Schenkerian Analysis of Modern Jazz: Questions About Method

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While much has been written about the history of jazz, comparatively little attention has been given to individual jazz performances. Those analyses that have been published include studies of relationships between chords and scales, and the use of melodic-motivic "formulas" and processes of motivic development, in jazz improvisations.[1] Other studies have investigated the role of polyrhythm in jazz and have applied information theory, pitch-class set theory, and computer analysis.[2] But scholarship has been inhibited by the

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[1]On the relationships between chords and scales, see Janos Gonda, "Problems of Tonality and Function in Modern Jazz Improvisation," *Jazzforschung/Jazz Research* 3/4 (1971–72): 194–205; A. Jungbluth, "Harmonische Analyse (Bill Evans: Very Early: Chromatik als Übergeordnetes Regulativ)," *Musik und Bildung* 15 (1983): 29–32; Jeff Pressing, "Towards an Understanding of Scales in Jazz," *Jazzforschung/Jazz Research* 9 (1978): 25–35; and George Allan Russell, *The Lydian-Chromatic Concept of Tonal Organization for Improvisation, for All Instruments* (New York: Concept Publishing Corp., 1959). On "formulas" in jazz improvisations see Lawrence Gushee, "Lester Young's 'Shoeshine Boy'," in *Report of the Twelfth Congress of the International Musicological Society, Berkeley, California, 1977,* ed. Daniel Heartz and Bonnie Wade (Kassel: Bärenreiter, 1981), 151–69; Barry Dean Kernfeld, "Adderley, Coltrane, and Davis at the Twilight of Bebop: the Search for Melodic Coherence (1958–59)" (Ph.D. diss., Cornell University, 1981); idem, "Two Coltranes," *Annual Review of Jazz Studies* 2 (1983): 7–66; Thomas Owens, "Charlie Parker: Techniques of Improvisation" (Ph.D. diss., University of California at Los Angeles, 1974); Henry Martin, *Charlie Parker and Thematic Improvisation* (Lanham, Maryland: Scarecrow Press, 1996); and Gregory Eugene Smith, "Homer, Gregory, and Bill Evans? The Theory of Formulaic Composition in the Context of Jazz Piano Improvisation" (Ph.D. diss., Harvard University, 1983). On processes of motivic development in jazz improvisations see Charles Clement Blancq III, "Melodic Improvisation in American Jazz: the Style of Theodore 'Sonny' Rollins, 1951–1962" (Ph.D. diss., Tulane University, 1977); and Gunther Schuller, "Sonny Rollins and Thematic Improvising," in *Jazz Panorama,* ed. Martin Williams (New York: Da Capo Press, 1979), 239–52.

[2]Polyrhythms in jazz improvisations are discussed by Cynthia Folio, "An Analysis of Polyrhythm in Selected Improvised Jazz Solos," in *Concert Music, Rock, and Jazz Since 1945: Essays and Analytical Studies,* ed. Elizabeth West Marvin and Richard Hermann (Rochester: University of Rochester Press, 1995), 103–34; and Keith Waters, "Blurring the Barline: Metric Displacement in the Piano Solos of Herbie Hancock," *Annual Review of Jazz Studies* 8 (1996): 19–37. Information theory is applied to jazz analysis by Keith Winter, "Communication Analysis in Jazz," *Jazzforschung/Jazz Research* 11 (1979): 93–133. Applications of pitch-class set theory have been undertaken by Steven Block, "Pitch-Class Transformations in Free Jazz," *Music Theory Spectrum* 12/2 (1990): 181–202; idem, " 'Bemsha Swing': the Transformation

scarcity of reliable transcriptions into musical notation of jazz perfomances and the difficulty of producing such transcriptions.

Given its proven power and usefulness in the analysis of tonal music, it is not surprising that Schenkerian theory has also been applied with some success to the analysis of jazz.[3] Analysts have used Schenkerian techniques to describe linear progressions and structural levels in a variety of jazz styles, although greater attention has been focused on bebop. And yet a certain skepticism has arisen about such applications.[4] In general, three questions have been raised about the applicability of Schenkerian analysis to improvised music:

(1) Is it appropriate to apply to improvised music a method of analysis developed for the study of composed music?
(2) Can features of jazz harmony (ninths, elevenths, and thirteenths) not appearing in the music Schenker analyzed be accounted for by Schenkerian analysis? and
(3) Do improvising musicians really intend to create the complex structures shown in Schenkerian analyses?

In this article I answer yes to these questions, and also argue that the questions themselves imply mistaken assumptions about the content and origin of Schenker's theories, about the role of analysis, about the function of dissonance in common-practice harmony and in jazz, about the nature of improvisation versus composition, and about the role of simplicity and complexity in popular and art music. As I address each queston in turn, I offer basic theoretical principles and practical examples for explaining dissonance treatment in jazz, qualify the applicability of Schenker's theories to jazz, and emphasize the importance of models for creating, explaining, and experiencing jazz.

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of a Bebop Classic to Free Jazz," *Music Theory Spectrum* 19/2 (1997): 206–231; Julie Anne Lindsay, "Analytical Approaches to Jazz Polyphony, With Special Reference to the Use of Pitch-Class Theory in the Works of Toshiko Akiyoshi and Phil Woods" (Masters thesis, La Trobe University, 1995); and Jeff Pressing, "Pitch-Class Set Structures in Contemporary Jazz," *Jazzforschung/Jazz Research* 14 (1982): 133–172. Computer analyses of jazz appear in James Kent Williams, "Themes Composed by Jazz Musicians of the Bebop Era: a Study of Harmony, Rhythm, and Melody" (Ph.D. diss., Indiana University, 1982); and idem, "A Method for the Computer-Aided Analysis of Jazz Melody in the Small Dimensions," *Annual Review of Jazz Studies* 3 (1985): 41–70. For a thoughtful overview of various approaches to jazz analysis and a demonstration of their possible combination, see Gary Potter, "Analyzing Improvised Jazz," *College Music Symposium* 32 (1992): 143–60.

[3]See Steve Larson, "Some Aspects of the Album 'Out of the Woods' by the Chamber Ensemble Oregon," (Masters thesis, University of Oregon, 1981); idem, "*Yellow Bell* and a Jazz Paradigm," *In Theory Only* 6/3 (1982): 31–46; idem, "Schenkerian Analysis of Modern Jazz"; idem, "Dave McKenna's Performance of 'Have You Met Miss Jones?'," *American Music* 11/3 (1993): 283–315; idem, "The Art of Charlie Parker's Rhetoric," *Annual Review of Jazz Studies* 8 (1996): 141–66; idem, "Swing and Motive in Three Performances by Oscar Peterson," *Journal of Music Theory,* forthcoming; Henry John Martin, "*Exempli Gratia:* As You Like It (Chord Substitution in Ellington's 'Satin Doll')," *In Theory Only* 1 (1975): 37; idem, *Charlie Parker;* Owens, "Charlie Parker"; idem, *Bebop: The Music and its Players* (New York: Oxford University Press, 1995); Tom Simon, "An Analytical Inquiry into Thelonious Monk's 'Ruby, My Dear' " (Masters thesis, University of Michigan, 1978); Milton Lee Stewart, "Structural Development in the Jazz Improvisational Technique of Clifford Brown" (Ph.D. diss., University of Michigan, 1973) [reprinted in *Jazzforschung/Jazz Research* 6/7 (1974–75), 141–273]; Steven Strunk, "The Harmony of Early Bop: a Layered Approach," *Journal of Jazz Studies* 6 (1979): 4–53; idem, "Bebop Melodic Lines: Tonal Characteristics," *Annual Review of Jazz Studies* 3 (1985): 97–120; and idem, "Linear Intervallic Patterns in Jazz Repertory," *Annual Review of Jazz Studies* 8 (1996): 63–115.

[4]See, for example, Wilhelm Furtwängler, "Heinrich Schenker: Ein Zeitgemässes Problem, (1947)," *Ton und Wort Aufsätze und Vorträge 1918 bis 1954* (Wiesbaden: F. A. Brockhaus, 1955), 198–204, trans. Jan Emerson as "Heinrich Schenker: a Contemporary Problem," *Sonus* 6/1 (1985): 1–5; André Hodeir, *Jazz: Its Evolution and Essence,* trans. David Noakes (New York: Grove Press, 1956); Charles M. Keil, "Motion and Feeling Through Music," *Journal of Aesthetics and Art Criticism* 24/3 (1966): 337–49; and Smith, "Homer, Gregory, and Bill Evans?"

(1) Is it appropriate to apply to improvised music a method of analysis developed for the study of composed music?

This question implies misconceptions about the content and origins of Schenker's theories. Schenker valued the ability to improvise, calling it "the ability in which all creativity begins,"[5] and often praised the improvisatory character of the masterworks he analyzed.[6] In fact, it would be inaccurate to suggest that Schenker did not study improvisations. Recognizing the overt improvisatory orientations of certain types of pieces, Schenker suggested that "it would be of greatest importance today to study thoroughly the fantasies, preludes, cadenzas, and similar embellishment which the great composers have left to us."[7] Indeed, any musical composition may be considered a record of a successful improvisation.

Schenker's essay "The Art of Improvisation" suggests that the study of improvisatory music was important in the development of his theories.[8] He discusses a chapter from C. P. E. Bach's *Essay on the True Art of Playing Keyboard Instruments* in which Bach offers a record of an improvised free fantasy and a plan or framework (in the form of a figured bass and commentary) for his improvisation.[9] Schenker shows how Bach's plan resembles his own conception of musical structure. As Sylvan Kalib observes, "this article also reveals the corroboration and probable inspiration for some of the major concepts and bases of Schenker's own theories. Schenker points out how his terminology describes more specifically the procedures that Bach calls for, but that both Bach's and his conceptions of musical composition basically constitute one and the same approach."[10]

Indeed, our first question implies misconceptions not only about Schenker's theories, but also about analysis in general. It implies that an analysis is justified by its intent, not by its results. Of course, the opposite is true. André Hodeir writes that "to try to find in [jazz] the formal rigor of European art" would be to listen "with too demanding an ear."[11] But as I demonstrate in this article, to listen without such a demanding ear would be to miss some of the beauty of modern jazz improvisations.

Another implication of the question is that improvised music differs fundamentally from composed music, presumably in that composed music has structure because it is "worked out." Currently available "alternate takes" of jazz performances, which show improvisers working out their solos in successive takes, should help to dispel any notion that a sharp line divides improvisation and composition. By the same token, we should keep in mind that even though jazz solos typically vary much more from performance to performance than do other sections (such as closing theme statements, introductions, interludes, and endings), improvisation and variation may both occur throughout a jazz performance. The distinction between composition and improvisation is not always clear-cut.[12]

The commonly made analogy between music and language underscores the importance of not overemphasizing differences between improvisation and composition. Schenker's

[5]Heinrich Schenker, *Free Composition,* trans. and ed. Ernst Oster (New York: Longman, 1979), 6.

[6]For a discussion of Schenker's ideas concerning improvisation, see John Rink, "Schenker and Improvisation," *Journal of Music Theory* 37/1 (1993): 1–54.

[7]Schenker, *Free Composition,* 7.

[8]Heinrich Schenker, "The Art of Improvisation," trans. Richard Kramer, in *The Masterwork in Music, Volume I,* ed. William Drabkin (Cambridge: Cambridge University Press, 1994), 2–19.

[9]Carl Philipp Emanuel Bach, *Essay on the True Art of Playing Keyboard Instruments,* trans. and ed. William Mitchell (New York: Norton, 1949). See Chapter 7, "Improvisation: the Free Fantasia," 430–45.

[10]Sylvan Kalib, "Thirteen Essays from the Three Yearbooks *Das Meisterwerk in der Musik* by Heinrich Schenker: an Annotated Translation" (Ph.D. diss., Northwestern University, 1973), vol. 3, p. 4.

[11]Hodeir, *Jazz,* 164.

[12]Simon, "An Analytical Inquiry," and Smith, "Homer, Gregory, and Bill Evans?" make this point.

theories describe musical structure in ways that are analogous to the ways in which Chomsky's theories describe the structure of spoken language.[13] Both theorists distinguish between the *surface* of music or language and a more abstract, *underlying* structure. And both theorists show how the surface may be thought of as derived from the underlying structure by processes of transformation. No one who accepts Chomsky's claims about the structure of sentences would asssert that spoken language, solely because it is improvised, lacks the underlying structure that can be found in written language. Likewise, no one who accepts Schenker's claims about underlying structure in phrases of music ought to assert that unnotated jazz, solely because it is improvised, lacks the underlying structure that can by found in composed music.[14]

Even if one suspects that there are significant differences between the structures of composed and improvised music, one should not therefore rule out Schenkerian analysis of improvised jazz. On the contrary, such differences would seem to encourage structural analysis: how else could those differences be identified and understood?

(2) Can features of jazz harmony (ninths, elevenths, and thirteenths) that do not appear in the music Schenker analyzed be accounted for by Schenkerian analysis?

This question implies misconceptions about the function of "dissonance" in both classical music and jazz.[15] So-called ninths, elevenths, and thirteenths occur in both repertories. And in either case, the functions of upper chord tones—including the seventh—are best explained in terms of their melodic relationships with more stable notes at more basic structural levels.

In classical art music, one can find pitches whose functions may seem difficult to explain in conventional terms. For example, sevenths, ninths, elevenths, and thirteenths may appear unprepared. They may be embellished before they resolve. They may remain unresolved until or after a change of harmony. They may not be explicitly resolved in their own register. They may appear simultaneously with the tone to which they will resolve. They may "resolve" to notes that are dissonant.

In their harmony/voice-leading text, in a chapter entitled "Seventh Chords With Added Dissonance," Aldwell and Schachter offer examples of all of these.[16] The authors' explanations of the functions of these tones invoke Schenkerian principles of voice-leading and hierarchical structure:

> Partly because these tones typically appear in the highest voice, some theorists refer to such 4ths and 6ths as "11ths" and "13ths." These terms also result from the erroneous idea that such dissonances are chordal in origin, that "9ths," "11ths," and "13ths" result from

[13]Noam Chomsky, *Syntactic Structures* (The Hague: Mouton, 1957); *Aspects of the Theory of Syntax* (Cambridge: Harvard University Press, 1965); *Language and Mind* (New York: Harcourt Brace Jovanovitch, 1968).

[14]Note that this analogy between music and speech is restricted to the level of sentences of speech and phrases of music. Schenker's claims about the structure of larger musical units are controversial and find no easy analogy with Chomsky's theories. But since, in jazz, we are dealing mostly with the eight-measure units that make up the phrases of a theme and variations, the structure of larger musical units is not a central concern. And in any case, the structures of larger musical units in jazz performances tend to be more a result of the simple fact that the performance is a theme and variations than a result of any improvisational impulse on the part of the performer.

[15]Disagreements among music theorists—even among Schenkerians—about the function of "dissonance" are not uncommon. See Steve Larson, "The Problem of Prolongation in *Tonal* Music: Terminology, Perception, and Expressive Meaning," *Journal of Music Theory* 41/1 (1997): 101–36.

[16]Edward Aldwell and Carl Schachter, *Harmony and Voice Leading,* 2nd ed. (New York: Harcourt Brace Johanovich, 1989), 123–35. In their example of a dissonance that appears with its resolution, Aldwell and Schachter note the importance of the fact that the dissonance and the pitch of resolution occur in different registers. Of course, one may also find examples of dissonance and resolution appearing in the same register (e.g., an *acciaccatura* in a Scarlatti keyboard sonata may described as the simultaneous appearance of an appoggiatura and its resolution in the same register).

adding 3rds above seventh chords. In some twentieth-century music, dissonant chords might really result from the piling up of 3rds. . . . But in earlier music, dissonant chords originate in melodic motion, not in the piling up of vertical intervals. There is no reason, therefore, to regard "11ths" and "13ths" as anything but 4ths and 6ths that replace, rather than resolve to, 3rds and 5ths belonging to seventh chords. Some passages in music of the late nineteenth century might, perhaps, form an intermediate category. (451)

As an example of dissonant chords that really do result from the piling up of thirds, the authors cite a passage from Ravel's "Valse nobles et sentimentales." Even for this passage, they offer an explanation that invokes Schenkerian principles of voice-leading and structure.[17] Thus it appears that Aldwell and Schachter would also use Schenkerian analysis to explain "passages in music of the late nineteenth century that might form an intermediate category."[18]

Other phenomena in classical music may seem even more difficult to explain. For example, passages of parallel motion in dissonant intervals defy conventional explanations.[19] Similar problems arise for pieces that appear to begin and end in different keys,[20] or that end with dissonant or non-tonic sonorities (e.g., Chopin's Mazurka in A minor op. 17, no. 4, and Prelude in F major op. 28, no. 23). Schenkerian analysis would be successful in illuminating such non-standard phenomena even if it only served to show how they depart from more standard phenomena. And yet the published analyses of Schenker and his followers demonstrate that his theories go beyond mere definition and identification.[21]

Notes whose functions defy conventional explanations are more common in jazz than in classical music.[22] Of course, the terms "jazz" and even "modern jazz" encompass a wide variety of styles and approaches to the treatment of dissonance. Nevertheless, sevenths, ninths, elevenths, and thirteenths play a central role in the sound of modern jazz. Although these dissonances may receive greater emphasis and may be treated more freely in modern jazz than in classical music, their basic meaning remains the same: a dissonance derives its meaning from more stable pitches at deeper structural levels.

[17]Ibid., 451.

[18]For a possible example of such a passage, consider the piling up of thirds that begins the Brahms Intermezzo in B minor, opus 119 no. 1. Schenkerian analyses of this piece appear in Allen Cadwallader, "Motivic Unity and Integration of Structural Levels in Brahms's B minor Intermezzo, Op. 119, No. 1," *Theory and Practice* 8/2 (1983): 5–24; Felix Salzer, *Structural Hearing: Tonal Coherence in Music* (New York: Charles Boni, 1952; reprint, New York: Dover Publications, 1962); and Allen Forte and Steven E. Gilbert, *Introduction to Schenkerian Analysis* (New York: Norton, 1982), 215, 227–28.

[19]See Aldwell and Schachter, *Harmony and Voice Leading,* 529–35.

[20]See Harald Krebs, "Alternatives to Monotonality in Early Nineteenth-Century Music," *Journal of Music Theory* 25/1 (1981): 1–16.

[21]It is also always possible that, in individual cases, the appearance of non-standard phenomena may be an indication of aesthetic weakness. Schenker used his analytic method to point up what he considered deficiencies in the music of Stravinsky and Reger; see *The Masterwork in Music, Volume I,* 1–22, 106–17. Regardless of how one might feel about these particular judgments by Schenker, it should be easy to imagine examples of both classical music and jazz in which non-standard phenomena indicate artistic weaknesses.

[22]The fact that sevenths, ninths, elevenths, and thirteenths may make the surface of modern jazz more harmonically complex than that of some classical music creates problems not only for the theorist but for the listener and performer as well. When dissonances appear more often and are treated more freely, they lose some of their emotional impact. Further, as Tinctoris observed, improvisation often leads to a certain relaxation in the requirements of strict composition. See Johannes Tinctoris, *The Art of Counterpoint,* trans. and ed. Albert Seay (American Institute of Musicology, 1961). While such freedom initially makes improvisation easier, the loosened—or more subtle—impact of dissonances freely treated may make it more difficult for the improviser to create an artistically moving statement. In addition, this more subtle impact may initially place a greater burden on the listener's ability to understand some modern jazz performances. (Of course, freer dissonance treatment may pose the same dilemma for composers of some non-jazz styles, too.)

Steven Strunk has described the distinctive contribution of sevenths, ninths, elevenths, and thirteenths to modern jazz.[23] His explanation of the function of these tones invokes Schenkerian principles of voice-leading and structure, echoing Aldwell and Schachter's explanation of the same phenomena in classical music:

> The terms "chordal extension" and "superimposition" have been used along with numerical designations for these tones when they are explained as arising from superimposed thirds over the chord root. This explanation is probably not the best way to understand the phenomenon, as these notes generally behave as melodic, not harmonic, events. I have maintained the numerical designations in [my] discussion because of their firmly established general use. However, in order to separate these pitches from the vertical concept of chordal extension, [I refer to] these and certain other notes . . . collectively as tensions, defined as follows: In a tonal diatonic setting, a tension is a pitch related to a structurally superior pitch (usually a chord tone) by step, such that the tension represents and substitutes for the structurally superior pitch, called its resolution, in the register in which it occurs. Most tensions are located a step above their resolutions. The concept of tension is broader than that of suspension, appoggiatura, passing tone, or neighbor tone, as there is no requirement of manner of approach, manner of leaving, or rhythmic position in its definition.[24]

Strunk notes that "the sense of dissonance of a tension derives, usually, from a potential seventh interval between the tension and a chord tone below it"[25] and goes on to describe contextual limitations on the use of tensions within jazz style. These limitations include constraints on voice-leading:

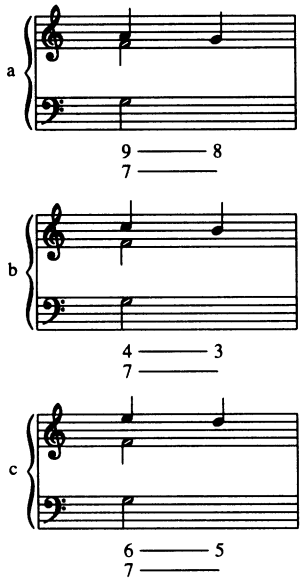
> A potential tension will be avoided if it might obscure the local harmonic progression. For example, $\hat{7}/II^7$ (a thirteenth) in a II^7–V^7 progression would interfere with one of the essential lines of the progression, $\hat{8}/II^7$–$\hat{7}/V^7$, so it is avoided.[26]

In order to understand the functions of these tensions, it is necessary to understand how they resolve. Strunk notes that "the resolution of a tension sometimes occurs immediately on the surface of the composition, before the chord supporting the tension changes."[27] Models of such immediate resolutions appear in Example 1. In strict counterpoint, such tensions may appear as passing tones or neighbor notes (third species) or as suspensions (fourth species). Of course, these tensions appear in the cited species of strict counterpoint without an accompanying seventh. Nevertheless, the meanings of such "ninths" (Example 1a), "elevenths" (Example 1b), and "thirteenths" (Example 1c) are better explained in Schenkerian terms, as embellishments of more basic structures, than in purely "harmonic" terms, as deriving from chords that are stacks of thirds.

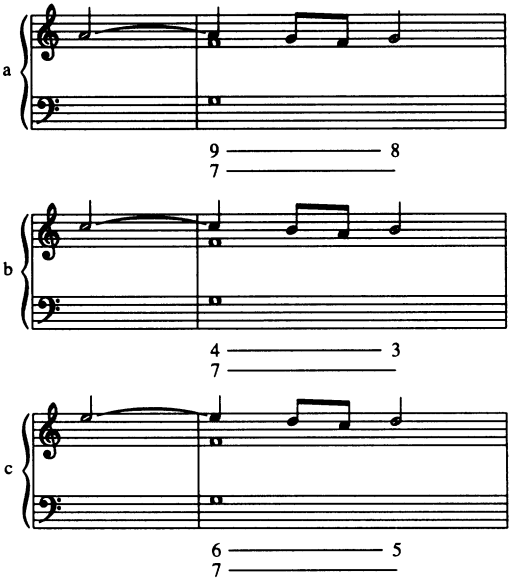
Strunk also describes resolutions that are delayed: "Only slightly more elaborate than immediate resolution is the case of a resolution which is delayed by melodic ornament, but not delayed so long as to allow the chord to change before the resolution appears."[28] Models of such delay by melodic ornament appear in Example 2. In strict counterpoint, such delays may appear as embellished suspensions in fifth species. Again, the meanings of such "ninths" (Example 2a), "elevenths" (Example 2b), and "thirteenths" (Example 2c) are better explained in Schenkerian terms than in purely "harmonic" terms. As Strunk observes, "such immediate and relatively immediate resolutions of tensions are extremely common in bebop melodies."[29]

[23]Strunk, "Bebop Melodic Lines."
[24]Ibid., 97–98.
[25]Ibid., 98.
[26]Ibid., 99.
[27]Ibid., 110.
[28]Ibid.
[29]Ibid.

Example 1. Immediate resolutions of "ninths," "elevenths," and "thirteenths"



Example 2. "Ninths," "elevenths," and "thirteenths" delayed by embellishment



Strunk cites four cases in which a tension may find another kind of resolution. However, we shall see that, in each case, the meanings of those tensions still arise from their melodic relationships to more basic structures.

The first involves $\flat\hat{7}/V^7$, whose juxtaposition of the lowered and raised seventh scale degrees occurs also in classical music:

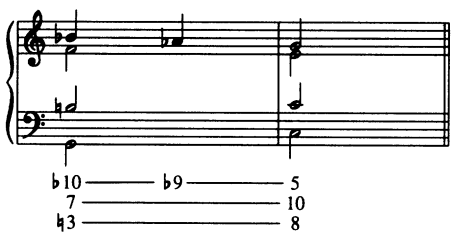
> The minor-derived $\flat\hat{7}/V^7$ (an augmented ninth), receiving its dissonance from the chord tone $\hat{7}$ a major seventh below, can resolve that dissonance by progressing to $\flat\hat{6}$, itself a minor ninth tension, dissonant with the root.[30]

[30]Ibid., 99.

Example 3 offers a model of the resolution of an "augmented ninth" in the context of a V–I progression (although this tension is usually called an "augmented ninth," it is usually spelled—correctly—as a minor tenth).[31] Note that, in this example, the B♭ depends for its meaning upon resolution to an A♭, which in turn resolves to G. Thus, even the tension resolved by another tension depends on resolution to a more stable tone at a deeper structural level.

[31]Strunk might also have pointed out that the minor ninth forms a diminished seventh with, and therefore is also dissonant with, the third of the chord. The minor tenth, however, forms a more acute dissonance—a diminished octave—with the leading tone.

Example 3. The resolution of an "augmented ninth" in the context of a V–I progression



The second case of unorthodox resolution involves $\hat{6}$/I, whose function is distinctive in jazz. As Strunk points out,

> $\hat{6}$/I is not dissonant with the root; nor does it form a seventh interval with a lower basic chord tone; yet it is not a triad member. It can behave as a tension standing for, and resolving to $\hat{5}$/I. But its consonant character enables it to serve as the resolution of $\hat{7}$/I, the major seventh tension, and this is its most usual role: an unresolved addition to I, not standing for $\hat{5}$ (which is often voiced a step away from it), but also not a chord tone.[32]

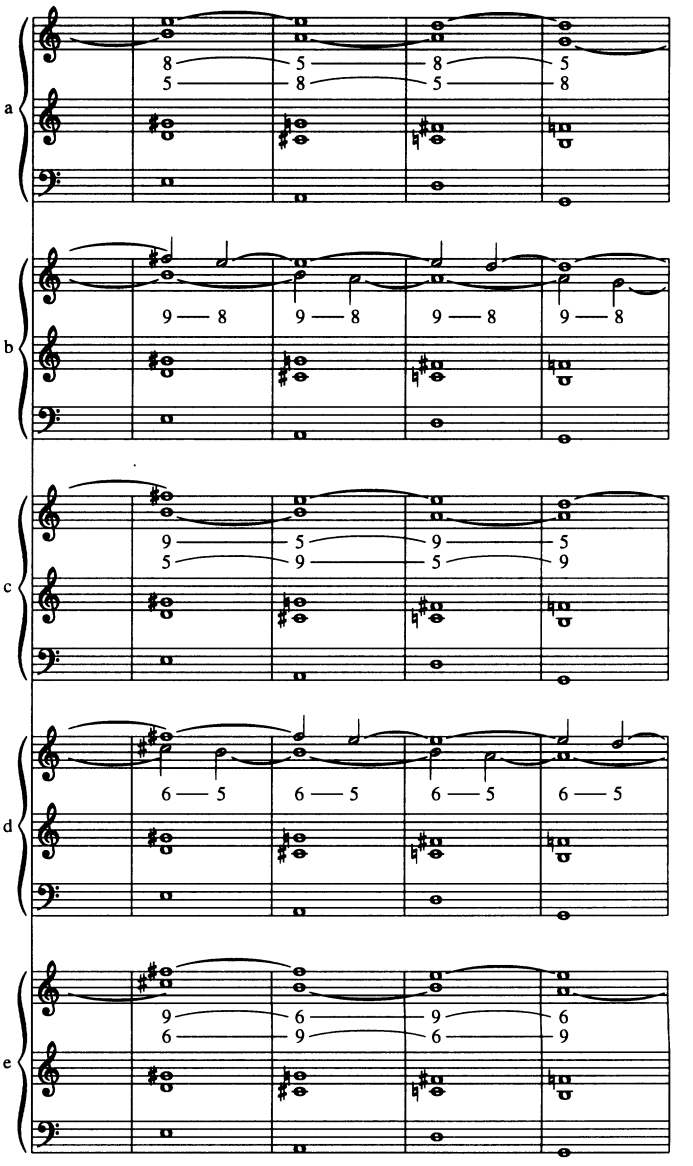
The third case arises when tensions do not resolve until or after their chord has changed. As before, a tension may be resolved by a note that, because of the change of harmony, is itself a tension. Thus,

> "chains" of stepwise tensions are possible when the progression is sequential, a common pattern being the alternation of melodic ninths and thirteenths. This chain of suspensions is derived by contraction (or elision) from a standard linear intervallic pattern of fourth species counterpoint.[33]

Example 4 offers a model of such a chain of ninths and thirteenths. Viewing the model's levels starting with level a and progressing to e, it may be seen as a means of generating

[32]Ibid., 99.
[33]Ibid., 111.

Example 4. Chains of "ninths" and "thirteenths"



ninths and thirteenths through the delay of pitches of a 5–8 linear intervallic pattern.[34] Viewed from level e back through a, it may be seen as a means of analytically reducing such ninths and thirteenths to more stable intervals at deeper structural levels.

Finally, Strunk describes how a tension, without changing pitch, may become a consonance after a change of harmony:

> Sometimes a tension sustains through a chord change to become a consonance, thereby losing its "need" to resolve. For example, this effect is produced whenever $\hat{5}/V^7$ is reharmonized as $II^7–V^7$.[35]

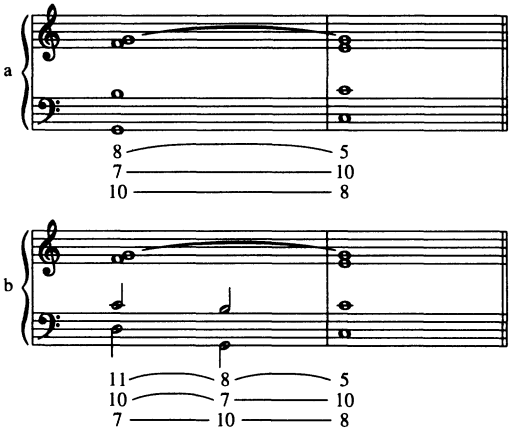
Example 5 offers a model of such an "eleventh." Again the model may be viewed as a means of generating such elevenths (Example 5a to b) or as a means of analytically reducing such elevenths to consonances at deeper structural levels (Example 5b to a). But notice that this example implies a slightly different explanation of the function of the "eleventh." Since the $\hat{5}$ and the V^7 in Example 5a appear at a more remote level of structure (they are "more structural"), the "eleventh" in Example 5b is not a "dissonance" at all—rather, the G is the structural tone, while the lower voices are "dissonant." The $\hat{2}$ in the bass is the fifth of the V chord that controls the time span of both chords, and the $\hat{8}$ is a note of embellishment (a suspension, as is typical).[36]

[34]In each level of Example 4, the 5–8 linear intervallic progression (top staff) is accompanied by a 7–10 linear intervallic progression (middle staff) above a circle-of-fifths bass (lowest staff). Strunk actually explains such chains of ninths and thirteenths as arising from the "contraction" of a 7–6 linear intervallic progression between those tensions and the thirds and sevenths of their chords (ibid., 111). While our explanations differ, we agree that these tensions have melodic origins in the delay of dissonance resolution. For more on linear intervallic patterns, see also Strunk, "Linear Intervallic Patterns."

[35]Strunk, "Bebop Melodic Lines,"112.

[36]Of course, both jazz and classical music also include dissonances that become consonances, "thereby losing their 'need' to resolve," but these are best described as "anticipations."

Example 5. An "eleventh"



My response to the second question posed above has stressed significant similarities between dissonance treatment in classical music and in jazz. However, there are also significant differences. While Schenkerian analysis can explain a great deal about modern jazz, some features of modern jazz performances may remain difficult to explain. Such anomalies include: parallel motion in perfect fifths and octaves; parallel motion in dissonant intervals; dissonances added to final tonic sonorities; dissonances that do not resolve until or after a change of harmony; dissonances that are resolved by dissonances; dissonances and their resolutions sounding in the same register; uses of dissonances and even "polychords" in ways that seem to function more to add color than to expand voice-leading content; and pieces that begin and end in different keys.[37]

[37]Again, it is also always possible that, in individual cases, the appearance of non-standard phenomena may be an indication of aesthetic weakness. They may also be associated with a style that is unusual within modern jazz. Almost all of these features can be found in the various versions of "Round Midnight"

It is also clear that some of the music of "post-modern jazz" strays far enough from tonic-dominant tonality to make the application of Schenkerian analysis untenable. It is difficult in any case to draw a distinct line separating modern jazz from post-modern jazz (especially since some performers play both).

Thus while my second question must be qualified, my answer must be qualified as well. I am reminded of how Steven E. Gilbert qualifies his application of Schenkerian analysis to the music of Gershwin:

> Since Gershwin wrote basically tonal music, it is reasonable that we adopt a modified Schenkerian approach. However, the word "modified" must be stressed. The main point of difference is that in Gershwin's harmonic language the dissonance had at least been partially—to use Schoenberg's word—emancipated. The triad was still necessary for closure, but dissonances such as ninths and so-called thirteenths did not require resolution.[38]

However, the analyst must be careful not to dismiss as "emancipated dissonances" tensions that are skillfully resolved. Good modern jazz frequently features such skillful voice-leading.

Only detailed Schenkerian analyses of recorded performances can establish the limits and value of applying his method to jazz.

(3) Do improvising musicians really intend to create the complex structures shown in Schenkerian analyses?

This question makes too much of the artificial distinction between composition and improvisation. (It also courts the "intentional fallacy"—the mistake of confusing one's experience of a work of art with knowledge of its creator's intentions.[39]) For example, Gregory Smith writes that Schenkerian analysis does not "take the circumstances of composition in performance fully into account."[40] He suggests that

> an analysis conditioned by a more realistic image of the kinds of relationships a player is capable of developing and sustaining in the course of performance would, presumably, be couched in less ingenious explanations of the melodic organization. Such analysis would seek to reveal devices of structure and expression of a sort a player could conceivably master in performance.[41]

Smith argues that Bill Evans could not conceive and develop the kinds of relationships shown in a Schenkerian analysis in the act of improvising. He contends instead that Evans relied on a set of formulas chosen merely because they fell readily under the hand.

Of course, jazz improvisations do contain formulas. But so do improvisations in other idioms—and in fact, so do notated compositions. What is significant to the listener is the structure created by those formulas. While Smith intends to

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transcribed in my dissertation (173–301), but they do occur most often in Monk's playing (see especially the last two measures of the introduction and the last two measures of the ending of the studio recording). Monk was unusual among modern jazz pianists (in fact, some consider his playing to be of a style other than modern jazz), and some of the distinctive quality of his playing results from unusual dissonance treatment.

[38]Steven E. Gilbert, "Gershwin's Art of Counterpoint," *The Musical Quarterly* 70/4 (1984): 423. See also Steven E. Gilbert, *The Music of Gershwin* (New Haven: Yale University Press, 1995).

[39]According to popular misconception, to inquire as to the composer's intentions is to commit the intentional fallacy. In fact, I have heard one gifted analyst refer to attempts to ignore the composer's intentions as "the intentional fallacy fallacy." I would call that view the "intentional fallacy fallacy fallacy." One does not commit the intentional fallacy by inquiring or conjecturing about the composer's intentions. One only commits the intentional fallacy when one confuses those intentions with one's own experience of the work. For more on the intentional fallacy, see Monroe C. Beardsley, *Aesthetics: Problems in the Philosophy of Criticism* (New York: Harcourt, Brace, and World, 1958). A recent discussion of intention and analysis appears in Ethan Haimo, "Atonality, Analysis, and the Intentional Fallacy," *Music Theory Spectrum* 18/2 (1996): 167–99. For a discussion of intention and jazz analysis, see Martin, *Charlie Parker*, 36–37.

[40]Smith, "Homer, Gregory, and Bill Evans?" 91.

[41]Ibid, 126–27.

limit the notion of formula to descriptions of pitch groupings that are contiguous in the foreground, it is also clear that jazz improvisations contain "formulas" at deeper levels of musical structure.[42]

The following dialogue between jazz pianist Marian McPartland (MM) and the late Bill Evans (BE) suggests that Smith may have made some inappropriate assumptions about Bill Evans's limitations.[43]

BE: I always have, in anything that I play, an absolutely basic structure in mind. Now, I can work around that differently, or between the strong structural points differently, but I find the most fundamental structure, and then I work from there.

MM: Well, when you say structure, you mean, like, one chorus in a certain style, another . . .

BE: No, I'm talking about the abstract, architectural thing, like the theoretical thing. Now, like, on this tune ["The Touch of Your Lips"], the structure I would think of, basically, is . . . all right, in the key of C [Example 6, pickups], this tune. Now, y'all would think of it as a C [Example 6, m. 1] to its dominant, or the G^7 with . . . we'll just say, for now, G^7, [Example 6, m. 2] back to the C [Example 6, mm. 3–4]. Now all this time I'm also thinking of all this happening over a pedal point [Example 6, m. 4], because I want to set up a plane—a bottom—out of which the rest of the tune will spring, you see. Now, if we just played the roots [Example 7], you see how different that sounds than setting up this [Example 8].

MM: Yeah. You see, that has some kind of mystery to it.

BE: Now that's all added to the basic structure; we only had really the C and the G at first [Example 9]. Now we can go around this, see [Example 10, mm. 1–4], see [Example 10, m. 5]. Now we start moving away from the thing into the [Example 10, m. 6], see, because we're going through now a cycle [Example 10, mm. 7–8]—so this is what I would be thinking about [Example 10, m. 9]—now again [Example 10, mm. 10–11]. Now we're gonna modulate to E major through its own dominant [Example 10, mm. 12–15]. Now we gotta get back to C through its dominant [Example 10, mm. 16–32].

BE: Now, like, say, in the fake book [Example 11], you would get something like this [Example 12] . . . You get this [Example 13].

MM: Not even that good.

BE: Now at the end you might get this [Example 14, mm. 25–26], I guess. I don't know what they'd give you here [Example 14, mm. 27–28] . . .

MM: Probably give you a G in the bass.[44]

BE: . . . and a D^7 [Example 14, m. 29] and a G^7 [Example 14, m. 30]. But we can get this kind of motion out of that. Now, all right, I'm thinking of the basic structure [Example 15]. I didn't do that too well, but hear what you can do that makes sense over this basic structure.

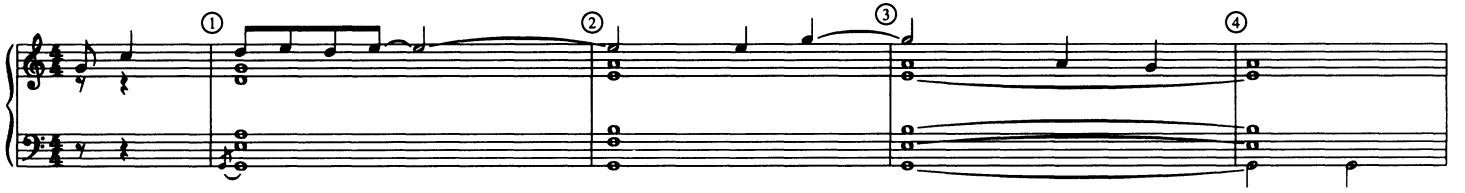
Smith is rightly concerned that assumptions about the creative process could mislead analysis. However, Smith's assumptions about Bill Evans's limitations seem to have misled him. Evans was not only capable of developing and sustaining the kinds of relationships shown in a Schenkerian analysis, but was able consciously to articulate them. I will support this point in the following discussion by confirming and elucidating Evans's explanation of "fundamental structure"; by offering examples of the analytic reduction of sevenths, ninths, elevenths, and thirteenths; and by emphasizing the importance of voice-leading models in creating, experiencing, and explaining music.

[42]For more on formula and jazz analysis, see the references listed in note 1, especially Martin, *Charlie Parker*.

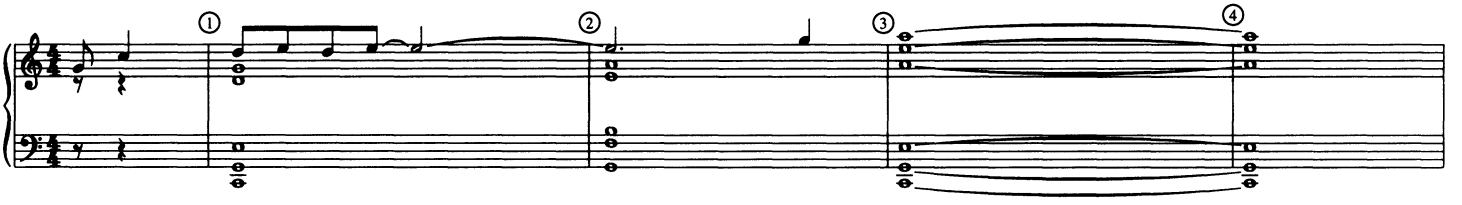
[43]The interview in which this dialogue appears was recorded on 6 November 1978 and has been broadcast on the National Public Radio series "Marian McPartland's Piano Jazz." It was released on compact disc as *Marian McPartland's Piano Jazz with guest Bill Evans* (The Jazz Alliance TJA-12004). The transcriptions are mine.

[44]McPartland's comment, "Probably give you a G in the bass," describes an important aspect of the song. (This G, although it does not appear in either of the lead sheets reproduced in Example 11, does appear in the published sheet music.) I have placed a G in parentheses beneath what Evans plays in Example 14, mm. 27–28. In his improvisation (Example 15), Evans plays a G in the bass at the beginning of m. 27.

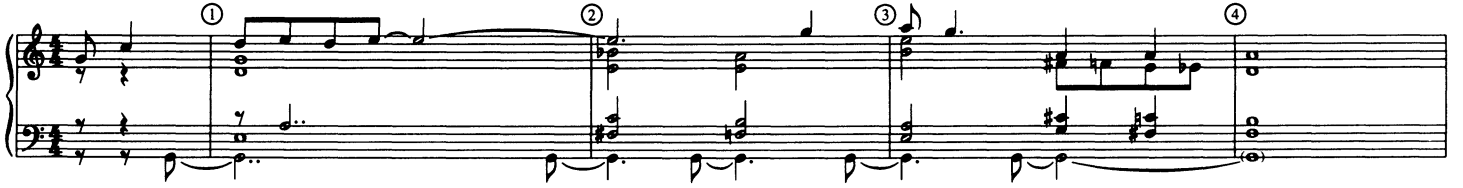
Example 6. Transcription of Evans's plan for "The Touch of Your Lips" mm. 1–4



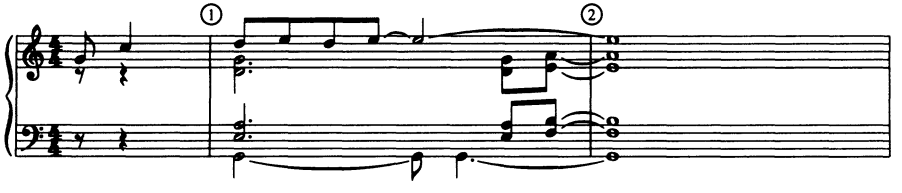
Example 7. Transcription of Evans's plan for "The Touch of Your Lips" mm. 1–4, with tonic and dominant roots



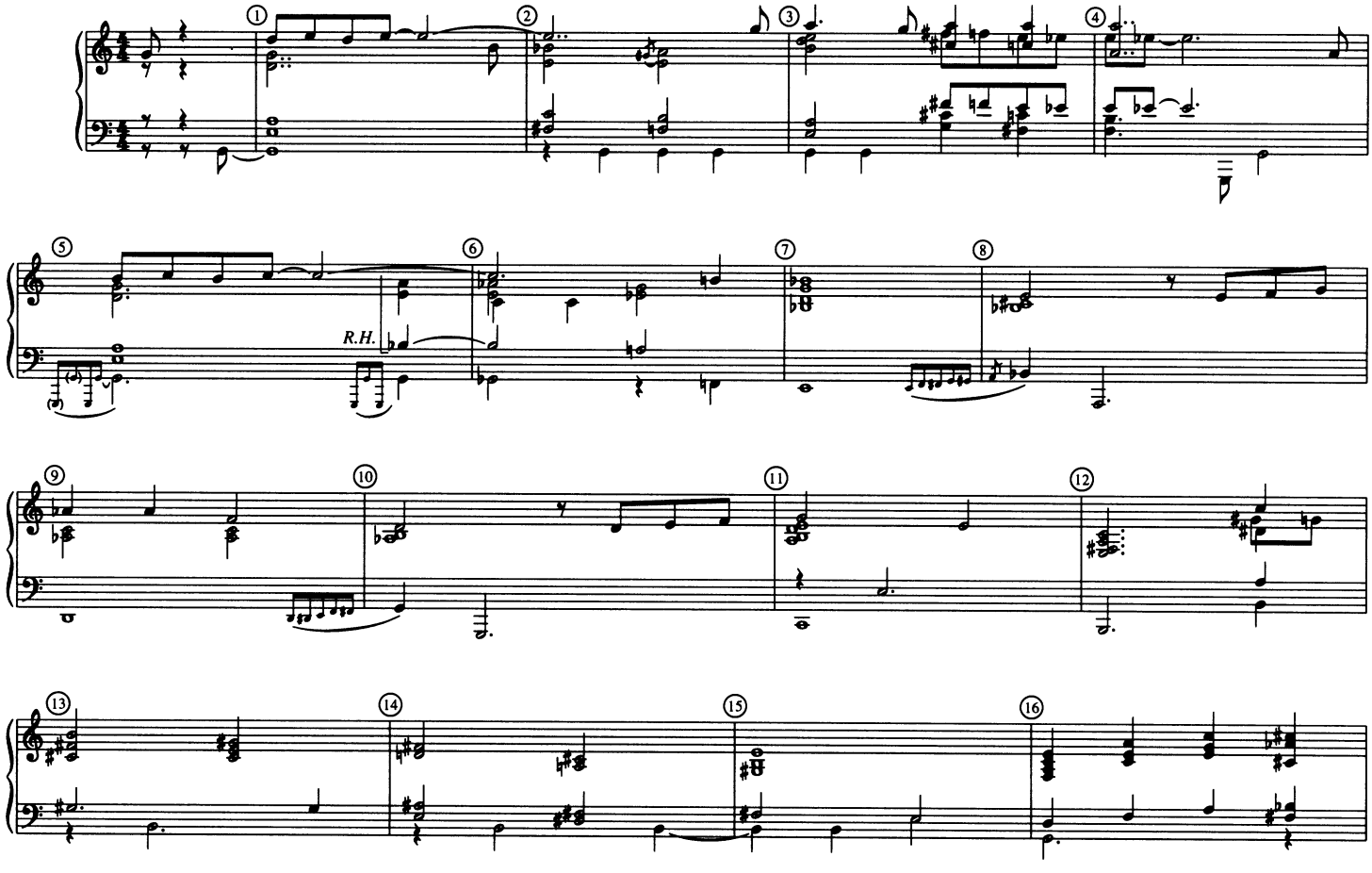
Example 8. Transcription of Evans's plan for "The Touch of Your Lips" mm. 1–4, with dominant pedal



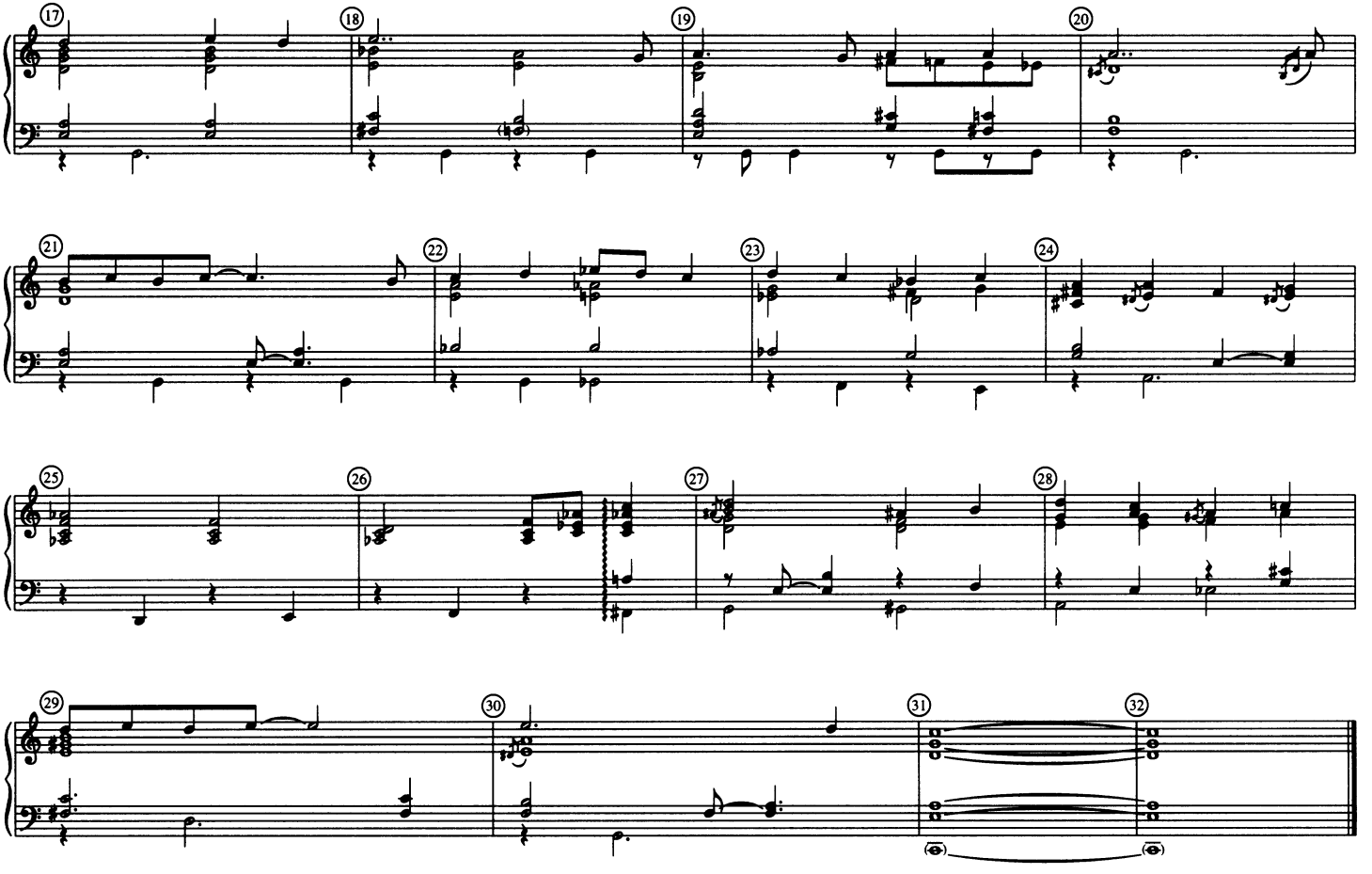
Example 9. Transcription of Evans's plan for "The Touch of Your Lips" mm. 1–2



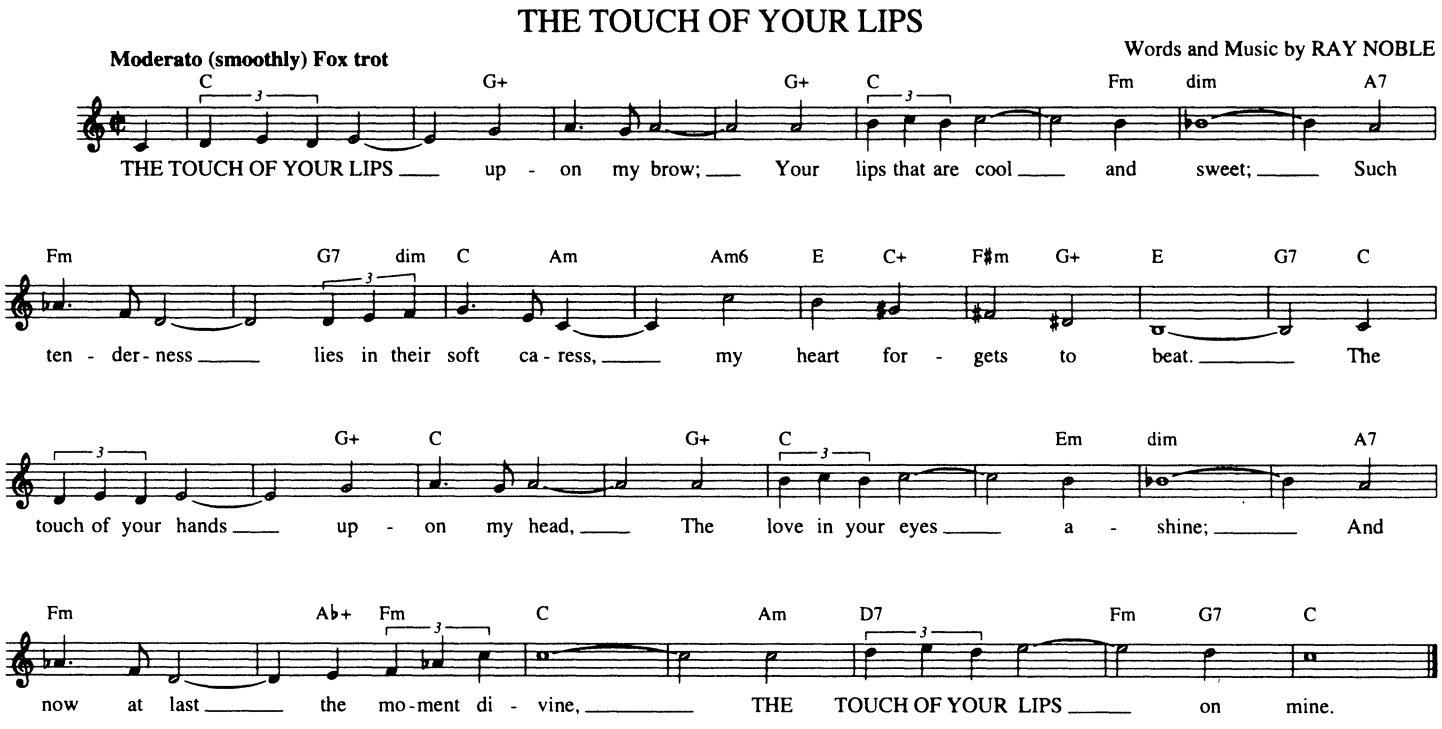
Example 10. Transcription of Evans's plan for "The Touch of Your Lips" mm. 1–32



Example 10 [*continued*]



Example 11. Lead sheets of "The Touch of Your Lips" as found in two different fake books

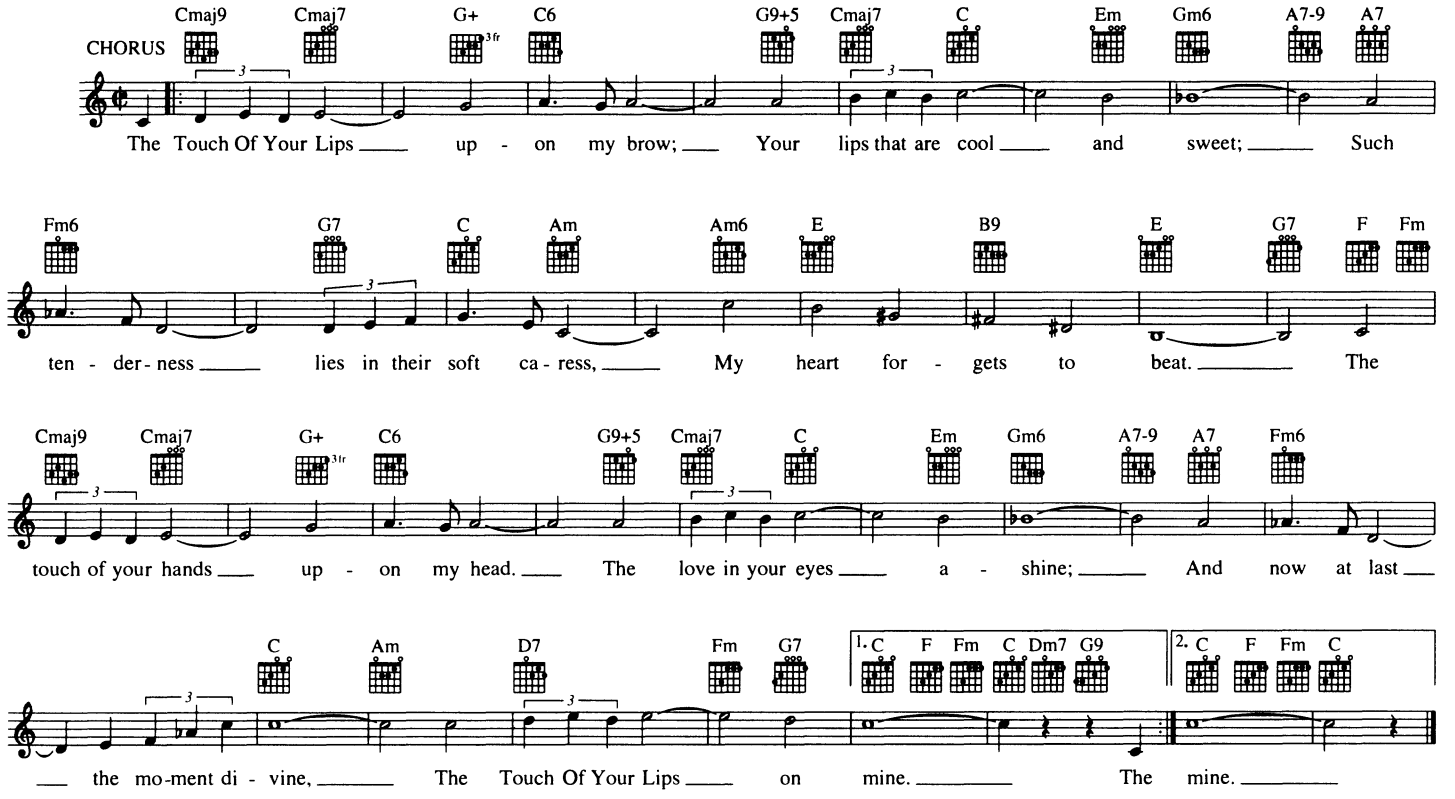


Example 11 [*continued*]

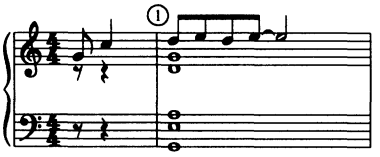
THE TOUCH OF YOUR LIPS

Words and Music by RAY NOBLE

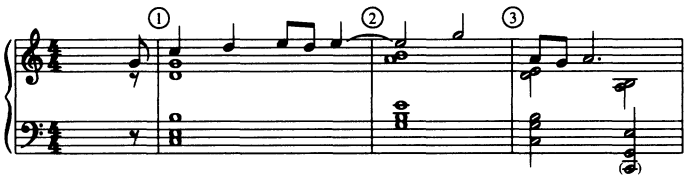
Moderately Slow, with expression



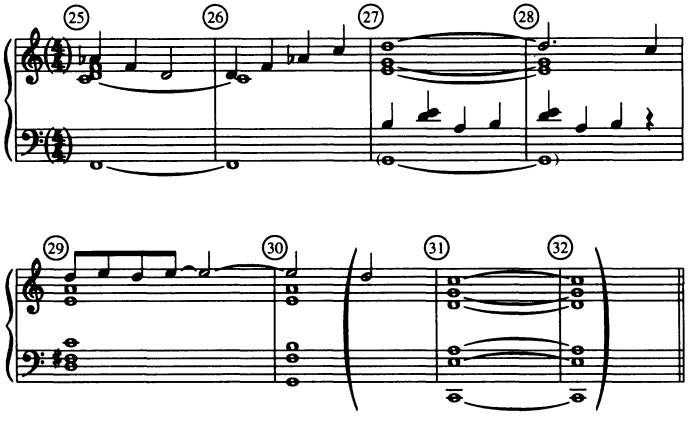
Example 12. Transcription of Evans's performance of a "fake book" version of "The Touch of Your Lips" m. 1



Example 13. Transcription of Evans's performance of a "fake book" version of "The Touch of Your Lips" mm. 1–3



Example 14. Transcription of Evans's performance of a "fake book" version of "The Touch of Your Lips" mm. 25–[32]



Just as a plan by C. P. E. Bach can serve as an analysis of his improvisation, so can Bill Evans's explanations serve as an analysis of his improvisation.[45] For example, consider Evans's explanation of mm. 1–4 of "The Touch of Your Lips." Example 16 juxtaposes his different views of these measures. As in a Schenkerian analysis, information lies in the relationships between levels.

Evans's spoken comments (Example 16a–c) describe mm. 1–4 as an alternation of tonic and dominant over a dominant pedal. When Evans later refers to "moving away from the thing," we should understand "the thing" as a unit: the opening tonic prolongation. Example 16d reproduces Example 6. Evans's description of m. 2 as G^7 is a simplification that may viewed as an analytic reduction: this reduction reflects the ornamental function of the ninth and thirteenth that appear in the right hand.

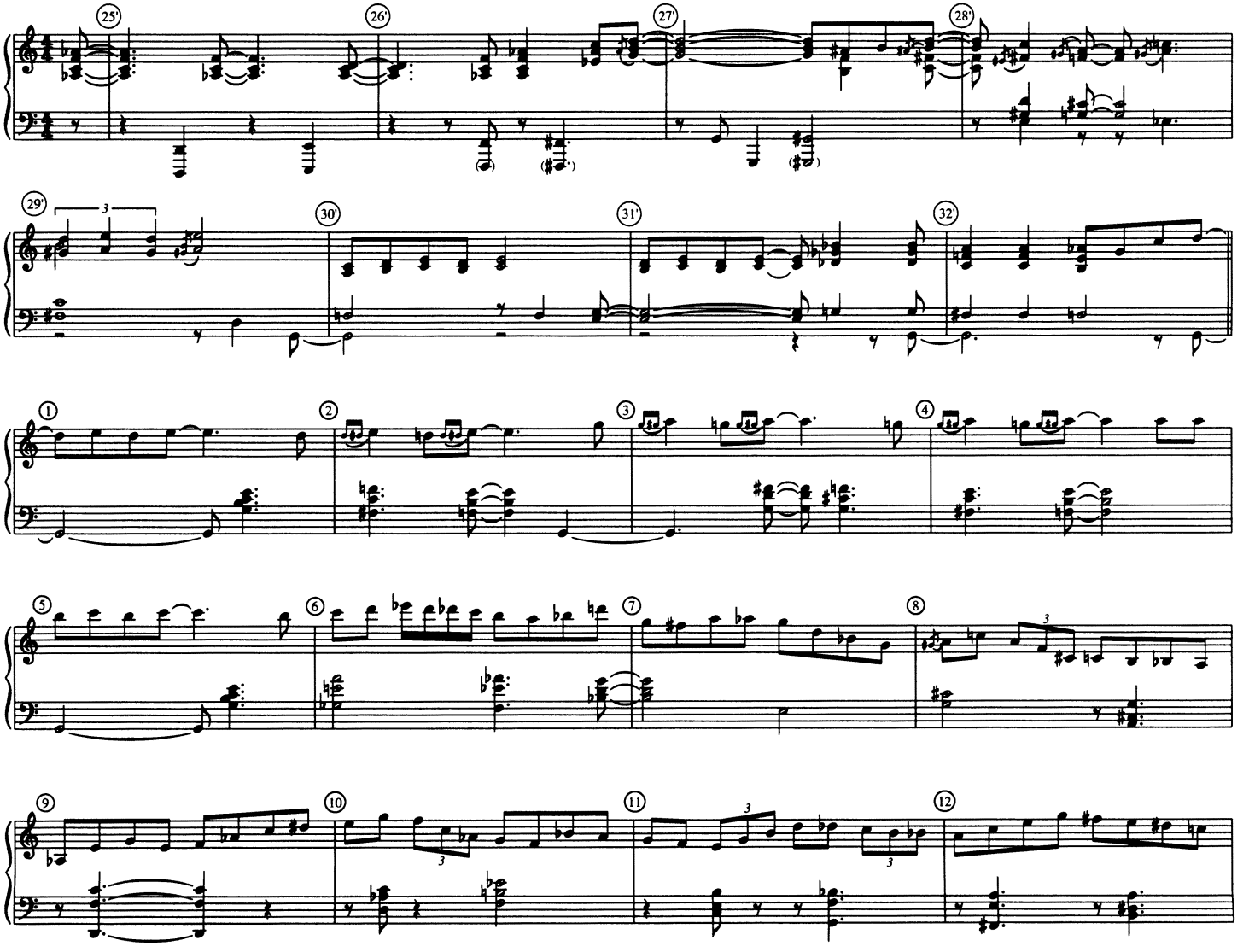
Example 16e reproduces Example 8 and resembles mm. 1–4 and 17–20 of Example 10. Pitches introduced at this level may be described as sevenths, ninths, elevenths, and thirteenths, but their function within this tonic prolongation is clearly ornamental and horizontal.[46] All of these resolve down by one or more half steps to pitches that appear on the

[45]My response to the second question above might lead one to reformulate the third question in terms that distinguish between C. P. E. Bach's and Evans's improvisations, noting that Bach creates the plan of his improvisation while Evans improvises on a pre-existing theme. However, while their improvisations may be distinguished from one another in this and a number of other ways, such a distinction would be misleading with regard to differences between classical music and jazz. Many jazz musicians improvise on themes of their own creation. And many classical composers have improvised and composed variations on themes composed by others—in fact, upon themes that were popular songs!

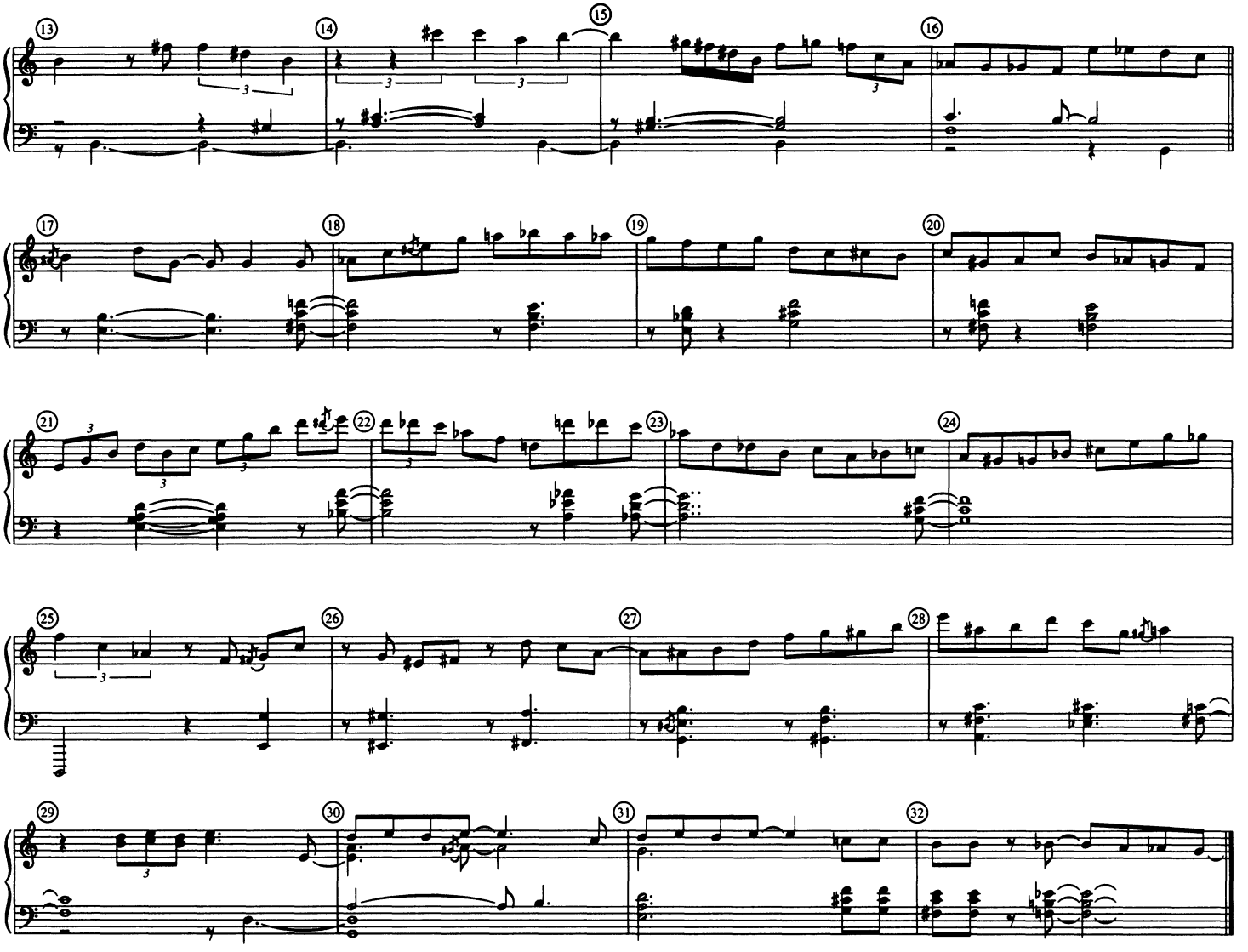
[46]Traditional jazz theory might label the harmonies of Example 16e as follows:

m.	1	2		3			4
	C^6_9	$D^{9(\flat 13)}$	G^{13}	C^6_9	$A^{7(13-\flat 13)}$	$D^{7(9-\flat 9)}$	G^{13}
	G pedal						

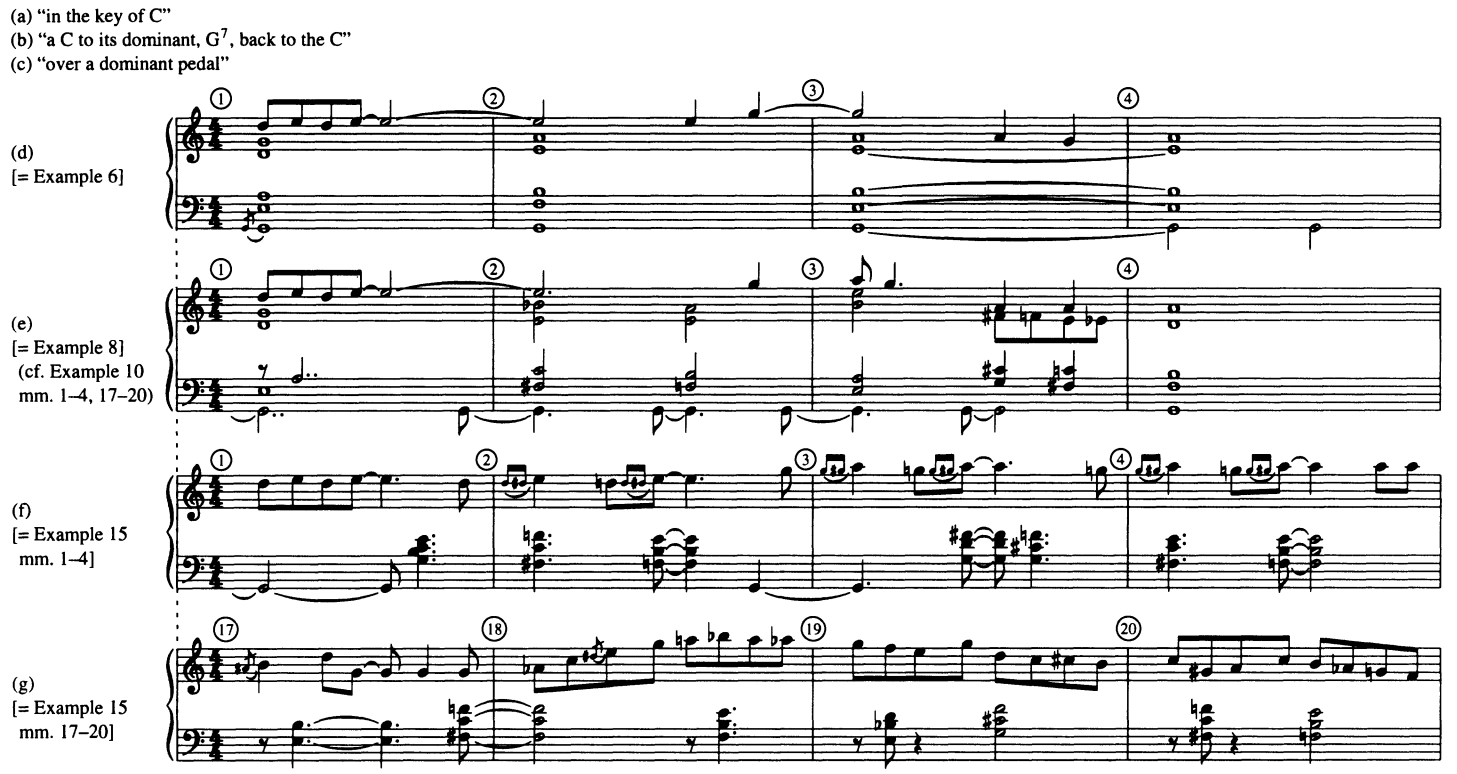
Example 15. Transcription of Evans's improvisation on "The Touch of Your Lips"



Example 15 [*continued*]



Example 16. Evans's layered analysis of "The Touch of Your Lips" mm. 1–4



previous level. Furthermore, Evans's plan not only places each complex harmonic interval in a simpler melodic context, but also supports it with a clear metrical structure of underlying simplicity. Each new pitch delays the pitch it prolongs, segmenting time spans evenly in halves, quarters, and eighths.[47]

Examples 16f and 16g reproduce mm. 1–4 and 17–20 of Example 15—Evans's improvisation on the tune. Notice that there are thus two senses in which Evans moves from the simple to the complex. First, his explanation presents a series of levels, each of which is more complex than the one before it. Second, his improvisation presents a series of mu-

[47]Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, Mass.: MIT Press, 1983) and Peter Westergaard, *An Introduction to Tonal Theory* (New York: Norton, 1975) suggest that gestalt principles of simple shape govern durational as well as pitch patterns.

Example 17. Comparison of Evans's comments with voice-leading events in "The Touch of Your Lips"

measures	*Evans's sentence*	*voice-leading event*
1–5	Now we can go around this.	tonic prolongation over dominant pedal: a fourth-progression
6–11	Now we start moving . . . through a cycle.	tonic prolongation: a fourth-progression over a circle of fifths
12–15	Now we're gonna modulate to E major through its own dominant.	tonicization of III: a third progression
16–	Now we gotta get back to C through its dominant.	return to tonic

sical passages, each of which is more complex than the one before it.

In discussing his plan (Example 10) as he plays it, Evans describes the structure of mm. 1–16 in four spoken sentences. Most themes upon which jazz musicians improvise have a clear-cut hypermetrical structure of motion in four-bar units; mm. 1–16 of this tune consist of four four-bar hypermeasures. However, Evans's spoken sentences parse mm. 1–16 into units that correspond not with the hypermeter, but with voice-leading events, as shown in Example 17.

Examples 18–21 comprise a Schenkerian analysis of portions of Evans's performance, to confirm his explanation of fundamental structure.[48] "The Touch of Your Lips" is a thirty-two-bar song consisting of two sixteen-bar halves. The first half ends with a half cadence and the second half ends with an authentic cadence. Example 18a shows this structure as an interrupted progression. It also suggests that the move to E major may be understood as resulting from a bass line that arpeggiates the tonic triad.[49] Note that the tune moves to III on two different levels of structure: it tonicizes III in the large (mm. 12–15), and the first new chord after the opening tonic prolongation is also III (m. 7).

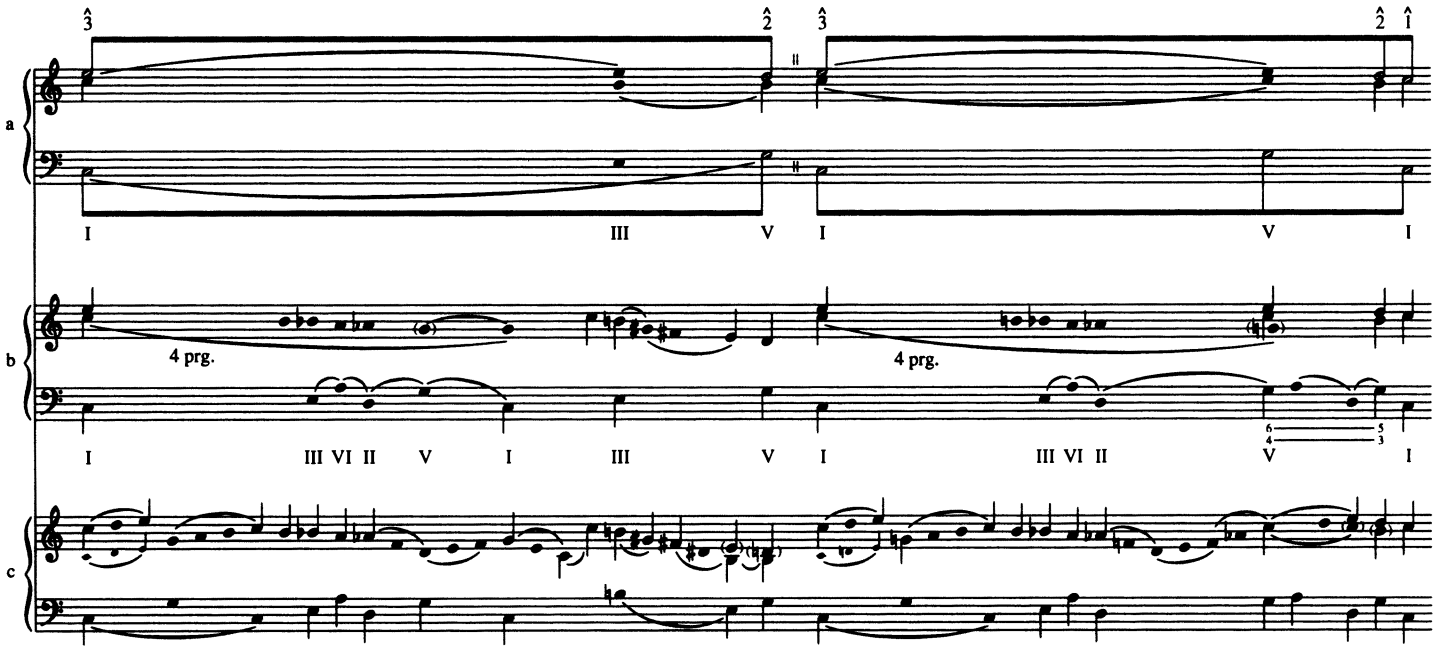
"The Touch of Your Lips" expresses closure by completing the third progression that connects the third of the tonic triad to its root ($\hat{3}$–$\hat{1}$). The filling of this tonal space gives the melody a sense of direction. In the opening melodic gesture, on the words "The touch of your lips," the primary structural tone $\hat{3}$ is announced in an initial ascent (*Anstieg*) C–D–(E–D)–E.[50] At the end of the song, the final measures not only recall the opening gesture (and lyric), but also confirm the completion of the ascent to E by recalling the pitches of the initial ascent. The final gesture also confirms and completes the third progression that forms the *Urlinie* of the song.

[48]Example 18a uses traditional Schenkerian analytic notation. The subsequent analyses follow guidelines in Steve Larson, "Strict Use of Analytic Notation," *Journal of Music Theory Pedagogy* 10 (1996): 31–71.

[49]An alternative reading might interpret this III as a third-divider, as Schenker demonstrates in *Free Composition,* 113–14, Figure 131.

[50]In the original melody, this gesture appears in the lower register (smaller noteheads) and may be heard as part of a large-scale arpeggiation to the primary structural tone in its upper (obligatory) register. In Evans's performances, this initial ascent appears in the obligatory register at the outset.

Example 18. Voice-leading analysis of "The Touch of Your Lips"



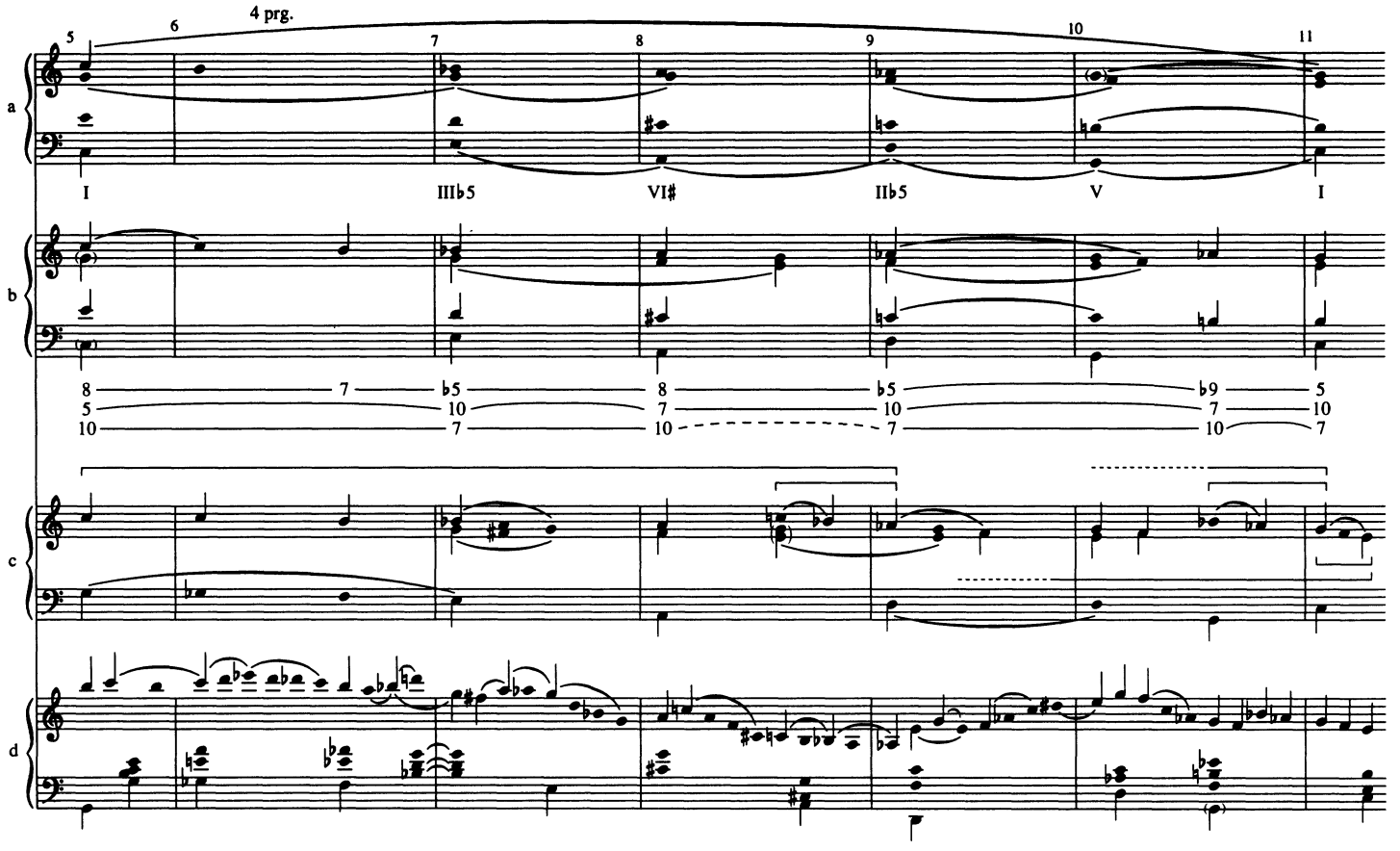
Evans's improvisation exploits the different characters of each tonal space between members of the tonic triad. In Example 18b, the structural soprano (stems up) descends diatonically E–D–C. The structural alto (stems down) descends chromatically from C to G, the root of the dominant.[51]

[51]This fourth progression balances the ascent of the opening measures with a softening descent that exploits the sensual sound of the lowered scale degrees over the cycle of fifths Evans describes in mm. 6–11. In the original song, the notes C, B♭, A♭, and G occur respectively on the words "cool," "sweet," "tender," and "soft."

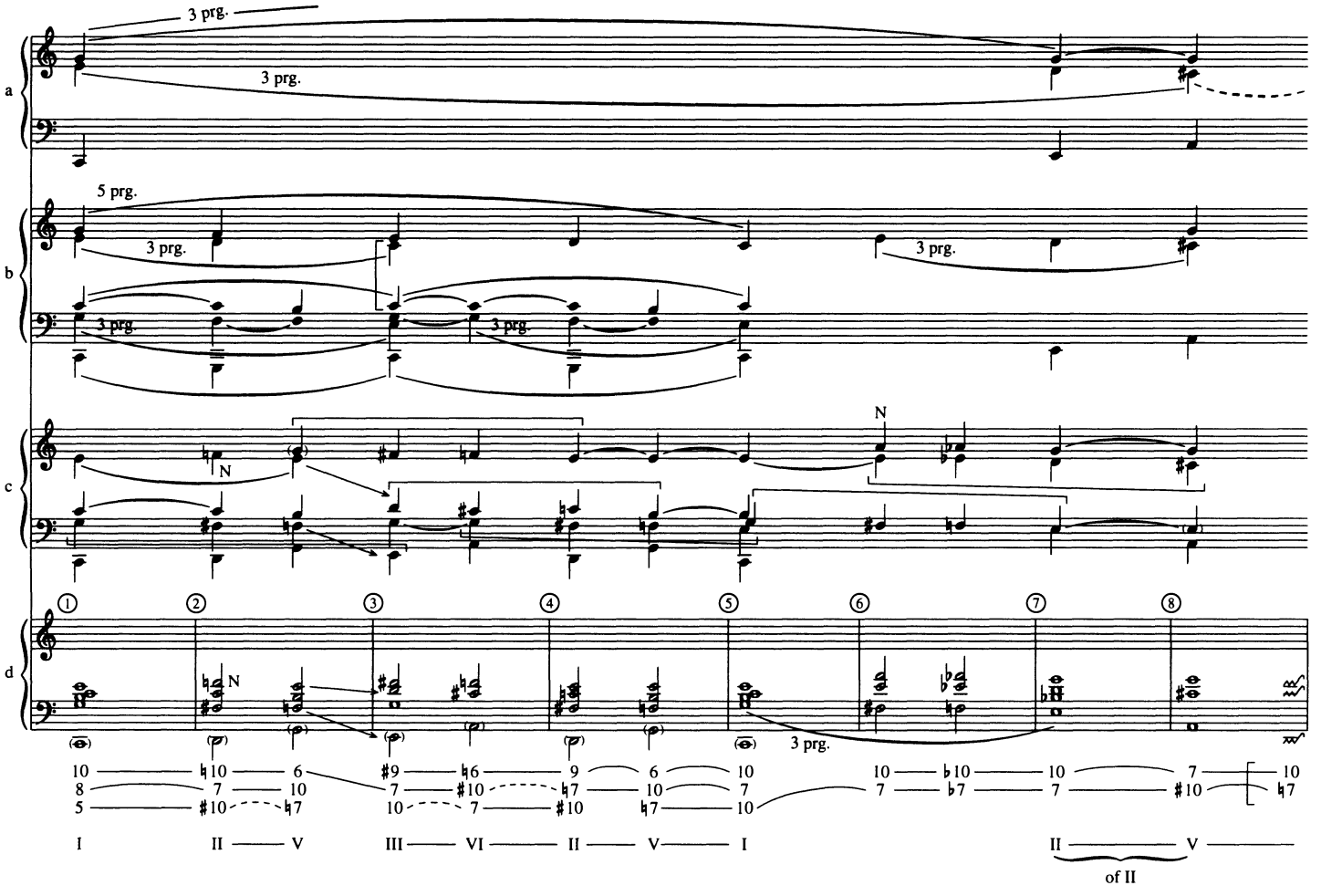
Together they provide the underlying melodic structure of both the original melody of "The Touch of Your Lips" and the right hand of Evans's improvisation (a portion of which is graphed in Example 19). Thirds and sevenths above the bass line (based on the lines G–F–E and C–B–C, thus filling other tonic-triad spaces) provide the underlying structure of Evans's left-hand inner voices, as demonstrated in Example 20.

Evans's remark "I can work around that differently, or between the strong structural points differently, but I find the most fundamental structure, and then I work from there," calls to mind the strong relationship between Schenker's

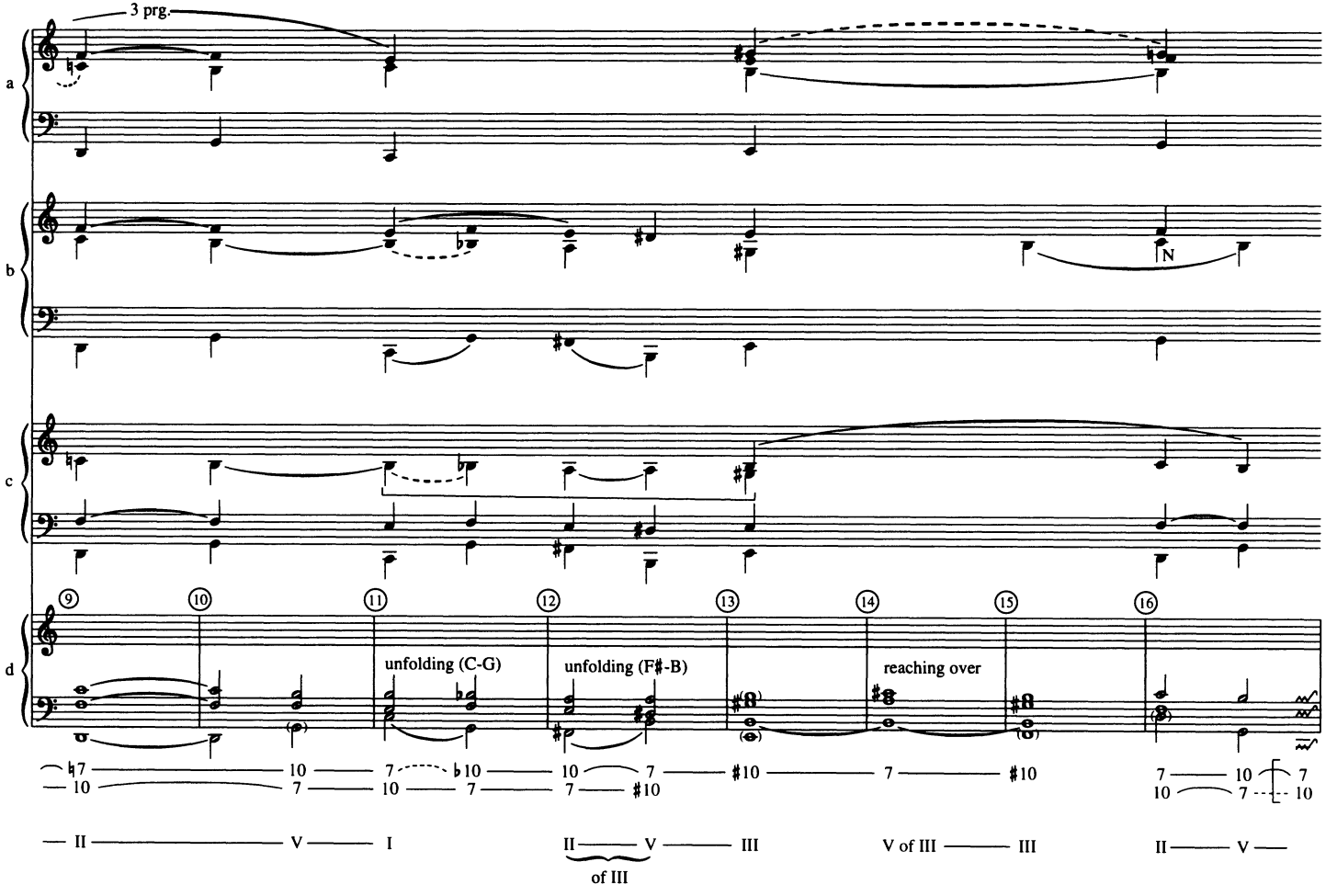
Example 19. Voice-leading analysis of Evans's improvisation on "The Touch of Your Lips," right hand, mm. 5–11



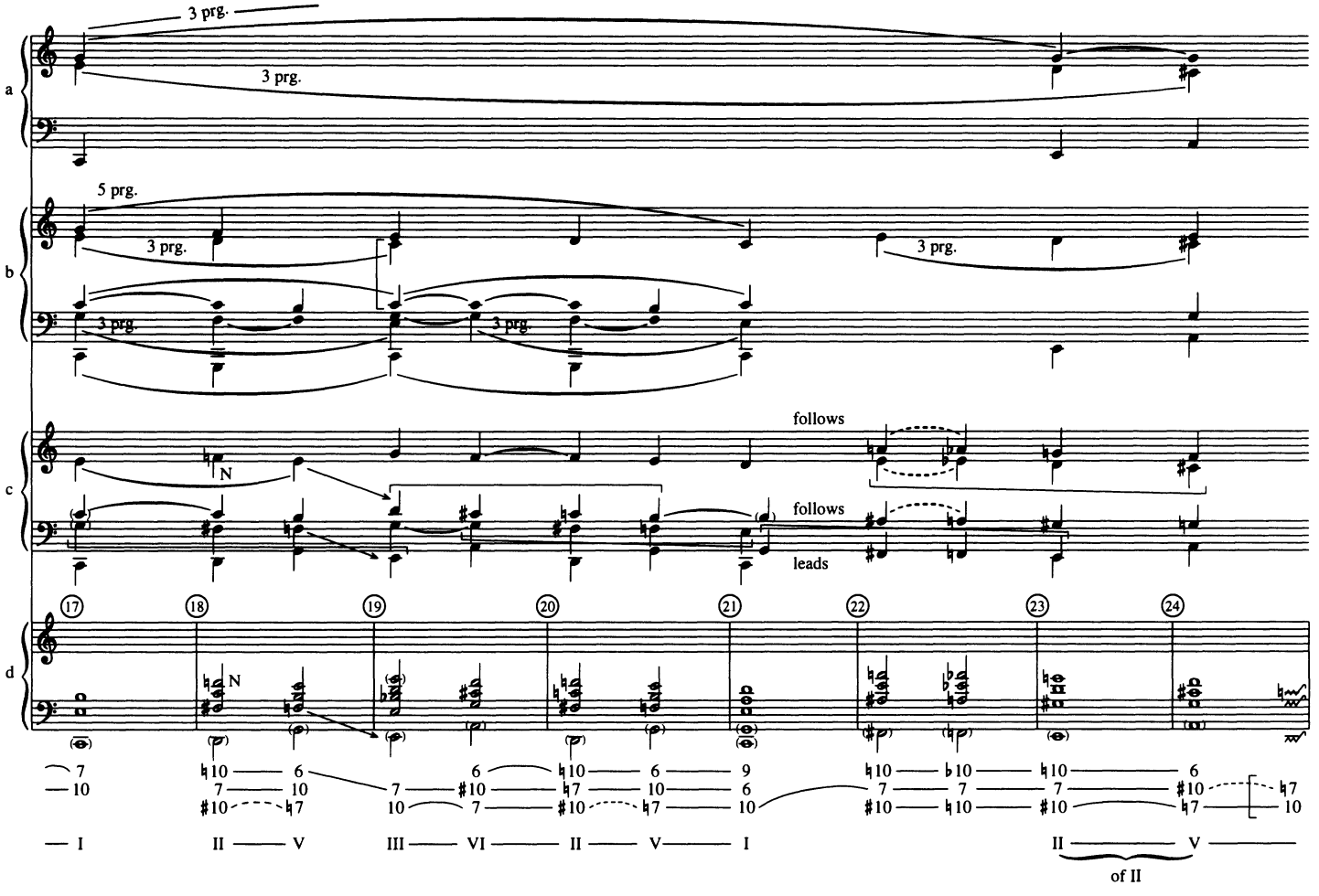
Example 20. Voice-leading analysis of Evans's improvisation on "The Touch of Your Lips," left hand



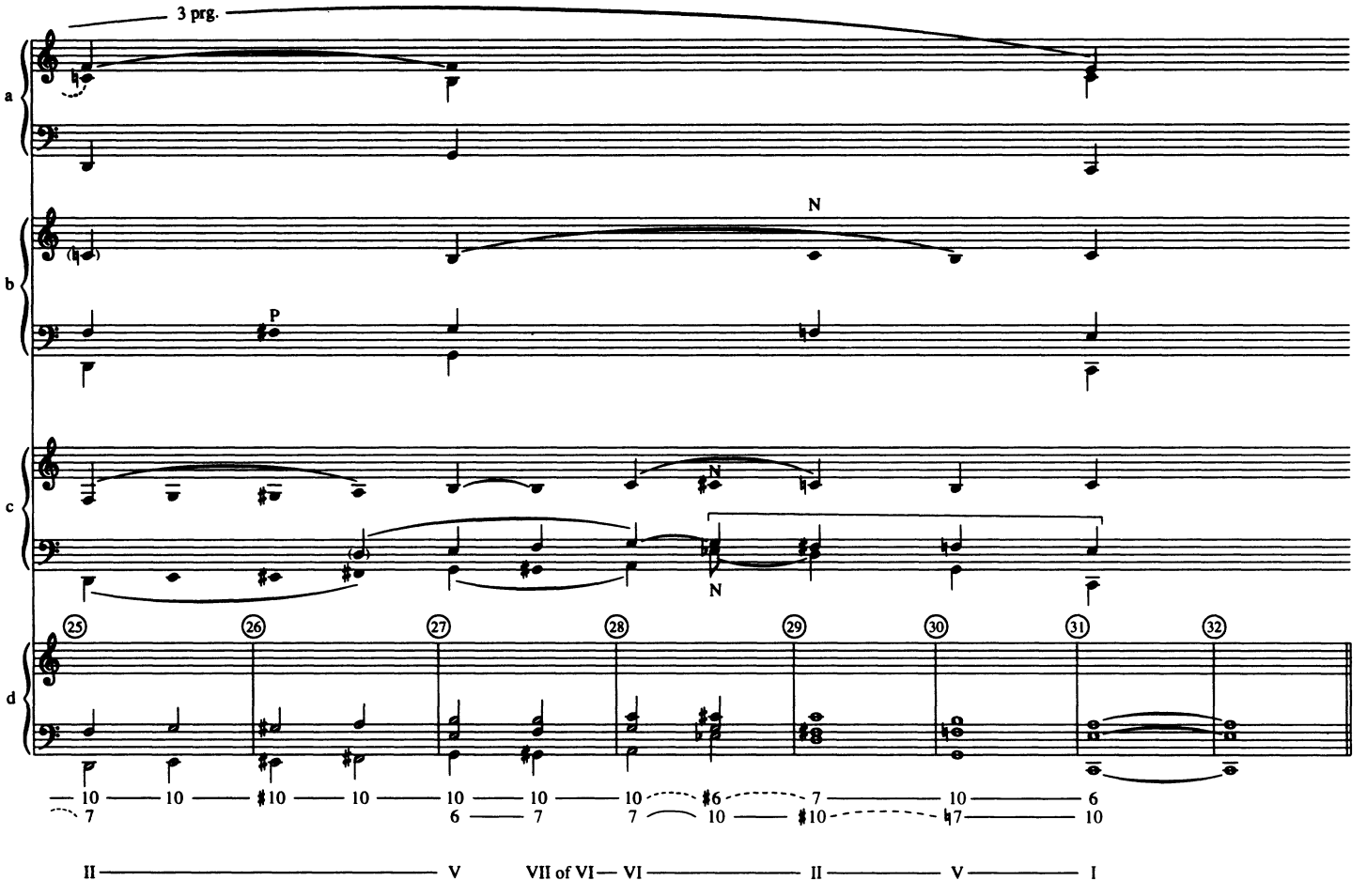
Example 20 [*continued*]



Example 20 [*continued*]



Example 20 [*continued*]

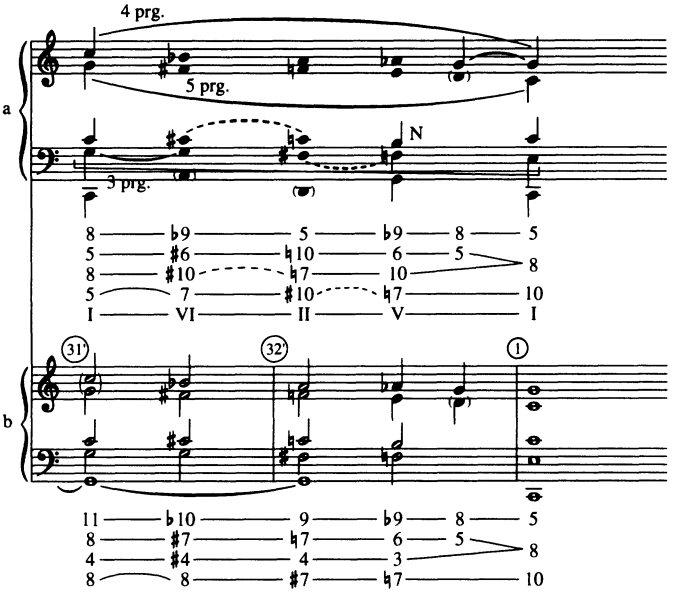


theories and the practice of theme and variations. Furthermore, an examination of Evans's improvisation shows that the nature of its structure agrees with his explanation and that his ways of moving "between the strong structural points differently" preserves aspects of voice-leading rather than specific chords. For example, in the original tune, mm. 21–24 are identical to mm. 5–8, part of a thematic reprise. In Evans's performance of these two four-measure groups (see Examples 10 and 15), the succession of chords is different but the individual strands of voice-leading remain the same—what is altered is their timing and coordination.

Let us look more closely at Evans's eight-bar introduction, in which he sets up the tempo and key by playing a variation on mm. 25–32 (labelled 25′–32′ in Example 15). Such a use of the last eight measures of a tune as an introduction is common. This introduction also states the melody, but departs from it in important ways. These departures eliminate the perfect authentic cadence by retaining the dominant as a pedal tone through mm. 30′–31′. The top voice also avoids closure; it states the melody as it occurs in mm. 1–2 (remaining on $\hat{3}$) rather than as it appears in mm. 29–32 (closing on $\hat{1}$). Measures 31′–32′ contain a harmonic sequence that jazz musicians call a "turnaround" or "turnback." Turnarounds generally replace the final tonic of a formal section with a cycle of chords that leads into the next formal section. Here, Evans's turnaround links his introduction to the following chorus both harmonically and melodically.

Harmonically, his turnaround links sections via a dominant pedal and by not allowing the top voice to descend to the cadence. Melodically, his introduction not only anticipates the melody of mm. 1–2 (by changing the melody of mm. 29′–32′ to that of mm. 1–2 instead of 29–32), but also anticipates two middleground melodies important in the following measures. The turnaround of mm. 31′–32′ is based on the chromatic third progression G–F♯–F–E in the left hand. This voice connects the fifth of the tonic triad to its third. The

Example 21. Voice-leading analysis of Evans's improvisation on "The Touch of Your Lips," mm. 31′–32′



upper voices follow this leading voice to create a "planing" of colorful sonorities.[52]

These upper voices, however, are not without tonal and motivic significance, as shown in Example 21.[53] The top voice

[52]By "planing," I mean that parallel motion in several voices that produces a succession of similar chords. Planing is uncommon in classical music. (It is common in Debussy.) In jazz, it may frequently introduce parallel motion in dissonant intervals (especially tritones and sevenths, as in this example). And (less frequently) it may also introduce parallel motion in perfect fifths. Nevertheless, it seems clear that the best explanations of planing necessarily involve Schenkerian principles of voice leading and structural context. On leading and following voices, see Schenker, *Free Composition*, 78–80.

[53]In Example 21b, the C and G that begin the alto and soprano are shown in parentheses. These pitches are not explicitly stated in this register in this

connects the octave of the tonic down to its fifth (which begins the melody as a pickup). The resultant fourth progression is a hidden repetition (or "foreshadowing") of the middleground of mm. 5–11: both mm. 31′–32′ and mm. 5–11 contain the descending fourth progression C–(B)–B♭–A–A♭–G.

The conclusion of the full chorus (mm. 29–32) not only recalls the closure-avoidance and linking effect of mm. 29′–32′, but also confirms the voice-leading explanation of these measures. The progression continues the motion forward for another chorus (again using the initial ascent figure without closing descent). The voice-leading events (the G–F♯–F–E third progression, the top-voice hidden repetition, and the chromatically descending inner voices) are the same, but the chords are different. Again, Evans moves "between the strong structural points differently," preserving aspects of voice-leading but not preserving specific chords.

Evans's explanation of mm. 5–11 ("Now we start moving away from the thing into . . . a cycle") reflects the fact that the original melody moves away from the opening tonic prolongation (and its tonal space E–C). An analysis of his improvisation on these measures appears in Example 19. Just as the original melody departs from the opening tonic prolongation in mm. 5–11, so Evans departs in these measures from the original melody. And yet, like the original melody, these measures are organized by a simple underlying pattern: the descending fourth progression, C–(B)–B♭–A–A♭–G.

This fourth progression (Example 19a, soprano, cf. Example 18b) may not be immediately obvious to the listener. Yet, once heard, it can be felt as controlling the direction of Evans's improvisation. Perhaps this is because this middleground makes itself felt in the foreground. For example, when the A♭ arrives on the downbeat of m. 9 (see Example 19, all levels), it is approached by a motion in the foreground that is the same as the larger middleground motion that includes it. This simultaneous completion of the same pattern on two different levels of musical structure helps the listener to feel the organizing power of deeper levels by vivifying the experience of structure and ornament. Such simultaneous completions (a kind of hidden repetition) occur surprisingly often in both classical music and jazz; I call the shorter pattern (which ends simultaneously with the longer pattern that contains it) a *confirmation*.[54] The confirmation of the arrival of A♭ in m. 9 is marked with nested brackets in Example 19c. A similar confirmation echoes this one at the arrival of G in m. 11 (also bracketed). This echo occurs at that point in the improvisation where Evans explains "now again." (The structural alto of Example 19c also shows a confirmation at its conslusion, G–F–E.)

If the listener does not grasp these *deeper* "formulas," the surface may well sound like a meaningless collection of patterns that just happens to fall under the hand. However, consistent techniques of diminution balance the rich variety of this foreground, making the underlying patterns easier to perceive. Of mm. 6–11, all but m. 10 introduce one new note of the middleground. These new notes usually occur on downbeats. (The B♭ that appears in m. 6 of Example 19d anticipates the harmony of m. 7—as does the left-hand $E^{\emptyset 7}$ chord—and so has been shifted to the downbeat of m. 7 in Example 19c. In the foreground, the A♭ of m. 9 does not resolve to G until m. 11; the F of m. 10 is an inner voice.) The C–E♭ of m. 6 is answered by the B♭–D that belongs to m. 7. Chromatic passing tones and double neighbor notes appear in a

measure. In m. 31 (at the end of Evans's improvisation), the analogous C is explicitly stated (see Example 15). On the third beat of m. 31′, the D♭ [= C♯] of the first tenor is shown coming from C; in m. 31 (at the end of Evans's improvisation), the analogous C♯ comes from D. On the fourth beat of m. 32′, the alto D that would resolve E (a "thirteenth") does not appear.

[54]In fact, every performance transcribed in my dissertation contains such confirmations.

similar rhythm throughout: a pair of such auxiliary pitches leads to a more structural pitch in the rhythm downbeat–upbeat–downbeat (♫♩). The ascending register transfer is associated with the double-neighbor pattern, while the descending register transfer is associated with the upper-neighbor-of-upper-neighbor pattern. The F♯ and A of m. 7 are echoed by the E and G of m. 9; the C–B♭ of m. 8 is echoed by the B♭–A♭ of m. 10. This consistent use of diminution techniques highlights deeper levels of structure by relating harmonically paired measures and associating middleground events through similar treatment.

Two of these patterns might be called "formulas": (1) the chromatic double neighbor leading into an ascending arpeggio of a seventh chord and (2) the upper-neighbor-of-upper-neighbor transferred down an octave through an arpeggio.[55] One may assume that these patterns fell readily under Evans's hand, for he played them frequently in his improvisations. It may be true that he played them frequently because they fell readily under his hand. But it may also be true that they fell readily under his hand because he played them frequently—and that he played them frequently for musical reasons. The upper-neighbor-of-upper-neighbor pattern is strongly directed downward (in the direction of the resolution of its unstable upper neighbor notes) and thus its association with the descending register transfer is natural. When the chromatic double neighbor functions as a turn (which points upward), its association with the ascending arpeggio is natural.[56] Furthermore, while these formulas appear in the "bag of tricks" of many performers, such formulas generally serve specific musical functions in Evans's playing. For example, the confirmations noted in mm. 5–11 are all appearances of the upper-neighbor-of-upper-neighbor pattern.

The right hand of these measures of Evans's improvisation contains sevenths, ninths, elevenths, and thirteenths. Schenkerian analysis makes the melodic functions of these right-hand tensions clear (Example 19). The functions of Evans's left-hand tensions throughout may at first seem more difficult to explain, but they too are best explained in terms of their melodic relationships to more-stable notes at deeper structural levels. Example 20d reproduces Evans's left hand in simpler durations and with a "fundamental bass" (in parentheses). This fundamental bass is replaced in some instances by a dominant pedal.[57]

The bass line of mm. 5–7 is conceptually an inner voice that moves from the fifth of the tonic triad chromatically down to its third. Evans's left hand repeats this chromatically descending third-progression from chordal fifth to chordal third at a variety of pitch levels (bracketed in Example 20c). Since this motive is such a simple one, it is not striking, and yet the cohesiveness that it adds is strong; it generally appears registrally intact, and its directed motion draws the music forward.

Each of the individual lines above the bass in Example 20c (the stemming distinguishes these lines) is a descending chromatic linear progression that fills the tonal space of some interval between adjacent chord tones (cf. Examples 20b and c). The only exceptions in mm. 1–25 are simple neighboring motions. For example, the F on the downbeat of mm. 2 and 18 is an upper neighbor to the third of the tonic triad, and A on the downbeat of mm. 6 and 22 is an upper neighbor

[55]Although either or both of these patterns occur in every one of the transcriptions in Smith, "Homer, Gregory, and Bill Evans," he does not identify them as significant patterns or "formulas."

[56]See Steve Larson, "Another Look at Schenker's *Counterpoint*," *Indiana Theory Review* 15/1 (1994): 35–52; and idem, "Swing and Motive."

[57]As noted above, "The Touch of Your Lips" moves to III on two different levels of structure: it tonicizes III (mm. 12–15), and the first new chord after the opening tonic prolongation is also III (m. 7). The fundamental-bass analysis of Evans's opening tonic prolongation suggests that it also features a motion to III.

to the fifth of the tonic triad. In mm. 25–32, some lines ascend, but—as the analysis shows—these measures are relatively straightforward; in these measures, ninths, elevenths, and thirteenths occur only in the right hand.

The descending chromatic linear progressions of the left hand in mm. 1–4 are based on simpler diatonic patterns. The diatonic patterns of Example 20b result analytically from the elimination of chromaticism and delay from Example 20c. The accidentals removed from Example 20c may be explained both harmonically and melodically. Harmonically, the C♯ in m. 3 and the F♯s in mm. 2 and 4 are the inflected thirds of the chords "on A" and "on D" respectively; these accidentals make "VI" and "II" into applied dominants of the chords that follow. The F♯ in m. 3 is the preferred tension for "III" where it functions with "VI" as II–V of II.[58] Melodically, each accidental appears on a note that resolves down by half step, turning a conceptually diatonic descent into an actually chromatic one. The thirds and sevenths (Example 20c, bass clef) form a 7–10 linear intervallic pattern.[59] The ninths and thirteenths (Example 20c, treble clef) may be explained in two ways: 1) as stand-ins for the chord tones that lie a step below; or 2) as suspensions whose resolutions follow. The first explanation (a vertical substitution) derives from the possibility of the second (a horizontal delay). In some cases, a dissonance may be understood as a substitution even though the resolution does not appear.[60] However, here both explanations apply. The ninths and thirteenths stand for an 8–5 linear intervallic pattern whose tones are delayed. The delayed pitches form linear progressions that move between members of the tonic triad.

It may be objected that this demonstration proves only that Schenkerian analysis is applicable to the playing of Bill Evans and not that it is applicable to modern jazz in general. Such an objection might be based on two contentions: first, that Evans was unusually talented as an improviser; and second, that his way of thinking was radically different from that of other jazz musicians. The first of these contentions seems justified. That Evans was an unusually talented improviser—and that Schenkerian analysis can help show this—is a principal argument of this article. The second contention also contains some truth. As Martin Williams has observed, Evans "could have been a major musician-critic. Indeed if we were to collect all he wrote and said about the music and the players, he might appear to have been just that."[61]

Yet it seems unlikely that Evans's thought processes were totally unlike those of other jazz artists. Evans was one of the most influential pianists—perhaps the most influential pianist—of the modern-jazz era. The fact that he also performed and recorded with a range of musicians that included some of the era's most influential musicians suggests that his ideas may have been transmitted through them, too. While others may not be able to put so clearly into words what they put into music, other jazz artists have produced improvisations whose coherence is illuminated by Schenkerian analysis.

We have seen that the third question mentioned above, concerning the intent of improvising musicians to create the complex structures illuminated by Schenkerian analyses,

[58]Strunk, "Bebop Melodic Lines," notes constraints on tension formation in chord voicings, restricting "the minor ninth to only one location: between the root and minor ninth of a dominant seventh chord" (98). While this restriction is not always strictly observed (for example, Evans sometimes voices a minor ninth above II$^{\circ 7}$ in minor), it is usually observed when the II of a II–V progression is a minor-minor seventh.

[59]The 7–10 linear intervallic pattern may also be understood as an elided 8–7–10 pattern.

[60]Perhaps the two most common examples appear at cadences: $\hat{3}/V^7$ may substitute for $\hat{2}/V^7$, and $\hat{8}/V^7$ may substitute for $\hat{7}/V^7$.

[61]Martin Williams, "Homage to Bill Evans," in booklet accompanying *Bill Evans: the Complete Riverside Recordings* (Fantasy, Riverside R–018). That Evans was a student at The Mannes College of Music may also help to explain why some of his comments resonate with Schenkerian theory.

embodies misconceptions about the relationship of improvisation and composition. But other misconceptions implied by the question are more fundamental. This question misunderstands the role of simplicity and complexity in music. Neither simplicity nor complexity by itself is a virtue. Artistic expression grows out of their balanced interaction.[62] Schenker stresses the importance of simplicity in *Free Composition:*

> My concepts show that the art of music is much simpler than present-day teachings would have it appear. However, the fact that the simplicity does not lie on the surface makes it no less simple. Every surface, seen for itself alone, is of necessity confusing and always complex.[63]

Wilhelm Furtwängler also stresses the importance of simplicity, but makes a different complaint about jazz:

> Some time ago a young man in Switzerland expressed his enthusiasm for jazz by proclaiming that jazz is much more up-to-date than the symphonies of Beethoven because it is far more refined and complicated, and, therefore, incomparably better suited to the advanced intellectual capacity of modern man. In rhythmic as well as in harmonic relationships the intricacies which it can produce under certain circumstances are extremely interesting, while Beethoven's symphonies lie before us like exercises for children. The young man was, of course, put in his place by several offended defenders of tradition, but is, if one considers it carefully, not completely wrong. In fact, the melodic, rhythmic, and harmonic elements of which music is ultimately composed are remarkably more simple in a Beethoven symphony than in a jazz composition. The decisive difference lies in only one thing: in jazz, long-range hearing is absent. The intricacies exist for the moment in which they sound. The totality runs its course like a path through a dense jungle, where from right and left ever new nuances, rhythms, creeping growths of all kinds approach us; then suddenly it is at an end and we simply step out of the jungle into the open again. In a Beethoven symphony, on the other hand, the first measure refers to the fifth, eighth, twentieth, thirtieth, even to measures up to the final cadence; and so it goes throughout the whole composition. The individual measure is simple, but the relationship among the measures, among the themes—the hundredfold correspondences and variations, intensifications and diminutions that are the result of this most ingenious long-range hearing—produces a mass of complications which, correctly comprehended, surpasses all that jazz has to offer, in the same way that a living organism, as a product of nature, infinitely surpasses every man-made machine in inner complexity.[64]

Furtwängler's remark contradicts assumptions implied in my third question. It raises, however, another question: Does jazz encourage "long-range hearing"?

When Furtwängler asserts that "in jazz, *long-range hearing* is absent," he is suggesting that jazz lacks the global relationships that would reward long-range hearing. To be more precise: when long-range hearing is absent, it may be so because of some lack in the music, but if it is absent, it is absent in the listener rather than in the music.[65] Furtwängler's statement has a ring of truth to it. Much jazz improvisation lacks the relationships that reward long-range hearing, and consists, as Hodeir observes, of "disconnected bits of nonsense."[66] (Schenker seemed fond of pointing out that much classical music—if we include all the music of the "common-practice era," not just the "masterworks"—is similarly flawed.) But the fact that jazz musicians often say that "a jazz improvisation should tell a story" suggests that many jazz musicians are concerned with creating and experiencing

[62]See Rudolf Arnheim, *Entropy and Art: an Essay on Order and Disorder* (Berkeley: University of California Press, 1971); and idem, *Art and Visual Perception: a Psychology of the Creative Eye* (Berkeley: University of California Press, 1974).

[63]Schenker, *Free Composition,* xxiii.

[64]Furtwängler, "Heinrich Schenker," 4–5.

[65]See Larson, "The Problem of Prolongation in *Tonal* Music."

[66]Hodeir, *Jazz,* 168.

global relationships. That they do not always achieve this goal in performance is not surprising—the task is difficult. But there are exceptions.[67]

Is Schenkerian analysis applicable only to jazz performances that are exceptions? No, Schenkerian analysis may be applied to any jazz performance—and it may show the shortcomings of that performance. Real artistic long-range hearing is an exception both in classical music and in jazz. Of course, the young man in Furtwängler's story has confused levels in his comparison of "jazz" with "Beethoven's symphonies." Jazz is a type and Beethoven's symphonies are tokens of a different type. Most classical music—like most jazz—is mediocre and fortunately forgotten. The works Schenker analyzed were exceptional; musical genius is exceptional, and the history of an art is primarily concerned with exceptions.

[67]Actually, the fact that a jazz performance generally takes the form of a theme and variations means that the underlying large-scale structure is often clear enough. What is often lacking is an artistically convincing relationship among structural levels.

ABSTRACT

In this essay I address three questions often asked about the application of Schenkerian analysis to jazz: (1) Is it appropriate to apply to improvised music a method of analysis developed for the study of composed music? (2) Can features of jazz harmony (ninths, elevenths, and thirteenths) not appearing in the music Schenker analyzed be accounted for by Schenkerian analysis? and (3) Do improvising musicians really intend to create the complex structures shown in Schenkerian analyses? I argue that these questions imply mistaken assumptions about the content and origin of Schenker's theories, the role of analysis, the function of dissonance in common-practice harmony and in jazz, the nature of improvisation as opposed to composition, and the role of simplicity and complexity in popular and classical music. While my answers qualify the applicability of Schenker's theories to jazz, they also emphasize the importance of models in creating, explaining, and experiencing jazz.