16 move through III-VI-II-V, but this time alternating between the diatonic line

[71] In the written score, the voicing for this chord and on subsequent diminished chords is sparse (in this case with only one added tone, D). The assumption I make here is that the pianist will apply the whole-half octatonic collection over this symbol. Recall from Table 2.5 that this is the only chord-scale agreed upon by all authors for diminished chords (and the one Jones consistently applies).

and secondary dominant line (first level of variation). And by writing iii-VI followed by ii-V, this four-chord sequence might be heard as a pair of ii-Vs.

Of note in the second half of the B section is the diminution of the harmonic rhythm. Measures 9-13 set a pace to begin the B section of one chord per measure, while the application of two chords per measure in 14-16 propel the music into the returning A section where the harmonic rhythm slows again. The second A section begins at measure 17 (letter B). Example 3.4 below shows the second A section along with measures 1-8 (the initial A section) for comparison.

Example 3.4 "Three and One" mm. 1-8; 17-24 (comparison of A sections)



The second A section in measure 17 begins like the first A section, with a statement of the initial motive. Here, however, the motive is in the lead trumpet in a higher octave and harmonized in homophonic texture by the remainder of the wind section (minus the trio).[72] And instead of the large ensemble answering the trio as in the opening, here the piano/guitar

[72] Although the melody is displaced in octaves here to accommodate the lead trumpet range, I show the melody in the lower octave for the simplicity of the lead sheet. The melodic line returns to the octave notated in the lead sheet in m.18 as Jones assigns the melody once again to the trio.

answer the ensemble with the Eb7#9 chordal insertion. Harmonically, this mirrors measures 1-2 as Eb major toggles with Eb dominant although reorchestrated here.

In analyzing measure 2 previously, I stated that the harmony in measure 2 is ambiguous and may be Eb major or Eb dominant. Here in measure 19, Jones confirms the harmony as Eb dominant. The remainder of the second A section mirrors that of the first A section save for the lack of the Gb9 chord in measure 5 which reinforces F minor as a local key center in the initial A statement.

The first four measures of the second B section in the ABAB' form are identical to that of the initial B section (see ex.3.5 below). In measures 13-16, the thematic material is accompanied by a faster harmonic rhythm, which together act as a transition to the next A section. In measures 29-32, however, there are actually no symbols at all notated in the score. In measure 29 Jones takes the first three notes of the melody in measure 13 and applies repetition and rhythmic displacement to transform the three-note motive into new melodic material concluding the 32-bar form. I supply the chord symbols in measures 29 and 31 based on harmonic implication in the music. The harmony in measures 29-32 mirrors the large I-V motion in measures 13-16, but now without the intervening chords. In measures 31-32 Jones writes an unaccompanied unison dominant pedal in the trombones, piano, and bass setting up the top of the form again, this time with a saxophone soli.

Example 3.5 “Three and One” mm. 9-16; 25-32 (comparison of initial B and B’ sections)

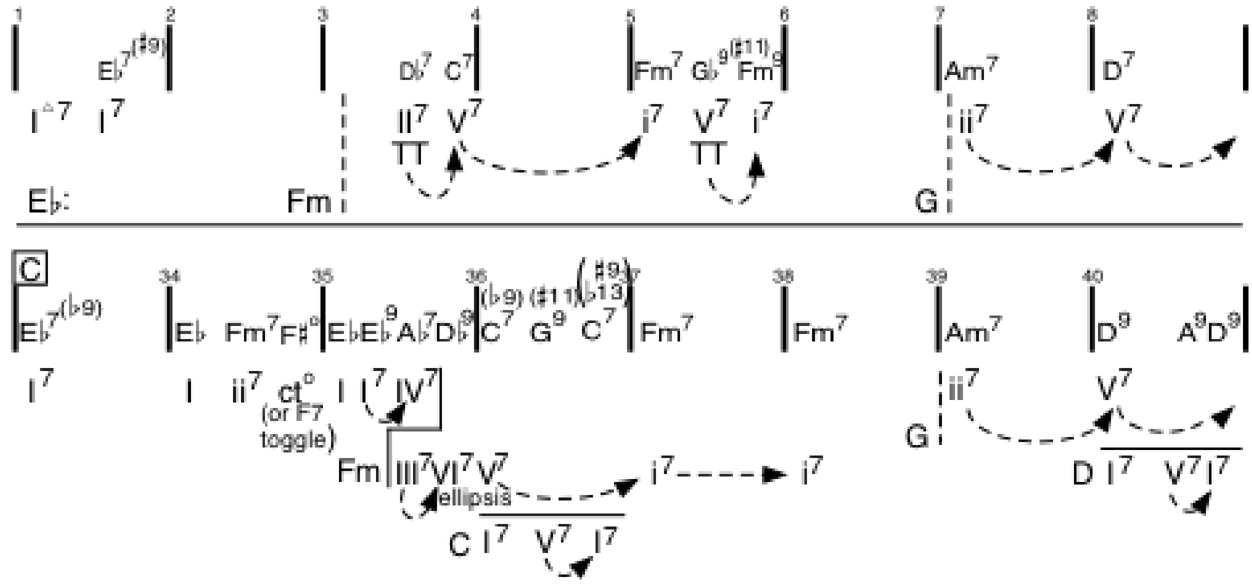
“Three and One” Reharmonizations and Chord Substitutions

Having examined the overall form and compared the A and B sections within the first formal statement, we now turn our attention to the way in which Jones reharmonizes the A and B sections later in the piece. First, I will compare the initial A section with three other subsequent A sections. Then I will do the same with the B section. These comparisons shed light on Jones’s manipulation of the original harmony and the degree to which these reharmonizations intersect with functional tonality.

The first A statement following the initial 32-bar form is measures 33-40. This represents the opening of a 32-measure saxophone soli. I include only chord progressions in the remainder of these examples for conciseness. Example 3.6 below shows how measures 33-40 compare to the initial A section, measures 1-8.[73]

[73] Note that the straight (non-arced) line with dashes indicates the retention of the same harmony. In future examples, this dashed straight-line arrow may also indicate the same Roman numeral (i.e., the retention of the same chordal root) but with a quality change.

Example 3.6 “Three and One” mm. 1-8; 33-40 (comparison of A sections)



The initial A section moves through Eb, Fm, and G. Measures 33-40 also move through these keys, but with some added detail. Measure 2 retains the Eb7 harmony into the first two beats of measure 3. Measure 34, however inserts Fm7 and F#° within the Eb dominant harmony that returns on beat two of measure 35. These two chords may be understood as a prolongation of Eb. The Fm7 in measure 34 serves to introduce the key of Fm that is tonicized in the following measures. The F#° chord with the usual chord-scale application of whole-half diminished (octatonic collection beginning with a whole step) results in a pitch collection equivalent to F7 with alterations. This results in scalar toggling, as Fm toggles to F7 (F octatonic beginning with a half step). The diminished chord also may be explained as a common tone diminished chord resolving as expected to Eb.

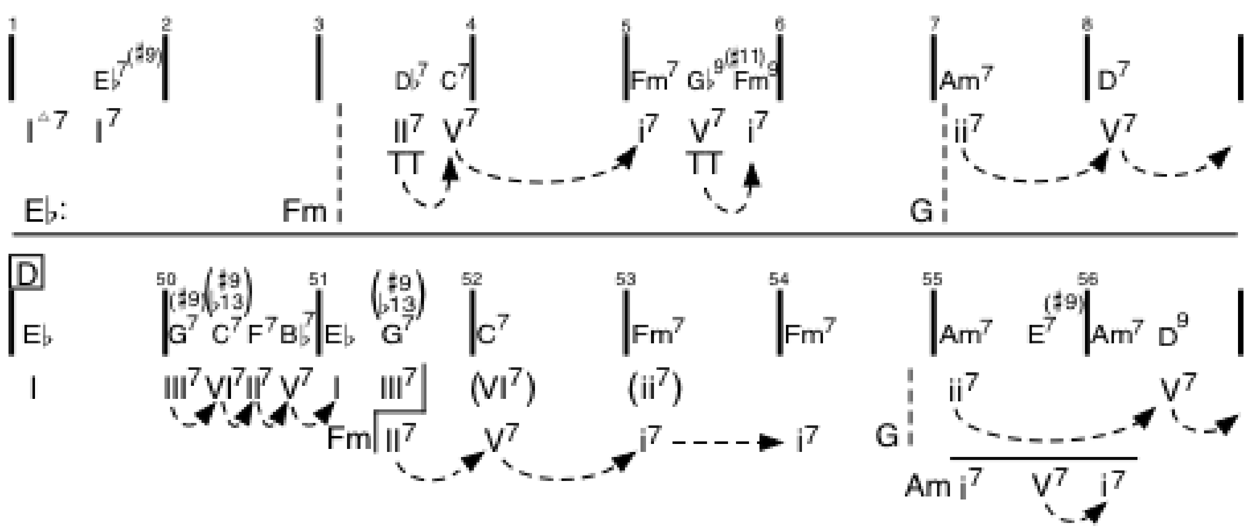
In measure 3, the Db7-C7 progression occurs on beat three setting up the tonicization of Fm in measure 5. In measure 35, the Db-C7 progression is delayed by one beat with an Ab7 chord inserted into the progression. Shifting the C7 chord to beat one of measure 36 rather than beat four of the previous measure allows it to serve as a temporary point of destination in itself. Measure 36 is a I-V-I in C, tonicizing it as a temporary key area in its own right.

The C7 serves momentarily as I7 but is quickly reinterpreted as V7 and continues to Fm, the local tonic. The Fm progression may be tracked back as far as the introduction of the Ab7 chord in measure 35. The progression in Fm, then, is III-VI-V-I with VI-V being an ellipsis in the descending fifth paradigm creating the tritone substitution effect as Db9 moves to C7.

The II-V progression in measures 7-8 is mirrored in measures 39-40, with the V itself being tonicized momentarily. As expected, the D9 in measure 40 is reinterpreted as V as it moves to G7 to begin the next B section (not shown in the example).

The next A section is measures 49-56 (letter D). This is a continuation of the saxophone soli. A comparison of this A section to the original is seen in ex. 3.7 below.

Example 3.7 “Three and One” mm. 1-8; 49-56 (comparison of A sections)



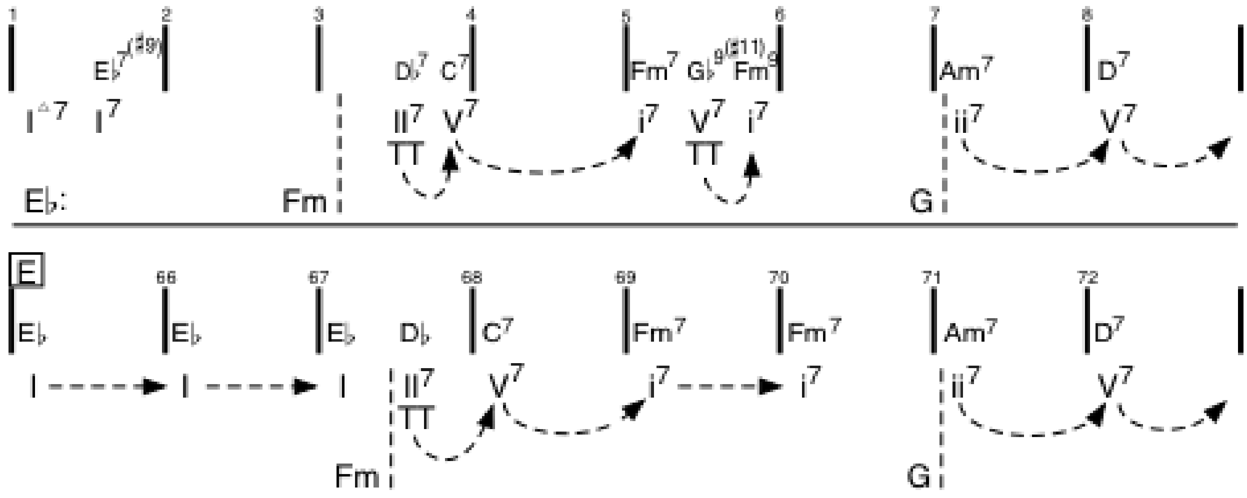
As was the case in the previous A section (mm. 33-40 in ex.3.6 above), Jones fills the harmonic gap in measures 2-3 of the original. And as was also the case in the previous A section, Jones delays the arrival of C7 to the beginning of the fourth measure of the section (here, m. 52). The chords in measure 50 are a truncated version of the B section harmony, representing the secondary dominant descending fifth line beginning with III of the key. The chords in this measure prolong the Eb harmony that is restated in measure 51 as the circle of fifths arrives back on the tonic chord.

The circle begins again on beat three of measure 51 as the harmony moves through III-VI-II of Eb, although II here serves as a local tonic. The G7 in measure 51 serves a dual function—III7 of the original key and II7 (V7/V) in Fm. Fm minor is then confirmed with its own V and remains in force as tonic for two measures.

The original II-V in G in measures 7-8 is embellished in measures 55-56. Here the II is tonicized momentarily with its own V before being reinterpreted as II and proceeding to V and then to I (G7, which is not shown in the example). Interestingly, in the last two bars of the previous A section (mm. 39-40 in ex.3.6 above), Jones embellishes the original progression by tonicizing the V chord. Here he tonicizes the II chord of the same progression instead of the V.

The Last A section we will compare to the original is the first eight measures of the solo section in the piece. This represents the simplest form of the progression and is accompanied only by the rhythm section and soloist. The progressions in solo sections of big band works are generally the most sparse, allowing the improviser and rhythm section maximum opportunity for collective harmonic exploration. A comparison of the first eight measures of the solo section with the opening progression is below (see ex.3.8).

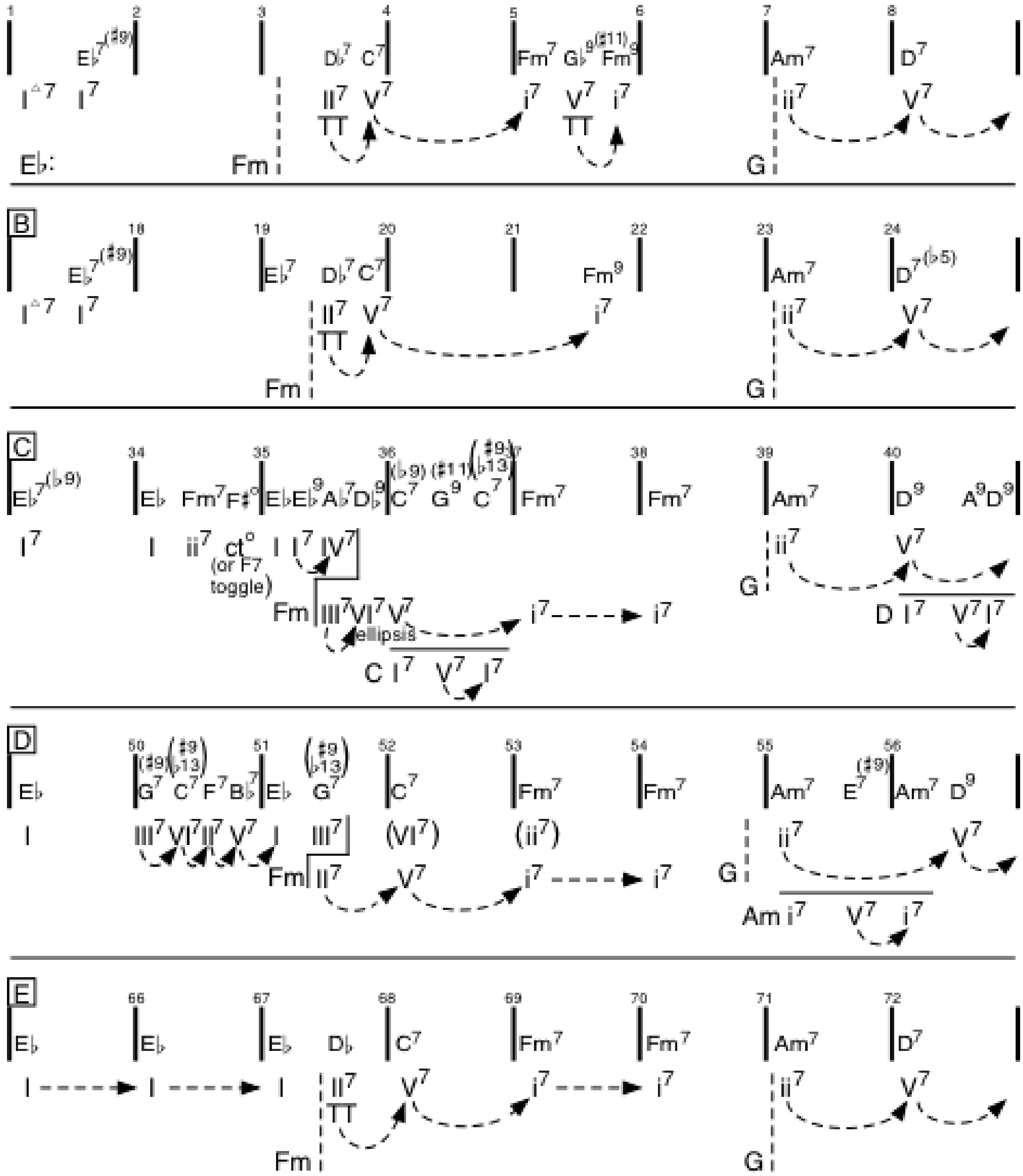
Example 3.8 “Three and One” mm. 1-8; 65-72 (comparison of A sections)



What began as a melodic statement in Eb major followed by an ensemble interjection of Eb dominant is here in measure 65 simply notated as Eb. The C7 chord at the end of measure 3 is again delayed to the following measure in measure 68. The Gb9 that reinforced Fm as a key area in measure 5 is here reduced out of the progression in measure 69. The remainder of the harmonies mirrors that of the opening statement, moving from Eb to Fm to G7 (which in turn initiates a secondary dominant string in the B section).

The initial A section begins with a toggle between Eb major and Eb dominant both serving as tonic. There is then a motion to Fm followed by a motion to G. These keys are affirmed in each reharmonization of the material, although Jones sometimes chooses to embellish the basic progression by inserting chords that either prolong the initial key areas or tonicize one of the chords in the original progression. For ease of comparison, ex.3.9 below shows the first five A sections consecutively.

Example 3.9 “Three and One” (comparison of the first five A sections)



Having examined the A sections in regard to reharmonizations we now turn our attention to the B sections in the ABAB' 32-bar form. The initial B and B' sections were compared in ex.3.5 above. The next B section occurs during the saxophone soli in measures 41-48 (see ex.3.10 below).[74]

Measures 41-44 mirror that of measures 9-12 save for two elements. First, the C7 in measure 10, which is part of a secondary dominant string in Eb, is embellished in measure 42 by way of tonicization with its own V7. Second, the Bb7 chord in measure 12 is embellished in measure 44 with the use of a 4-3 suspension.

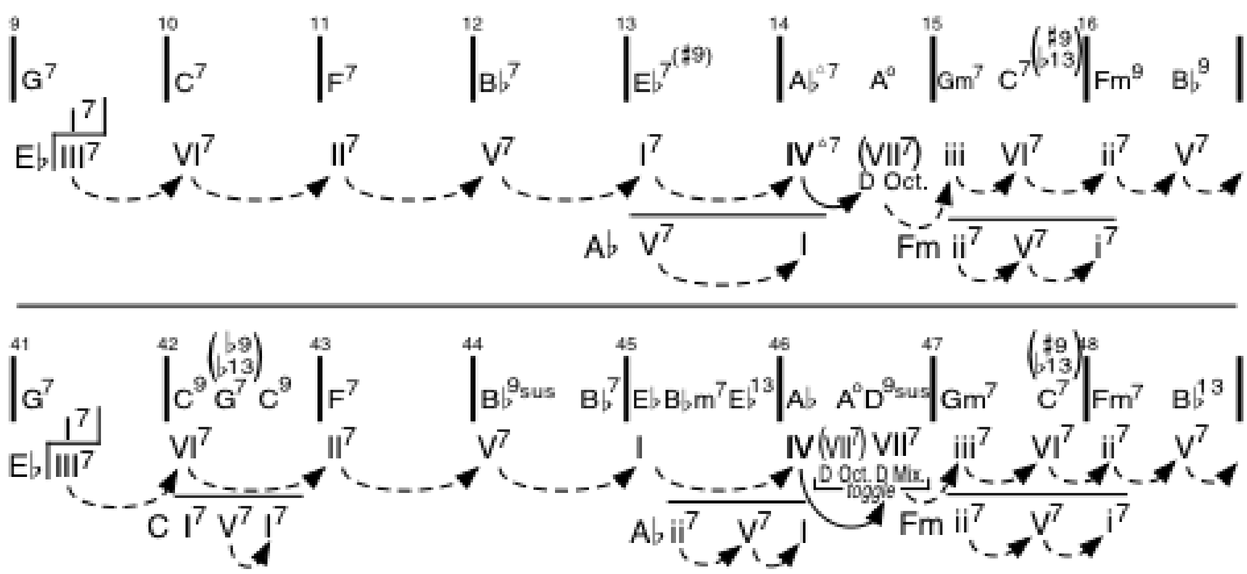
Measures 45-48 are also very similar to measures 13-16, but with a few additional chords inserted into the progression. In measures 13-14 I analyzed Eb7-Ab on two levels. First, I analyzed the progression as I7-IV. On this level of interpretation, they serve as the final chords in a long string of secondary dominants terminating on the IV chord in Eb. Second, I analyzed the chords as V7-I. On this level, they serve to tonicize Ab as a local key area. Measures 45-46 corroborate the tonic-dominant dual nature of Eb and confirm Ab as a temporary tonic. In measure 45, what was a dual function Eb7 (I7/V7) now becomes parsed out as Eb (tonic) at the beginning of the measure and Eb7 (dominant) at the end. The insertion of Bbm7 into the measure delimits the interpretive possibilities of the Eb7-Ab progression. What may have been heard in measures 13-14 as a continuation of the secondary dominant string in Eb (I-IV) is now contextually restricted on the surface level to a II-V-I interpretation in Ab.

[74] While the arced arrows with dashes indicate descending perfect fifths or their tritone substitutes in these analyses, the arced arrow here and in future examples without dashes indicates a descending fifth in the diatonic line, but not a perfect fifth.

The other distinguishing factor between these two B sections is the insertion of the D9sus chord in measure 46. In analyzing measure 14 I noted that the A° chord with its whole-half octatonic chord-scale applied results in an equivalent pitch collection to D7 with alterations. And because the pitch collection applied is equivalent to a form of D7, I further posited that from a harmonic function point of view, the A° chord might be understood as functioning as VII. This allows us to see the diatonic descending fifth progression and its first level of variation (the secondary dominant line) driving the harmony throughout the B section.

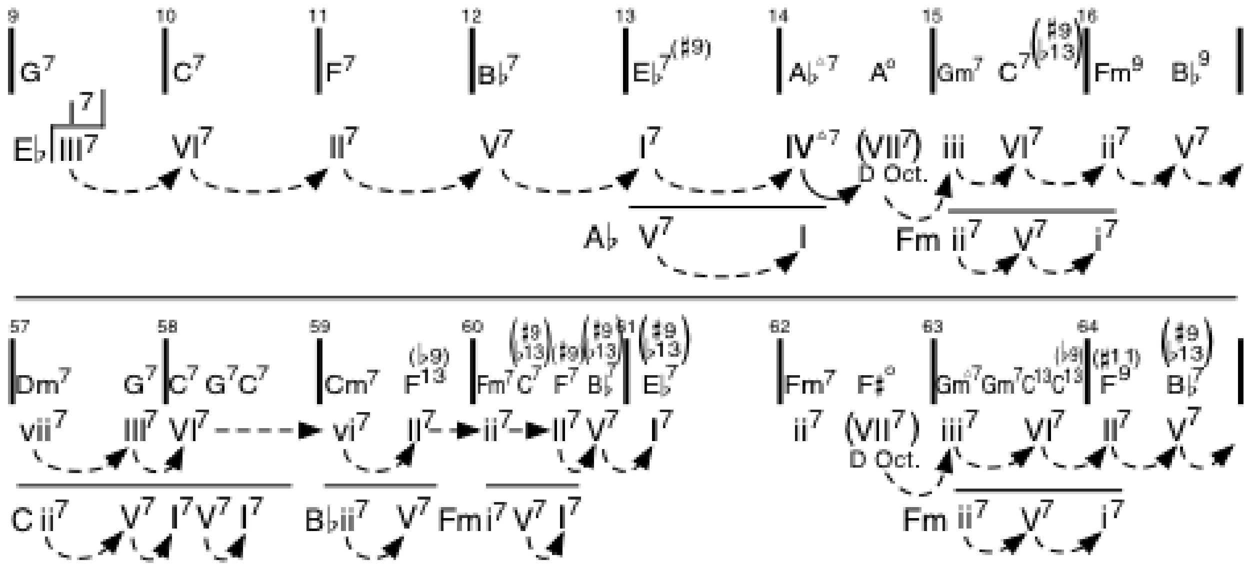
The insertion of the D9sus chord in measure 46 confirms the analysis of A° functioning as a substitute for VII. The D9sus chord immediately follows A°, and may be understood as a toggling of collections from D octatonic (A°) to D Mixolydian (D9sus). This is followed by a continuation of the descending fifth progression in measures 47-48, setting up the A section once again. Measures 47-48 are the same as measures 15-16.

Example 3.10 “Three and One” mm. 9-16; 41-48 (comparison of B sections)



The next occurrence of the B section coincides with the last eight measures of the saxophone soli in measures 57-64. A comparison of this B section to that of the initial B section is shown below in ex.3.11.

Example 3.11 “Three and One” mm. 9-16; 57-64 (comparison of B sections)



Measures 57-64 differ more from 9-16 than the other B sections. This is perhaps due to a compositional preference for a flurry of harmonic activity to end the saxophone soli before the transition to a more harmonically static and open solo section. There is an increase in the pace of the harmonic rhythm in this section along with several embellishments of the original progression.

The G7 in measure 9 has dual function both as I7 (preceded by its II-V) and V7 (beginning a long string of secondary dominants). Here in measure 57 its function of I7 is thwarted with the insertion of the Dm7 chord. The two chords preceding this are Am7-D9 (see ex.3.7 above). This results in a progression in measures 56-57 of Am7-D9-Dm7-G7. The dominant function of D9 in measure 56 is thwarted in measure 57 with the toggling of qualities from dominant to minor. Instead of serving dual function as I and V, The G7 in measure 57 now serves only one function, dominant. And as a dominant chord Jones precedes it with its own II, strengthening the motion to C, the local tonic. The C7 chord in measure 58, which was previously part of a larger secondary dominant string in measure 10, is now tonicized by its II-V (Dm7-G7). The motion to and from G7 in measure 58 (I-V-I) also reinforces C as serving local tonic function.

Jones implements the same reharmonization technique in measure 59 as he does in measure 57. Measure 57 is an embellishment of measure 9. In measure 9, the G7 serves as V7 alone, but in measure 57 Jones precedes the V7 with its II, thus strengthening the resolution to I in a II-V-I progression. Similarly, the F7 in measure 11 serves as V7 in a secondary dominant string, which then proceeds to Bb7. In measure 59, the F7 is preceded by its II (Cm7) thus strengthening its resolution to Bb, but now with Bb as tonic. The motion to Bb, however, is not realized for several chords, and when the Bb finally sounds it functions not as tonic but as V7 as it did in measure 12.

Rather than resolving to Bb in measure 60, Jones implements a quality toggle of F13-Fm7. This is the same technique he used to thwart the Am7-D9 in measures 56-57 as the D9 is transformed into Dm7 rather than allowing the D9 to resolve to G. The Fm7 in measure 60 is then tonicized briefly by the use of its own V but is immediately transformed back to dominant function which links it back to the F7 in measure 59. The F13-Fm7-C7-F7 in measures 59-60 may be understood as a prolongation of F dominant, which then moves to Bb7 and Eb7, all of which is simply an embellished form of measures 11-13.

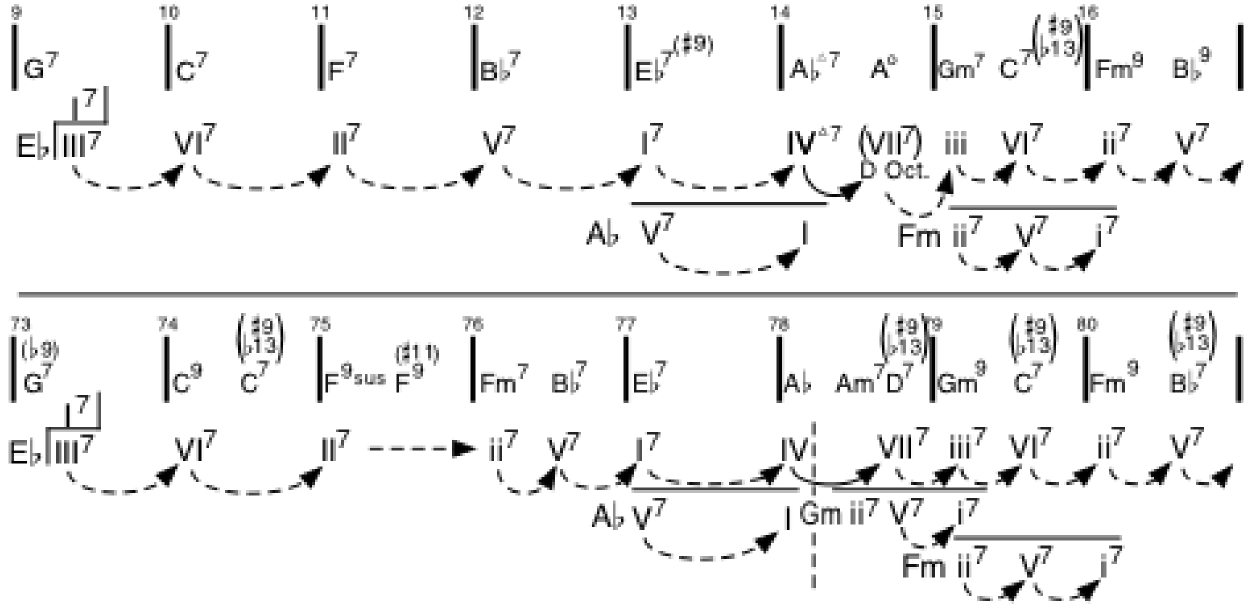
What was an AbM7 chord in measure 14 now becomes an Fm7 chord in measure 62. The other B sections have an Ab chord in this spot if any chord at all. This is a rare example of a chord a third below replacing another chord. Fm7, being a third below AbM7, shares all common tones save for the new root, F. While this type of substitution is common in tonal music, it is surprisingly rare in the pieces in this study, and perhaps Jones's tonal language in general.

The Fm7 chord in measure 62 is followed by F#^{o}. This harmonic motion of Fm7-F#^{o} in measure 62 mirrors the AbM7-A^{o} in measure 14 in that both have a root movement of an ascending semitone, and a diatonic chord is followed by a diminished chord. Because F#^{o} is equivalent both as a chord and as a chord-scale to A^{o}, it serves the same harmonic function as did the A^{o} in measure 14, namely a substitute for VII in Eb.

Measure 63 mirrors measure 15 in the motion of Gm-C7, but in measure 63 both the Gm7 and the C7 chords toggle collections, facilitating a quicker harmonic rhythm than in measure 15. Measure 64 is the same as 16 save for the quality change of Fm9 to F9. Both serve as dual function chords—a local tonic as well as a continuation of the descending fifth progression in Bb on a deeper level. Of note is that measure 63 was discussed previously in ex2.51 in regard to minor chord usage.

The final B section we will examine occurs in measures 73-80. This is the second 8-bar phrase of the solo section. While the first eight bars of the solo section are harmonically static (see ex.3.6), the entrance in the second eight bars of background figures in the saxophones introduces harmonic variety beneath the soloist. Example 3.12 below shows measures 73-80 and the initial B section for harmonic comparison.

Example 3.12 “Three and One” mm. 9-16; 73-80 (comparison of B sections)



The reharmonization strategy used in measures 74-75 are the same as in measure 63 (ex.3.11). What was a single chord in the initial harmonic statement (mm. 10-11) is now split into two chords as the result of scalar toggling. This in turn results in a faster harmonic rhythm.[75]

The reharmonization strategy in measure 76 is the same as was used in measures 57 and 59 above (ex.3.11) in which a V7 is embellished with its II in a later occurrence. Here the Bb7 in measure 12 is reharmonized in measure 76 as Fm7-Bb7. This harmonic embellishment both strengthens the resolution to Eb (tonicizing it as a local key area) and provides a quicker harmonic rhythm as two chords replace one.

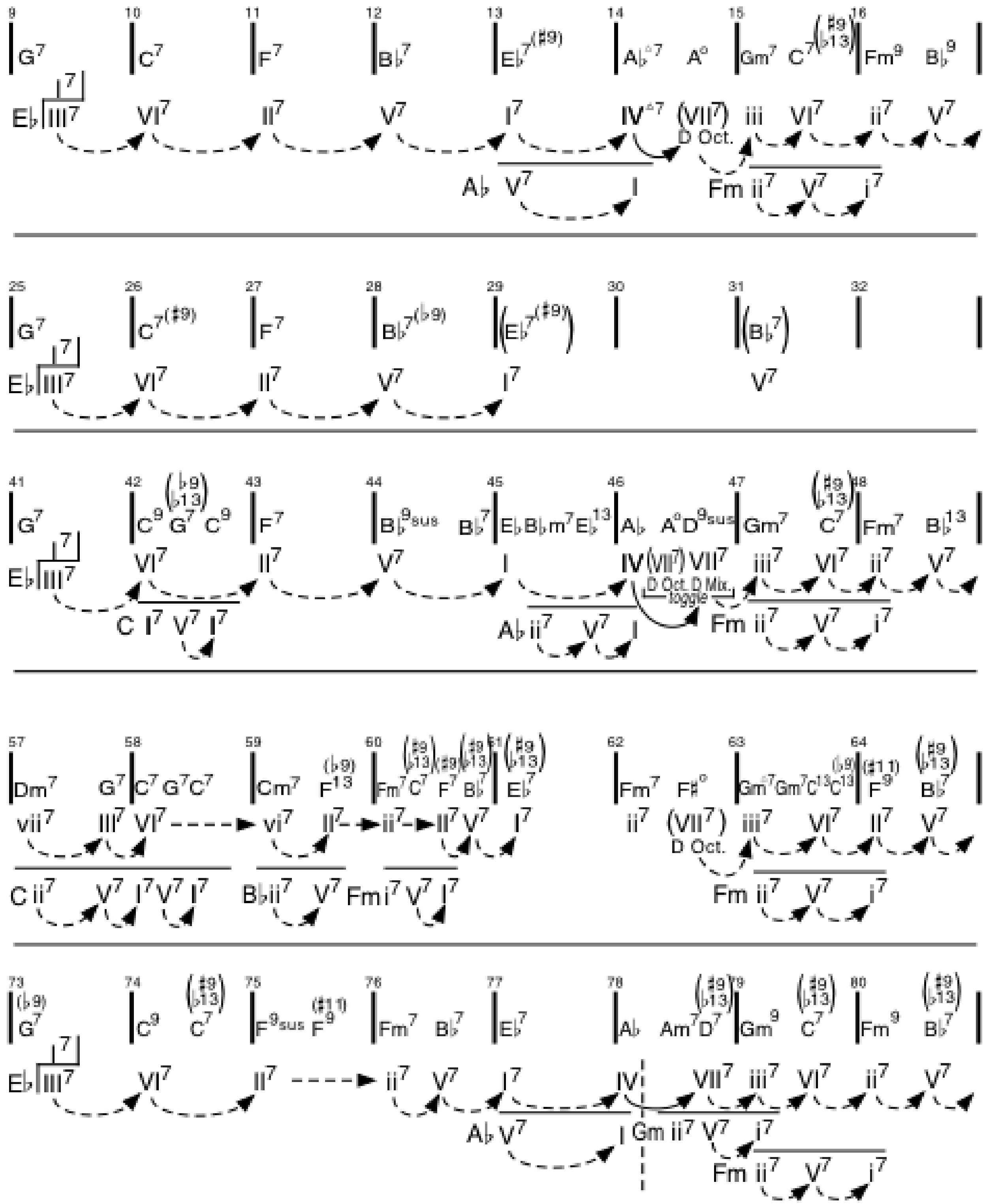
The only other significant harmonic difference in these passages is in measure 78. The A° chord in measure 14 is now reharmonized as Am7-D7. This is in a sense the same technique

[75] Measure 74 was discussed in example 2.74 in relation to scalar toggling.

Jones used in measure 76 in which a dominant chord is embellished by its II. The difference here is that the chord acting as V was actually notated as diminished in the initial occurrence. But as I have argued previously, the function is the same because the pitch collection actually applied to A diminished chords is the same as D7 chords with alterations. The chord pair tonicizes G minor momentarily in measure 79, which in turn becomes II in F minor. Following that is another II-V in G. The second half of measure 78 through the end of measure 80 is a series of II-Vs that are sequenced down by step, ultimately leading to Eb at the top of the A section immediately following.

Example 3.13 below shows all of the B sections analyzed here in a single example for ease of comparison.

Example 3.13 “Three and One” (comparison of the first five B sections)



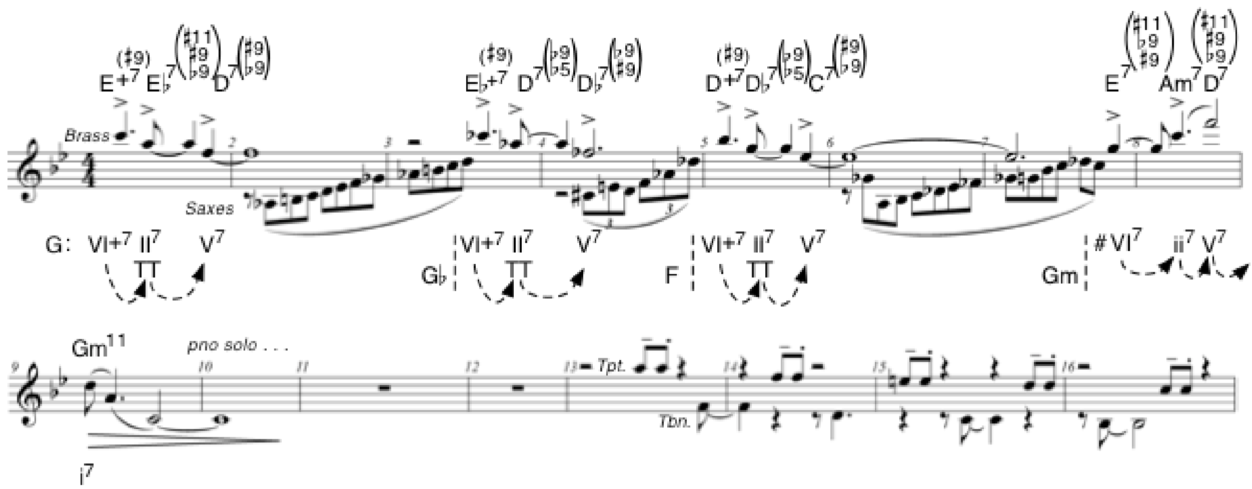
Jones's Use of Harmonic Pitch Class Space in "Cherry Juice"

"Cherry Juice" was written especially for the Thad Jones-Mel Lewis Jazz Orchestra and first appears on the 1976 record titled "New Life." The published score has a 1977 copyright and the album was recorded intermittently from July 1975 to Jan 1976. It is likely that Jones wrote this piece in 1975.

Conceived as a big band composition, its melody is often a compilation of the interplay between the forces available in the traditional big band instrumentation. The orchestration itself is often the melodic focus.

Following a sixteen-bar introduction, the piece is based on a 32-bar AABA song form that repeats throughout the work and culminates in an eight-bar Coda. The introduction is shown in ex. 3.14 below.

Example 3.14 "Cherry Juice" introduction (mm. 1-16)



The introduction begins with a three-chord harmonic progression that descends in semitones and is sequenced twice.[76] The melody is in the lead trumpet descending in thirds and supported harmonically by the rest of the brass in homophonic texture. The saxophones provide countermelodic flourishes which serve both to fill the space of the static harmonic rhythm in these places as well as drive the music forward to the subsequent melodic entry.

The key of the piece is G minor, which is initially reached in measure 9. The descent in measure 1 of E+7-Eb7-D7 may be analyzed as VI+7-II7-V7 in G major (E7-A7-D7) with the tritone substitution for II replacing II (Eb7 replacing A7). As was the case in "Three and One," the progressions in the introduction make use of the secondary dominant line (first level of variation), the tritone substitute line (second level of variation), and the diatonic chords available in the descending circle of fifths paradigm. Because the opening chordal root is E and not Eb, the initial progression leans toward G major rather than G minor, although G minor is ultimately confirmed. Interestingly, when the VI chord is used later in the piece, it is consistently Eb7 rather than E7.

The three-chord progression along with the trumpet melody is sequenced in measure 3, but down a semitone and displaced rhythmically by two beats. The brass voicings are simply transposed, while Jones varies the saxophone interjection to fill two beats rather than six, as before.

In measure 5, the progression is sequenced down another semitone and the brass are (again) transposed down a half step as well. The melody now is back on the strong beat,

[76] The middle chord in these three-chord groupings is explained in ex. 2.95 as an example of blended scalarity. The first chord in each group is shown as an example of Diminished whole tone chord-scale application in ex. 2.25.

matching the timing of the initial entry. The saxophone line is again adjusted, now filling seven beats in measures 6-7.

The three-note motive in the lead trumpet culminates in measures 7-8. Here the entry is rhythmically displaced to beat four, with the final note length adjusted to a half note. While the previous melodic pitches descended in thirds, these ascend in perfect fourths into the extreme high register with dramatic aural effect.

The harmony in measures 7-8 breaks the sequential pattern of the first six measures. Here the harmony functionally mirrors that of measure 1. Measure 1 is E+7-Eb7-D7, while measures 7-8 is E7-Am7-D7. What was VI+7-II7-V7 with the tritone of II replacing II is now #VI7-ii7-V7 with the diatonic II chord of G major in its natural syntactical position. Both progressions are variations of the VI-II-V pattern that ultimately resolves to I in measure 9.

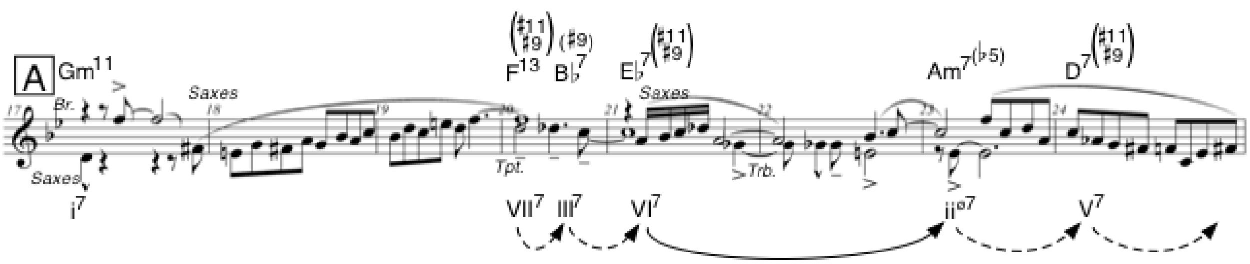
As mentioned previously, the E7 (rather than Eb7) possibly indicates G major rather than G minor. The Am7 chord in measure 8 (as opposed to Am7b5) also indicates G major rather than G minor. Of course, modal borrowing is common in tonal music, and its potential is maximized in this literature as chord qualities are frequently altered while retaining the diatonic root.

Because the three-chord progression in measures 7-8 functionally mirrors that of measure 1, all of the chords following the initial E+7 chord may be interpreted as prolonging the E dominant harmony that is restated in measure 7. The initial three-chord progression, which failed to resolve to I is now finally allowed to resolve in measure 9.

Measures 9-16 are harmonically static on Gm11. The pianist improvises here over light, playful, brass background figures that wind gradually down to a relaxed state. This eight-bar segment serves to set up the saxophone melody and the top of the AABA form.[77]

Following the sixteen-bar introduction, the AABA form begins. In contrast to the calm ending of the introduction, the top of the form is marked by a loud accented brass sonority followed immediately by the primary theme in the saxophones. The first A section is eight measures long and shown in ex. 3.15 below.

Example 3.15 "Cherry Juice" first A section (mm. 17-24)



The G minor harmony from the latter half of the introduction carries over into the first two bars of the initial A section. As stated, following the brass chordal fall in measure 17, the saxophones state the primary A theme in measures 18-19. The saxophones here are in unison (with octaves) and the melody is based on the G melodic minor scale.[78] As the angular saxophone melodic ascent reaches its top note, Jones writes a whole note. This allows the melody to breathe while a trumpet entry provides movement and a quick harmonic rhythm.

[77] Measures 9-16 are demonstrated in ex. 2.43 as an example of a Dorian chord-scale application.

[78] The saxophone melody here is discussed in ex. 2.49. The theme is actually presented as E Locrian #2, which is a mode of G melodic minor. I discuss it as a presentation of G melodic minor due to the Gm11 chord symbol over which it occurs. In Example 2.72 I discuss the interplay between the brass and saxophones in measures 17-18 as an example of scalar toggling.

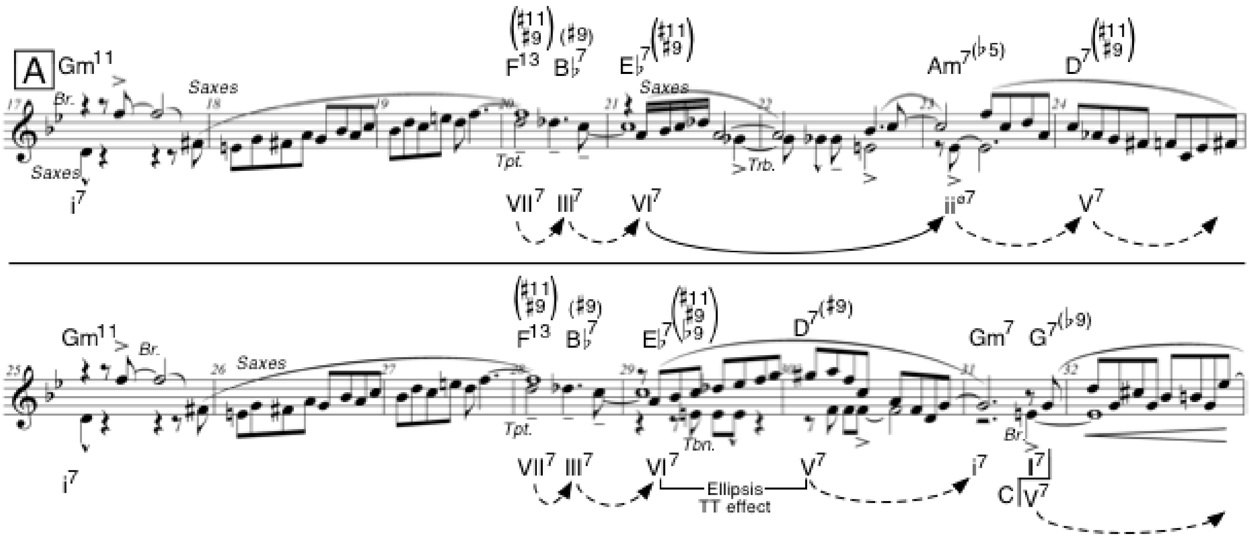
The harmony accompanying the brass chords in measures 20-21 are F13-Bb7-Eb7. These chords represent VII-III-VI in G minor, with alterations. While F7 is diatonic to the key, Bb7 and Eb7 represent the first level of variation, i.e., the secondary dominant line in G minor.[79] The Eb7 chord is retained for two measures while the trombones interact rhythmically with the saxophones. The melody in measures 21-24 is unclear, and might best be understood as a collaboration of interactive discourse in the winds in which the saxophones, trumpets, and trombones all contribute jointly.

The harmony in measures 23-24 is Am7b5-D7, which represents a II-V in G minor and sets up the next A section which begins with Gm11 as does the first A section. Examining the chord progression in these eight bars reveals a harmonic schema built on the descending circle of fifths beginning at measure 17. The only chord missing from the descending fifth progression in this initial A section is the IV chord built on C.

The second A section begins the same as the first A section but ends differently. The first two A sections are shown in example 3.16 below for comparison.

[79] BbM7 and EbM7 are the diatonic seventh chords in G minor.

Example 3.16 "Cherry Juice" first two A sections (mm. 17-24; 25-32)

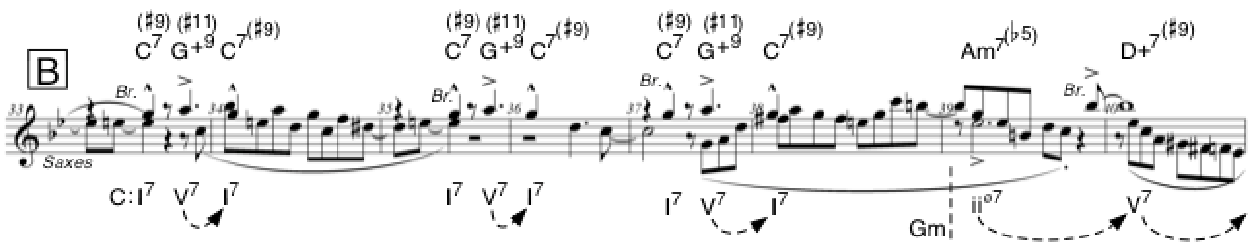


The first four measures of the A sections are exactly the same. In measure 29, the harmony is the same as measure 21 but the melody now is clearly in the saxophones and retained there through the next four bars. The brass in measures 29-32 provide rhythmic interest as they accompany the saxophone melodic line.

In the first A section, the harmony proceeds through the circle of fifths from Eb to Am7b5 to D7 (VI-II-V in the diatonic circle in G minor). Here in the second statement of the A section, the Eb does not proceed to Am7b5 as before, but rather directly to D7. Bypassing the Am7b5 chord in measures 29-30 results in the tritone substitution effect (semitone descent) via harmonic ellipsis. What was a VI-II-V progression spanning four measures (mm. 21-24) is now truncated to VI-V spanning two measures (mm. 29-30). Reaching the V chord in measure 30 allows Jones to functionally close the harmonic statement of the second A section two measures earlier than in the first A section. The tonic harmony (Gm7) is reached in measure 31 and is immediately transformed into a secondary dominant, which sets up the B section starting in the key of C.

It was noted previously that all of the chords in the G minor descending fifths progression were represented sequentially in the initial A section except IV (C). (Recall that the progression in the initial A section is I-VII-III-VI-II-V). The second A section is similar and also bypasses the IV chord as it moves harmonically through the descending fifths circle. The absence of the IV chord in these A sections allows the C harmony to sound fresh as it makes its appearance as a key center in the B section. The B section is shown below in ex. 3.17.

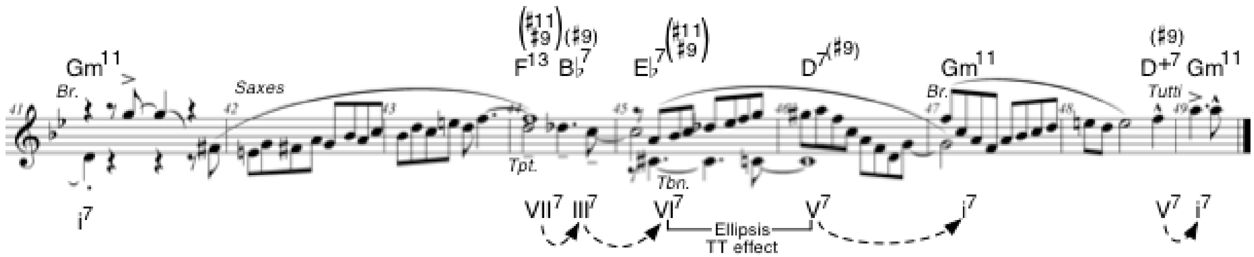
Example 3.17 "Cherry Juice" B section (mm. 33-40)



As the key of C (IV) emerges as tonic in the B section, it does so in dominant form. C7 serving tonic function in measure 33 is (again) immediately tonicized by its own V7. This I-V-I pattern is repeated twice more, filling the first six measures of the B section. The melody in these measures (33-38) seems to be a conglomeration of the angular, curt, saxophone lines and the brass answers of the same three chords each time.

In measures 39-40, the II-V in G minor sounds again beneath the saxophone melody while the brass provide harmonic support. This progression sets up the return to G minor and the final A section of the form, which is shown in example 3.18 below.

Example 3.18 "Cherry Juice" final A section (mm. 41-49)



The first six measures of the final A section mirror exactly that of the second A section in the saxophone melody and accompanying chords. The brass is only slightly adjusted in measures 45-46 from that corresponding place in the earlier A sections. In measure 47 the lead trumpet takes the melodic line from the saxophones with homophonic textural support from the other trumpets. The saxophones join the trumpet line on beat three of measure 47, and the trombones in turn join in the fourth beat of measure 48 as the full ensemble articulates the top of the AABA form again in measure 49 (the solo section). The tonic harmony is reached in the sixth measure of the last eight-bar section (m. 47) and is ornamented briefly with its own V to usher in the solo section.

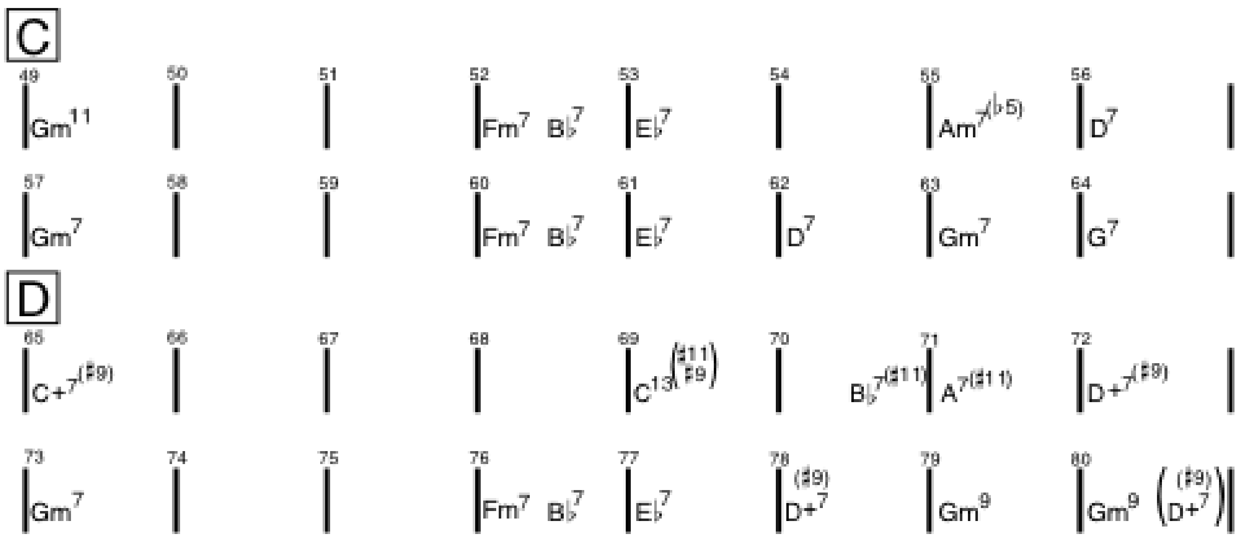
The full lead sheet of “Cherry Juice” with the introduction and the first full AABA segment is shown below for ease of comparison between sections.

Example 3.19 “Cherry Juice” lead sheet; 32-bar AABA form with introduction

“Cherry Juice” Reharmonizations and Chord Substitutions

Having analyzed the initial statement of the form, we now turn our attention to the way in which Jones manipulates the harmony in subsequent formal appearances of the same sections. Example 3.19 above shows the first appearance of the AABA form (along with the introduction). Example 3.20 below shows the second appearance of the AABA form, but here only with the chord symbols for ease of comparison in regard to harmonic variance. The second appearance of the form is a solo section, so many of the chordal alterations are absent from the symbols, allowing the soloists and rhythm section freedom to experiment and interact with each other in regard to harmonic variation of the basic symbols.

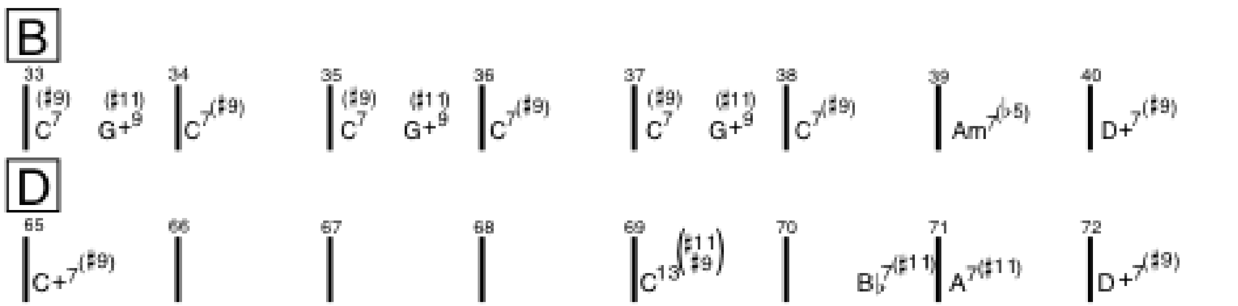
Example 3.20 “Cherry Juice” mm. 49-80 (1st solo section); Second time through the AABA form



The three A sections in the AABA form of ex 3.20 above (solo section) are essentially the same as the A sections in the first time through the form (shown in ex. 3.19 above). The only difference is the quality change of the F7 chord to Fm7 each time. In regard to root movement, the result is still I-VII-III-VI (Gm7-Fm7-Bb7-Eb7) with a strong connection to the circle of fifths. Fm7 replacing F7 each time, however, creates a II-V-I in Eb on a more surface level (Fm7-Bb7-Eb7). Using the same chord roots in subsequent appearances of the same sections but altering the quality is in itself a kind of scalar toggling. I have defined scalar toggling as a toggling between collections in temporal space (i.e., one collection immediately following another). In this case, Jones employs what I call “syntactic toggling.” Syntactic toggling is a scalar toggle in a subsequent appearance of a chord in the same syntactical position in the form. Here, Jones uses Fm7 consistently whereas in the opening he uses F7.

The B section in the second AABA appearance also highlights C7 as a key area in the first four measures of the section. For ease of comparison, I show the first and second B sections in a single example below (see ex. 3.21).

Example 3.21 “Cherry Juice” mm. 33-40, 65-72; First two B sections in AABA form



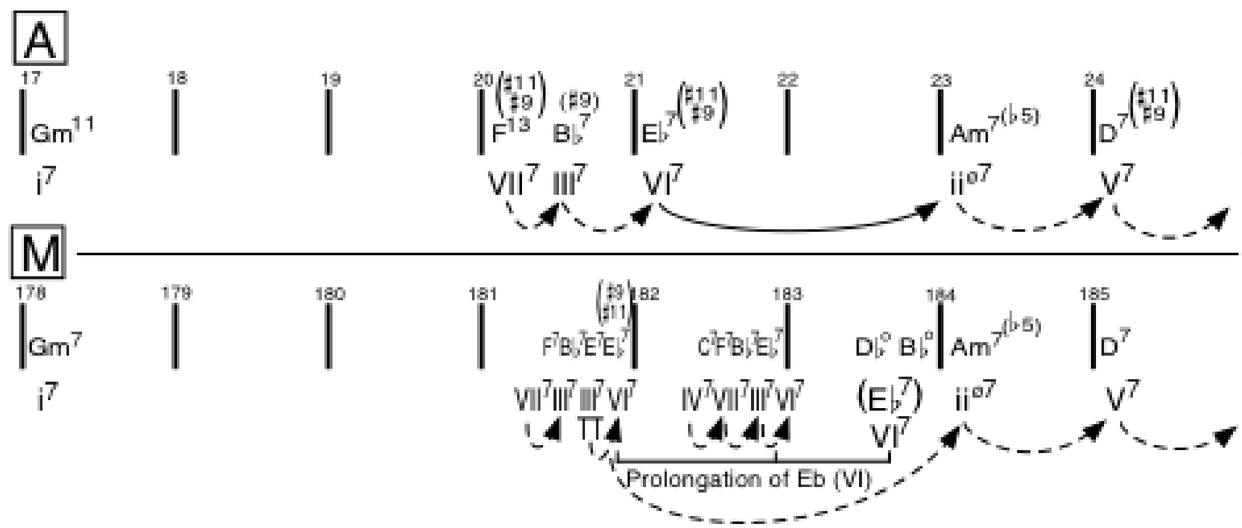
The first B section features a repeating I-V-I in the first six bars, which prolongs the C7 harmony. The harmony is simplified in the second B section, as C+7#9 lasts four measures (mm. 65-68) and C13 #11#9 lasts the next six beats (mm. 69-70a). The chord change in measure 69 represents a notated scalar toggling with no functional change, as C dominant is still in effect as tonic.

Measures 71-72 mirror that of 39-40 as both set up a return to G minor in the subsequent measures. The quality change from A half diminished in measure 39 to A dominant in measure 71 is another example of syntactical toggling in which Jones keeps the root movement in the same syntactical position but alters the quality. In measure 70 Jones inserts a Bb7#11 chord on beat three to strengthen the harmonic motion to A7, as Bb7 is the tritone substitution chord for E7, the dominant of A.

Because the first and second presentations of the AABA form are so harmonically similar, a look at one more AABA section will serve to provide a bit more insight into Jones’s reharmonizations and chord substitution strategies in “Cherry Juice.” This in turn will offer more information regarding Jones's harmonic approach in general, and the degree to which it intersects with traditional functional harmony.

The last section we will examine is measures 178-209, letters M, N, O, P. This is the AABA section occupied by the saxophone soli. The first A section of the sax soli (letter M) and the initial A statement (mm. 17-24) are shown below for comparison (see ex. 3.22).

Example 3.22 "Cherry Juice" mm. 17-24, letter M (comparison of A sections)



Letter A and Letter M both begin with an extended G minor sound and feature a II-V progression in the final two measures that lead again to Gm for the second A section. While Jones writes a VII-III-VI progression in measures 20-21, the corresponding measures (181-183) feature an elaboration of the same fundamental sound.

In measure 181, Jones writes the same VII-III-VI progression as in measures 20-21, but here in a quicker harmonic rhythm (eighth notes rather than half notes) and with one extra chord inserted. Instead of following the Bb7 chord in measure 181 directly with Eb7 as he did in measures 20-21, Jones uses the tritone substitute of Bb7 (E7) as an insertion chord, thus embellishing the original three-chord pattern into a four-chord pattern that begins and ends the same way (F7-Bb7-Eb7 becomes F7-Bb7-E7-Eb7).

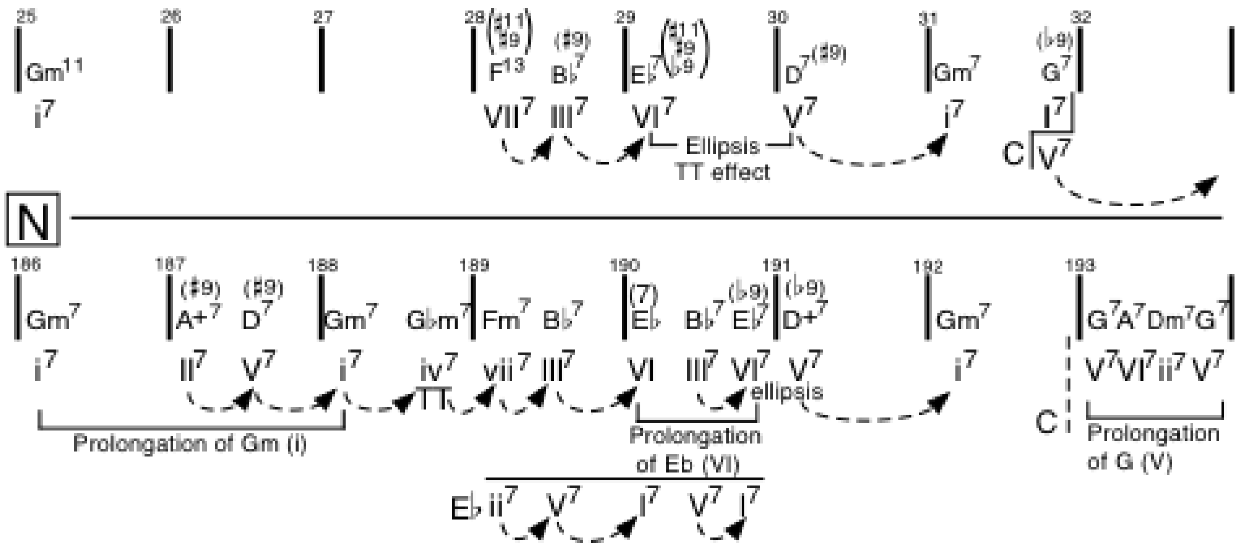
A similar strategy is used in measure 182. This is also a variation of the three-chord pattern in measures 20-21 that Jones extends into a four-chord pattern with a quick harmonic rhythm. Here, the F7-Bb7-Eb7 paradigm is maintained, and the added chord appears at the beginning of the sequence as F7 is preceded by its own V. Thus, F7-Bb7-Eb7 becomes C7-F7-Bb7-Eb7.

As was pointed out in ex. 2.76, the two diminished chords in measure 183 share the same pitch collection as the Eb half-whole octatonic scale. These diminished chords, then, serve functionally to continue the extension of the Eb dominant sound that has been prolonged from the end of measure 181.

The eight-bar progression at letter M is basically the same as letter A (I-VII-III-VI-II-V), but with slight elaboration, and a prolonging of VI (Eb).

The second A section in the AABA form in the saxophone soli is measures 186-193 (letter N). This syntactically corresponds to measures 25-32 in the initial statement of the form. These two eight-bar segments are shown below for comparison (see ex. 3.23).

Example 3.23 “Cherry Juice” mm. 25-32, letter N (comparison of A sections)



For measures 25-27, Jones writes a single chord symbol—Gm11. In the corresponding measures (186-188a), the G minor sound is prolonged with its II-V. The F7-Bb7-Eb7 pattern in measures 28-29 is repeated in the corresponding measures, 189-190. The difference in measure 189 (as was the case in the solo section) is that the dominant quality F7 is replaced with a minor quality Fm7. The syntactic toggling to Fm7 in measure 189 creates a II-V-I in Eb on the harmonic surface. Interestingly, the Eb in measure 190 is notated merely as Eb in the score, but the actual collection Jones applies in the saxophones reflects Eb dominant (as is the case in all of the other syntactically parallel occurrences of this progression). I suspect that this is merely a scribal error, as Eb ought to be Eb7.[80] In any case, the dominant seventh does not affect the chord’s ability to function as tonic on some level.

The Gbm7 at the end of measure 188 is the tritone substitute replacement chord for Cm7, the diatonic IV. Tritone substitutes are usually dominant quality, but here Jones replaces a

[80] I notate the seventh in parenthesis above the Eb in this example to show this possible scribal error

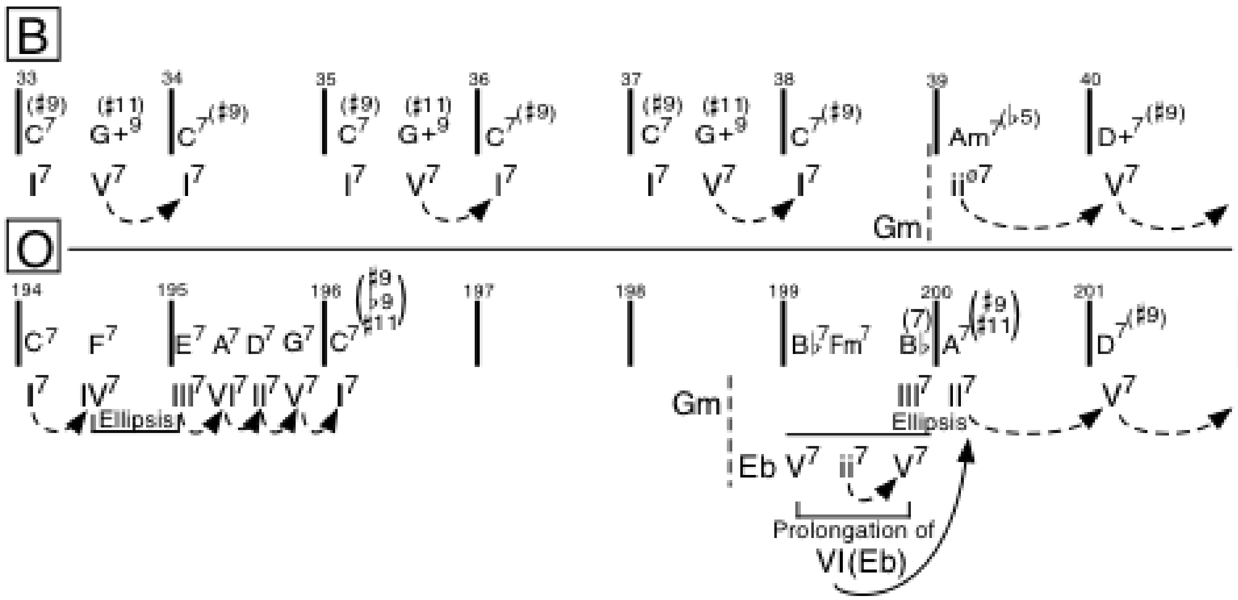
minor quality diatonic chord with its minor quality tritone substitute. Following a prolongation of Gm in measures 186-188a, this chord serves as a substitute for IV in a I-IV-VII-III-VI descending fifths progression.

While measure 29 has a single Eb7 chord to fill the measure, the corresponding measure (190) prolongs the Eb sound by (re)tonicizing Eb with its V. The end of measure 190 moves into 191 the same way as in measures 29-30, with Eb7 (VI) moving directly to D7 (V) and bypassing the II chord. The ellipsis here gives the tritone substitution effect as the harmony slips down a semitone.

At the end of measure 31, the G7 chord is a quality toggle from Gm. It acts as V, setting up the next section in C. The corresponding measure (193) also has the G7 chord, but it is prolonged in the four-chord progression G7-A7-Dm7-G7. This four-chord pattern is similar to the four chords that begin this section (Gm7-A+7-D7-Gm7) in measures 186-188a. The difference between these two progressions is twofold. First, the qualities are different. The qualities in the first set (Gm7-A+7-D7-Gm7) emphasize Gm7 as tonic while the qualities in the second set (G7-A7-Dm7-G7) emphasize G7 as dominant. Secondly, the harmonic rhythm is much faster. What takes ten beats to develop in measures 186-188a is now truncated into only four beats in measure 193.

The B section of the AABA form in the saxophone soli is measures 194-201 (letter O). This corresponds with the initial B section of the piece in measures 33-40 (letter B). These two B sections are shown in ex. 3.24 below for comparison.

Example 3.24 “Cherry Juice” mm. 33-40, letter O (comparison of B sections)



As explained previously, the B section in this form is in the key of IV (more specifically, the blues-related C7). In the initial B section (letter B), the repetitive I-V-I in C prolongs the C7 harmony for six measures before modulating back to Gm with a II-V in the final two measures.

Letter O also prolongs the C7 harmony, but here with a nearly complete sequence through the circle of fifths. Bypassing the VII (B) avoids any tritone root movement in the progression and the ellipsis from IV-III (F7-E7) creates a tritone substitution effect as the chordal roots descend by a semitone.

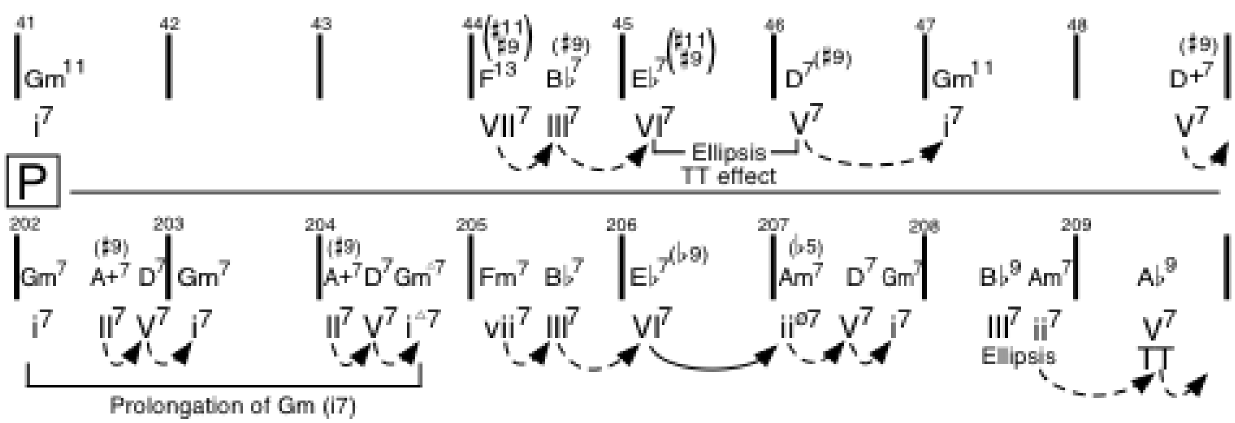
The C7 harmony at letter B lasts six measures. At letter O, however, the C7 harmony lasts only five measures. In measure 199, Jones departs from C7 as tonic and begins to reestablish G minor. The Bb7-Fm7-Bb7 progression here is a V-II-V of Eb and serves to substitute for an Eb harmony that never appears. We have seen Jones replace a chord with its II-V in other places, and that is also the strategy he uses here. What was written as Eb7-A7-D7 in many of the A sections is written here as Bb7-Fm7-Bb7-A7-D7 (the Eb7 replaced with its V-II-

V). Because this three-chord progression replaces Eb, it may be understood as a prolongation of Eb (i.e., a three-chord pattern substituting for a single chord).

On the musical surface, the Bb7-A7 progression in measures 199b-200 may also be interpreted as a III-II ellipsis (bypassing VI) simulating a tritone dominant substitute as the harmonic roots descend by semitone. The seventh of the Bb chord at the end of measure 199 is in parenthesis above the letter because the chord is notated as Bb in the score. As was the case earlier, the pitch collection applied to this symbol in the saxophones is clearly a Bb dominant collection. This is likely another scribal error.

The last section to be examined is the final A section of the AABA form in the saxophone soli. This occurs in measures 202-209 (letter P). This section is shown in ex. 3.25 below, along with the last A section in the opening of the piece (mm. 41-48) for ease of comparison.

Example 3.25 “Cherry Juice” mm. 41-48, letter P (comparison of A sections)



The G minor sonority stated in measure 41 is in effect for three measures. At the corresponding location (letter P), the G minor again is in effect for three measures but prolonged via a II-V-I couplet. At the end of measure 204, the G minor chord receives additional color with the presence of the major seventh.

Measures 205-206 harmonically mirror measures 44-45 save for the quality of the F chord (dominant in the first appearance and minor here). This is the same syntactical toggling of the F chord that Jones implemented in the solo section.

Measures 45-47 represent a VI-V-I in G minor. This is the continuation of a descending fifth progression, but with a harmonic ellipsis as VI moves directly to V and bypasses the II chord. In measures 206-207 Jones inserts the II chord that was missing in the initial harmonic progression. What was VI-V-I is now VI-II-V-I, and the I chord is shifted syntactically one beat sooner (measure 207 beat four) than in the prototypical progression in measures 45-47.

After the arrival of the tonic sonority in measure 47, the harmony is static until the V chord at the end of measure 48 to set up the top of the AABA for in the following measure. Measures 208-209 represent an elaboration of this harmonic schema. In measure 208, Jones inserts an Am7 (II) chord to set up the dominant chord in the following measure. Then, instead of following the Am7 with D7 as might be expected, he replaces the D7 with its tritone substitute, Ab7.

The Bb dominant chord in measure 208 may be understood in one of two ways. First, as a III chord in the key that moves directly to II and bypasses VI. From this point of view, it is a tritone substitute effect via harmonic ellipsis as Bb dominant descends by semitone to Am7. Because Jones so often employs the ellipsis strategy, this is the reading I prefer here. The second reading of the Bb dominant chord is simply a tritone substitute for V (E7) of the Am chord that follows.[81] Either way, the result is a smooth descending semitone root movement

[81] This is my reading of Jones's (very similar) harmonic progression in measure 70 (see ex. 3.21)

from Bb-A-Ab-G in measures 208-210 as the last A section of the AABA form cycles again to the top of the form and reestablishes G minor as the key center.

The 32-bar song form of “Cherry Juice” might be understood as a 32-bar blues in G minor, as C7 (IV) serves as a prominent key area in the B section of the piece. The fact that the key area of IV is dominant rather than major reinforces this notion. Also supporting this idea is the saxophone melody in the opening of the B section emphasizing the “blue” minor third and then playfully sliding up to the major third in the local key area (here Eb sliding up to E over the C7 chord).

While the first part of the B sections are accommodated with a harmonically static IV (or repetitive I-V-I pattern in IV), the A sections represent Jones’s nearly slavish adherence to the diatonic descending circle of fifths and its secondary dominant line (first level of variation) for harmonic source material in this work. Jones’s circle of fifths harmonic approach in this work provides maximum freedom for the soloists to explore all the modal possibilities in the pitch space.

CHAPTER 4

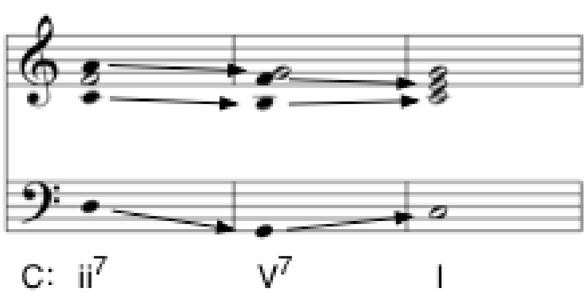
LINEAR PATHS IN PITCH SPACE

Chapter 4 deals primarily with linear movement in octave-specific pitch space, i.e., the manner in which chords are connected in this music via voice leading. Non-functional harmonic progressions that are contrapuntal in nature and require octave specificity are also discussed in this chapter. Certain concepts referenced in general terms in previous chapters are examined here in detail.

Creating Contrapuntal Connections in a Potentially Static Environment: Theoretical

In tonal triad-based music (i.e., music of the common practice), efficient voice leading often involves (1) keeping common tones between chords when possible, and (2) moving the other tones to the nearest note possible in the following chord. A typical ii7-V7-I progression in C major might look something like this (see ex. 4.1 below).[82]

Example 4.1 Typical II-V-I progression in triad-based music



In the above example I use root position chords, connect common tones whenever possible, and move the other pitches to the nearest chord tones. The result is chord

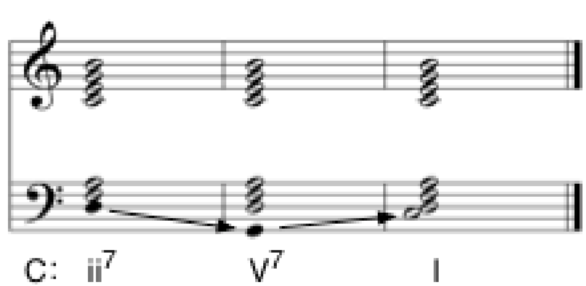
[82] The empty note heads represent static motion, i.e., common tones. The filled-in note heads represent notes that move up or down, creating contrapuntal connections.

connections in which the bass moves to the next chordal root, one note remains static, and two other notes move by tone or semitone. Because this musical style is based in triads (and seventh chords), unless a chord is repeated verbatim, at least one note (along with the bass) will always be required to move when connecting two chords even when all possible common tones are implemented. Theoretically, this is not necessarily the case in jazz due to the fact that successive sonorities may be composed of entire scales rather than merely three or four-note scale subsets.

As it relates to chord formation, jazz is not a triad-based music, but rather scale-based. And unlike chord symbols in other stylistic traditions, chord symbols in jazz are not exclusively specific. In other words, the notes suggested in the symbol are not the only notes that may be applied. Instead, the symbols are a type of shorthand within which complete scale information is encoded—scales that may be applied in part or in total. This concept is explicated in detail in chapter 2.

Because chord symbols are abbreviated icons suggesting full chord-scales, if a composer is constrained to diatonic choices and applies a full scale to each symbol, a potential for static voice leading emerges as a result. Consider the same II-V- I progression as in example 4.1, but here with all of the notes in each diatonic chord scale applied. See ex. 4.2 below.

Example 4.2 II-V-I progression with full diatonic chord-scales applied



The ii7 voicing above is a root position D minor chord stacked in thirds up to the 13th (applying the full Dorian chord-scale).[83] The remaining chords are also stacked to the 13th. I have maintained common tones wherever possible as each chord connects to the next. The result is a series of chords that never move, save for the bass. This is because in scale-based music, applying the entire diatonic chord-scale each time results in a trivial recycling of the same collection, but with different bass notes. In this environment, *every* note is a potential common tone.

This begs the question, how are contrapuntal lines created in a potentially static environment as I have described? In other words, what may a jazz composer do to avoid a situation in which every note in the chord voicing is a potential common tone in functional progressions? In the following pages I outline three methods jazz composers and practitioners use to solve this potential problem. These are (1) use of avoid tones, (2) scale substitution, and (3) chord substitution (quality substitution and tritone substitution).

Avoid Tones

The notes in each chord of example 4.1 and 4.2 derive from the same chord-scales (Dorian-Mixolydian-Ionian). The primary difference between the two examples is that all of the notes from the chord-scales are used in example 4.2 whereas example 4.1 employs a select subset of the collections. Implementing a subset of the chord-scales results in natural contrapuntal paths, while using all available pitches in each chord-scale creates a situation in

[83] Of course this voicing would likely never be used by a jazz pianist or composer, but is useful here for demonstration of common tones.

which every note is a potential common tone. It stands to reason, then, that if not all chord tones are used, contrapuntal paths will naturally result. The question, then, becomes determining which notes to leave out.

Of course a composer or pianist may leave out notes in a voicing for a variety of reasons, but there are some notes that are commonly avoided on certain chords.

The term "avoid tones" is most closely associated with Mark Levine.[84] It is a term reflecting the observation that in certain chords, there are particular chordal members that are often either omitted completely or else treated with special care as chord-scales are applied. Joe Mulholland and Tom Hojnacki explain an avoid tone as a note that is "unavailable for vertical use, but appropriate as a melodic approach tone."[85]

What notes, then, are avoided, and over which harmonies? The answer to this question varies slightly from author to author in the jazz literature—while there is consensus regarding certain chords, for others there is not. In the major II-V-I progression shown in examples 4.1 and 4.2, Levine advises to omit the tonic note of the key over the V7 chord, and the subdominant of the key over the I chord. Other theorists and pedagogues advise to omit the leading tone of the key over the ii7 chord as well.[86] Deleting these avoid notes from the II-V-I progression creates open pitch space within the structure of each chord, allowing contrapuntal paths to form that were previously unavailable due to excessive common tones when all notes

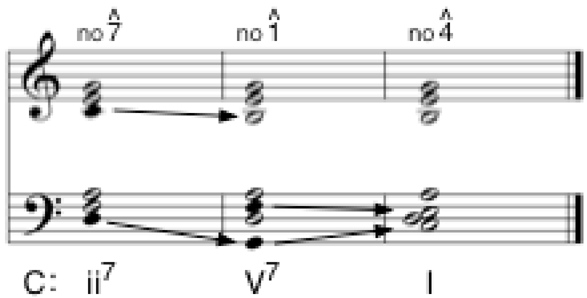
[84] It should be noted here that Levine only reluctantly embraces the term "avoid notes," as it suggests notes not to be played. He qualifies the term by explaining that these notes may be used melodically, but not on strong beats.

[85] Joe Mulholland and Tom Hojnacki, *The Berklee Book of Jazz Harmony* (Boston: Berklee Press, 2013), 21.

[86] While Mark Levine claims that there are no avoid notes in the Dorian mode (Levine, 208), he seems to be in the minority among jazz theorists and pedagogues. See, e.g., Robert Rawlins and Nor Eddine Bahha, 118; Mullholland and Hojnacki, 22; Tymoczko, 354.

in the chord-scales are applied. Example 4.3 below shows the II-V-I progression with the avoid notes omitted. Common tones are retained where possible, and notes move to the nearest scale tone if no common tone is available.

Example 4.3 II-V-I progression with avoid notes omitted



Because ^1 (C) is omitted in the V7 chord, it allows the C in the previous chord to move down to B rather than being retained as a common tone in both chords. Because ^4 (F) is omitted from the tonic chord, it allows the F in the previous chord to move to the nearest chord tone in the tonic chord (E).

The seventh of each chord moving to the third of the following chord is the natural result of omitting the avoid tones from the voicings. This voice leading in turn becomes part of an expected contrapuntal framework in functional jazz harmony regardless of how the remainder of the chord-scale is applied. Similarly, the third of each chord becomes the seventh of the following chord, but by retention as a common tone.[87] These contrapuntal connections of course have their roots in the common practice era and were absorbed by jazz practitioners and pedagogues. Interestingly, the third of the V7 ascending by semitone to the root of the tonic chord is not a common contrapuntal connection in jazz, as this note generally is either

[87] Jazz pedagogues often refer to the 3rds and 7ths in these situations as guide tones, which forge smooth contrapuntal paths within the texture of the voicings.

held as a common tone (the 3rd becoming the 7th) or moved to the 6th of the tonic chord. The fact that this contrapuntal connection (so prevalent in the common practice) is not retained as a standard connection in jazz reinforces the fact that this music is not triad-based, but rather scale-based.

Evident throughout chapter 2 is the fact that Jones's chord-scale applications align with the above avoid-note principles the vast majority of the time. And although jazz practitioners and composers regularly omit certain notes in jazz voicings, there is no single consistent explanation for the practice in the theoretical or pedagogical literature which applies to all avoid tones. Levine, for example, explains the avoid tones in the V7 and I chords as a result of an excessive level of dissonance, but does not proffer an explanation as to why these dissonances warrant an avoid tone when other similar dissonances do not. Mulholland and Hojnacki go a step further, explaining these as tones to be avoided because they are a semitone above one of the notes in the base triad. The same reason is given for the lowered second scale degree in the Locrian scale, as they classify this as an avoid tone also. There is no explanation given, however, as to why the b9 over a dominant chord is not an avoid tone, even though it also lies a semitone above the chordal root.[88]

Mulholland and Hojnacki, as well as Tymoczko also offer an additional explanation for avoid tones based on syntactic clarity in a functional harmonic context. In a II-V-I progression, $\hat{4}$ marks the arrival of the predominant, $\hat{7}$ marks the arrival of the dominant, and $\hat{1}$ marks the arrival of the tonic. Because of this, if the scale degree that marks the arrival of one of these

[88] Interestingly, as a Jazz Studies student at the University of North Texas in the early 90s, I was taught that the root of a major seventh chord is an avoid tone also if played an octave or more above the bass because it is a semitone above the major seventh. None of the authors I have read, however, list that note as an avoid tone.

syntactic functions sounds a chord too soon, it blurs the harmonic clarity of the progression. For this reason, then, the leading tone is omitted from the ii7 chord because ^7 marks the arrival of the dominant which immediately follows. ^1 is omitted from the dominant chord because it marks the arrival of the tonic harmony, which occurs next. In the same way, ^4 is omitted from the tonic chord because it marks the arrival of the predominant chord, which presumably follows the tonic.

The chord-scale applied to the II chord in example 4.3 above contains all of the notes of the Dorian scale except for the 13th. It is by far the most commonly applied chord-scale Jones uses with minor II chords. You may recall from chapter 2 that I refer to this chord-scale as Dorian/minor, the designation of which refers to the Dorian (or minor) chord-scale in which the 13th is omitted. And because the 13th is the distinguishing tone between the two scales, I simply refer to the collection as Dorian/minor. What was left unexplained in chapter 2 is *why* Jones generally omits the 13th on these chord-scale applications. The concept of avoid tones allows us to theoretically understand this. The 13th of the chord in II chords is the leading tone of the key area, which is the avoid tone. Omitting this note preserves syntactic clarity as well as opens a contrapuntal path between adjacent voices that might otherwise have been a common tone.

While the syntactical explanation for avoid tones (an understanding rooted in harmonic clarity) seems plausible, it presents another inconsistency as it relates to the tonic chord-scale. If ^4 is avoided in the tonic chord because it marks the arrival of the predominant, why is this not true in minor mode progressions as well? Tonic chords in minor often include the 11th without obscuring the harmonic syntax.

So when it comes to avoid tones, we are left unsatisfied in seeking a singular explanation that may be consistently applied to all of them. Pointing to the semitone dissonance above a triadic chord tone is inconsistent when considering the b9 in dominant chords. The harmonic functional clarity explanation is also inconsistent, as it fails to explain ^4 commonly used on tonic chords in minor modes.

Despite the failure of any single theoretical reason to explain *all* avoid tones, jazz practitioners continue to omit certain notes from certain chords, and with a degree of consistency so as to be taught in the theory and pedagogy books. And as noted in this section, the omission of these notes allows pitch space to become available in these chord-scale applications, facilitating more contrapuntal connections in a potentially static pitch space.

Scale Substitution

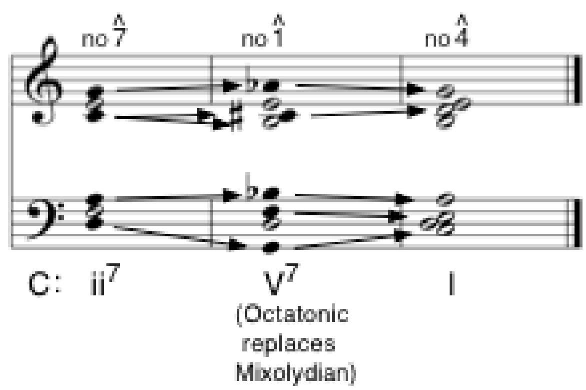
We have looked at a contrapuntally static situation in which every note is a potential common tone when all the notes from the diatonic chord-scales are applied to the II-V-I progression. Next, we noticed how that omitting tones from the voicings opens up pitch space, creating new contrapuntal paths between harmonies. Now we look at another way to avoid a potentially static contrapuntal situation in which every note is a possible common tone. This is through scale substitution.

As was made clear in chapter 2, every chord has multiple chord-scales that may be applied. The contrapuntally static situation we encountered in example 4.1 was the result of two things: (1) only diatonic chord-scales were applied (thus recycling the same pitch collection in every bar), and (2) all of the notes from the chord-scales were applied. The concept of avoid tones addresses the second condition listed here, so that *not* all the notes in the chord-scales are applied. Scale substitution addresses the first condition, introducing scales other than those derived from the diatonic collection.

Although this contrapuntal concept could be demonstrated by substituting for any of the three chords in the progression, substituting for the dominant chord will serve to demonstrate the power of chord substitution in creating new contrapuntal paths in what is potentially a harmonically static environment.

In example 4.4 below, the G half-whole octatonic collection replaces the G Mixolydian chord-scale. And as was the case in the previous examples, common tones are retained wherever possible and the remaining notes move to the nearest available scale tone.

Example 4.4 II-V-I progression with octatonic substitution for Mixolydian



While the implementation of avoid tones opens up new contrapuntal paths, substituting the octatonic collection for the Mixolydian collection introduces even more contrapuntal paths. Implementing the avoid tones in example 4.3 resulted in one additional moving tone in each measure. The chord substitution employed in example 4.4 adds two additional moving tones in the ii7 chord, and three additional moving tones in the V7 chord. Also of note is that substituting non-diatonic chord-scales often solves the avoid note issue inherently, as these scales often contain altered versions of the diatonic avoid tones within the scales themselves. In this case, the G half-whole octatonic collection does not contain $\hat{1}$ of the key, but rather #$\hat{1}$ (#11 in the chord). By substituting the chord, then, the avoid note is not really omitted, but rather altered. This in turn results in a smooth contrapuntal path as the altered avoid note resolves smoothly in the next chord.

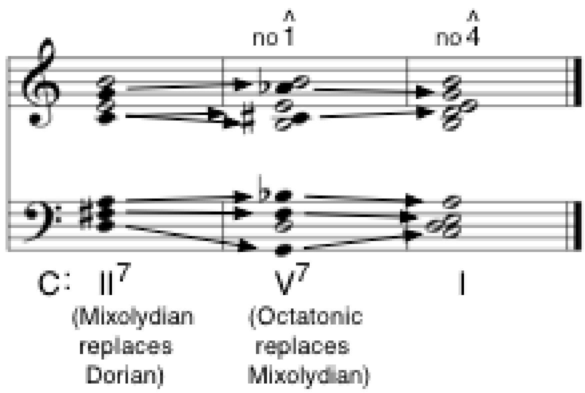
Chord Substitution

Having now examined avoid tones and scale substitution as two methods of generating counterpoint in a potentially static environment saturated with common tones, we now look at a third option—chord substitution. Although there are nearly an unlimited number of methods to substitute chords, the two types of chord substitution I discuss here are quality substitution and tritone substitution.

Quality Substitution

Theoretically, any chord may be substituted with another chord sharing the same root, but of a different quality. As we have seen in the analyses of “Three and One” and “Cherry Juice,” however, jazz composers tend to favor certain chordal substitutions. One of the preferred substitutions is to replace a minor quality chord with a dominant quality chord. In the opening of chapter 3 I refer to this as the first level of variation, i.e., replacing a diatonic chord with a secondary dominant built on the same scale degree. And with the quality change also comes a chord-scale change as well.[89] Example 4.5 below shows the II-V-I progression as before (with avoid tones applied and the chord-scale substitution on the V chord), but now implementing a quality substitution on the II chord. Common tones are still retained where possible while the other voices move to the nearest scale tone.

Example 4.5 II-V-I progression with quality substitution for II



Note that the avoid tone on the II chord is no longer omitted. This is because the quality change thwarts diatonic expectations of the key in that measure. Also note that by implementing a quality substitution on the II chord, another contrapuntal path emerges that was previously a common tone (F# on the II chord moving to F on the V chord). Of course by mixing and matching the dominant quality chord-scale options applied over the II and V chords, a composer may create a variety of interesting contrapuntal paths between the adjacent chord-scales. What is usually consistent, however (and as alluded to previously), are the contrapuntal paths taken by the 3rd and 7th of chords in descending fifth progressions. The 3rd of one chord becomes the 7th of the next and vice versa. The seventh of each chord typically descends by

[89] There is an important distinction between chord substitution (discussed here) and scale substitution (discussed above). While both procedures replace a diatonic scale with a non-diatonic one, scale substitution preserves the chordal quality, while chord substitution alters it.

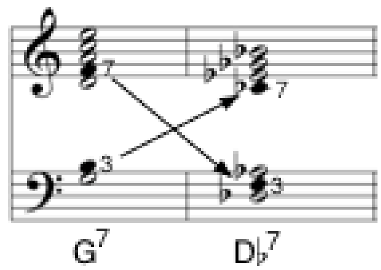
semitone into the following chord. This contrapuntal skeleton provides syntactic clarity in functional descending fifth progressions regardless of the amount of chromaticism infused by the implementation of non-diatonic chord-scales into the progression.

Tritone Substitution

Tritone substitution chords likely have their origins in eighteenth century common practice augmented sixth chords. In the late nineteenth century, composers began to use these chords with more frequency and freedom than their predecessors. In twentieth century tonal jazz these chords became a staple of the harmonic vocabulary, used by virtually every jazz composer. They became codified in their functional use in jazz and are today as commonplace as the diatonic chords they often replace. In the opening section of chapter 3 I discuss these chords as the second level of variation chords, following the diatonic and secondary dominants. I also show how that a composer may freely mix and match the diatonic, secondary dominant, and tritone substitution chords freely as he or she progresses through the descending circle of fifths.

Tritone substitution in jazz usage generally involves a dominant seventh chord. Because the interval between the 3rd and 7th of the chord is a tritone, a tritone transposition of the chord naturally preserves the two notes involved in the tritone interval, only now their roles as 3rd and 7th are reversed. See example 4.6 below.

Example 4.6 Dominant tritone substitution- 3rd/7th roles reversed



As noted earlier, the contrapuntal paths taken by the third and seventh of the predominant and dominant chords provide syntactical clarity to the progression. Because these notes remain intact through the tritone transposition of the dominant, the contrapuntal paths are unaffected. Example 4.7 below shows the comparison between the diatonic II-V-I with avoid tones (from ex. 4.3) and the same II-V-I in which the V chord has been replaced with its tritone transposition. As before, common tones are retained where possible while the other notes move to the nearest scale tone.

Example 4.7 Comparison between diatonic II-V-I and II-V-I with tritone substitution

The tritone substitution applied here is the Db Mixolydian chord-scale replacing the G Mixolydian chord-scale. In the diatonic II-V-I with avoid tones, two notes are contrapuntally active in each measure. Applying the tritone substitution chord, however, activates three additional notes in the II chord and four additional notes in the V chord. In each measure, there is now only one common tone possible, while the other voices all move by semitone.[90]

In fact, the contrapuntal power of tritone substitution is the potential for every note to be either a common tone or connect by semitone (even the bass note). And although applying the various dominant chord-scales to the tritone substitution chord (Db Mixolydian, Lydian Dominant, Octatonic, etc.) results in a different number of common tones and semitone

[90] There are actually two possible common tones in each chord connection, but one of these is the avoid note in each instance (B on the II chord and F on the I chord). This leaves only one potential common tone in each connection with the avoid notes omitted.

connections, the commonality between each choice is that they all result in *only* common tone or semitone connections to the chords before and after them. By applying different chord-scales to the tritone substitution chord then, a composer controls the number of potential common tone and semitone paths between chords. The example above shows a Mixolydian tritone substitution. Moving from D Dorian to Db Mixolydian yields two potential common tones and five semitone connections when the entire chord-scale is applied. Applying the other commonly used dominant chord-scales yields different results. The chart below shows the potential for creating various combinations of common tones and semitone contrapuntal paths while moving from the II chord to the tritone substitute V chord with different chord-scales applied. See table 4.1.

Table 4.1 Common tone/semitone connections between D dorian and Db dominant scales

II	D Dorian		D		E	F		G		A		B	C	CT	1/2 step
V	Db Mix	Db		Eb		F	Gb		Ab		Bb	B		2	5
	Db Lyd Dom	Db		Eb		F		G	Ab		Bb	B		3	4
	Db Oct	Db	D		E	F		G	Ab		Bb	B		5	3
	Db Dim WT	Db	D		E	F		G		A		B		6	1

The above table shows that the Db Mixolydian scale has the least amount of pitch classes in common with D Dorian (two of the seven pitch classes are common tones), while the Db diminished whole tone scale has nearly all common tones with D Dorian (six of seven pitch classes are common tones). In fact, the more alterations made to the Mixolydian scale, the more similar the chord-scale is to D Dorian (and the less potential contrapuntal tones).

It's easy to see, then, how that a composer is able to manipulate chord-scale choices when applying the tritone substitution to either emphasize sameness with the surrounding chords or else engage the maximum possible number of moving notes for more contrapuntal motion.

These connections become even more complex as the II chord is replaced with a secondary dominant via a chord quality substitution. This opens the possibility for any of the commonly used dominant chord-scales to be applied on the II chord as well as the V chord. All of the possible (commonly applied) dominant chord-scale combinations in connecting the II and V chords are represented below. Note that certain combinations emphasize sameness (with more common tones) while others maximize contrapuntal motion between chords (with less common tones).

Table 4.2 Common tone/semitone connections between D dominant and Db dominant scales

II	D Mix		D		E		Gb	G		A		B	C	CT	1/2 step
V	Db Mix	Db		Eb		F	Gb		Ab		Bb	B		2	5
	Db Lyd Dom	Db		Eb		F		G	Ab		Bb	B		2	5
	Db Oct	Db	D		E	F		G	Ab		Bb	B		4	4
	Db Dim WT	Db	D		E	F		G		A		B		5	2
II	D Lyd Dom		D		E		Gb		Ab	A		B	C	CT	1/2 step
V	Db Mix	Db		Eb		F	Gb		Ab		Bb	B		3	4
	Db Lyd Dom	Db		Eb		F		G	Ab		Bb	B		2	5
	Db Oct	Db	D		E	F		G	Ab		Bb	B		4	4
	Db Dim WT	Db	D		E	F		G		A		B		4	3
II	D Oct		D	Eb		F	Gb		Ab	A		B	C	CT	1/2 step
V	Db Mix	Db		Eb		F	Gb		Ab		Bb	B		5	2
	Db Lyd Dom	Db		Eb		F		G	Ab		Bb	B		4	3
	Db Oct	Db	D		E	F		G	Ab		Bb	B		4	4
	Db Dim WT	Db	D		E	F		G		A		B		4	3
II	D Dim WT		D	Eb		F	Gb		Ab		Bb		C	CT	1/2 step
V	Db Mix	Db		Eb		F	Gb		Ab		Bb	B		5	2
	Db Lyd Dom	Db		Eb		F		G	Ab		Bb	B		4	3
	Db Oct	Db	D		E	F		G	Ab		Bb	B		4	4
	Db Dim WT	Db	D		E	F		G		A		B		2	5

Tritone substitution, then, is another compositional tool in generating more contrapuntal paths in an otherwise potentially static environment. And not only does it create more contrapuntal paths in the musical fabric, it also infuses chromaticism into a potentially sterile diatonic environment.

The question as to why twentieth century jazz practitioners and pedagogues embraced and codified the use of tritone substitution chords (which were used only sporadically before) is an interesting one. It is perhaps due to a few factors. First, preserving two common tones through the transpositional process requires a tritone interval in the original chord. And because jazz harmony is heavily reliant on dominant seventh chords (which contain a tritone interval), adoption of the tritone substitution into the harmonic vocabulary seems a natural fit. Second, these substitutions retain the contrapuntal paths taken by the 3rd and 7th of the chords, therefore not disrupting the syntactic clarity and functionality of the progressions. Third, these substitutions infuse chromaticism into the diatonic progression. And because jazz practitioners embraced late nineteenth century chromaticism, tritone substitutions were also naturally accepted into the style. Lastly, because parallel voice leading was accepted in jazz style, the parallel semitonal contrapuntal paths created by tritone substitution were viewed as desirable for smooth voice leading.[91]

Creating Contrapuntal Connections in a Potentially Static Environment: Thad Jones

In the last section I discussed several strategies from a theoretical point of view in which jazz composers might create contrapuntal paths in a potentially static diatonic environment in which every note is a possible common tone. These strategies include omitting avoid tones, scale substitution, chord quality substitution, and tritone substitution. In this section I will show a few examples from Jones in "Three and One" in which he applies these principles.

The form of "Three and One" is ABAB' in which each A section begins with Eb as tonic and is preceded by a II-V in the previous measure. In the next three examples, we will examine the beginning of three of these A sections, noticing how Jones applies the principles previously discussed to vary the II-V-I progression leading into the A section each time. The first example is

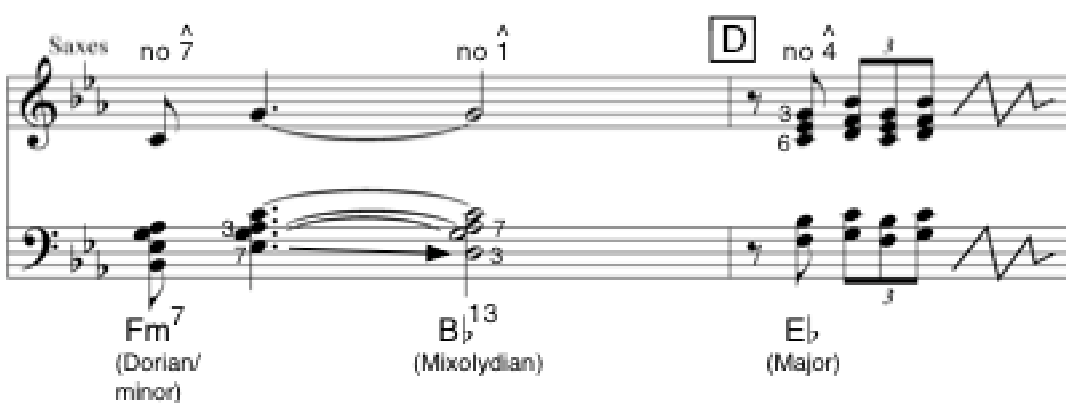
[91] Tymoczko echoes a few of these points as well.

taken from the saxophone soli, while the next two are from the open solo section with saxophone backgrounds.

The first example begins one measure before letter D (see example 4.8 below). Here Jones writes a II-V-I in Eb in which the chord-scales applied to the II-V-I chords are all diatonic to Eb major. Avoid tones are omitted in each chord-scale application, and Jones keeps common tones where possible. The result is four common tones and only one contrapuntally moving tone as the II chord connects to V. The Eb moving to D is the direct result of the avoid tone for II (D) and the avoid tone for V (Eb) being omitted from these chords. Otherwise the Eb might have simply been retained as a common tone as Fm7 progresses to Bb7. And if the D had sounded in the Fm7 chord, it may have been retained as a common tone as well. The avoid tones being omitted allows the contrapuntal path of ^7 (Eb) descending down to ^3 (D). Also of note is that ^3 connects to ^7 via the common tone, Ab.

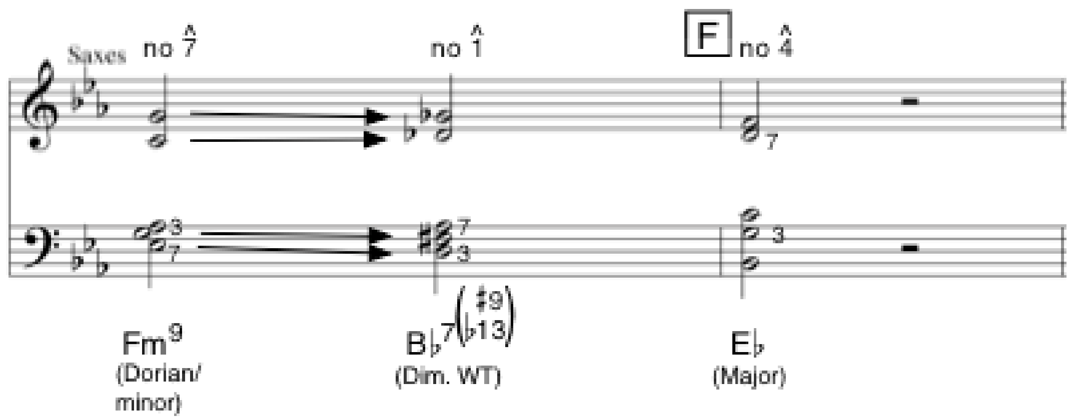
The 3/7 guide tones do not connect directly to the I chord in the same way, however. Because the measure in which the Eb chord sounds begins a new section in the form, Jones opts to “reset” the voicing as he begins a new motive.

Example 4.8 “Three and One” 1 before D- diatonic II-V-I with avoid tones



The next example is from the same syntactical position, one measure before letter F. The saxophones here provide background figures during the open solo section (see example 4.9 below).

Example 4.9 “Three and One” 1 before F- scale substitution (diminished whole tone replaces Mixolydian)

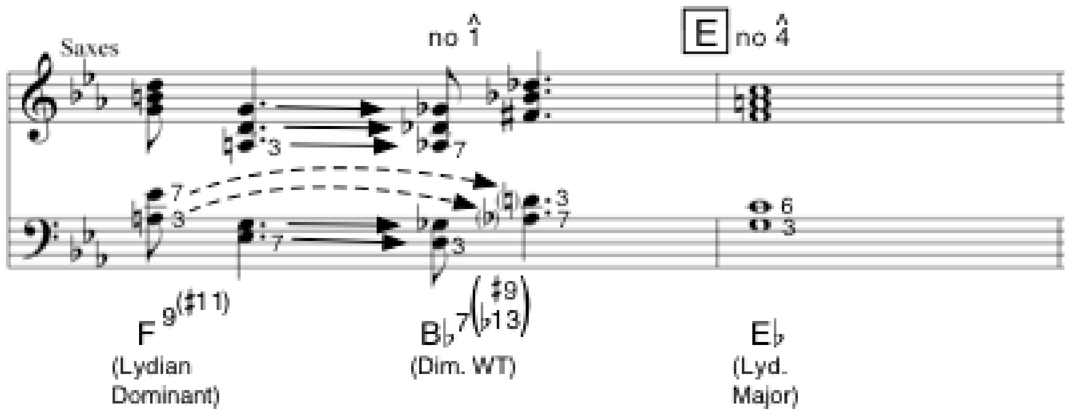


Jones voices the Fm9 chord exactly the same way in this example as in the previous one. Instead of applying the Bb Mixolydian chord-scale over the V chord as before, Jones instead applies the Bb diminished whole tone scale here. By implementing the principle of scale substitution into this previously diatonic passage, Jones inserts chromaticism into an otherwise sterile harmonic environment and activates three additional contrapuntal paths between the II and V chords that were unavailable before. Simultaneously, the 3/7 contrapuntal paths between the II and V chords remain unaffected.

The 3rd and 7th of the tonic sonority connect back to the V chord each by semitone, but Jones chooses not to use the 3rd and 7th of the V chord to make these connections on the musical surface.

Having looked at Jones treating the II-V-I as a diatonic progression and then examining his implementation of scale substitution, we now look at the way he treats the same progression in the same formal location via the technique of chord substitution (see example 4.10 below).

Example 4.10 “Three and One” 1 before E- chord substitution (II replaces ii)



In this treatment of the progression Jones applies the Bb diminished whole tone scale over the V chord as in ex. 4.9, but now substitutes the minor II chord with the dominant II chord. In the process, Jones applies the F Lydian dominant chord-scale rather than the F Dorian/minor collection. Because the II chord is no longer diatonic, the avoid tone (D) is no longer omitted. Instead, the F dominant chord has its own avoid tone, Bb. This tone is avoided inherently via the application of the F Lydian dominant chord-scale, which contains B rather than Bb.

In this example, every voice sounds two pitches over each chord. The large skip as each voice moves creates dual melody for every voice, which in turn creates twice the contrapuntal paths between harmonies.

The relationship between F Lydian dominant and Bb diminished whole tone is significant to the understanding of how the II and V chords connect contrapuntally. F Lydian dominant and B diminished whole tone are both modes of C melodic minor. This means that F Lydian dominant and B diminished whole tone share the same pitch collection. Because F Lydian dominant is the same as B diminished whole tone, what Jones is essentially doing here is moving from B diminished whole tone on the II chord down by semitone to Bb diminished whole tone on the V chord. The potential, then, is for *every* note to move contrapuntally down by semitone into the next note as II progresses to V. Jones does in fact exploit this relationship. While keeping the root movement by skip in the string bass only, Jones moves all the saxophones down by semitone from the II chord to the V chord.

In the previous example (4.9), four notes moved by semitone while one note (Ab) was held as a common tone. The chord quality change from F minor to F dominant alters the Ab to A, and activates it as a common tone as well. In this way, all the notes in the II chord now are active contrapuntal tones via the scale substitution over the V chord and the chord quality substitution over the II chord. Notice that the 3/7 contrapuntal tones for each note in the dual melody over the II chord connects as expected to its counterpart in the V chord. Unlike the previous two examples, Jones also connects here the 3rd and 7th in the V chord to their 7th and 6th counterparts in the tonic chord.[92]

Having examined Jones's use of diatonic descending fifth chord connections and the way in which these contrapuntal connections are affected by the techniques of scale substitution and chord quality substitution, we now look at Jones's application of the tritone substitution technique and how it affects contrapuntal paths.

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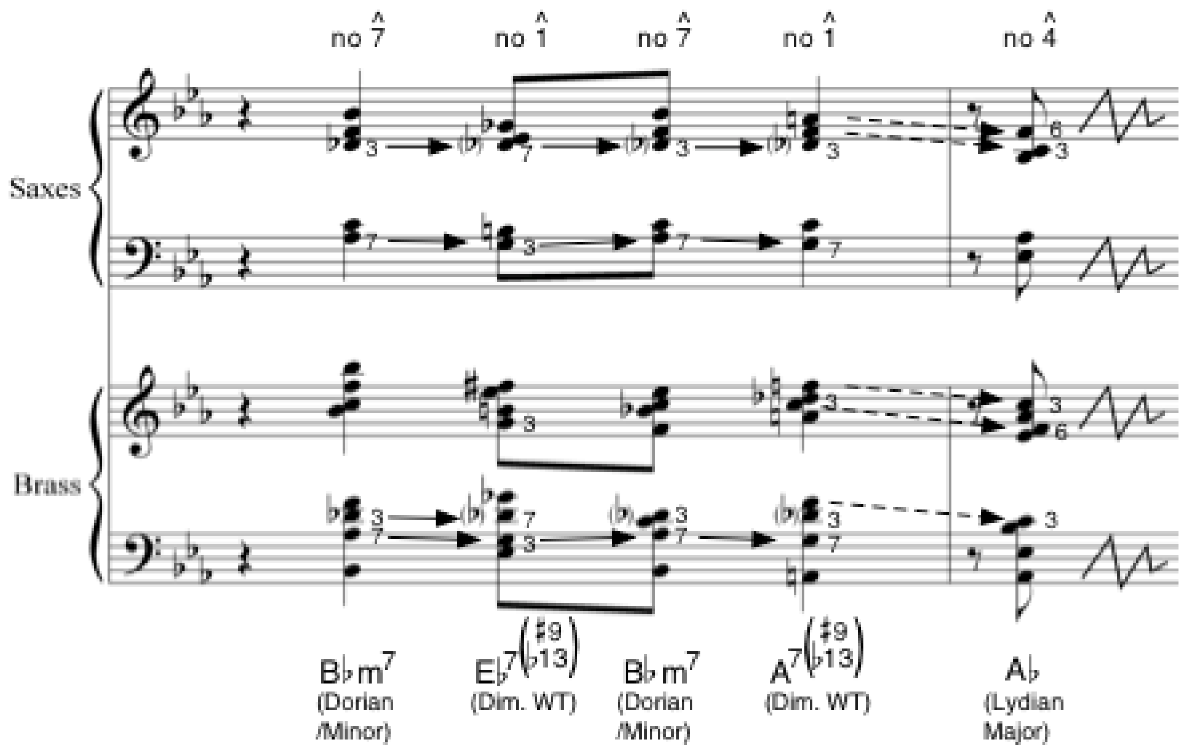
[92] Recall that the 7th in tonic chords is often replaced with the 6th. In these cases, the contrapuntal connection of 3rd to 7th as V progresses to I is replaced by 3rd to 6th. James McGowan explores in detail the concept of the 6th often replacing the 7th in tonic sonorities in his dissertation. See McGowan, "Dynamic Consonance in Selected Piano Performances of Tonal Jazz." PhD diss., University of Rochester, 2005.

This example is also from “Three and One,” but from a different formal location in the piece than the previous examples. This excerpt is from the first B segment in the full band shout section near the end of the piece, four measures before letter J. There is a harmonic motion here tonicizing Ab via a II-V-II-V-I progression in which the second V chord is replaced by its tritone substitution (see example 4.11 below).[93]

Example 4.11 “Three and One” 4 before J- tritone substitution (A7 replaces Eb7)



Jones’s melodies are often angular, containing large skips. As the Bbm7 moves to Eb7#9b13, the melody in the lead trumpet skips down a diminished fourth from Bb to F#. Except for trombones 1 and 4 (which ascend into the Eb chord), the remainder of the winds move either in similar motion to the lead trumpet melody or hold a common tone. This is not

[93] The saxophones and brass are grouped separately in this example for clarity in examining contrapuntal paths.

unusual for Jones to move voices in contrary motion within the texture. And although the melody and others moves by skip, the 3rd and 7th of the Bbm7 move contrapuntally as expected. The 3rd (Db) is held as a common tone into the 7th, while the 7th (Ab) descends by semitone into the 3rd (G). The contrapuntal motion of Ab moving to G is made possible by the omission of the avoid tones in these chords. Notice that Jones omits the avoid tones in each chord, as expected.

As Eb7#9b13 moves back to Bbm7 (chord two moving to chord three in the example), some of the 3rds and 7ths connect as expected while others move smoothly to other chord tones. Jones often does this in order to fill out the voicings, while at the same time retaining the contrapuntal skeleton of the 3rd and 7th connections in at least one voice in each progression.

Rather than using Eb dominant again at the end of the measure (chord four in the example), Jones chooses to implement the tritone substitution A7 chord in place of the diatonic Eb7. The chord-scale choice for each of these dominant chords is significant to the contrapuntal paths formed. In the initial Eb dominant chord, Jones chooses to apply the diminished whole tone scale. Applying the diminished whole tone scale a tritone away in the second occurrence of the dominant (A diminished whole tone) insures that the same collection will not be repeated.

If, for example, Jones had followed Eb diminished whole tone with A Lydian dominant, he would have recycled the same pitch collection and therefore created a potentially static contrapuntal situation in which both dominant chords are essentially the same save for the bass note.[94] In choosing A diminished whole tone, Jones may potentially replace pitch classes E, F#, and B from the initial dominant occurrence with F, Bb, and C in the second. Jones takes advantage of two of the three possible pitch class changes in his voice leadings as he implements F and C into the A7 dominant voicing. Notice that the F# and B pitch classes in the Eb dominant chord are displace by the F and C pitch classes in the A dominant chord, creating smooth contrapuntal paths and avoiding a static repetition of pitch collections. Simultaneously, while the Bbm7 progresses to the A7#9b13, at least one the 3rds and 7ths in the II chord connects as expected to the substitute V chord within the contrapuntal framework.

And as was the case previously, when Jones reaches the tonic chord here, he resets the voicing (here moving all voices by skip in similar motion) rather than taking advantage of the smooth 3rd and 7th connections.

Jones's use of the tritone substitution chord here (and the technique of tritone substitution chords in general) introduces fresh pitch classes into the progression and consequently generates new contrapuntal paths. Simultaneously, the contrapuntal paths of the 3rds and 7ths preserve syntactic clarity in a functional harmonic situation saturated with chromaticism.

Non Functional Harmony

Having now examined individual contrapuntal connections in functional harmonic progressions, we now turn our attention to non-functional harmonic progressions. Jones often

[94] This is because Lydian dominant and diminished whole tone are modes of each other, a tritone apart, as noted previously.

implements a chord (or a series of chords) that functions contrapuntally rather than harmonically. These harmonies are examined in this chapter due to their dependence on octave specificity in root movement (i.e., pitch space rather than pitch class space) to fulfill contrapuntal expectations in a given passage. The embellishing chords discussed here serve to extend rather than advance the harmonic argument. Sometimes these chords are notated in the accompanying symbols, but often they are not. In this section, I discuss three types of non-functional embellishing chords. These are neighbor chords, passing chords, and harmonies that result from chromatic planing.

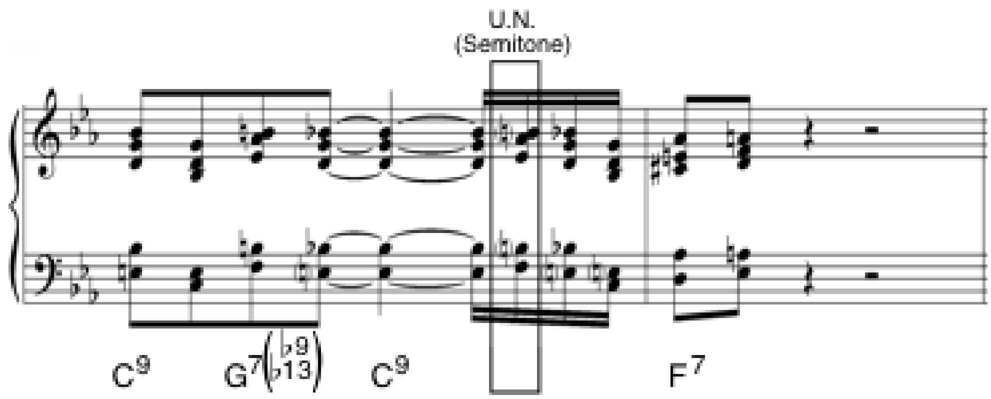
Neighbor Chords

A common harmonic strategy by Jones is to write neighbor chords into a given progression in which the voices usually move in parallel motion by a tone or semitone. The result is a transposition of the chord either a half or whole step away which behaves as a harmonic ornament within the progression. These neighbor chords are most often quickly moving surface harmonies, embellishing the functional progression operating at a deeper level. Example 4.12 below shows a typical upper neighbor chord that moves by semitone. This excerpt is taken from the saxophone soli section in "Three and One."[95] Beat three is a typical C9 voicing with the Mixolydian chord-scale applied. This chord is then embellished as each voice ascends up by semitone and then back to its original position. The result of this parallel movement is a chromatic upper neighbor chord that behaves as an ornamental harmony over

[95] Incidentally, the inconsistent doubling between Tenor 2 and Alto 1 in this passage is typical of Jones. He will often double voices for a specific span of time, but during that span there will also usually be several deviations from the doubling as well. This is seemingly often the result of vertical preoccupations.

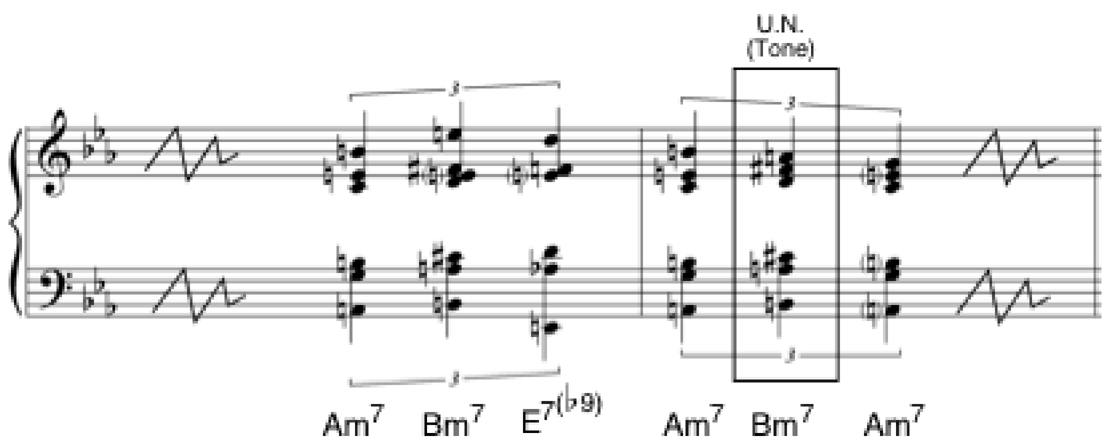
the C9 symbol. And although there is no accompanying symbol for the neighbor chord here, this same chord sounds on the downbeat of two, where there is an accompanying symbol.

Example 4.12 “Three and One” 7 before D- semitone upper neighbor



As stated previously, not all of Jones’s neighbor chords move by semitone, however, nor are they all unnotated like the one in the previous example. The following example shows an upper neighbor motion that is written into the chord symbols in which the voices move by step, although not all in parallel motion (see example 4.13 below).

Example 4.13 “Three and One” 8 after I- whole step upper neighbor



In this example, all winds are sounding in an extended shout section. The local harmony is A minor and tonicized here by its V. After A minor is tonicized on beat one of the second measure of the excerpt, the tonic sonority is immediately embellished by its upper neighbor in the chord immediately following. All notes move by ascending step save for the melody, which descends by step as the Am7 moves to Bm7. As Bm7 moves back to Am7, all notes descend by step. The end result is a Dorian/minor chord-scale application over both the Am7 and Bm7 chord symbols. An interesting chromatic cross relation occurs when two minor chords, a step apart, sound in succession. If the ninth of the chord sounds in the second of the two chords, it produces the major third of the previous minor chord.[96] In this case specifically, the C in the Am7 is followed by C# in the Bm7 chord. The C# is then displaced by C in the return of Am7.

This example introduces an interesting dilemma in terminology, and whether the descriptive terms diatonic and chromatic ought to be applied to these neighbor chords. Although the root movement in the neighbor progression above is diatonic to A minor (A-B-A), the chord and chord-scale applied is not. Therefore, labeling this as a diatonic neighbor is inaccurate. Conversely, labeling this neighbor chord as a chromatic neighbor may be misleading, as “chromatic” may imply a semitone root movement. The Bm7 chord is chromatic in the sense that it contains pitch classes inconsistent with the key of A minor, but diatonic in the sense that the root movement itself is diatonic. As mentioned previously, Jones’s neighbor chords tend to fall into one of two categories—those transposed by a semitone and those transposed by a tone. True diatonic neighbor chords are not found in this music.[97]

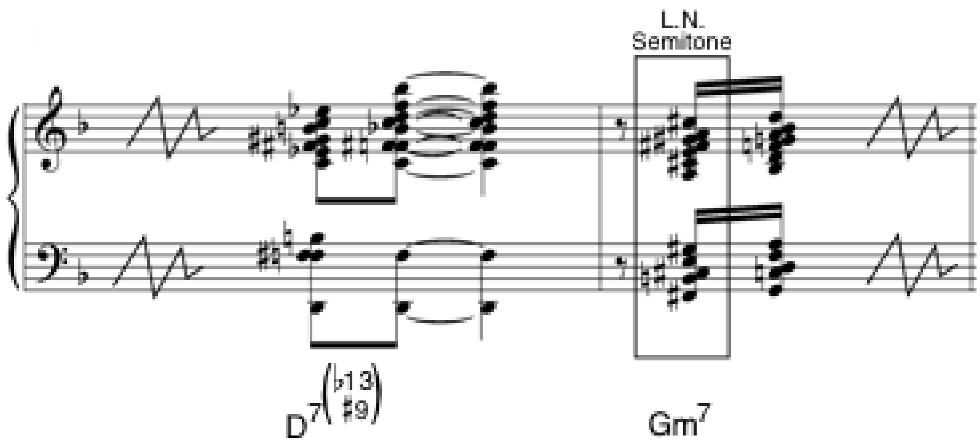
Along with the upper neighbor embellishment chords, Jones also frequently applies lower neighbor chords as well. Example 4.14 below demonstrates this technique. This excerpt

[96] This point is also made by Rayburn Wright. See Rayburn Wright, *Inside the Score* (New York: Kendor Music, Inc., 1982), 54.

[97] That is to say, neighbor chords in which all pitch classes in the applied chord scale agree with the local tonic key-scale.

from “To You” features the full ensemble in a truncated shout section. In this V-I progression, Jones applies a Dorian/minor chord-scale to the tonic Gm7 symbol on the second sixteenth note (the last note of the example). He approaches this, however, from a semitone below on the first sixteenth note. This non-functional F# Dorian/minor sound in the winds sounding simultaneously against the Gm7 in the rhythm section infuses chromatic dissonance into the sound, albeit briefly, as every voice initially sounds a semitone below its destination before moving in parallel motion up a half step.

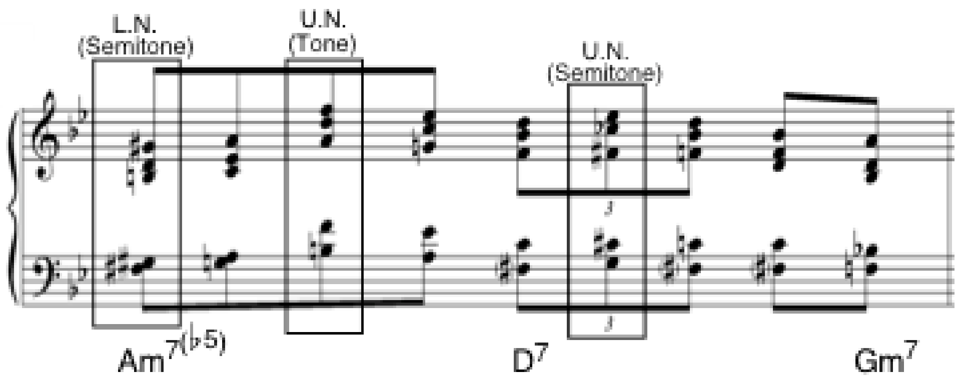
Example 4.14 “To You” 3 after D- semitone lower neighbor



Example 4.15 below shows a mixture of the three types of neighbor chords Jones typically uses (upper and lower semitone neighbor chords as well as an upper neighbor by step) all in one example spanning only a single measure. This example, from the saxophone soli in “Cherry Juice,” features a II-V-I progression in G minor. Jones writes two Am7b5 voicings, one on the upbeat of one and the next on the upbeat of two. The first of the two Am7b5 voicings is approached from a semitone below in every voice, while the second of the two voicings is approached by a whole step above in each voice. Placing these embellishing chords on the strong part of the beat produces an increased level of dissonance to the passage.

Jones applies a diminished whole tone chord-scale to the D7 symbol and embellishes this voicing with a semitone upper neighbor motion in a triplet figure. All voices move in parallel motion in and out of the neighbor chord.[98]

Example 4.15 "Cherry Juice" 3 before Q- various neighbor chords

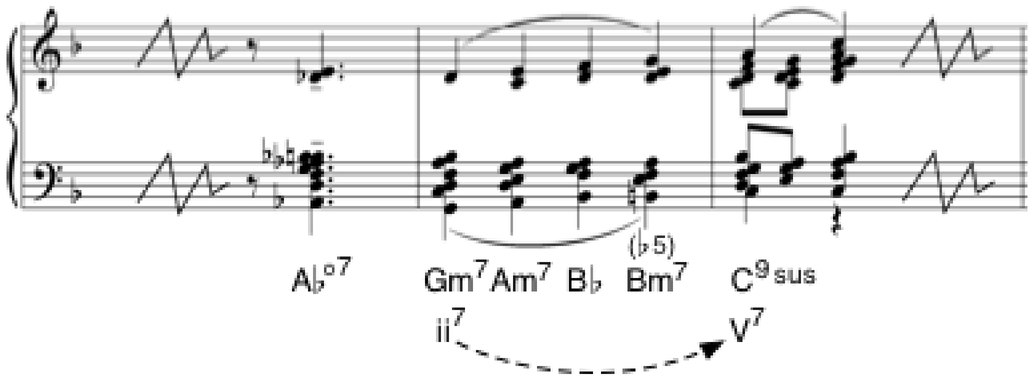


Passing Chords

Unlike neighbor chords, which nearly always include chromaticism in relation to the local key area, Jones's uses of passing chords include both chromatic as well as diatonic applications. These non-functional auxiliary chords serve most often as surface elaborations of functional progressions operating at a deeper level. The example below shows the expansion of a II-V progression via the insertion of three passing chords (see example 4.16).

[98] The second of the three embellishing chords in this example might be referred to as an appoggiatura chord, but I am thinking in broad groupings of either neighbor or passing chords when categorizing the non-functional chords Jones implements.

Example 4.16 “To You” 8 before B- passing chords

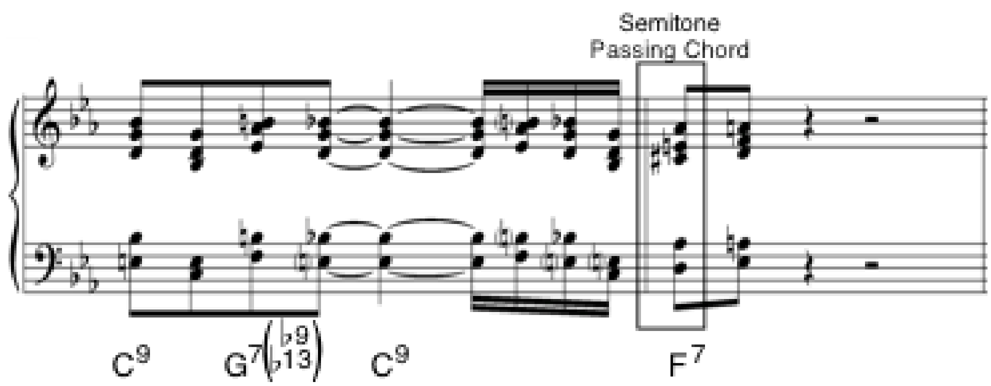


The passage is taken from “To You” in the key of F, and all instruments are playing. The passing chords—Am7, Bb, and Bm7b5—represent a variety of diatonic and chromatic chords. In the key of F, the Am7 and Bb chords represent the diatonic III and IV chords, while the Bm7b5 is VII/V. The chord scales applied to the Am7 and Bb chords have notes omitted from them that allow them to map onto the A Phrygian and Bb Lydian scales respectively, and are therefore diatonic to F major.

Contrapuntal connections between Jones’s passing chords are less predictable than in his neighbor chords. Unlike the neighbor chords, there is no single interval by which all voices connect in the passing chords nor is there a consistent direction of movement. In any given chord succession in the above progression there are some voices that hold a common tone, some that move by semitone, and others move by a tone or larger. Simultaneously, some voices are ascending while others are descending. And although the interior voice leading is inconsistent, the outer voices move in parallel motion through the passing chords, the first three beats marked by perfect parallel fifths. This outer voice framework provides smoothness even though some of the interior voices move in a combination of similar, contrary and oblique motion with the melody.

And while the chords in this example show the variety of Jones's contrapuntal connection types in individual voice leading within passing chords, there are some examples that are more like the neighbor chords. The following example shows a passing chord in which all voices connect to the succeeding chord by ascending semitone (see example 4.17 below).[99] Here the root-position C9 voicing at the end of the first measure in the example moves to an F7 voicing on the upbeat of one in the second measure. Between these two functional chords, Jones writes an embellishing chord a semitone below F7 in which each voice is shifted down a half step from the destination chord. And as is often the case with Jones's embellishing chords, the passing chord here is unaccompanied by a chord symbol.

Example 4.17 "Three and One" 7 before D- passing chord

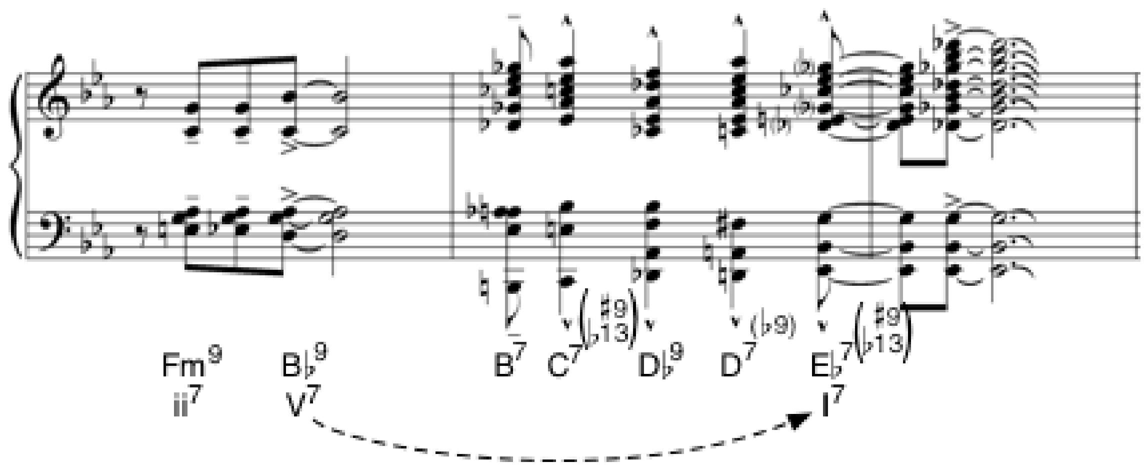


In example 4.16 we saw a II-V progression expanded with a mixture of diatonic and non-diatonic chords. Example 4.18 below demonstrates an expansion of a V-I progression. Here Jones fills the gap between the functional chords with a series of dominant chords whose roots ascend by semitone. This is a passage from "Three and One" in which all winds are sounding, as they usher in the bass solo section. The melody is in the uppermost voice, which is the lead

[99] This excerpt is also used to show the semitone upper neighbor un example 4.12.

trumpet. The melodic line is jagged, featuring a large leap into the final chord. The inner voices feature a variety of contrapuntal connections by step and leap—even voice crossing between wind sections (not shown in the reduction). Beneath all this is a consistent and driving semitonal ascent in trombone 4 and bass, which builds energy into the final arrival of the tonic sonority. The passing chords here serve not merely to expand a functional paradigm (V-I), but also to increase harmonic tension that is only ultimately released as the ascending harmonies give way to the tonic chord.

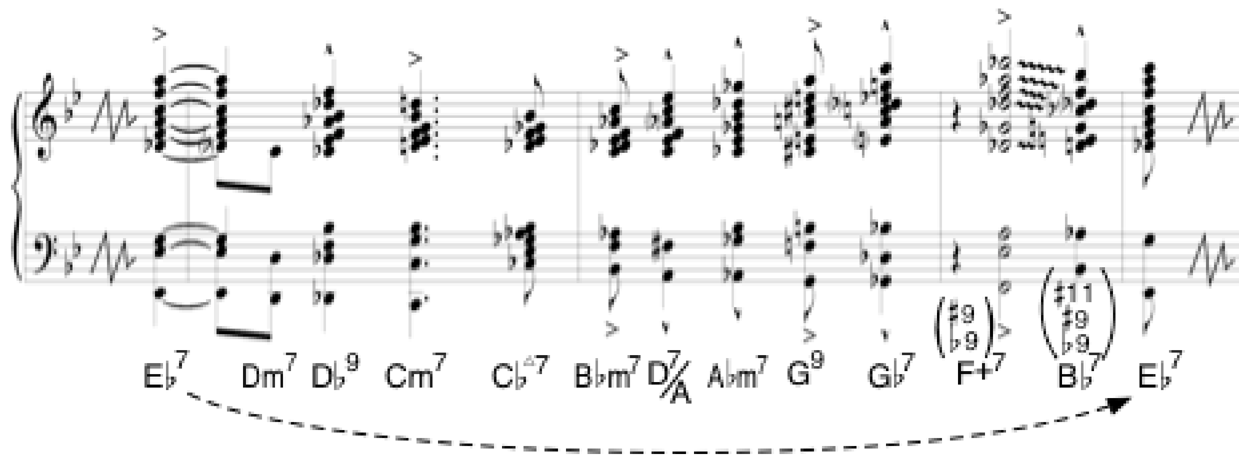
Example 4.18 “Three and One” letter G- chromatic ascending passing chords



Examples 4.16 and 4.18 above demonstrate how Jones often uses passing chords to expand a functional paradigm (II-V and V-I). Not only does Jones use passing chords to fill the gap between functional progressions, he also uses them to prolong a single chord that is functioning at a deeper hierarchical level.

The next example demonstrates this concept. It is from the shout section in “Cherry Juice” in which all instruments are sounding. The melody is in the lead trumpet, which is the highest voice in the example. The key area is G minor, and Jones is in the middle of a III-VI-II-V-I progression (Bb-Eb-Am7b5-D7-Gm). As he arrives at VI in the functional progression, he uses the dominant form (Eb7) as he has throughout the piece. Instead of moving directly to II (Am7b5) however, he expands VI over several bars by prolongation. He accomplished this with a series of passing chords whose roots descend primarily by semitone (see example 4.19 below).

Example 4.19 “Cherry Juice” letter I- chromatic descending passing chords



As was the case in the previous example, the melodic line is characterized by skips. Because of this, many of the inner voices also move contrapuntally by skip in connecting chords. Moving a group of voices by skip in similar motion while other voices move smoothly by step is a common strategy by Jones. In this case, while the other voices move by a mixture of step and skip, trombone 4 and bass move smoothly throughout the excerpt, forming a semitonal descent spanning nearly an octave from Eb down to F. And as Eb is being prolonged via the passing chords, it is also tonicized with its own II-V (F7-Bb7-Eb7) at the end of the example.

Recall that in a progression featuring descending semitones, if the chords are dominant quality, they may actually be functional rather than embellishing. This is because tritone substitution dominant chords alternating with their secondary dominant counterparts form a semitonal descending string of functional dominant chords. In this large semitonal descent, Jones only takes advantage of this functional possibility in the last few chords (G9-Gb7-F+7). The remainder of the chords involved in the semitonal descent are a mixture of minor, major, and dominant quality chords whose purpose is more contrapuntal than functional.

Chromatic Planing

Having examined neighbor and passing chords, we now examine the third type of non-functional sonorities Jones often uses—chords that result from chromatic planing. Chromatic planing is a technique in which every voice moves in parallel motion by the same intervals. The result is often a thick, dissonant, moving sonority that sometimes aligns with a single chord-scale but often does not.

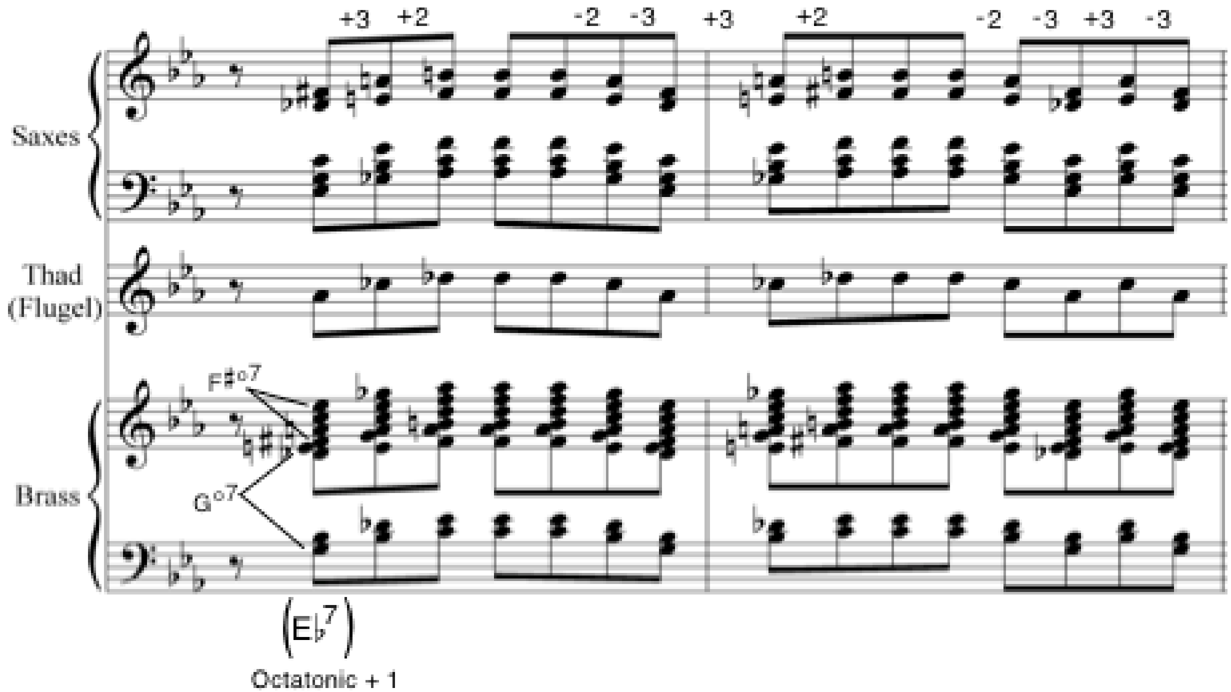
Example 4.20 below shows an example of simple chromatic planing in the saxophones over a dominant chord. The melodic line descends in minor thirds until it repeats the same pitch class an octave below (F). As the melodic line descends in minor thirds, all of the other voices move in parallel motion in minor thirds as well, so that the last voicing is the same as the first, an octave down. Because all of the notes in the initial voicing map onto the D half-whole octatonic collection, the descent by minor thirds in each voice simply cycles through the same collection, creating a new voicing each time. Because every voicing maps onto the D half-whole octatonic chord-scale, both measures align with the D7 symbol below.

Example 4.20 “Cherry Juice” 2 before F- chromatic planing

As stated, all the voices in example 4.20 above align with the octatonic collection suggested by the chord symbol. Jones often, however, implements chromatic planing in a manner inconsistent with any accompanying symbol. These cases are melodically driven passages in which Jones uses the chromatic planing technique as a means of harmonization itself, rather than the technique serving to support a given chord symbol or suggested chord-scale. Example 4.21 below represents this type of usage.[100]

[100] Incidentally, it is this very passage that piqued my interest in studying the music of Thad Jones as a trumpet player and Jazz Studies student at the University of North Texas in the early 90s. The unique sound Jones achieves in this and similar passages is unlike anything I'd heard before in big band music.

Example 4.21 “Three and One” 4 before C- chromatic planing



This excerpt is from “Three and One” and marks the conclusion of the initial ABAB’ statement while ushering in the saxophone soli immediately following. All winds are sounding here, and the melody is in the highest and lowest voices of the ensemble (lead trumpet, bari sax, and bass). The melodic pattern includes three notes—the initial pitch, up a minor third, and then up a step (Eb, Gb, Ab). The remainder of the pattern moves through the same intervals, and consequently through the same pitches. The remainder of the ensemble moves parallel with the melody, ascending and descending with the same intervallic patterns such that each voice ascends and descends linearly through three pitches.

The underlying harmony here is Eb dominant, and the initial voicing is primarily based on the Eb half-whole octatonic collection. As every octatonic collection is a combination of two diminished seventh chords, Jones exploits this fact in assigning the F#ᵒ7 voicing to the trumpets and the Gᵒ7 voicing to the trombones. The saxophones borrow from both of these seventh chords in such a way that forms a C/Db semitone between Tenor 1 and Alto 2 in the interior of their voicing.

As each voice moves up three semitones to the second of the three pitches in each line, all notes still map onto the octatonic collection. When the third pitch is reached, however, the ensemble is no longer in alignment with the Eb half-whole octatonic collection. This highest note of the three has an upper neighbor feel in comparison to the Eb octatonic collection and presents a harmonic tension that is resolved only at the end of the excerpt.

What is extremely unusual about this passage, even for Jones, is the Flugelhorn line. In the initial Eb half-whole octatonic presentation (the initial note of the passage), Jones writes an Ab in the Flugelhorn (which, incidentally is played by Jones). The Ab, of course, does not align with the Eb octatonic collection and introduces a significant dissonance into an already dense and chromatic voicing. Because the Ab does not agree with the other voices in the chord, neither do the other two pitches in the Flugelhorn line as he moves parallel with the remainder of the ensemble through the passage.

Interestingly, in Jones's small group recording of this piece, he begins on F# in this passage while the melody is played in the bass. The F# he plays in the small group arrangement agrees with the Eb half-whole octatonic collection. His choice of writing Ab into his own part here may have been a private joke to himself, setting his voice apart from the others in the midst of a densely chromatic passage.

The meaning of this joke, if indeed it is one, may stem from the title of the tune itself, "Three and One," which originally indicated three Jones brothers plus another unrelated musician named Jones all performing together. In this case, he may be drawing attention to the fact that he himself is now the "One" referred to in the title, the added member of the ensemble. In a wind section comprised of trumpets, trombones, and saxophones, the flugelhorn may be understood as the "One" in a "Three and One" concept.

An alternative meaning may refer to the pitch he gives himself to start the passage. In an Eb scale, the Ab he writes for himself is the fourth scale degree, thus "Three and One" may indicate one note beyond the third.

Regardless of the reason Jones writes himself a line that does not agree with the ensemble, the sound created by doing so is an interesting one, as this passage stands out in this piece which is already saturated with dense chromatic voicings elsewhere.

The three non-functional chord types discussed in this section—neighbor chords, passing chords, and chords that result from chromatic planing serve to embellish functional progressions operating at a deeper level. As we have seen, these chords expand prototypical progressions as well as serve to prolong specific harmonies. These chords are octave-specific, and often accommodate specific contrapuntal connections. And as noted, these chords are sometimes accompanied by a chord symbol and at other times subsumed within the given symbol. The descending fifth progressions and their variations discussed extensively in chapter 3 along with the embellishing chords discussed in this section constitute a great majority of all Thad Jones's progressions.

Harmonic Analysis of "To You"

The previous two harmonic analyses ("Three and One" and "Cherry Juice") appear in chapter 3, which deals with harmonic paths in pitch class space. The lack of octave specificity necessary for the functionality of the progressions in those works positions them within that chapter.

Conversely, because many of the progressions in “To You” require octave specificity for the desired harmonic effect, I reserve its harmonic analysis for this chapter, which deals with specific pitch space.

Thad Jones originally wrote “To You” when he was with the Count Basie Orchestra. It was composed for a combined recording project featuring the Count Basie and Duke Ellington bands in 1961.[101] The title reference is to Ellington, whom Jones greatly admired. The next known performance of the piece is a recording with Jones’s Eclipse Big Band in 1980, which he formed after leaving New York and moving to Denmark in the late 1970s. The arrangement Jones uses in the 1980 recording is a reorchestration of the original, written to accommodate ten brass rather than seven (seven brass was standard for the Basie and Ellington bands). Kendor published the reorchestrated version in 1981, and it is this version that is in common use today and the one analyzed in this study. The later reorchestration is essentially the same in regard to harmonic progression and chord-scale application. The primary difference between the two arrangements is in the voicings (accommodating three more brass into the limited pitch space below the mid-range lead trumpet melody) and the way Jones uses the woodwinds in the solo section.

Interestingly, the original version of “To You” until recently has been lost. The current Count Basie Orchestra as well as the Vanguard Jazz Orchestra for many years has only had the

[101] “To You” was initially recorded in 1961 on *First Time! The Count Meets the Duke*, Columbia Records.

published (1981) Kendor version in their possession.[102] In the last few months, David Demsey (director of Jazz Studies and curator of the Thad Jones archives at William Paterson University) has stumbled upon the lost original arrangement.[103] The following analysis draws from the published Kendor arrangement, which as stated, is essentially the same as the original in terms of chord progressions and chord-scale applications.

"To You" is written primarily as a trumpet solo melody with orchestral support. There is also a twelve measure written trombone solo as well as a short four-bar "shout" section from the full ensemble. The trumpet melody is written primarily in the staff and is the highest voice in the ensemble when sounding. This scoring results in extremely thick voicings in the winds, as the accompanying instruments are restricted to the same narrow registral pitch space beneath the lead trumpet line.

The form of the piece is complex. One way to understand the structure is as a large AA'BA'' form, as shown in table 4.3 below.

Table 4.3 Formal structure of "To You"

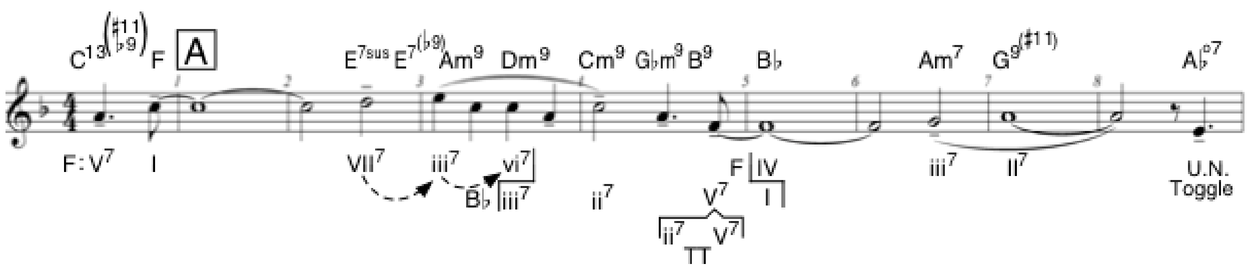
Section	Measures	Subgrouping	Event
A (16 bars)	1-16	8+8	Trpt 1 melody w/Band accom.
A' (20 bars)	17-36	8+8+4(tag)	Trpt 1 melody w/Band accom.
B (12 bars)	37-48	12	Trb solo
A'' (12 bars)	49-60	4+8	4-bar "shout"; 8-bar Trpt 1 melody w/Band accom.

[102] The Vanguard Jazz Orchestra is the present-day successor to the Thad Jones-Mel Lewis Jazz Orchestra.

[103] I learned of this from personal correspondence with Dr. Demsey. While playing in Phil Woods's Big Band one recent evening, Demsey by chance came across the original (previously lost) version of "To You" in Woods's band book. Woods had recently had some music donated to him from the Louie Bellson band book (among others), and this was in that collection.

I have subdivided the initial A section into two 8-bar segments. An analysis of the first eight measures is shown in lead sheet format in example 4.22 below.

Example 4.22 “To You” mm. 1-8 (first 8 bars of initial A section)



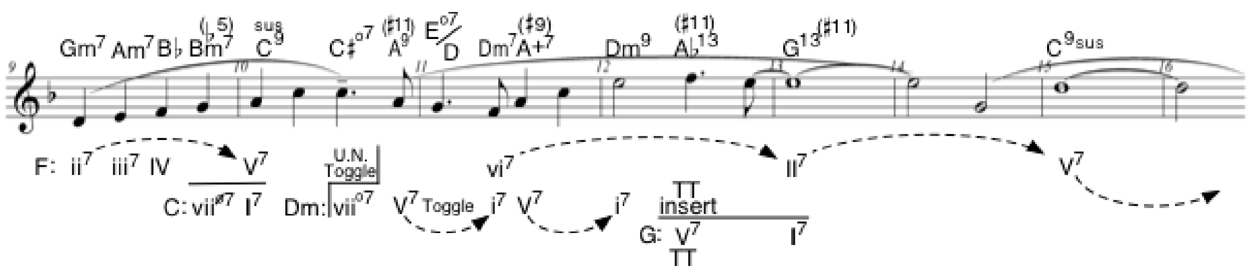
The first eight measures of the piece present the primary theme in the lead trumpet melodic line with the remainder of the ensemble providing harmonic support in homophonic texture below. The key of F major is established immediately with a V-I in the opening chords. The E7-Am-Dm progression in measures 2-3 represents the VII-III-VI in F. While the E7 is from the secondary dominant line in F (first level of variation), the Am-Dm are diatonic to the key. This opening descent through the circle of fifths progression while bypassing IV mirrors that of the A section of “Cherry Juice,” which follows the same harmonic path of I-VII-III-VI.

Because the Bb chord in measure 5 is tonicized, the Dm in measure 3 may be seen as a dual function chord—VI in the original key of F, and III in the new tonicized key of Bb. In measure 4, Bb is tonicized with its II-V (Cm-F7), except that the tritone substitute for V replaces V (B7 replaces F7). And as Jones often embellishes a V with its own II, here the tritone substitute V (B7) is embellished with its own II (Gbm7).[104]

[104] Enharmonic inconsistencies pervade this literature. While Jones writes Gbm9-B9 chord symbols in the two places where this music occurs in this piece, he notates the bass trombone pitches as Gb-Cb each time.

When the Bb is tonicized in measure 5, it acts as a dual function chord (I in Bb and IV in F). The Bb-Am7-G9#11 progression represents a falling step progression in F, which moves in contrary motion to the stepwise ascending melody. The dominant quality of the II chord (G9) suggests a resolution to V (C). This resolution is delayed, as Ab°7 immediately follows the G9 chord instead. And although the Ab°7 is contrapuntally a chromatic upper neighbor chord, it behaves functionally as a collection toggle (G Lydian Dominant to G octatonic).[105] The resolution to C is delayed even further, as measure 9 begins with Gm7 to start the second half of the initial A section. Measures 9-16 are shown below in example 4.23.

Example 4.23 “To You” mm. 9-16a (second 8 bars of initial A section)



The Gm7 chord in measure 9 represents the third part of a collection toggle that moved from G9#11 (G Lydian Dominant) to Ab°7 (G half-whole octatonic) to Gm7 (G Dorian/minor). The V chord in F (C7) that was delayed by the collection toggling here is finally reached in measure 10. The V chord (C) is preceded by its own VII (Bm7b5) at the end of measure 9.

The ascending root movement in measures 9-10 (G-A-Bb-B-C) is a retrograde to the descending progression in measures 4-7 (C-B-Bb-A-G). Except for the Bm7b5 chord, the chords in the ascending progression in measure 9 are diatonic to the key of F major. These non-functional passing chords serve to facilitate a parallel rising harmony in which the bass line

[105] The collection toggling in measures 7-9 is discussed in ex. 2.77.

moves in parallel perfect fifths with the melody for the first three beats. They also serve to embellish the functional II-V operating at a deeper level.

The C# diminished chord serves contrapuntally as a chromatic upper neighbor but functionally as a collection toggle from C Mixolydian to C half-whole octatonic. The C# diminished chord may also be understood to serve as VII in D minor, which serves as a local tonic from measures 10b-12a.

Just as the C# diminished chord in measure 10 serves as a dominant collection toggle from the preceding C7 harmony, The E diminished chord in measure 11 behaves similarly. The E diminished chord (with Jones's chord-scale applied) contains the same pitch collection as the A half-whole octatonic. Thus, we may read the harmony as toggling from A Lydian dominant at the end of measure 10 to A octatonic in measure 11. This resolves to the tonic harmony in D minor, which in turn is tonicized with its V again (now A diminished whole tone).[106]

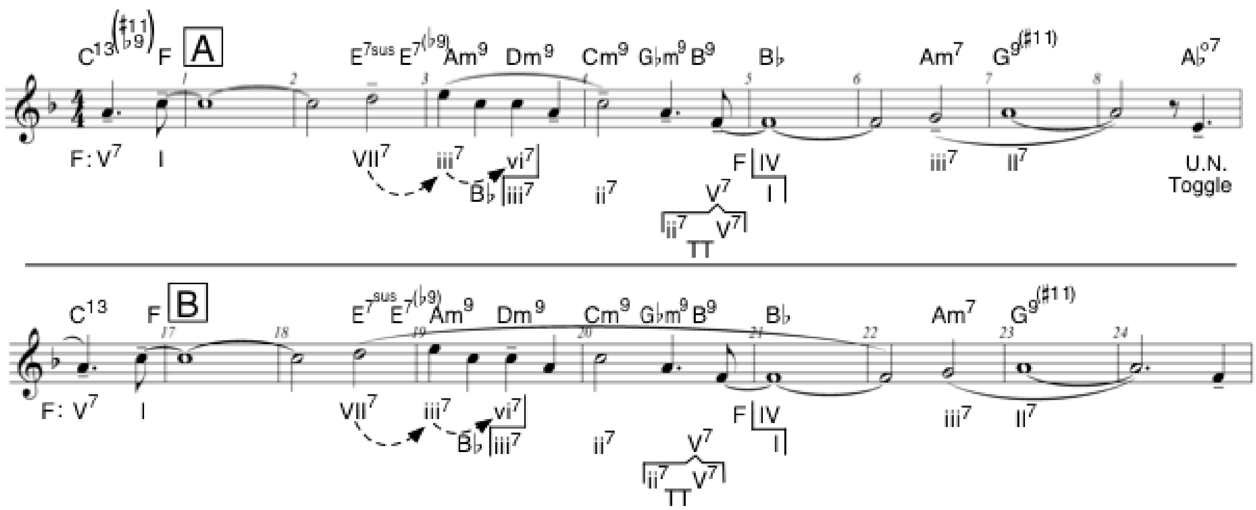
In measure 12, the D minor harmony is succeeded by its own tritone substitution insert chord, but now dominant quality. Jones is essentially applying a quality toggle here from D minor to D dominant, but replacing D dominant with its tritone substitute. This harmonic toggling creates a temporary tonicization of G, which immediately becomes II in a II-V-I progression leading back to the opening theme in F.

On the musical surface, measures 9-16 contain temporary tonicizations of C, Dm, and G, along with non-functional parallel passing chords. On a deeper level, the harmony in measures 9-16 may be understood to be a root movement of II-V-VI-II-V in F with tonicizations of each of these keys.

[106] This passage and the role of the diminished chords here are discussed in ex. 2.79.

The A’ section is 20 measures long and encompasses measures 17-36. It begins with the same opening theme stated in measures 1-8. The melody and harmony in the first eight measures of the A’ section are essentially the same as in the opening A section. Measures 1-8 and 17-24 are shown below for comparison (see ex. 4.24).

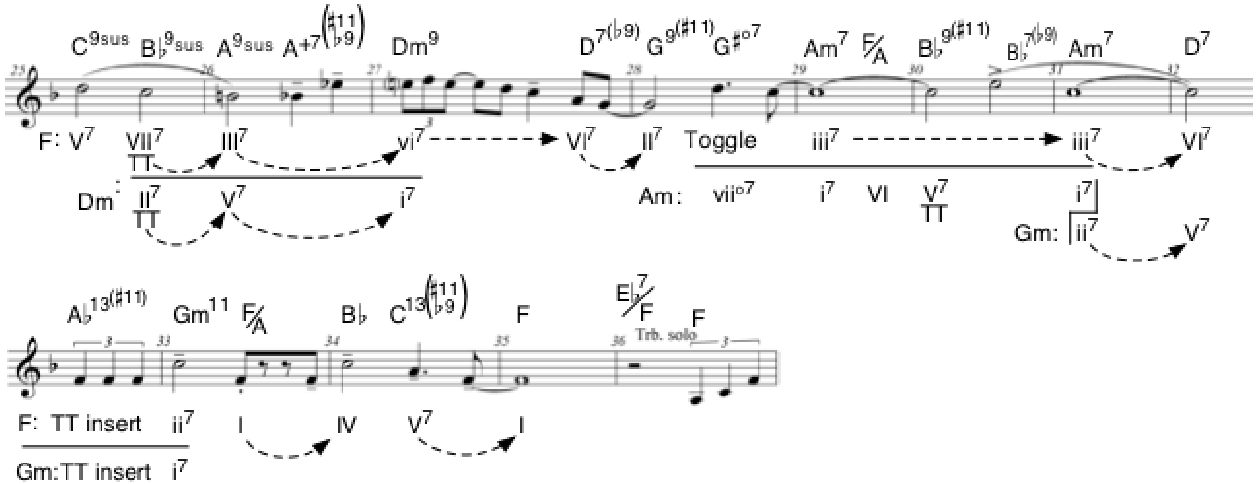
Example 4.24 “To You” mm. 16b-24 (first 8 bars of A’ section w/mm. 1-8 comparison)



The only difference between the two eight-bar segments is the last melody note and the harmony accompanying it. This is to accommodate the music immediately following each of these segments, which is also different.

The remainder of the A’ section is 12 measures long, and subdivided into an eight and four measure grouping. These measures (25-36) are shown below in example 4.25.

Example 4.25 “To You” mm. 25-36 (last 12 bars of A’ section)



Measures 25-36 begin in F but then immediately tonicize D minor with its own II-V-I, but with the tritone of II replacing II (Bb7 replaces E7). These initial three measures may also be understood as moving through the circle of fifths in F and tonicizing VI (D minor). When the D minor harmony is reached in measure 27, it is transformed into D dominant via a chord quality toggle. This quality toggle strengthens its resolution to G7 in measure 28. G7 is the II in F, but instead of continuing through the circle of fifths and proceeding to C7 (V), Jones follows G7 with G# diminished.

Because the chord-scale applied to G# diminished maps onto G half-whole octatonic, the progression G9#11-G#^{o}7 may be understood as G Lydian dominant toggling to G octatonic (both G dominant variants), followed by a deceptive resolution to III (Am) rather than V (C). The G#^{o}7 may also be interpreted as VII in A minor, which serves as a local tonic in measures 29-31. My analysis shows the G#^{o}7 chord as both a toggle chord in F (part of a deceptive II-III resolution) as well as a VII diminished chord in A minor.[107]

[107] The G#^{0} chord in this passage is also discussed in examples 2.61 and 2.78.

In measures 29-31, A minor serves as a temporary key area with a I-VI-V-I progression. The V chord, however, is replaced with its tritone substitute (Bb replacing E). When the tonic sonority (Am) is reached in measure 31, is serves as a multi function chord. Along with serving as tonic in A minor, it also functions as II in a local II-V-I in G minor (with a modal borrowing, as Am7 replaces Am7b5). The Ab dominant chord in the progression immediately following (Am7-D7-Ab13#11-Gm11) is a tritone substitution insert chord for D7, extending the progression from three chords to four.

The Am7 chord in measure 31 may also be understood at a deeper level in F as having been prolonged from its appearance in measure 29, thus restating the III chord in the original F progression. This analysis is reflected in the top row of Roman numerals in the example.

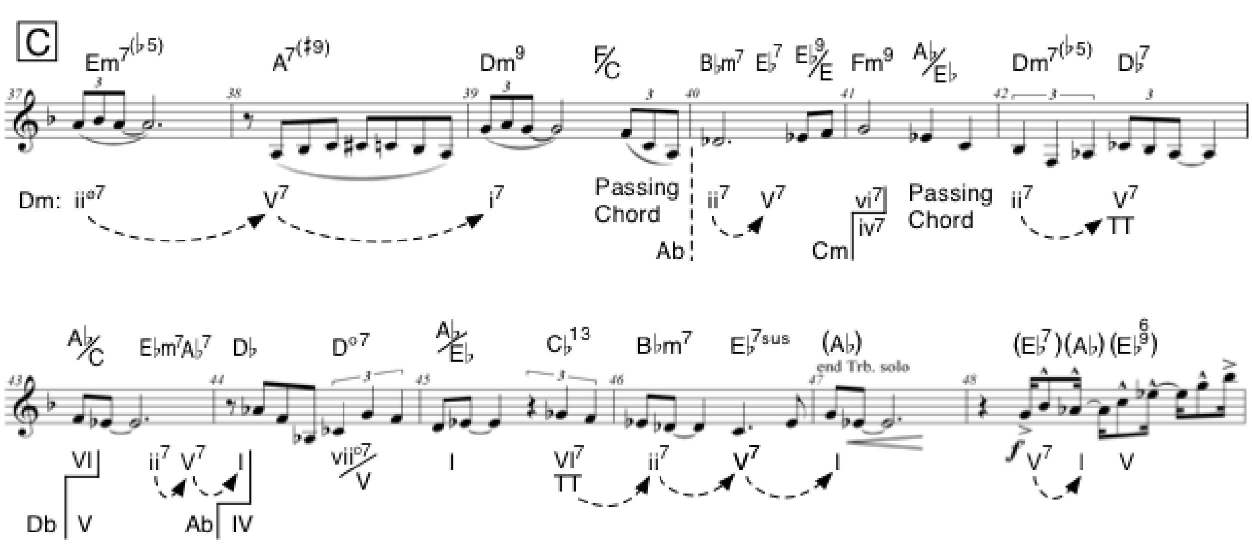
Just as the arrival of the tonic A minor chord in measure 31 is immediately reinterpreted as II in a II-V I progression, the arrival of the tonic G minor chord in measure 33 behaves similarly. The Gm11 chord in measure 33 serves both as a tonic arrival as well as II in a II-I-IV-V-I progression in F which immediately follows.

The F/A chord in measure 33, although a tonic chord here, functions as a passing chord as G in the bass moves through A in the first inversion F chord to the IV chord (Bb). The Eb7/F chord in measure 36 is a contrapuntal chord ornamenting the F harmony which otherwise would remain static for eight beats. It provides an F7sus effect. And along with serving as a contrapuntal chord, the Eb7 (which is the tritone substitute for A7) prefigures the D minor harmony featured in the opening measures of the ensuing trombone solo in the following section.

Measures 25-36 begin and end in F with tonicizations of D minor, A minor, and G minor. As indicated in the top row of Roman numerals, the progression may be understood as moving primarily through the circle of fifths in F with tonicizations on the musical surface of VI, III, and II respectively.

The B section in the overall AA'BA'' form encompasses twelve measures (mm. 37-48). The primary melodic element in this passage shifts from the trumpet melody with the full ensemble in homophonic texture underneath to a written trombone solo accompanied by a light countermelody in the saxophones. The rest of the brass enter in the final few bars of the section, offering sustained chordal support building into the "shout" section that immediately follows. Although the preceding A and A' sections begin and end in F (the overall key of the piece), the B section avoids the key of F altogether. Instead, this passage begins in the relative minor (D minor) and moves to Ab major. There are tonicizations of Ab major, C minor, and Db major before settling on Ab major to close the trombone solo. The B section is shown in ex. 4.26 below.

Example 4.26 "To You" mm. 37-48 (B section)



The B section begins with a II-V-I in D minor, spanning measures 37-39. The F/C chord in measure 39 is a passing chord, facilitating a descending D-C-Bb bass line.

Measures 40-41 are a II-V progression in Ab with a deceptive resolution to VI (Fm). The Eb9/E in measure 40 facilitates a stepwise bass ascent of Eb-E-F. The Fm9 chord in measure 41 is a dual function chord, serving as VI in Ab as well as IV in C minor. The Ab/Eb chord in measure 41 is a passing chord that facilitates a stepwise descent in the bass from F-Eb-D. Measure 42 is a II-V in C minor, with the tritone substitute of V replacing V. Instead of moving to I (Cm) it is followed by a deceptive resolution to VI (Ab), but with C in the bass. The Ab chord is then reinterpreted as V in Db.

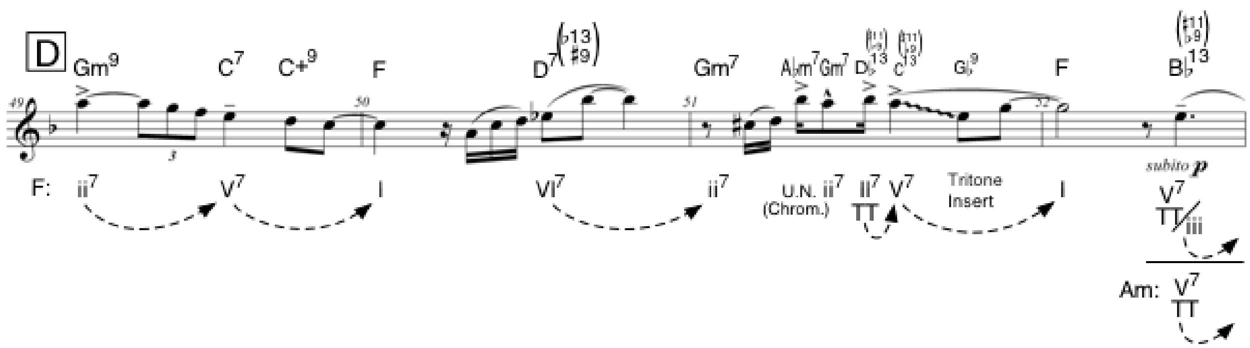
Following a pair of II-V progressions in measures 40-43 which resolve deceptively up to VI, Jones writes a third II-V in measure 43 and finally allows a resolution to I (Db, m. 44). The Db is then reinterpreted as IV in Ab, which is the final key area in this section.

The D^{o}7 chord in measure 44 is most easily interpreted here as vii^{o}7/V with a deceptive resolution to I6/4. Instead of following the I6/4 immediately with V, the V is slightly delayed until the next measure. A convincing VI-II-V-I in Ab (with the tritone substitute of VI replacing VI) closes out the trombone solo section. Measure 48 has no chord symbols. Those shown are the result of analysis. The trumpet section is harmonized here in homophonic texture while the remainder of the ensemble sounds a static unison Eb pedal. The rising angular melodic trumpet line over the Eb pedal ushers in the full band shout section that immediately follows.

The B section we have just examined contains a series of rapid II-V progressions tonicizing D minor, Ab major, C minor, and Db major before ultimately settling in with Ab. The overall motion from D minor to Ab major in this section is reminiscent of the tritone substitute insert but now at a deeper level and with a quality toggle from minor to major. Because the first chord of the next section is Gm, the Ab key area serves as a tritone substitute of V (D), which descends by semitone into the next section. The harmonic background of the B section, then, is Dm-Ab setting up Gm, which follows immediately.

The first four measures of the A'' section in the AA'BA'' form is the full ensemble shout section. It is shown in ex. 4.27 below.

Example 4.27 "To You" mm. 49-52 (first 4 bars of A'' section)



As stated, this section begins with a Gm chord that may initially appear to be tonic because of the Ab that precedes it. The Gm9 in measure 49 is not tonic, however, as it is immediately reinterpreted as II in a II-V-I progression in the original key of F major. Because there is an elongated Eb pedal going into this passage, measures 49-50 sound like a deceptive resolution as Eb resolves up to F (m. 30) rather than back to Ab.

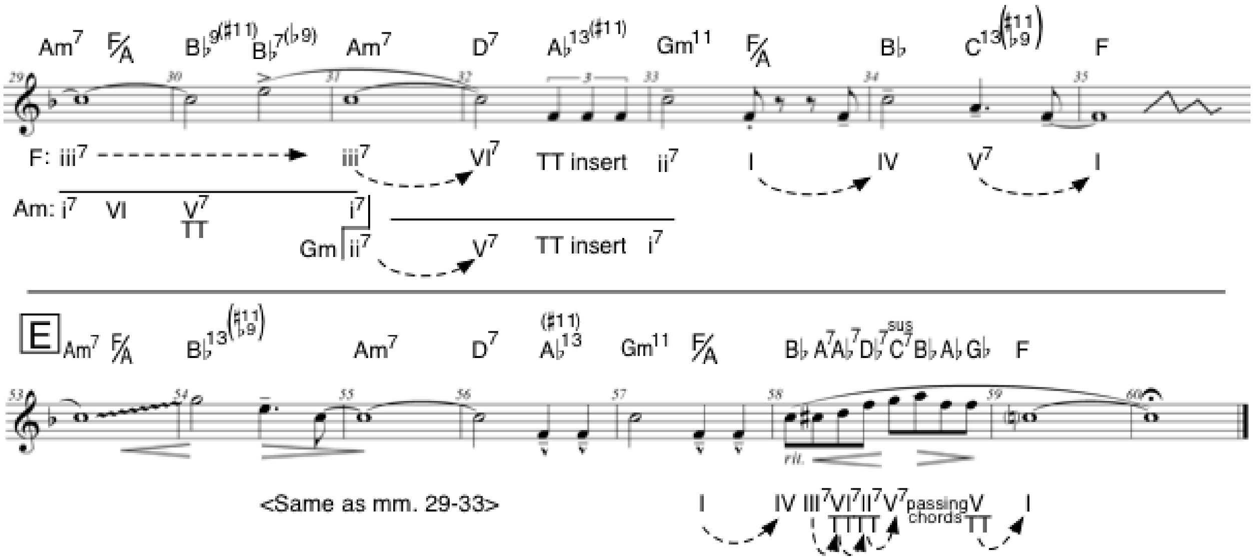
The key of F is reiterated in measures 50-52 with a progression of VI-II-V-I with some surface embellishment. The Abm7 chord in measure 51 is a non-functional chromatic upper neighbor chord in which every voice in the ensemble descends by semitone into the following Gm7 chord.

The Db13 in measure 51 may be understood as tritone substitute for II replacing II. In this case it is a synthesis of Gm toggling to G7, but with the tritone substitute of G7 replacing G7. The Gb9 on beat 4 of measure 51 is a tritone substitution insert chord for the C dominant chord that precedes it.

The first chord of the final eight measures that follow is Am7. As Jones often does, he precedes this chord with a dominant chord a half step above (in this case Bb13#11b9 in measure 52). If the following A minor chord is interpreted in the key of F, then, the Bb chord is V of III with the tritone substitute of V replacing V. If the A minor chord in measure 53 is interpreted as tonic, then the Bb chord is simply V replaced with its tritone substitute.

The final eight measures of the piece represent a return of the last eight measures of the A' section with some modifications. The last eight measures along with measures 29-35 are shown below for comparison (see ex. 4.28).

Example 4.28 "To You" last 8 bars (with 29-35 comparison)



Melodically, the two passages are very similar. The most striking difference is the ending. In measures 34-35, the melody outlines a descending F triad (the key of the piece) and ends on ^1. In the final ending, the melody begins on C as before, but now rises and falls, settling on ^5 instead of ^1. The final three pitch classes in measures 34-35 are C-A-F. In the final ending they are A-F-C.

Harmonically, the two sections are identical for the first five measures. The harmony generated from the melodic motion through the eight-note passage in measure 58 is the primary difference between the two sections.

The IV-V7-I progression in measures 34-35 is repeated in measures 58 and 59, and in the same syntactical positions (beats one or three). The embellishing chords in the first half of measure 58 (A7-Ab7-Db7) are III-VI-II, grounded in the circle of fifths in F, but with the VI and II chords replaced by their tritone substitutes.

The embellishing chords in the second half of measure 58 (Bb-Ab-Gb) represent a stepwise descent toward the tonic, F. The Bb and Ab chords are non-functional passing chords, while the Gb chord is the tritone substitute for V (C). Its motion to F marks the final cadence in the piece.

As was the case for “Three and One” and “Cherry Juice,” “To You” is heavily dependent on the circle of fifths for its harmonic content. Unlike the previous two pieces, however, whose circle-of-fifths progressions were nearly always found on the musical surface, many of the descending fifth progressions in “To You” occur at a deeper level. In addition, “To You” also includes many octave-specific progressions that often facilitate stepwise parallel movement via non-functional passing chords on the musical surface.

A full lead sheet of “To You” is provided here for convenience as example 4.29.

Example 4.29 “To You” lead sheet

CHAPTER 5

AN AMALGAMATION OF TRADITIONS

In the introduction to the study I argue that this music is tonal, but does not comply with some prevailing thoughts regarding tonality. I state that the music is a mixture of several stylistic traditions, namely, (1) twentieth-century scale-based procedures (including non-diatonic collections, etc.), (2) Renaissance and early twentieth century modality (including modes of the melodic minor scale), (3) eighteenth and nineteenth century efficient voice leading schemas, and (4) Baroque and Classical descending fifth progressions. I discuss these four items below in more detail.

Twentieth Century Scale-Based Procedures

The influence of twentieth-century composers such as Stravinsky and Bartok on jazz is well documented. Doug Ramsey in the *Oxford Companion to Jazz* states, "composers and arrangers who wrote for big bands from the mid-1940s on included a number who immersed themselves not only in the jazz tradition but in Stravinsky, Bartok, Ravel, and Debussy . . . Their sophisticated arrangements complemented the increased complexity of the art of jazz improvisation."[108] By the time of Jones's mature writing in the 60s and 70s, the exotic scales and compositional scale-based procedures of these composers had well infiltrated jazz, and Jones's writing in particular.

[108] Doug Ramsey, "Big Bands and Jazz Composing and Arranging After World War II," in *The Oxford Companion to Jazz*, ed. Bill Kirchner (Oxford; New York: Oxford University Press, 2000), 405.

One of the fundamental arguments I make in this study is that Jones's music is not triad-based, but rather scale-based. Supporting this thesis is the fact that the only triadic structures found in this music are part of a larger polychord, and that the average vertical sonority for Jones when all instruments are playing contains six pitch classes. And while it may be possible to conceive of the music as triad-based with extensions, I maintain that the base triad carries no musical meaning without the extensions.

As shown in Chapter 2, the way in which scales interact with the overall harmony is through chord-scale applications over chord symbols. One of the advantages of studying big band scores over purely improvised jazz is that the composer supplies both the chord symbol and the chord-scale application in the notated score. Through studying Jones's scores, we learn that he consistently notates symbols that represent only a subset of the pitches he actually applies each time. Furthermore, the same symbol may have multiple chord-scales applied, each of which offers a distinct collection of pitches with differing degrees of dissonance to the overall key area of the piece. All of this verifies what jazz musicians generally take for granted in modern jazz—chord symbols are a type of shorthand for scalar application. And it is the scale that is the harmonic object, not merely the subset represented by the symbol.

Non-Chord Tones

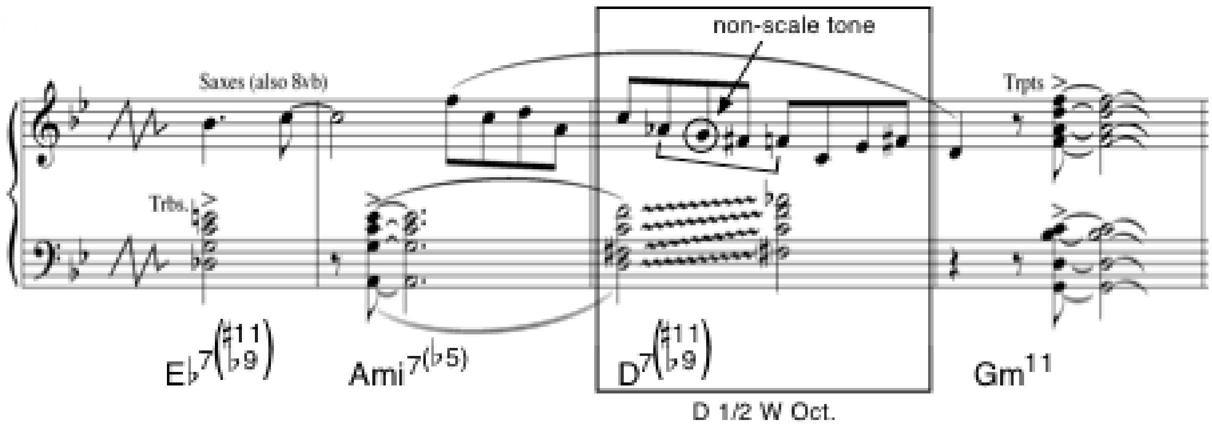
Jazz theorist Mark Levine states, "The scale and the chord are, for the most part, two forms of the same thing."[109] Dealing with music in which each vertical sonority represents a scale (in part or in whole), the question of determining non-chord tones becomes relevant. Are

[109] Mark Levine, *The Jazz Piano Book* (Petaluma, CA: Sher Music, 1989), 60.

there non-chord tones in this music? If so, how are they determined? These are difficult questions to answer. One reason for this difficulty lies in the fact that the possible chord-scale applications over any given symbol are fluid rather than fixed. All chord symbols inherently contain two properties, flexibility and expandability: flexibility to allow multiple chord-scale applications and expandability to include all possible notes up to the 13th. Because a chord symbol suggests multiple options for chord-scale applications, any of these chord-scales may be applied and any note in one of the possible chord-scale applications is a compatible tone (and therefore, a possible chord tone).

Because there is virtually no difference between chord and scale in tonal jazz, perhaps the term non-chord tone ought to be altered to non-scale tone. This difference in terminology, then, aids in the process of determining non-chord tones in this music. If a non-chord tone and a non-scale tone are equivalent terms, then the process for determining such in any harmonic context is to first determine the chord-scale being applied. It is helpful here that Jones consistently draws from the same small pool of chord-scales over certain chord qualities represented in the symbols. Once a determination is made regarding the chord-scale application, then any note in the sonority not in that scale might be understood as a non-scale (or non-chord) tone. Consider example 5.1 below.

Example 5.1 “Cherry Juice” 7 after A; non-scale tone



This excerpt is from “Cherry Juice,” seven measures after letter A. The D7#11b9 symbol indicates a D half-whole octatonic or D diminished whole tone chord-scale application. Combining the pitch classes in the winds results in a D half-whole octatonic collection with an added pitch (G) in the saxophones. Analysis of the saxophone line reveals a descending motion of three consecutive semitones (Ab-G-F#-F). None of Jones’s commonly applied chord-scales contain three consecutive semitones, and such scales violate what Tymoczko refers to as the “consecutive semitone constraint,” which characterizes the most usable scales in tonal music.[110]

Taken separately, if the saxophone line here maps onto a separate chord-scale than that of the brass, this might be considered a polyscalar passage in which Jones applies two chord-scales simultaneously. Because the notes in the saxophones do not align with any known chord-scale, this cannot be the case. Also, if the G was used as part of the sustained harmonic sonority

[110] Dmitri Tymoczko, "The Consecutive-Semitone Constraint on Scalar Structure: A link Between Impressionism and Jazz," *Intégral: The Journal Of Applied Musical Thought* 11 (January 1997): 136.

in the brass rather than as part of the saxophone melodic line here, we might analyze this as a blended collection in which Jones blends chord-scales for effect as he does elsewhere.

Because the G in the saxophones does not align with the overall chord-scale applied here, and because it is part of a consecutive semitone melodic descent, it seems best to understand it simply as an added non-scale tone, implemented by Jones to facilitate an extended chromatic line in the saxophones.

Dissonance and Upper Extensions

In triad-based music, e.g. a Mozart piano sonata, any tone beyond the triad is understood as a dissonant tone requiring resolution. The seventh in this system is admitted as a chord tone, but unlike the members of the base triad, the seventh is considered dissonant. Ninths, elevenths, and thirteenths are generally regarded in this music as dissonant non-chord tones. Although the seventh, ninth, eleventh, and thirteenth are all considered dissonant in this style, the seventh is allowed chord-tone status whereas the others are not.

Because I assert that Jones's music is scale based rather than triad based, new questions emerge: Are dissonances determined in scale-based music in the same way as in triad-based music? In other words, are all notes beyond the base triad in tonal jazz considered dissonant? Also, what role does dissonance play in this music? Does it require immediate resolution?

Jazz theorists are inconsistent in determining which notes in a fully extended chord (i.e. an applied chord-scale) are dissonant. Steve Larson states "dissonance derives its meaning from more stable pitches at deeper structural levels."[111] Contextually, he is arguing that any note not in the primary triad is dissonant. Conversely, James McGowan calls for a definition of consonance based on syntactical positioning. He asserts if an upper extension sounds in a musically stable position it ought to be considered consonant regardless of acoustical considerations.[112]

When referring generally to upper extensions, jazz pedagogues often use other descriptive terms. Joe Mulholland and Tom Hojnacki, e.g., refer generally to notes beyond the seventh as "tensions."[113] Other writers like Dan Haerle refer to these notes as "optional color tones" providing "an elaboration of the sound" with no implication of dissonance.[114] Most jazz theorists and pedagogues agree that the root, third, and seventh are the essential notes in a chord, for they provide the quality and function within a given harmonic passage.[115] This stands in contrast to triad-based music in which the seventh is an optional tone.

Because dissonance is a continuum of degrees and not an antithesis, whether or not the notes above the fifth in a fully extended tertian sonority are dissonant or not remains a source of debate. What is certain in modern tonal jazz in this regard is this: While the upper extensions (ninths, elevenths, and thirteenths) are not essential to define the quality and function of a

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[111] Steve Larson, "Schenkerian Analysis of Modern Jazz: Questions about Method," *Music Theory Spectrum* 20, no. 2 (1998): 213.

[112] James McGowan, "Consonance" in Tonal Jazz: A Critical Survey of its Semantic History," *Jazz Perspectives* 2, no. 1 (May 2008): 17.

[113] Joe Mulholland and Tom Hojnacki, *The Berklee Book of Jazz Harmony* (Boston: Berklee Press, 2013).

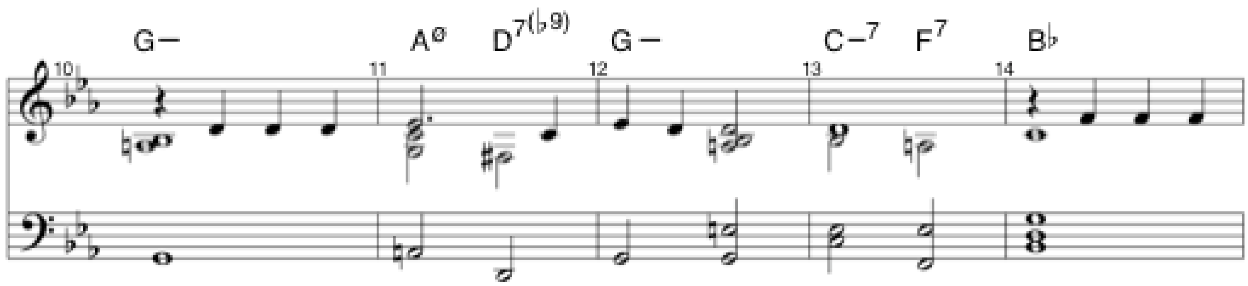
[114] Dan Haerle, *Scales for Jazz Improvisation: A Practice Method for All Instruments* (Miami, FL: CPP/Belwin, 1975), 19.

[115] For tonic chords, the sixth often replaces the seventh. See, e.g., James McGowan, "Dynamic Consonance in Selected Piano Performances of Tonal Jazz" (PhD diss., University of Rochester, 2005).

particular chord, they are however an essential component contributing to the characteristic sound of the music.

Consider a passage from Mark Levine's *Jazz Theory Book* regarding the importance of the upper extensions and alterations to the sound of modern jazz. In a chapter regarding the use of chord substitution and reharmonizations, Levine cautions that tritone substitutions are not always a good choice based on the result of the intervals created between the new bass note and the given melody. He advises that an effective use of tritone substitution results in the melodic note becoming "more interesting or prettier."[116] He then offers the jazz standard "I Hear a Rhapsody" as a possible example for tritone substitution (see example 5.2 below.)

Example 5.2 "I Hear a Rhapsody" bridge



Concerning measure 11, Levine does not recommend that the tritone substitution for D7 be used. The melody notes Eb-C represent the b9-7 over the original progression of D7. Substituting an Ab7 here results in the melody notes Eb-C being transformed from b9-7 over the original chord to 5-3 over the tritone substitution. Levine states "losing the b9 is not worth it."[117]

[116] Mark Levine, *The Jazz Theory Book* (Petaluma, CA: Sher Music, 1995), 267.
[117] Ibid., 271.

Conversely, Levine recommends the tritone substitution of B7 to replace the F7 in measure 13. Here the melody note (D) is the 13th of the original chord and would be transformed into a #9 with the tritone substitution. Levines justifies the reharmonization because #9 is "a more colorful note" than 13.[118]

The value assessment Levine places on the upper extensions and alterations is mirrored throughout Jones's compositions. I argue here that while extensions beyond the seventh are not essential in *nature*, they are essential in *value*. In other words (and as stated previously), while extensions beyond the seventh are not required for syntactical clarity of a particular vertical sonority (this information being transmitted through the root, third, and seventh), they are, however, essential components for the sound of jazz in general terms. Without these notes, jazz would be stripped of its characteristic sound and would to some degree cease to sound like jazz.

Regarding whether the upper extensions are dissonant, while the answer remains unclear, we have shown that these notes are highly valued and essential to the characteristic sound of the music. The second issue, then, is the nature of the resolution for such extensions. Do the upper extensions regularly resolve to notes of the base triad?

I argue in this study that the base triad does not operate at a more significant structural level than the notes in the upper extensions. One reason for this thesis is that these upper extensions (whether dissonant or not) do *not* resolve to notes in the base triad as a regular contrapuntal practice. Consider example 5.3 below.

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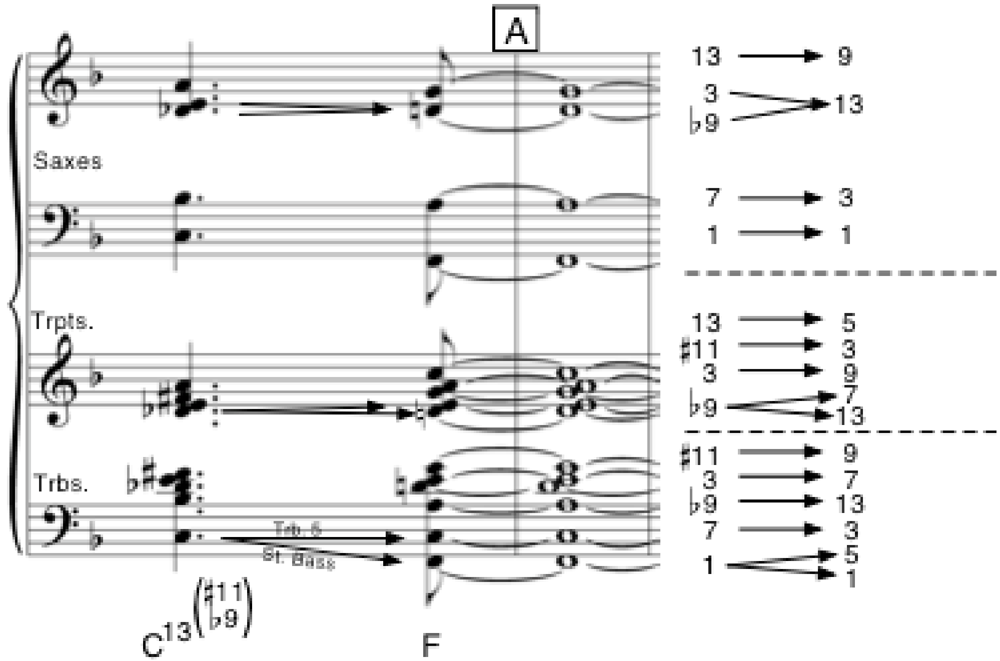
[118] Ibid., 271.

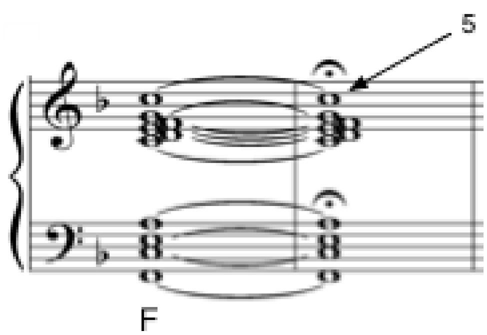
Example 5.3 “To You” m. 1; chord member resolutions



In this opening of “To You,” Jones writes a dominant to tonic in F, the key of the piece. To the right, I show the chord member of each voice and which chord member it moves to in the following voice as V resolves to I. Of the four voices that begin on b9, all of these resolve to either the 13th or 7th of the tonic chord. Of the two voices that begin on #11, one resolves to the 3rd and the other to the 9th. Of the two voices that begin on the 13th, one resolves to the 9th and the other to the 5th. Combining the contrapuntal resolutions of all the upper extensions, then, results in the following: Of the eight voices that initially sound as upper extensions, two of these resolve to members of the base triad while the other six resolve to other extensions beyond the triad. This sort of contrapuntal resolution schema is common in Jones’s music. Upper extensions simply do not resolve to one of the notes in the base triad as a normative practice. More often, they resolve to another extension.

To reinforce the concept of the deep structural significance of the upper extensions in this music, I cite the most stable melodic pitches of each piece, i.e., the final melodic note. The final melody pitch in “To You” is the 5th in the lead trumpet (see example 5.4 below).

Example 5.4 “To You” final melody note

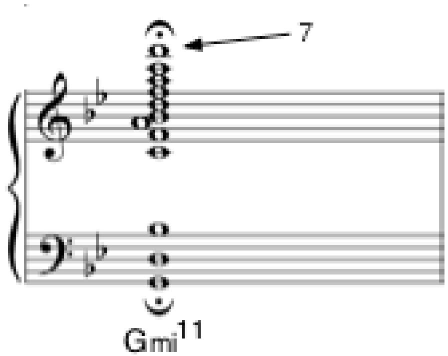


The final melodic note of “Three and One is #5 in the lead trumpet (see example 5.5 below).

Example 5.5 “Three and One” final melody note

The final melodic note of “Cherry Juice” is the 7th in the lead trumpet (see example 5.6 below).

Example 5.6 “Cherry Juice” final melody note



The fact that none of the final melodic pitches in this literature is scale degree ^1 is not insignificant. It reinforces the idea that any note in the chord-scale may have structural significance at the deepest level, making a reductive analysis that reveals a traditional Urlinie troublesome at best in this music.[119]

Renaissance and Early Twentieth Century Modality

Renaissance modal thinking was revived in twentieth-century composition and saturates Jones’s music, but in modified ways. Significant is the fact that the primacy of major and minor in the tonal system of past generations is often supplanted by Lydian major and Dorian in the mature Jazz tonal system of the mid-to-late twentieth century, which Jones represents. In other words, diatonic modes not serving as tonic in the tonal system of the eighteenth and much of the nineteenth centuries now become options for tonic sonorities. Specifically here I (again) refer to Lydian and Dorian often serving tonic function along with Ionian and Aeolian. This is

[119] One justification often cited for reducing out upper extensions as dissonant surface tones (even in jazz) is that they behave melodically rather than harmonically. (See, e.g., Steven Strunk, “Bebop Melodic Lines: Tonal Characteristics,” *Annual Review of Jazz Studies* 3 (1985): 97-98). I argue here that in Jones’s music these upper extensions are normative as *harmonic* events, and are often found in syntactically stable positions. Therefore, they comprise deep structural events.

reminiscent of Renaissance modal thinking in which any mode may serve as tonic, and this expansion of tonal thought through modal resurgence permeated jazz thinking in the twentieth century.

The revival of modal use in the early twentieth century initially came in a form referred to by Jessie Ann Owens as neo-modality.[120] Originally referring to seventeenth-century modal theory, neo-modality represents a second type of modal usage, distinct from the twelve-mode system discussed by Glarean and Zarlino. The neo-modal system consists of five transposable modes without their plagal counterparts (Dorian, Phrygian, Mixolydian, Aeolian, Ionian). Use of modality in mid twentieth-century jazz represents a third type of modal use, and unique in two ways. First, all seven diatonic modes are used. The Lydian and Locrian modes, absent in the neo-modal tradition, are both used in twentieth-century jazz.[121] Second, rather than limited to melodic use, modal application in jazz is often a harmonic phenomenon as modes are applied in the form of extended chords over various chord symbols.

Not only did diatonic modal thinking have a major revival in jazz, non-diatonic modal thinking forged new harmonic paths as modes of the melodic minor scale began to permeate the music as well. Mark Levine observes that the melodic minor scale "typifies the sound of modern jazz."[122] The modes of the melodic minor scale that are most prolific in Jones's music are Lydian dominant (mode 4), Locrian #2 (mode 6), and diminished whole tone (mode 7).

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[120] In a discussion distinguishing modal and tonal approaches to French and English Renaissance music, Owens uses this term to refer to a modified modal theory commonly applied to the music of composers such as William Byrd. See Jessie Ann Owens, "Concepts of Pitch in English Music Theory, c. 1560-1640," in *Tonal Structures in Early Music*, ed. Cristle Collins Judd, (New York: Garland Publishing, Inc., 1998), 183-246.

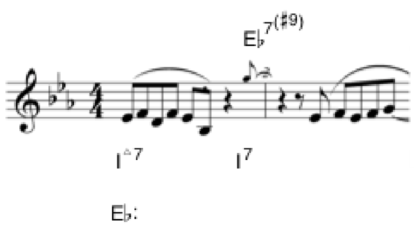
[121] Because the Locrian mode contains a diminished fifth above the root, it was never admitted as a viable mode. This mode found a home in jazz not as a key-supporting mode, but rather as a pitch collection often used melodically or harmonically over half-diminished chord symbols.

[122] Mark Levine, *The Jazz Piano Book* (Petaluma, CA: Sher Music, 1989), 67.

Lydian dominant and diminished whole tone chord-scale applications account for about 38% of all dominant chord-scale applications in this literature while the Locrian #2 scale is the most common chord-scale applied over half diminished chords. In addition to the non-diatonic modes of melodic minor, the three octatonic scales and their modes account for a clear majority of dominant chord-scale applications as well as all of the diminished chord-scale applications.

Consider for example how modal thinking shapes "Three and One." I have demonstrated previously that the opening melodic statement is Eb major while the band answers the opening statement with an Eb dominant response (see example 5.7 below).

Example 5.7 "Three and One" opening statement; Eb major/Eb dominant



The tonic here is ambiguous. It might be Eb major or some sort of Eb dominant. In the blues, Mixolydian often serves tonic function. This tradition also found its way into other jazz styles, accounting for the possibility of a dominant quality chord functioning as tonic in this piece. And to complicate matters, Mixolydian is often substituted with some other collection that retains the essential root, third, and seventh but chromatically alters other scale degrees. Here, the Eb dominant chord is actually an octatonic collection in the winds. The Eb major/dominant duality continues throughout the piece. Ultimately, the final chord answers whether the tonic sonority is Eb major or Eb dominant, as Eb dominant is the last chord. Here however, another dominant-compatible mode is used in the final sonority—Eb diminished whole tone (mode 7 of melodic minor).

Consider also how modal thinking influences "Cherry Juice." After the introduction, the initial Gm sonority is G Dorian/Minor (G Dorian without the 13th), but is immediately answered in the saxophones with a motive in G melodic minor (see example 5.8 below).

Example 5.8 "Cherry Juice" letter A; G Dorian/melodic minor

As G melodic minor appears in the melodic line, it actually appears as E Locrian #2 (mode 6 of G melodic minor). As was the case with "Three and One," the G modal ambiguity persists throughout the piece and is ultimate settled in the final G Dorian/minor sonority. Interestingly, a clear reference to G pure minor never appears in this piece. Instead, there exists a clear modal preference for Dorian as well as modes of the melodic minor scale that appear throughout the piece.

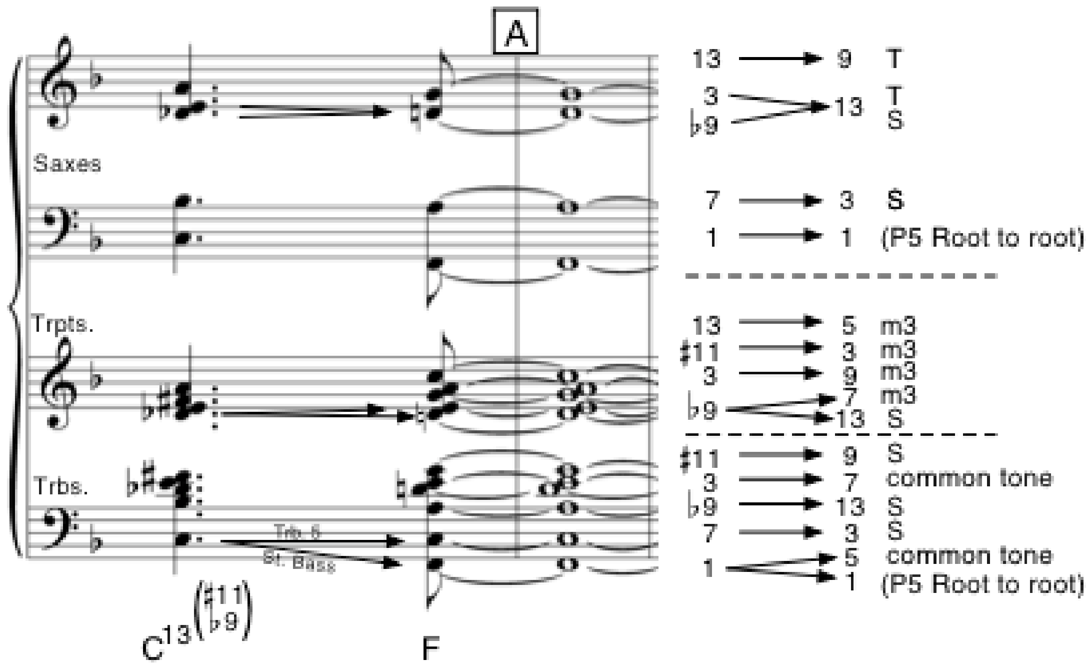
These kinds of modal influences permeate Jones's music, and represent modal thinking both within and beyond diatonic boundaries. Jones's use of various diatonic and non-diatonic scales and modes are manifested both melodically and harmonically throughout these works.

Eighteenth and Nineteenth Century Efficient Voice Leading Schemas

In the triadic tradition, the 3rd and 7th of seventh chords were treated with special care. In the scale-based tradition of Jones, he continues the practice of moving the 7th down by semitone in descending fifth progressions. As discussed in chapter 4, this is accomplished via the omission of avoid tones, which opens a contrapuntal path. And as observed also in chapter 4, this treatment clarifies syntactic function in a densely dissonant environment. Instead of moving the 3rd of these chords up by semitone, however, Jones adapts the old schema to align with scale-based practices in which tonic chords also often contain sevenths. The 3rd, then, in these jazz progressions often are held as common tones, becoming the seventh of the resolution chord.

In addition to absorbing the contrapuntal connections of the triadic tradition (with some modification), Jones and other jazz composers also utilized the efficient voice leading procedures of late nineteenth century composers. While Jones's jagged melodies often result in jagged parallelism between parts, he also often resolves chromatic and non-chromatic upper extensions by semitone or tone. Along with all the examples presented in chapter 4 explicating these ideas, consider again the opening of "To You" as a brief representative of these techniques (see example 5.9 below).

Example 5.9 “To You” opening; Smooth voice leading



Here, the top four trumpets move in parallel minor thirds (trumpets 2-4 mirroring the melody in trumpet 1). The Bass and Baritone sax move by skip in order to sound the roots of the chords. All other voices move by either tone, semitone, or remain the same. This type of efficient chromatic voice leading is typical of late nineteenth-century chromatic composition and found throughout these works as well. Notice also in the trombones that the 7th moves to the 3rd while the 3rd is held as a common tone to the 7th, recalling eighteenth century contrapuntal connections and providing syntactic clarity to the dense progression.

Baroque and Classical Descending-Fifth Progressions

Along with the scale-based procedures, modal thinking, and voice leading schemas described above, Jones’s use of descending fifth progressions are borrowed from an earlier practice and contribute significantly to his tonal language.

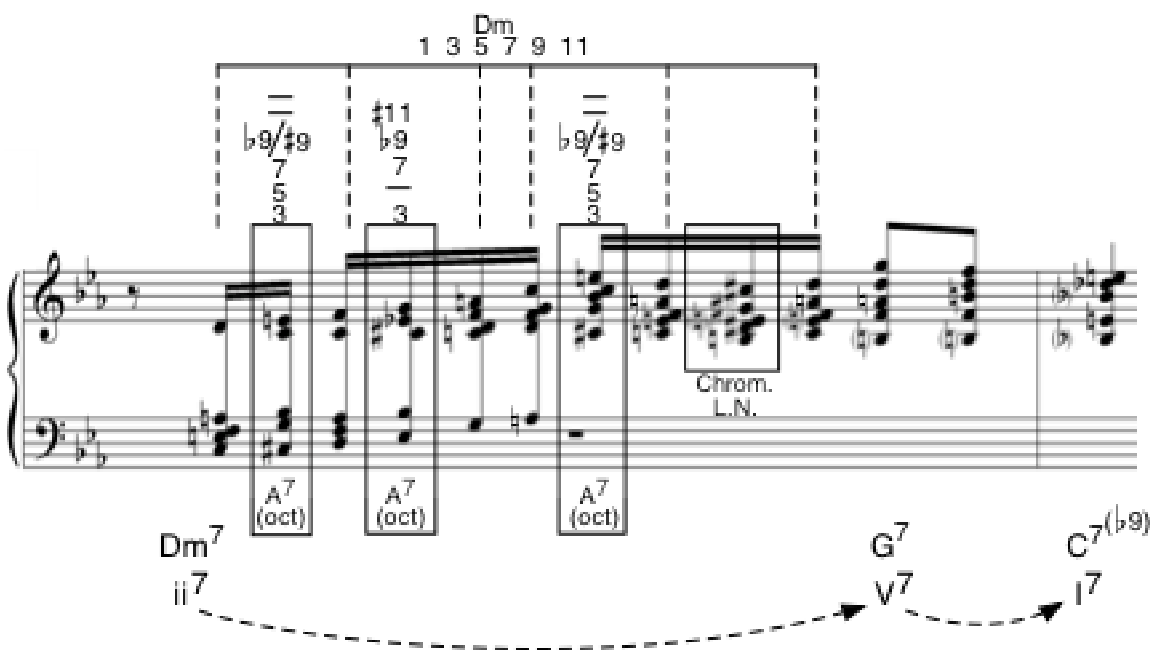
I describe in chapter 3 how Jones uses a descending fifth progression paradigm throughout these works. I then show how that this progression is modified in two levels of variation: chord-quality change and tritone substitution. I further demonstrate the manner in which bypassing a chord in the descending fifth sequence may result in tritone substitution equivalency.

Interesting in Jones's tonal style is the conspicuously rare use of iii, vi, vii^{ø} in the major mode. When iii is used in major, it is usually altered to dominant. When it is actually found as iii (minor), it is generally followed by VI and treated as a local ii-V. This accounts for the Dorian chord-scale application and the complete absence of Phrygian anywhere in these works. Minor vi is almost never used in this music. It is almost always altered to VI (as stated previously) and treated as V in a local ii-V. Half diminished chords in this music almost always function as ii^{ø} in a II-V progression in minor. Half diminished chords functioning as VII in this music are generally absorbed into a root position V chord with alterations.

Descending fifth progressions account for a vast majority of the root movements in these works (roughly 50% of all the progressions are descending fifths). And while the roots of these progressions generally reflect the overall key, the chords themselves are often manipulated to provide various levels of dissonance against the key. This is done through chord quality substitution and non-diatonic chord scale applications. In this way, the root movement reflects the overall key while the structures built on them are often dissonant against the key. So while the listener might hear this music as highly dissonant and possibly even atonal, the consistent underlying harmonic foundation preserves a sense of tonality. This may be thought of as borrowing from the tonal root movement tradition of the Classical period and combining it with the chromaticism of the late nineteenth century.

Unlike the melodic line, the harmonic progressions seem to be operating at different hierarchical levels in this music, with the descending fifth root movement serving as a paradigm that is often embellished. This is evident in the fact that Jones himself sometimes reduces out a chord symbol. We have seen this in examining some of the non-functional embellishing chords in chapter 4. Many of the neighbor or passing chords were not notated but rather nested within a notated symbol operating at a deeper structural level. The same is true even of some functional chords. In Jones's music we often find functional progressions subsumed within other functional progressions. Sometimes these are notated and sometimes they are not (see example 5.10 below).

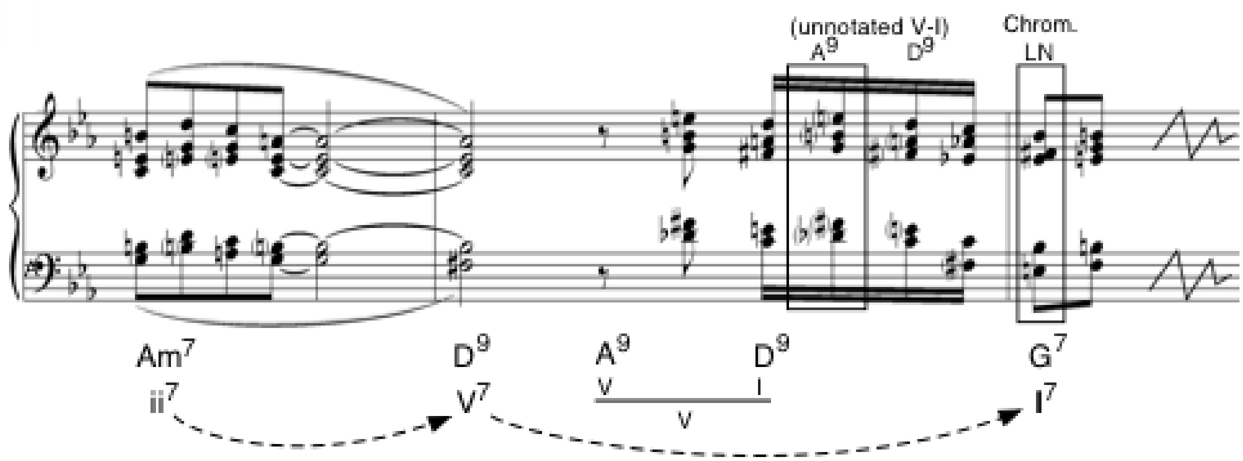
Example 5.10 "Three and One" 8 before E; Unnotated nested progressions



This passage from “Three and One” shows a II-V-I progression resolving to C7 functioning as tonic. As Jones often does, he takes one of the chords in the larger progression and tonicizes it temporarily. Here he writes a series of Dm chords alternating with A7 chords resulting in a series of V7-I progressions subsumed within a II-V (Dm7-G7) operating at a deeper structural level. And the fact that Jones does not notate the A7 chords is not insignificant. Because Jones himself reduces out the functional A7 chords in this passage, it demonstrates that he also treats these chords as functioning more as surface chords within a deeper, more significant structure.

Sometimes, Jones writes out the chord symbols that characterize the surface progression that is subsumed in a deeper, more significant one. See example 5.11 below.

Example 5.11 “Three and One” 7 after C; Notated and unnotated nested progressions



This passage is also from “Three and One,” 7 after C. The dotted arrows represent the significant harmonic motion in the passage of Am7-D9-G7. This represents a II-V-I in G. And as Jones often does, the V chord (D9) is embellished with its own V. The D9-A9-D9, then is a I-V-I functioning at a less significant structural level than the D9-G7 (V-I) within which it is subsumed.

Operating at an even less significant structural level here is the unnotated A9 occurring on the second sixteenth note. This A9 is reduced out by Jones and forms another V-I with the D9 immediately following it.

In this example we have progressions functioning at three structural levels: the overall II-V-I in the passage, the notated V-I subsumed within, and the unnotated V-I subsumed within that. This kind of hierarchical harmonic structure is found throughout Jones's music as the deep level descending fifth progressions are often embellished on the surface.

CHAPTER 6

CONCLUSION

Nineteenth-century French music theorist Francois-Joseph Fetis popularized the term "tonality," using it to refer to a broad spectrum of music. He distinguished between *tonalite' ancienne* (music before Monteverdi) and *tonalite' moderne* (music after Monteverdi). For him, the term tonality encompassed music employing the dominant seventh as well as music that did not. They were simply different types of tonalities. Conversely, Hugo Riemann later in the nineteenth century limits tonality to music that contains subdominant, dominant, and tonic functioning chords. For him, tonality does not exist before the music of Monteverdi. Historically, then, the term tonality may subsume modality (Fetis) or stand in contrast to it (Riemann). Carl Dahlhaus observes, "scholars could have either reverted to Fetis's term, which included all *types de tonalités*, and abandoned Riemann's interpretation, or, conversely, clung to Riemann's equation of tonality with the three-function schema and designated as 'tonal' only the harmony of the seventeenth through the nineteenth century. But since neither possibility was dropped, the term tonality became ambiguous."[123]

In this study, the tonal view of Riemann (i.e. that tonality refers to music only of the seventeenth through nineteenth centuries) is represented by Joseph Straus and Henry Martin. Conversely, the more expanded view of Fetis is taken up by Dmitri Tymoczko. I have shown in this study that the music of Thad Jones is tonal, but must be understood through a more

[123] Carl Dahlhaus, *Studies on the Origin of Harmonic Tonality*, trans. Robert O. Gjerdingen (New Jersey: Princeton University Press, 1990), 16-17.

comprehensive lens than that provided by Straus and Martin whose tonal descriptors represent the repertory of the seventeenth through nineteenth centuries.

In Chapter 1, I showed that Jones's music does not align with commonly held notions of tonality. There I compared several excerpts of Jones's music with definitions of tonality by Straus and Martin, demonstrating the conflict between the two. I pointed out that although some of the tonal characteristics they cite align with Jones's music, the majority of these do not. Of the tonality descriptors offered by Straus and Martin that do not resonate with Jones's music, two stand out: (1) the idea that tonal music is triad-based, and (2) the concept of consonant notes having deeper structural significance than dissonant notes which serve to prolong them on the musical surface. In contrast to these two specific tonal indicators, Dmitri Tymoczko offers a more general and inclusive tonal category he refers to as harmonic consistency. This tonal feature is less rigid than Straus and Martin, not requiring specific harmonic components for tonality but allowing a particular harmonic style to be considered tonal in its own right, so long as it is harmonically consistent with itself. It is this concept of harmonic consistency that allows Jones's music to be understood as tonal, and much of this study involves explicating Jones's harmonic consistency in detail. Chapter 2 demonstrates the harmonic consistency of Jones's chord-scale application processes and how he continually draws from the same small pool of pitch collections over certain types of chord qualities. Chapter 3 demonstrates the manner in which Jones's harmonies continually rely on descending fifth progressions, with certain modifications based primarily on chord alteration and substitution. Analysis of the three pieces used in this study also show these descending fifth progressions to often be functioning at a deeper hierarchical level with harmonic embellishments on the surface. Chapter 4 demonstrates Jones's harmonic consistency as he connects to voice leading norms of the past, but now in a dissonant scale-based environment. These voice-leading schemas often support the predominant/dominant/tonic functionality of this music, reinforcing its tonality. In Chapter 5, I show Jones's music to represent an amalgamation of traditions including twentieth century scale-based procedures (including non-diatonic collections, etc.), Renaissance and early twentieth century modality (including modes of the melodic minor scale), eighteenth and nineteenth century efficient voice leading schemas, and Baroque and Classical descending fifth progressions.

A Jazz Common Practice

Schoenberg said "Much of what today lies outside the system, in the sphere of the accidental harmonies, could still be brought into it without losing control provided by the root progressions."[124] Schoenberg envisioned a stylistic tradition in which the chromatic scale becomes the basis for composition apart from the restraints of past root progressions. And while Schoenberg realized this vision in his own music, Jones and his contemporaries were also embracing chromaticism. Instead of abandoning tonal progressions, however, they embraced them. In a sense, jazz composers of that time realized Schoenberg's vision of bringing the chromatic scale into the system but in a highly codified system of a different sort.

[124] Arnold Schoenberg, *Theory of Harmony*, trans. Roy E. Carter (Berkeley: University of California Press, 1978), 345.

Thad Jones was considered progressive in his day. In 1967, George Simon described the Thad Jones-Mel Lewis Jazz Orchestra as "top studio musicians . . . producing fresh, exciting, and sometimes highly experimental big band sounds."[125] In a 1974 interview of Thad Jones, he said " . . . you search and you try to find something that's workable, something that sounds fresh and gives the music a little more vitality, life, color . . . I'm trying to create different voicings, sounds, combinations of instruments."[126] In searching for new sounds, Jones and his contemporaries synthesized several differing compositional traditions to create a single style that might be described today as a jazz common practice.

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[125] George T. Simon, *The Big Bands* (New York: The Macmillan Company, 1967), 516.
[126] A. J. Smith, "Thad Jones Conducts an Interview," *Downbeat* 41, no. 20 (Dec 1974): 34, 14.

APPENDIX

ERRATA

In the three pieces under study, there are several measures in which the notes on the published scores by Kendor are questionable. These are divided into two categories. First, those notes that are printed that do not agree with the manuscripts located in the Thad Jones archives held at William Paterson University. For these I thank Dr. David Demsey, director of Jazz Studies at William Paterson University and curator of the archives for doing this research and communicating these to me. Second, notes that I suspect may have been copy errors either by Jones or another copyist that survived into the published version. The suspected mistakes in this category are the result of personal analysis and are therefore subjective. I offer these not as cases in which a mistake has absolutely been made, but rather where a mistake was *possibly* made. In each case, I supply reasons for suspecting an error may have occurred.

In regard to the original manuscripts of the three pieces under study, the following represents what is extant to the best of my knowledge.

For “To You,” the 1981 arrangement published by Kendor and analyzed in this document is only available in the published version. Jones’s original manuscripts of this arrangement are currently lost. The manuscript of the 1961 arrangement is available, but as stated previously is essentially the same in regard to chord progressions and chord-scale applications.

The original score for “Three and One” is currently lost. Original manuscripts exist for the individual parts, however. To my knowledge, the original parts agree with the Kendor published score.

The original manuscripts for the score as well as the parts exist for “Cherry Juice.” There are a number of discrepancies between the manuscripts and the published score by Kendor.

In the following section, I discuss possible errors in the published scores of each piece in turn. All of the references are to the published Kendor scores. The complete scores are not reproduced here, but are available through Kendor publishing.

To You

10 before C, Soprano Sax

On the downbeat of four, soprano sax has F# based on the key signature. On the upbeat of four, Jones places a sharp that ties into the next measure. On the individual parts, the soprano sax has a natural sign attached to the F on the downbeat of four with F# following. I believe that the note on the downbeat of four in the score should be F∂.

There is no reason for Jones to insert a sharp on the upbeat of four in the score unless he was thinking of the previous note as F natural on the downbeat of four. F natural on the downbeat of four matches the D half-whole octatonic collection there, while F# on the downbeat of four results in a ∂9 and b9 combination. It seems logical that the downbeat of four should be F natural, and that Jones forgot to write in the natural sign in the score. The score here needs to be changed to reflect what is on the individual part (a natural sign inserted before the F on the downbeat of four).

7 before C, Trumpet 2

In the first two beats of this measure, trumpet 2 has a notated B held over from the previous measures. I suspect that this note should be altered to Bb in this measure.

This is an elongated note that sounds through three chord symbols. While this pitch agrees with the first two chord symbols (Am7, F/A), as it is tied over into this measure it produces a major seventh over a Bb dominant symbol. The dominant seventh is located in trombone 4, resulting in a b7/#7 combination. This blending of sevenths seems unlikely, even for Jones who likes to create unique dissonant combinations. If Jones is intentionally mixing a dominant and major seventh over the same chord, it marks an extremely rare occurrence. It seems more likely that he forgot to alter that notated pitch to Bb (concert Ab) to conform to the Bb dominant symbol.

Interestingly, in the original arrangement, Jones writes a BbM7 chord there with trumpet 2 holding the notated B exactly as he writes it here. Perhaps in his rewrite, he kept the trumpet 2 line from the original arrangement (which agrees with the original BbM7 chord) and simply forgot to adjust the pitch in this measure to conform to his chord symbol alteration as he reorchestrated the piece.

3 after D, Trombone 2

The fifth note of the measure in trombone 2 should likely be D∂, not Eb.

The Db13#11b9 chord slides down by semitone into the C13#11b9 chord in all parts except trombone 2. As Jones wrote out the individual parts preceding the C13#11b9 chord, he was probably thinking of Eb sliding down to D in trombone 2, but forgot that the D was actually Db from an accidental earlier in the measure. Chromatic neighbor chords in which every voice moves by semitone are common for Jones, and I believe he intended to write two in this measure—Abm7 to Gm7, and Db13#11b9 to C13#11b9. If the Eb moving to Db in trombone 2 is intentional, this would mark the only time in these three pieces that Jones moves every voice except for one by semitone. It seems reasonable to me that Jones simply made an error here as he wrote out the parts.

Cherry Juice

4 after G, Trombone 3

In the original manuscript by Jones, the Ab in trombone 3 here is A∂. When Kendor published the piece, the editors assumed Jones made a mistake by neglecting to add the flat sign that aligns with the third of the Fm7 chord, so they supplied it in the published version.

This voicing is interesting, as it represents a rare occurrence of a minor chord with a lowered ninth (Gb in trombone 1). It is possible that Jones intended the A∂ here, and that he was writing a typical F7b9 voicing over a Fm7 symbol for the blended octatonic effect with the piano. Because the octatonic collection contains both the major third and the minor third (usually understood as #9), this combination is not uncommon. Generally, however, when dominant and minor seventh chords are combined, the symbol is usually dominant while the minor quality is found in the voicing above. Here the roles are reversed.

It is also possible that Jones simply forgot to place the flat sign on trombone 3 as the Kendor editors assumed. In any case, it is likely that a pianist voicing this chord will play a ∂9 (G) in the voicing, which rubs dissonantly against the b9 (Gb) in trombone 1.

2 after H, Bari Sax

In this measure, the chord that sounds on beat one is the same that sounds on beat four (with a return of the same chord symbol). Every voice in the ensemble returns to the same pitch on beat four that it sounded on beat one, save for the baritone sax. It seems that Jones simply forgot to supply a flat on beat four in the bari sax part after writing the natural sign on the upbeat of two.

7 after H, Trombone 2

In the original manuscript by Jones, the trombone 2 note here is not Eb, but rather Db. The editors altered the notes to Eb to conform with the Am7b5 symbol. This is reminiscent of 4 after G in which Jones writes an F7 dominant (octatonic) voicing over a Fm7 symbol. Here he seemingly writes an A dominant voicing over an Am7b5 symbol (Db being the major third). The pitches in the remainder of the winds all map onto the A diminished whole tone scale (1-3-#5-7-b9). Assuming that Trombone 2 is Db, the only pitch missing to completely fill out the diminished whole tone chord-scale in this voicing is #11, which would be supplied by the pianist voicing a b5.

If trombone 2 is supposed to be Eb, then Jones will have written a chord in which the 3rd is not voiced in the trombones. Because Jones nearly always supplies the 3rd and 7th in the trombones and for the reasons above, it seems reasonable to assume that the Db in the original manuscript is what Jones intended, i.e., a major 3rd in the trombones. Here it seems that the trombone 2 note should be Db, and that Jones was intentionally writing an A dominant voicing over an Am7b5 symbol, combining to form an A diminished whole tone chord-scale application.

Letter I, Soprano Sax 1

In the original manuscript, Jones writes the first note in the soprano sax here as D. The Kendor editors supplied the sharp, likely because the notated D (concert C) is a perfect fourth above the bass in the G7 chord. In doing so the editors created a situation in which the #11 (notated D# in soprano sax 1) sounds simultaneously against the ∂11 (notated D in trumpet 3).

Another issue in this voicing is the ∂9 in the trumpets sounding simultaneously against the #9 in the trombones. This is not unheard of in Jones's writing and might be intentional, but something to consider when analyzing the chord for possible errors.

A more glaring issue in this chord is the lack of a 3rd anywhere in the winds. This is unheard of in Jones's writing when all voices are sounding. If the Kendor editors had left Jones's D in the sop sax, the chord would have mixed ninths, and natural 11ths over a dominant chord.

I do believe that Jones made an error here, but I do not believe it was in the winds. I believe that Jones intended to write Gm7 rather than G7. If the symbol is Gm7, the 3rd and 7th are in the trombones as usual, the mixed ninths disappear, the 11ths fit perfectly, and the entire ensemble aligns with a G Dorian/minor chord scale application.

Further support for the idea that the symbol ought to be Gm7 is because letter I marks the top of the AABA form. Every other time the form begins throughout the piece, it begins with Gm7. Not only that, but every time the A section begins even within the form it begins with Gm7. If Jones intended to write G7 here, it would mark the one time out of 21 in which an A section in this piece did not begin with Gm7.[127]

[127] It might be noted here that letter I through P (two AABA full ensemble shout segments) is an insert in the piece and that letter H originally moved directly to what is now letter Q (previously letter I). Letter Q also begins with Gm7.

It seems most logical to me that the soprano sax 1 note in this measure ought to be D as in the original manuscript, and that the symbol ought to be Gm7, concluding that Jones inadvertently wrote G7 rather than Gm7.

3 after I, Trumpet 4

In the score, the fourth note in the measure of trumpet 4 is Bb due to the accidental in trumpet 3 earlier in the bar. In the individual parts, the note for trumpet 4 there is B∂. B∂ matches better as it maps onto the Lydian dominant chord-scale application there and doubles the lead trumpet and soprano 1 pitches. The score needs to have a natural sign inserted before the B in the middle of that measure, while the individual part is correct.

5 after I, Trombone 3

This measure may be correct and need no adjustments at all, but worth a discussion. It is possible that notes 4-6 should be D∂ rather than Db.

The last three notes in trombone 3 in this measure are Db. The chords are Bb7-F7-Bb7. The Db is the #9 over the Bb chords and aligns with the octatonic chord-scale application in the remainder of the ensemble on these chords. The 3rd, D, is in Tenor 2 (a semitone above trombone 3) in those chords. Having the #9 sound below the 3rd is unusual but not unheard of with Jones.

The middle of the three Dbs under scrutiny here occurs over an F7 chord. If this note is correct, it results in a #5 (Db) sounding simultaneously against a ∂5 in the succeeding two upper octaves (trumpet 4, 1, and sop sax 1). And while Jones occasionally writes ∂5 and #5 in the same measure, he usually writes the ∂5 in the lower octave and the #5 above. If there are no mistakes in this measure, it marks the only time in the three pieces under study that Jones writes a ∂5 and a #5 in the same measure in which the #5 is below and the ∂5 is above.

If the last three Dbs in this measure are changed to D∂, it adjusts the voicings to conform to Jones's norms. First, it places the 3rd and 7th in the trombones on all three chords which is by far the norm for Jones, as he rarely writes a voicing in which the 3rd and 7th are not both present in the trombones when all voices are sounding. Second, it positions the #9 pitches in the Bb7 chords above the 3rd rather than below. Jones very rarely writes the #9 below the 3rd. Third, it makes all the notes in the F7 chord align with the F octatonic chord-scale application (Db in trombone 3 is the only note that does not align, and switching it to D∂ solves this issue).

As stated, this measure may be exactly as Jones intended. There is a possibility, though, that he intended to write a natural sign on the third note in the measure that results in the rest of the measure being D∂ and conforming to Jones's norms in the rest of the piece.

6 after I, Soprano Sax 1

The second note of this measure is E in soprano sax, which is the major 7th of the dominant chord. It seems likely that Jones intended to write Eb there to conform to the dominant quality of the chord (as he did in trumpet 3).

6 after J Trumpet 4

The note on the downbeat of four in trumpet 4 is written as C# (the sharp carries over from the accidental attached to beat one). This note is the 13th of the chord on beat four. If this pitch is correct, it marks an extremely rare occurrence in these three pieces in which 13 sounds simultaneously with #5 in a chord voicing.

What I believe to be the intended harmony here is a brass polychordal voicing of bVI/I7. Jones uses this voicing a number of times in "Cherry Juice" (see examples 2.92-2.94).[128] In this example, the bVI triad in the trumpets is thwarted by the C# in trumpet 4. If the trumpet 4 pitch is C∂ rather than C#, it aligns with the expected bVI upper sonority in the polychord and agrees with the lead trumpet and soprano sax 1. Four measures after L is based on the same melodic motive as the one in this example. On the downbeat of four in that measure is another example of the bVI/I7 polychord I believe Jones intended to write here. Based on Jones's preference for this particular bVI/I7 polychordal voicing and the fact that he uses the same voicing over the same melodic motive slightly later in the piece, it seems likely that he forgot to place a natural sign before the C on beat four of trumpet 4.

2 after K, Trumpet 2

In this measure, trumpet 2 has a notated F on the downbeat of one, but should be F#.

Every voice in the ensemble except trumpet 2 descends two semitones from the previous note on beat four to this note on beat one. In fact, analyzing the intervallic content

[128] The voicings presented in these examples are presented as blended voicings resulting from polychords of bVI/I7 in which Jones keeps the natural fifth in the lower portion of the polychord.

and direction of all the voices beginning at letter K, it appears that Jones is harmonizing the lead trumpet melody with the technique of chromatic planing for several measures. The brass move parallel beneath the lead trumpet for six measures beginning at letter K. The saxophones also are involved in the chromatic planing in these measures, deviating from the brass only in measures four and five of letter K in order to offer countermelodic material before rejoining the brass in measure six.

If Jones intended to implement chromatic planing in the first six measures of letter K, then he made six part-writing errors in the brass in the process (one of which is 2 after K in trumpet 2, under consideration here). If the notes currently in the printed score are all correct, then where each of these inconsistencies occurs, Jones writes twelve voices that move in exact parallel motion while one voice does not.

It seems reasonable that Jones intended to harmonize all the voices beneath the lead trumpet in this section using the chromatic planing technique, and made some part writing errors along the way.

Two after K on the downbeat of one, trumpet 2 ought to have F# rather than F in order to agree with the other voices that are planing. And because Jones repeats the four-note figure at letter K in the following measures, he perpetuates the error twice more by copying the F (rather than the F#) into measures three and five after K as well.

3 after K, Trumpet 2 & 4

Trumpet 2 ought to have F# on the downbeat of three to conform with the chromatic planing in the passage. As explained above, this error could have easily been made by rewiting the mistake made in measure two of K in the succeeding measures.

Trumpet 4 on the upbeat of three ought to be D rather than C# to comply with the chromatic planing in the passage. It is likely that Jones is thinking intervallically as he writes the individual parts for this passage. Jones writes trumpet 4 just below trumpet 3, and on the same staff. It is likely that he wrote the trumpet 3 part first, and wrote the trumpet 4 part below, being sure to move by the same intervals. From the downbeat of three to the upbeat of three, trumpet 3 moves up a whole step from D# to E#. Because the # that affects the E is an accidental from earlier in the measure, it is easy to see how that Jones may have accidentally misread the trumpet 3 part as moving up from D# to E by semitone, rather than D# to E# by whole step (in a passage filled with accidentals it is easy to misread this). If indeed Jones made this error as he was writing the trumpet 4 part, it explains why he writes the trumpet 4 part up by semitone from C to C# (matching a misreading of trumpet 3 moving up by semitone from D# to E) while all the other voices in the ensemble move up by whole step in the chromatic planing passage.

5 after K, Trumpet 2 & 3

Trumpet 2 on the downbeat of three ought to be F# rather than F to conform to the chromatic planing passage. This is, again, the result of carrying over a mistake made in the original four-note motive at letter K where the F ought to have been F#. Reinforcing that this was an error by Jones is he fact that as the original four-note motive is sequenced down by step six after K, the third note of the motive is E∂ (inferring that the original note ought to have been F#, one step higher).

The note on the downbeat of two in trumpet 3 ought to be E# rather than E∂ in order to conform to the chromatic planing in this passage. The four notes in this measure in all parts are a repetition of the four-note motive stated at letter K, but with rhythmic variation. Jones correctly notates D# in the initial motivic statement but here inadvertently inserts a natural sign rather than a sharp sign. (There would be no reason to write a natural sign there in any case, as the D is natural in the key already).

6 after K, Trombone 2

This measure is the last measure in the chromatic planing passage. The first note of this measure in Trombone 2 (the upbeat of one) ought to be E∂ rather than Eb in order to comply to the chromatic planing.

The initial four-note motive is stated at letter K. Five after K, the motive is stated again with rhythmic variation. The next measure (six after K) is a sequence of the previous measure, down one step. Here Jones seemingly forgets that there is an Eb in the signature and neglects to write in the necessary natural sign before the Eb he notates to begin the measure. The result of this error is Eb followed by D#, an enharmonic succession that was surely unintended.

7 after K, Trombone 1

The second note in this measure shows D# in trombone 1 in the published score. In Jones's manuscript, there is no sharp attached to the D. Interestingly, the individual trombone 1 part published by Kendor does not reflect the addition of the sharp accidental, but rather merely shows D with no accidental attached. I believe that this note should be D rather than D# as Jones writes in the original manuscript and currently reflected on the individual published part.

The reason the Kendor editors attached a sharp sign to the D in this measure of the score is because the D in the trombone part is the dominant seventh, whereas the symbol is EMA7. The trumpets sound the major seventh in their eighth-note passage over this location in the measure, as does soprano sax 1.

If the natural D was intentional by Jones, it results in a four-chord sequence in the trombones in the seventh and eighth measures after K that is transposed up by semitone each time. As each individual voice ascends by semitone, it corresponds to the chordal roots that also ascend by semitone in this passage. And because the initial trombone voicing is a 1-3-5-7 dominant voicing, then each subsequent voicing is also a dominant voicing (although one of the symbols is major, not dominant). If the chromatic ascent in the trombones is intentional, then Jones writes an unusual polychord over the EMA7 symbol of EM7/E7, with alterations in the upper sonority.

Regardless of whether or not the D ought to be D# in trombone 1, neither solution accounts for the Gb in the Bari Sax (concert A, the ∂11) that sounds simultaneously with the #11 in that voicing. The pitch class set in the saxophones there is G#, A, Bb, B, D#. Three consecutive semitones in a single voicing is highly unusual, even for Jones. In the first chord of the sequence, Jones assigns Gb to the bari sax, which is the #11 of the Eb7 chord. As the symbol ascends to EMA7, the bari sax holds the common tone which is now the ∂11.

Jones employs a similar part-writing strategy in the third and fourth chords here (8 after K), but in the trumpets. Over the F7 symbol the trumpets have C#, (concert B, the #11). They return to this pitch as the symbol ascends to Gb7 and what was #11 now becomes ∂11. Simultaneously, #11 is sounding in soprano sax 2 over the Gb7 chord. This results in a ∂11/#11 pairing over the Gb9, as was the case over the EMA7 (both the product of the same part-writing strategy).

Based on the highly unusual ∂11/#11 dissonant pairings in this passage, along with a few other trumpet pitches that don't really fit the symbols, it seems that Jones treats this passage contrapuntally by sections rather than primarily harmonically/vertically. Because of this, I suspect that the D∂ in the original score manuscript for trombone 1 over the EMA7 chord is what Jones intended as he was moving all the trombones up by semitone in each chord.

8 after K, Trombone 1

The last trombone 1 note in this measure in both the printed score and Jones's manuscript score is E∂. The individual trombone 1 part, however, shows Eb (without the natural sign attached). Because E∂ is in the score, and because E∂ fits with the four-chord chromatic ascent in this passage, I believe this note should be E∂ in the individual part as it is in the score.

5 after N, Chord Symbol

The symbol for this measure is Eb, but likely ought to be Eb7.

The only winds playing here are the saxophones. The saxophone voicing to begin the measure a 1-3-5-7 Eb dominant voicing followed by an Eb Mixolydian chord-scale application in the notes immediately following.[129]

This passage is the fifth measure of an A section in this AABA form. Of the 21 A sections in this piece, the symbol to begin the fifth measure in every one of these occurrences is Eb7 except this one.

Because the Eb symbol does not agree with the saxophone voicing here, and because Jones writes Eb7 every other time this measure in the form occurs, I believe that the symbol ought to read Eb7, and that Jones simply forgot to attach “7” to the symbol.

1 before O, Tenor 2

In the score, Tenor sax 2 shows a G# in this measure that is never cancelled. In the individual part for Tenor 2, there is a natural sign attached to the sixth note in the measure. There should be a natural sign attached to the sixth note in this measure in the score.

In the first set of triplets on beat three of the measure, the symbol is Dm7. If Tenor 2 is G# (F# concert), it conflicts with the quality of the symbol (a major third over a minor quality symbol).

[129] If you are analyzing this closely, you will notice that notes 4-7 represent a departure from Eb. These are nested progressions unnoted in the score representing a V-I-V-I in Bbm. The last sixteenth note aligns with the Bb7 symbol while the final two notes in the bar represent a Mixolydian to octatonic toggling over the Eb7 symbol.

On beat four, there is another triplet beginning and ending with G (concert F). The symbol there is G7. If the Tenor 2 triplet pitches are G#, they represent the major seventh over a dominant symbol.

It seems reasonable to conclude that all of the G pitch classes beginning on beat three of this measure should be G∂, which is the result of a natural sign attached to the sixth note of the measure. Jones seemingly forgot to attach the natural sign into the score.

Letter O, Tenor 1

The last note in this measure is F# in tenor 1 due to the accidental applied to the F on the upbeat of one. It is possible that this note should have a natural sign attached.

The symbol applied to the second half of the measure under question is F7. The chord scale applied in the brass and saxophones is Lydian dominant, save for this final note of Tenor 1, which is the major seventh of the chord (concert E over the F7 chord). The baritone sax voices the dominant seventh the two notes prior to the one in question, and as Jones skips all the voices in the saxophones up for the final F7 voicing, the seventh appears in Tenor 1.

If Jones intended for this note to be F# in Tenor 1, then this is an example of scalar toggling in the saxophones from Lydian dominant to major for the final eighth note. Simultaneously, it results in an example of polyscalarity in which the saxes voice FM7 and the rhythm section plays F7.

While the F# may have been intended by Jones, it seems equally likely to me that he simply forgot to attach a natural sign to this note, cancelling out the previous accidental.

6 after O, Chord Symbol

The last symbol in this measure is Bb, but probably should be Bb7.

The three chord symbols in this measure are Bb7, Fm7, and Bb. The saxophones are the only winds sounding in this measure. The saxophone voicing on the downbeat of one over the Bb7 is nearly identical to the voicing on the downbeat of four over the Bb, and both are dominant voicings.

This measure marks the sixth measure of the B section in the AABA form. Of the five times in this piece that Jones writes a Bb chord immediately before the II-V turnaround back to G minor, every time except here he writes it as a tritone substitution dominant chord (Bb7).

For reasons of consistency as well as the symbol aligning with the saxophone voicing, I believe this symbol ought to be Bb7 and that Jones simply forgot to attach the "7" as he was writing.

Letter P, Soprano Sax 1

There is likely no error here, but the following observation is worth noting. The saxes at letter P state a motive that is displaced by two beats and repeated immediately following. The motive in each voice is restated exactly, except for one note in the soprano sax 1 and one note in soprano sax 2.

The first eighth note at letter P in the saxes combines to form a chord with a combined lowered and raised seventh.[130] The soprano sax has G (concert F, the lowered 7th) while the

[130] I discuss this in example 2.53 as an example of one of Jones's minor bebop chord-scale applications.

baritone sax has D# (concert F#, the raised 7th). As the motive is repeated, the soprano sax sounds G# rather than G, now agreeing with the bari sax.

If the motive was intended to be repeated exactly, then perhaps a G# should be the first note in soprano sax 1 at letter P. The G#, however, is not the only note changed in the repetition of the motive. Soprano sax 2 has E-E-G-G in the first motive and E-E-F-G in the second.

If Jones intended to write a motive that repeats exactly in regard to pitch, he made two errors. Because it is unlikely that he made two errors, and because he is evidently writing minor and major sevenths against each other purposefully in this passage,[131] I believe that the printed score is likely correct here and that no correction is needed.

2 after P, Soprano Sax 2

The F on the downbeat of four in this motive repetition is inconsistent with the initial statement of the motive (which had G in that spot). I believe that there is no error here. See "Letter P, Soprano Sax 1" above for details.

Letter Q, Soprano Sax 1

The second note in soprano sax 1 here is a notated C in the Kendor score. In Jones's manuscript score it is C#. It is probably supposed to have been C# as in Jones's manuscript score.

[131] See e.g., the third note at letter P (b7/#7 simultaneity between soprano sax 2 and bari sax) and the second half of 3 after P (b7 in bari sax and #7 in trombone 2 over GmM7 symbol).

The second chord in this measure (attached to the note in question) is Bb9#11. If soprano sax 1 sounds C# here, it results in a b9/∂9 combination against trumpet 3 (concert B, the b9 in soprano sax 1 and concert C, the ∂9 in trumpet 3). The most likely reason that the Kendor editors deleted the sharp sign from the score is to resolve the b9/∂9 combination.

Although Jones does not often mix natural and altered ninths in a voicing, he does do it occasionally. When he does, it is usually the result of a polychordal voicing. In this case, if C# is in soprano sax 1, Jones will have written a polychord of CM7/Bb7.

When a composer or copyist forgets to write in a needed accidental, it is easy to assume that a mistake was made. In this case, however, Jones writes an accidental into the score. It is not as easy to assume this to be a mistake. For this reason, it seems logical to conclude that Jones purposefully wrote C# for soprano sax 1 in this passage, intending to create a CM7/Bb7 polychord and that the Kendor editors mistakenly deleted the sharp sign in the printed score.

Letter R, Soprano Sax 1

The second soprano sax note here is C∂ in the Kendor score, but C# in Jones's original manuscript score. The second note in the soprano sax should be C# as in Jones's manuscript rather than C∂ in the published score.

This is an exact repetition of the material at letter Q. See comments above for "Letter Q, Soprano Sax 1" for full explanation.

3 and 4 after Coda, Saxophones

I believe there are a few wrong notes in the saxophones in this passage. See the details below and a summary of possible corrections following the discussion.

The harmony here is unspecified by Jones via a chord symbol, although it seems to be a dominant prolongation of G (with a G pedal) that leads to C minor in the fifth measure of the Coda. There are two primary elements here—the saxes and the brass. The brass sound G7#9 and through the technique of chromatic planing descend in minor thirds in each voice, traversing one octave.[132] Because the initial brass voicing maps onto the G half-whole octatonic collection, the remainder of the notes in the passage also weave through the octatonic collection as well.

The saxophones are written as a duet in the upper voices with the baritone sax sounding the G pedal along with some of the other instruments. The accented saxophone notes align rhythmically with the chordal articulations in the brass, while providing sixteenth-note embellishment figures between these vertical sonorities.

For the accented saxophone notes that align with the brass chords, it seems that Jones intended to employ the same descending-third chromatic planing technique that he used with the brass. If this is true, he made a few part writing errors. Soprano 1 and 2 descend through the following notated pitches—A, F#, D, C, A. I believe that Jones intended to descend in minor thirds here as in the brass, but forgot to write D#. It's easy to see how this might happen, with all the sharp accidentals on beat two that carry through the measure. Tenor 1 and 2 descend through the following notated pitches—F, D#, C, A, F#. Because of the pattern Jones is

[132] This passage is reminiscent of 2 before F discussed example 4.20.

establishing here, I believe he intended to write F# as the first pitch, and traverse the octave in minor thirds as he does in the brass.

If the two edits are made to the accented notes in the saxes, the two saxophone lines will be consistently in minor thirds with each other, each will descend in a minor third pattern traversing one octave, the accented saxophone notes will complement the brass chords with compatible chord-scale pitches, and all the accented saxophone notes will map onto the octatonic collection along with the brass.

In addition to the minor third descent traversing the octave on the accented notes, Jones provides embellishing notes in the saxes between the accented notes. This results in four note cells in the saxes—the accented note plus the three notes immediately following. Not only is the first note of each cell transposed down three semitones each time, but the other three notes are as well. So while Jones writes a series of brass chords descending in minor thirds, he concurrently writes four-note cells that are transposed down in minor thirds each time as well, with the initial note of each cell aligning with the brass.

In the tenor saxophone line, there is one error as Jones transposes the cells down in minor thirds. The only note that deviates from the pattern is the fourth note of the fourth measure after the Coda in the tenor saxes. This note is written as C, but ought to be C# to conform to the transposition pattern he has established.

If the notes in the score are all correct here, this passage marks an example of *nearly exact* chromatic planing in which the notes that break the intervallic transposition patterns also are the only notes in the passage that deviate from the G half-whole octatonic collection. Elsewhere, when Jones writes blended collections there is a logical explanation for it, either contrapuntally or as the result of polychordal preoccupations. In this case, there seems to be no explanation from a compositional point of view for these deviations from the pattern or from the octatonic collection. Because chromatic planing is a technique Jones uses elsewhere and because the saxophones seem to be joined with the brass in this passage (the brass in exact planing throughout), it seems logical to conclude that this passage was intended to conform to exact chromatic planing, but that Jones made some errors in transposition.

In summary, the notes that need to be edited in order to conform to the exact chromatic planing Jones likely intended here are the following: in measure 3 of the Coda, tenor saxes should have F# as the first note; in the same measure, soprano saxes should have a sharp accidental placed before the D (the sixth note of the measure) affecting both Ds in the measure; lastly, in measure 4 of the Coda, tenor saxes should have a sharp accidental before the C (fourth note of the measure).

Next to Last Measure, Tenor 2

The second note in this measure in Tenor 2 is A (concert G). It is possible that this note should be notated as Ab to match the symbol.

The symbol is Ab9#11, and except for Tenor 2, the chord-scale applied here is Ab Lydian dominant. If the notated A in Tenor 2 is correct, this is an example of blended scalarity in which the dominant seventh is present in Trombone 4 (Gb) and the major seventh is present in Tenor 2 (concert G). And not only are both sevenths present simultaneously, they are also a semitone apart.

If this Tenor 2 note is correct, it might be explained compositionally as the upper four saxophones forming a quartal voicing of (concert) G-C-F-Bb with the G in Tenor sax 2. It may also be explained as Jones writing an extreme dissonance (in a piece already marked by dissonance) in the penultimate chord before ultimately resolving the piece to a very consonant Dorian chord-scale application over the final Gm11 symbol.

Conversely, It is also possible that Jones intended to use the saxophones to double the brass, and he merely forgot to attach the flat sign to the A in Tenor 2 (the other saxophones all double one of the brass pitches exactly).

Although Jones sometimes blends sevenths in minor chords, he usually does not do so with dominant chords. If this blended seventh is intentional, it marks a rare occurrence for Jones. I suspect, however, that this A should be Ab.

Three and One

3 Before E, Tenor 1

The notated Tenor 1 pitch on the downbeat of four in this measure is A, but should probably be G.

The chord here is F#°. For diminished chords, Jones is consistent in applying the whole-half octatonic collection. The A (concert G) in Tenor 1 here does not map onto the F# whole-half octatonic collection, but rather results in a blended collection.

Over the diminished symbol, each saxophone part has two notes, the second of which descends by skip. All of the parts descend by minor third except Tenor 1. Because diminished chords (and the whole-half chord-scale application) are composed of minor thirds, transposing a voicing down by three semitones ensures that the transposition will also map onto the chord-scale. If Tenor 1 is a notated G rather than A, it matches the minor third descent in the other voices.

If the notated A in Tenor 1 here is intentional by Jones, it marks the only case in these three works in which a blended chord-scale is applied to a diminished symbol and thwarts the minor third transposition strategy for diminished chords that he applies to the other voices. If, however, the notated pitch is changed to G, then all the notes map onto the whole-half octatonic collection Jones always applies to diminished chords as well as preserving the minor third transposition strategy for diminished chords. For these reasons, it seems likely that Jones intended to write G here rather than A.

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