

**PAT METHENY:
TECHNIQUES IN IMPROVISATION**

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Abstract

This thesis illustrates Pat Metheny's formulaic system within a unique three-tier approach that divides formulaic information into a connected system of categories, species, and components. Using four transcribed improvisations as source material, Metheny's formulaic system is defined with consideration for both analytical and pedagogical insight, with the aim of demonstrating the practical application of formulaic concepts. This formulaic system is highly nuanced and comprises a large portion of this study. Metheny's process of forming is covered, and prototypical and contemporary approaches to jazz improvisational analysis are discussed. Metheny's elements of style are examined, including formulaic, melodic, structural and motivic forms that contribute toward overall musical coherence.

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Preface

One of the more influential jazz guitarists of recent times, Pat Metheny has garnered more critical and commercial acclaim, measured in both album sales and Grammy awards, than any other jazz guitarist of the period. This ability to appeal to the casual listener as well as educated critics and his musical peers makes his improvisational style a compelling object of study. Metheny is widely regarded for developing an idiosyncratic and highly personal improvisational vernacular that is uniquely his own. Yet despite the fact that Metheny is recognized as a masterful improviser, few if any analytical or pedagogical resources exist that explain his improvisation style in any great demonstrative detail.

Jazz improvisation is at its best varied and complex, and carries an essential element of oral transmission through which it translates coherence. Because Metheny's style is diverse, drawing upon many influences and an intricate system of stylistic elements, I have found it relevant to research the details of his musical process of forming as well as his philosophical approach to music making to provide further insight. For many jazz performers, theoretical knowledge is gained from internalizing principles learned during the process of listening and transcribing recordings, and from the oral transmission of fellow musicians.

I have found it greatly beneficial to investigate and detail both historical and contemporary approaches to jazz discourse through Chapters 2-3. This information provides an informative survey of approaches to jazz analysis to provide context for and help inform the approach taken to the discourse of jazz improvisation in this study. The notion of a performer's elements of style and how this contributes to their idiosyncratic approach to improvisation is discussed through Chapter 4, with reference to formal, oral, philosophical, and functional musical aspects and their contribution in establishing a performer's improvisational individuality.

Metheny's highly idiosyncratic and nuanced approach to improvisation cannot be revealed without a detailed investigation of his complex formulaic system. Due to its intricacy, Metheny's formulaic approach comprises a substantial portion of this work. The detailing of this formulaic system involves a system of formulaic components, defined in Chapter 5. These formulaic components combine to create formulaic species, which are organized into formulaic categories through Chapters 6-12. Each formulaic species is defined by its application in relation to the harmony and summarized with a recounting of its quantifiable patterns of use. These detailed insights are meant to serve both the analyst and performer alike, for both pedagogical and analytical information that acts to strengthen and inform the other.

I have found through my research that improvisation for Metheny is a distinctively processual act, with repetition through variation being a central

goal. Beyond formulaic elements, the act of repetition and variation translates into a highly motivic element of style, which is essential to the way Metheny creates unified coherence. A strong melodic component also pervades his approach, as well as a structural component that acts to outline structures of harmony and voice leading. Finally, I have conducted an analysis to Metheny's improvisation on "Son of Thirteen," with an integrated approach that addresses multiple forms of coherence.

Preamble

In order to best understand how Metheny's improvisational style translates idiosyncratic coherence through the spontaneous use of formulaic, motivic, melodic, and structural devices, I have transcribed four improvisations: "Solar," "Old Folks," "Son of Thirteen," and "Snova." These improvisations serve as the source material for the extraction of a formulaic system. Beginning my discourse is an investigation of Metheny's development as an improviser, involving particular models for development, environmental factors and paths of commitment. This biographical detailing helps to illustrate Metheny's approach in conceptualizing and conveying musical meaning and is in many ways an informative pedagogical insight.

From here, historically influential techniques of analysis are examined from theorists Gunther Schuller, Thomas Owens, Lawrence Gushee, and Henry Martin. The techniques of these theorists are distinctly unique and have helped to inform my approach. Henry Martin's advocacy for the combining of pedagogical and analytical discourse, as well as John Brownell's critique of processual versus reductive analysis are observed, as models for the analysis of jazz improvisation as a distinctly dynamic process that is designed to benefit both the listener and musician alike. Neuroscientist Daniel Levitin's discussion of reference and meaning in music through repetition and variation is detailed, and has helped to inform and supplement my views on musical coherence. Steve

Larson's notion of integrated musical scholarship and Bruno Nettl's encouragement for interdisciplinary collaboration is touched upon, and has also influenced the inclusive and intentionally progressive nature of my approach.

There is an extensive focus given to Metheny's formulaic system, as not only is Metheny's formulaic system intricate and complex, but it is absolutely essential in establishing both the foundation for and many of the idiosyncrasies of his improvisational vernacular. This formulaic system, extracted from four transcribed improvisations "Solar," "Old Folks," "Son of Thirteen," and "Snova," features three cumulative units of structure: formulaic components, formulaic species and formulaic categories. These units of structure, from smallest to largest respectively, build upon one another to form a systematic and organized collection of formulaic species, belonging to one of seven categories: enclosure chromaticism formulas, passing tone chromaticism formulas, cadence formulas, cliché formulas, pentatonic formulas, motivic formulas, and Reharmonization formulas. Each formulaic category has an identifiable function for the purpose of improvisation and a manner in which it contributes to improvisational coherence. This functional aspect of the formulaic species helps to illustrate its implications within Metheny's larger continuity of thought. Each formulaic species is analyzed with respect to its component parts, frequency and patterns of use, permutations, and particular application including pitch levels and relation to the harmony. Each species is comprised of formulaic components, of which I have uncovered thirty-one in total, possessing an adaptive essential

structure. These smaller units of structure are combined and permutated in a generative way that forms the basis of Metheny's formulaic system.

Object of Study

For the object of study, four guitar improvisations have been transcribed and notated; two from the album *Question and Answer* (1989): “Solar” and “Old Folks,” and two from the album *Day Trip* (2005): “Son of Thirteen” and “Snova.” Each of these albums presents Metheny’s improvisational style in its fully developed form, but the concept for each album is unique. *Question and Answer* features jazz standards and pieces of a less complex harmonic sensibility where Metheny’s improvisations are loose and free.

When improvising upon pieces with familiar harmonic progressions, jazz improvisers tend to take more liberties as their ability to execute voice leading in the progression is already implied. *Day Trip* includes Metheny’s modern original compositions, featuring more complex harmonic progressions upon which his improvisations are equally as creative and compelling but act more to outline the harmony. An up-tempo piece has been chosen from each album, with “Solar” at 250bpm, “Son of Thirteen” at 270bpm, and a mid-tempo piece has been chosen from each album, with “Old Folks” at 120bpm and “Snova” at 134bpm. It will make an interesting case study to observe change in Metheny’s use of formulas over a 16-year period, his adjustments in the application of formulas given a simple vs. more complex harmonic framework and considerations with respect to the tempo of improvisation.

Chapter 1

Metheny's Process of Forming

The essential goal for providing a biographical sketch of guitarist Pat Metheny is to provide a further window into his development as a jazz improviser, or what Paul Berliner describes in his book *Thinking in Jazz: The Infinite Art of Improvisation* (1994) as “the process of forming.” Berliner's book collects information compiled from extensive interviews in conversation with prominent jazz musicians, and details the preparatory measures required to develop great skill as an improviser. Additionally, Berliner chronicles the unique approaches of musical conceptualization that jazz musicians attribute to representation and meaning within the mixed oral/written tradition of jazz.

What Berliner reveals is a lifetime of preparation behind the development of a skilled improviser, and pertinent to that process of forming are early models for development, ear training and performance opportunity, a competitive environment, and an unwavering commitment to music. A longtime friend and colleague of Metheny, music producer Richard Niles conducted a series of interviews covering Metheny's development, influences, creative process and philosophy, compiled and published in his book *The Pat Metheny Interviews* (2009). A comparative assessment of Berliner's outline for development in the jazz tradition and Metheny's own experiences are examined.

1. 1 – Early Models for Development

A jazz improviser's musical development begins at childhood, often enhanced by a strong musical presence within the household; family members who have a strong appreciation for music or are themselves musical contribute to the process of forming at the early stage of musical development. Metheny was born in Lee's Summit, Missouri in 1954. Metheny's grandfather, father and older brother were all accomplished trumpet players, his grandfather having played briefly under John Philip Sousa and his older brother later becoming a professional trumpet player. Metheny recalls, "Them playing trumpet trios together – my grandfather, my dad and my brother ... watching my brother practice a lot ... that was very formative and very important" (2009:8).

Record collections are also pivotal, as aspiring musicians build a strong bond with particular recordings. For Metheny, The Beatles were his first great musical idols. Their overarching melodic sensibility and self-directed creative energy provided a significantly formative model for inspiration. Metheny recalls: "Right around 1963-64 ... the guitar suddenly appeared in the panorama of all things that a kid might be interested in ... of wanting to make yourself distinct from the world around you" (Niles 2009, 8). But it was a particular Miles Davis quintet recording that sparked Metheny's attraction to jazz: "My brother brought home a record called *Four and More, Miles Davis Live* [1964] ... I would have to trace every early attraction to wanting to understand what jazz is to something in that quintet ... it was fascinating and inviting in ways that I had

never experienced before ... and had an immediate resonance to me in terms of what I was feeling in the culture” (Niles 2009, 10). The sheer depth of individual and unified artistic expression within the Davis quintet appealed to Metheny on both a musical and cultural level, and represented a musical, social and cultural ideal he wanted to become a part of.

Finally, Metheny’s model for what he wished to accomplish more specifically as an improvising guitarist came in the form of Wes Montgomery: “There was one Wes record in particular called *Smokin’ at the Half Note* [1965] ... that record became an incredible touchstone for me” (Niles 2009, 14). For Metheny, Montgomery embodied a playing style that was undeniably personal and idiosyncratic, creating an aesthetic that made him instantly identifiable on record. To Metheny, Montgomery encompassed “a sonic residue that pervades all music, not just jazz ... there are very few musicians who represent that kind of human depth in their sound ... to me Wes was the guitar equivalent of Miles Davis in that sense” (Niles 2009, 14). Much like Metheny’s reaction to the music of the Miles Davis Quintet, he notably defines the strength of his connection to Wes Montgomery in terms of conceptual, qualitative attributes.

1.2 – Ear Training and Performance Opportunity

Beyond these early models for development, ear training and performance opportunities become critical to nurturing the early connection established with music into a more developed skill set. Berliner notes that

traditionally, the church provided many future jazz musicians with their first experience as performers; some churches handed out instruments during the service to add intensity to the choir's performance, with youngsters especially encouraged by the older generation. Drummer Max Roach explains: "In church, young musicians were judged on the basis of their ability to stir the congregation's feelings, rather than on the basis of their technical proficiency alone" (Berliner 1994, 29). Roach's early memories of music are notably tied to the notion of communal acceptance from the older generation, and based on qualitative musical attributes. Many students also received private lessons from professional musicians, which included instrumental technique, classical music repertory, and in some cases elementary music theory and composition. Metheny's brother Mike recalls, "We were both very lucky to have a magnificent music teacher ... and the jazz and blues scene around Kansas City when Pat became a teenager in the 1960's was really vibrant and alive" (Niles 2009, 7).

Like Roach, Metheny was embraced by the older generation of jazz and blues players in Kansas City, and as a teenager was constantly in a position to participate in jam sessions and perform concerts with musicians much more proficient and experienced than himself. Metheny recalls, "I was starting to work gigs when I was fourteen around Kansas City, first with more what I would call amateur-type musicians ... but quickly after that, by the time I was fifteen, with some of the best players in town" (Niles 2009, 22).

1.3 – Competitive Environment

Great skill is often the product of a competitive environment, and school systems traditionally offered an element of “healthy competition,” as most of the strong musicians would attend a central high school with an influential band director; often these band directors would be responsible for the development of a line of prominent jazz musicians. For example: David Baker, the Montgomery brothers, and the Hampton family, were all a product of the same band director in Indianapolis. For Metheny, the first element of competition instead came from within the family: “The key to everything would be my older brother Mike, who was an amazing musician at a very young age ... and really most of the attention was rightly focused on his musical ability” (Niles 2009, 3). Later, in the early stages of Metheny’s professional career, he became a member of Gary Burton’s band. A professor at the Berklee College of Music in Boston, Burton has a long history of helping cultivate the development of young guitar talents; among them Mick Goodrick, John Scofield, and more recently Kurt Rosenwinkel.

Summarizing his three years in Burton’s group, Metheny recalls:

I could never overemphasize enough the unbelievable benefits that have come to me as a musician and a student of music through the hours that I was able to be around Gary as a player, and also things that he would offer off the bandstand in terms of the way you analyze music, the way you look at chords, the way you fit into situations dynamically, texturally, in terms of how much activity is required in order to achieve this or that effect. And then for him to be able to go up on the bandstand and demonstrate in the most artful way...the impact that had on me as a developing player was absolutely enormous (Niles 2009, 30).

Metheny's experience in Burton's band is indicative of typical ear training, theory, and performance pedagogy in the jazz tradition, with concepts more often learned through the process of oral transmission and musical demonstration than from a written resource. As comprehensive publications concerning jazz theory and pedagogy traditionally did not exist, older and more experienced musicians were absolutely central to the process of a jazz musician's development.

1.4 – Path of Commitment

Berliner notes that a jazz musician's level of commitment is often informed by a sense of communal acceptance and rebellion; acceptance within the musical community, and a rebellion against the social norms of middle-class values. Embraced within the musical community of Kansas City, Metheny also recalls the sense of rebellion as a source of motivation: "As much as rock and roll might have offered me a window into rebellion against my parents, etc ... it offered me a far wider window to become interested in jazz. Because not only could I rebel against all those people, but I could rebel against all my friends and everyone else I knew in my little town in Missouri as well" (Niles 2009, 10).

Both social and musical factors influence interests, tastes and the comprehension of learners, influencing their interpretations of jazz and shaping their musical character. Naturally, the role of cultural milieu in the development of jazz improvisers is critical to this process. Berliner notes:

The development of improvisers would not be complete without considering their exposure to the diverse fabric of America's music culture and the particular demography of villages, towns, and cities where improvisers grew up...population and immediate musical environment may be distinctive and relatively uniform, but are as often pluralistic, representing different kinds of ethnic mixtures (Berliner 1994, 35).

For Metheny, the global trends of popular culture, the shifting social and political climate of the United States, the developments of expression that came with the power of the civil rights movement, the immediate folk sensibilities of small-town Lee's Summit, and the more sophisticated urban sensibilities of Kansas City, were all elements that shaped his formative years in the 1960's, and have remained strong pillars of Metheny's style throughout his career. A colleague and longtime admirer of Metheny's music, bassist John Patitucci describes Metheny's style, referencing the mixture of these cultural elements as idiosyncratic:

If I had to use a word to describe Pat's music it might be "heartland" because that's where he's from. It reminds me of Copland, Americana in the idealistic sense combined with Pat's incredible sophistication. It's got all the natural beauty and earthiness of the Midwest combined with a profound understanding of the jazz canon and vocabulary (Niles 2009, 81).

1.5 – Individualistic Dedication

Above all else, perhaps the most unifying characteristic of great jazz improvisers is their unwavering devotion to music: listening, collecting, practicing and performing music constantly in a quest for further self-

development. This sense of personal responsibility is a defining characteristic of the jazz community, and a necessary initiative for artistic growth. For Berliner, “The jazz community's educational system sets the students on paths of development directly related to their goal: the creation of a unique improvisational voice within the jazz tradition” (Berliner 1994, 59). The often orally transmitted and informal course of learning makes a high level of commitment increasingly important however, as many of the solutions accompanying the developing jazz musician’s inquiries are often elusive or unpublished. Metheny speaks about his relentless commitment to learning, and the level of preparation he required in order to facilitate improvising at a high level:

It never came easy for me ... I went through a stage early on, which was actually of great concern to my parents. I used to practice eight, nine, ten, up to twelve hours a day. I was really determined to find out as much as I could about music. This was during the time when I was supposed to be learning how to read and write! This caused me to be nearly illiterate until much later in life when I started to learn other things (Niles 2009, 145).

Through Metheny’s intensive process of forming, he succeeded in developing an innovative approach to jazz guitar and a distinctive sonic aesthetic. In doing so, Metheny has become one of the most influential and popular jazz guitarists of the late 20th Century, garnering more commercial and critical acclaim (in both album sales, Grammy Awards, various “best jazz guitarist” polls, etc.) than any other guitarist of the era. Since his debut album as

a leader in 1975 with *Bright Size Life*, Metheny has developed an expansive improvisational style that has included not only traditional bebop and blues influences, but also elements of folk, latin, free-jazz, rock and popular music. Much like the musical idols he held throughout his early development, Metheny has succeeded in blurring the line between various stylistic boundaries, distinctively blending and incorporating the sensibilities of disperse genres with the complexities of modern jazz. This eclectic and versatile use of musical vocabulary is perhaps one of the strengths of his popularity. Metheny's ability to speak to a broad spectrum of musical consumers has been realized through album sales totaling roughly 20 million.

1. 6 – Summary

In outlining a biographical sketch of Pat Metheny's early models for development, performance opportunities, and the path of his commitment, his process of forming should serve to provide notable insight toward the approach Metheny takes in conceptualizing and conveying musical meaning. Music for Metheny is defined in largely qualitative, conceptual terms, over a cerebral approach. The communicative notion of reference and meaning through music, and the distinction between qualitative versus cerebral conceptualization of music is investigated further in the later chapters of this study (see Chapter 3.4).

Chapter 2

Prototypes for Jazz Analysis

As the academic study of jazz improvisation has progressed over the past five-and-a-half decades, certain articles, books and studies have become relevant for their analytical approach toward the perception of forces that create coherence within a jazz improvisation and in many cases the aesthetic values by which jazz improvisation is judged. As this study concentrates on musical meaning within the improvisational style of guitarist Pat Metheny, it is worthwhile to provide an investigation of the research methods of four key analysts concerned with this field of research, namely: Gunther Schuller, Thomas Owens, Lawrence Gushee and Henry Martin. Each of these analysts have examined the structural elements that they perceive as creating the greatest level of coherence within a given performer's improvisational style, and in each case has developed a characteristic theoretical focus and set of aesthetic values for which to judge coherence in jazz improvisation, summarized below. The methodology of these analysts provides both historical context and distinctive templates for analytical discourse concerned with the study of jazz improvisation. Each has influenced the analytical approach applied to this study of the improvisational methodology and style of Pat Metheny.

2.1 – Andre Hodier

An early publication of note in the discourse surrounding jazz improvisation, Andre Hodier's *Jazz: It's Evolution and Essence* discusses the notion of continuity of thought in the forming process of the improviser. Hodier relates that the concept of "telling a good story" among improvisers recognizes the value of sound development, with continuity of thought being vital to its success. To illustrate this discussion of continuity, Hodier carries out an analysis of a Fat's Waller solo on "Keepin' Out", and later compares this analysis in relation to the forming process of the solos of Art Tatum.

Hodier observes Waller's "Keepin' Out" improvisation to involve elements of thematic exposition and continuity, melodic paraphrasing, and free variation. Through examining these musical attributes, Hodier aims to shed light on the extent to which Waller's improvisation is "worked out", or in other words, pre-rehearsed. Though acknowledging the futility of making an objective judgment on an improviser's internal thought process, Hodier states that an estimated assumption can be made based on certain musical indications. Hodier arrives at the conclusion that "Keepin' Out" is not an organized composition, nor the product of creative meditation, but the result of a crystallization of thought in the course of successive improvisations, and therefore partly worked out. In other words, Hodier believes Waller's improvisation to be a rehearsed version of that which the performer has developed having rehearsed or performed the piece often, revising details of the performance freely according to his

spontaneous preference. To contrast Fats Waller's approach, Hodier calls to mention the solos of Art Tatum. Tatum's solos, known to be largely pre-composed compositions, are defined by Hodier as purely worked out. Though Tatum holds a great gift for composition Hodier explains, he does not hold the gift of spontaneous continuity of thought.

A purely pre-planned solo reduces the weaknesses in continuity that a purely spontaneous free variation improvisation may hold. However, a pre-planned improvisation also has disadvantages in that it leads to a routine manner of performance that favors security over the satisfaction of spontaneous creation. In this scenario, the performer loses the essential creative passion of spontaneous jazz performance, while listener the lacks the attraction of hearing something fresh and new. Hodier acknowledges that one form of expression does not exclude the other, and that sound development in the continuity of thought trumps to what degree the improvisation uses a pre-planned forming process. Consequently, a soloist must find a balance within the spectrum of spontaneous creation versus a pre-planned approach, or the crystallization of thought achieved through the successive practice of improvisation over a piece's framework, to arrive at a product that is passionately performed, holds sound development, and is engaging for the listener.

2. 2 – Gunther Schuller

A primary article on the analysis of jazz improvisation to achieve attention in the field of jazz scholarship, Gunther Schuller's essay "Sonny Rollins and the Challenge of Thematic Improvisation" was published in *The Jazz Review* in 1958 and investigates Rollins' progressive improvisational method through an analysis of his extended solo on the piece "Blue 7." Schuller first recounts jazz's development from a style favoring collective improvisation to a style that propelled the featured soloist to the forefront of the ensemble. Noting that over time major historical developments in improvisational methodology had largely been dictated by the central figures of the musical era in which they existed, Schuller puts forth a list of figures that includes Louis Armstrong, Lester Young, Charlie Parker, Miles Davis, and lastly Sonny Rollins. Schuller argues that prior to Rollins' advancements, developments in melodic conception and originality had existed principally through either a "paraphrase" or "chorus" style; paraphrase referring to an embellishment or ornamentation of the melody, and chorus referring to an improvisation based freely on the chord structure.

It is noteworthy that Schuller likens this dichotomy to the distinction of composers and performers within the 16th to 18th century Western art music tradition, customarily differentiating between the use of "elaboratio" (ornamentation) and "inventio" (free vibration). Schuller notes that beyond the paraphrase or chorus style, Rollins succeeded in introducing a more progressive approach to the jazz solo, deemed "thematic improvisation"; one possessing an

overall sense of structural unity throughout. Prior to this stylistic advancement, Schuller argues that the jazz solo had largely suffered from a general lack of cohesiveness and direction, and that exceptional solos of earlier periods had held together as balanced compositions more by virtue of the performer's intuitive talents than for the conscious consideration of thematic or structural attributes, counting Louis Armstrong's "Muggles," Coleman Hawkins' "Body and Soul," and Charlie Parker's "Koko" as exemplary in this regard, for example.

On the other hand, Schuller denotes the average improvisation as a "stringing together of unrelated ideas" without relation to the melodic content of the piece or a preceding improvisational idea, and to likely include quotations of "irrelevant" melodic material. To Schuller, Rollins' new thematic style signaled a historical advancement in the method of jazz improvisation with the sophistication of its approach. It represented the maturation of jazz improvisation beyond not only expressions of melodic embellishment and a series of seemingly unrelated ideas, but to also include the "intellectual properties of thematic and structural unity." Tellingly, Schuller notes that just as the history of Western classical music had developed from largely non-thematic beginnings in the early middle ages to the great thematic masterpieces of the classical era, so too does jazz give every indication of following a parallel course, with thematic relationships becoming increasingly more integral.

Schuller believes that by building on the paraphrase and chorus style traditions already in place by improvisers such as Lester Young and Charlie

Parker, Rollins effectively expanded and renewed stylistic traditions. The application of developing and varying a main theme beyond just a secondary motive or unrelated phrase (in other words, a theme that stems from the piece's melody or principal improvised chorus) establishes to Schuller the significance of structure and logic in jazz improvisation. Based on these insights, Schuller's analytical methodology can be seen as primarily "motivic," in that it is concerned with how a performer's application of motives creates coherence throughout an improvisation; a view largely tied to the aesthetic values of traditional Western art music traditions.

2.3 – Thomas Owens

An impressive and comprehensive study, Thomas Owens' 1974 UCLA dissertation "Charlie Parker: Techniques of Improvisation" is one that stands as a landmark in the field of jazz scholarship for the breadth of its research and the depth of its insight. Within the study, Owens establishes Parker's improvisational concept as formulaic, separating Parker's performances into meticulously labeled motives and their variants, cataloguing them by their frequency of use, harmonic implications, melodic length and structure, and their most common keys. (Owens 1974, 17) Owens selects approximately 250 performances for transcription and study, organizing his analysis by key, harmonic structure and tempo, focusing largely on Parker's most-performed and recorded repertoire. Out of Parker's known recordings, his most prominently

performed songs were based on the harmonic structure of the blues (175 recordings) and “rhythm changes” (147 recordings), and various pieces under the genre of “popular song” (with approximately 10-25 recordings each) which include “What is This Thing Called Love,” “How High the Moon,” “Easy to Love,” “Out of Nowhere,” “Scrapple from the Apple,” “All the Things You Are,” “Cherokee,” “Night in Tunisia,” and “Groovin’ High” (Owens 1974, 9).

The sheer quantity and variety of material that Owens draws upon in his study allows him the ability to observe Parker’s style in a variety of playing circumstances, from the tense atmosphere of the recording studio to bootlegged recordings of informal jam sessions (Owens 1974, 10). Based on Parker’s use of motives, Owens makes the categorical distinction of separating Parker’s recorded work into an “early” and “mature” period, with Parker said to be fully developed in his improvisational style by age 24. In reference to Parker’s mature period, Owens writes:

From September 1944 through December 1954 the recordings show no significant changes in technique or conception, and only a few subtle shifts in motive preferences can be documented during the ten-year period (Owens 1974, 5).

With 97 motives in total as variants of 64 motive groups, the length of Parker’s motives varies between both shorter and more complete phrases. Short phrases are commonly adaptable to a variety of harmonic contexts and are the most frequently used motives, occurring in virtually every key and piece. Longer phrases outline well-defined harmonic implications, and are correspondingly

less frequent. Additionally, most of Parker's motives occur within a variety of keys, but some are confined to just one or two pitch levels (Owens 1974, 17).

Owens defends Parker's formulaic improvisational methodology against criticism – stating that far from monotonous, unduly repetitious or uninteresting, it is found to be intrinsically spontaneous, full of variety and exciting (Owens 1974, 35). Here Owens further justifies Parker's reliance on motives:

Every mature jazz musician develops a repertory of motives and phrases which he uses in the course of his improvisations. His "spontaneous" performances are actually pre-composed to some extent. Yet the master player will seldom, if ever, repeat a solo verbatim. (p. 17) Each new chorus provided [Parker] an opportunity, which he invariable took, to arrange his stock of motives in a different order, or to modify a motive by augmenting or diminishing it, by displacing it metrically, or by adding or subtracting notes...no one could create totally new phrases [at 200 beats per minute]. Many of the components of those phrases must be at the fingertips of the player before he begins if he is to play coherent music (Owens 1974, 35).

Here Owens asserts the essential value of a formulaic system, highlighting the demanding mental processes required for the conception of coherent ideas at high tempos of improvisation, and places aesthetic value on the inherent creativity and slight variances within Parker's systematic approach.

With insight into Parker's "early" improvisational period, Owens calls to our attention two solos on "The Jumpin' Blues" that were recorded five months apart and are largely the same; providing evidence that Parker may have pre-composed particular solos that were important components of his repertoire at

the time, or specifically for recording session, in contrast to the constant inventiveness of Parker's mature period (Owens 1974, 42). Using reductive Schenkerian analysis, Owens' study finds little to no connection between the improvisational content and the melodic content of each piece's theme, nor a prolonged sense of "thematic or structural unity" throughout. Owens does however find "melodic carryovers" between different choruses of improvisations, illustrating that coherence and continuity is achieved by the arrival at similar chord tones through nested scalar descents, relying again on Schenkerian analysis for these conclusions. Though Owens does not find motivic elements as contributing towards structural unity within Parker's improvisations, he does find that structural unity exists through the arrival at background-level chord tones, and places aesthetic value on the creative ways that Parker uses his formulaic system and nested scalar descents to arrive at them.

2.4 – Lawrence Gushee

Lawrence Gushee's 1977 article "Lester Young's Shoe Shine Boy" uniquely focuses on the concept of jazz improvisation as "oral composition." A leader in the fields of both medieval music and jazz theory, Gushee is influenced by the concepts of oral transmission first introduced by Albert Lord in his study of Yugoslav epic singer-poets. Gushee values the transmission of musical ideas in jazz, where one has recordings to show how ideas develop from one take to the

next, and believes that studies of jazz should contextualize each recording to the whole of an artist's body of music. He also states that if relevant, transcriptions of the accompanying musicians and not just the solos may be illustrated to show how a musician's interaction with others contributes to the improvisational process. Gushee believes that as a great deal of the musical expression in the jazz idiom is "oral," in that it is carried on without the aid of musical notation, the study of the transmission of musical ideas in jazz is worthwhile (Gushee 1977, 225).

Though owing some of his central concepts to Albert Lord, Gushee rejects the specific definitions of transmission and socially defined value on which Lord relies, believing that a rigid taxonomy between *written* and *oral* transmission proves misleading in an analysis of the creative process as applied to jazz. Gushee instead recommends versatility in his analytical style, in recognition of the fact that different performers operate cognitive processes with fluctuating levels of methodology, emphasis and control (Gushee 1977, 226). Furthermore, Gushee makes the case that:

There is no commonly accepted method of jazz analysis. The most thorough and consistent applications of analysis to date are those of Thomas Owens and Gunther Schuller ... these represent in my opinion, two distinct approaches which I designate 'formulaic' and 'motivic' respectively (Gushee 1977, 228).

Gushee summarizes Schuller and Owens' analytical approaches (Gushee 1977, 237):

Motivic (Schuller): Demonstration of organic relations, development, climactic (tension-release) structure, and logically connected ideas.

Value system: A criteria of logic, the aesthetic merit of the work.

Formulaic (Owens): Labeling of phrases according to the performer's individual lexicon, description of melodic/harmonic function, relaxed logical requirements.

Value system: The generation of a substantial vocabulary, choice of compatible formulas, inherent creativity within the vernacular.

Gushee also identifies two additional analytical approaches:

Schematic: The production of continued expression by transformation of a fundamental structure, including a phrase, harmonic structure or general outline as well as other patterns.

Value system: Structural aptitude, skill in the process of forming.

Semiotic: Meaning as given by the system of signs – as defined by the culture and popular literature of jazz.

Value system: Undefined.

Gushee advocates the eclectic mixture of these analytical approaches, as well as recognizing other unquantifiable musical attributes, noting that: “often such decisions as to incoherence do not take into account such features as timbral continuity or a characteristic [rhythmic sensibility]”; attributes that can be applied both to the sensibilities of the overall ensemble or to the individual soloist. With regard to motivic structural attributes, Gushee sees immediate

repetition as relatively weak, and repetitions coming after significantly contrasting material at the same duration level as strong (Gushee 1977, 239). More than any other analytical system however, Gushee chiefly uses the “schematic” method to compartmentalize his analysis of Lester Young’s solo, doing so with the components of technique, expressivity and logic. In simple terms, Gushee states his analytical intent:

The [soloist’s] goal is to demonstrate “chops, “soul” and “ideas” ... while these need not be used [in every case to] separately to mark off one part of a solo from another, or used in the service of a rhetoric corresponding to the social and formal articulations of a solo, I believe that they are in the performances of “Shoe Shine Boy” by Lester Young.

Within the overarching schematic focus, Gushee finds evidence of the use of formulas, but makes the distinction between the use of a formula (a more or less literal motive or phrase repetition), versus the use of a “formulaic system” (a more generalized structure outline embracing many formulas) – stating that in the case of a mature improviser, transformation and varied repetition is assumed to be a fundamental forming process (Gushee 1977, 239). Additionally, Gushee gives the distinction of “superformula” to that which is frequently recurring and recognizable, but ultimately variable.

Throughout the study, Gushee makes clear his aim to address not only the “what” and “how” of formulas in his analysis (ie. melodic structure and harmonic function) but also the “why” – how the formulas function within the forming process. For example, some formulas may exist as a means to allow the

improviser time to consider what to play next. Relating back to Lord's discussion of the epic poet-singer, Gushee states in much the same way the jazz improviser is comparatively "always thinking ahead and has perhaps already forgotten what he's playing while doing it," an argument that holds particular weight especially at high tempos and when dealing with complex harmonic information (Gushee 1977, 248). Additionally, Gushee notes that factors such as a decision to be less chance-taking and more technically conservative over the desire to play something more adventurous and challenging, or the choice to construct a more comprehensible sequence of ideas for the listener over something more abstract may be at play in the composition of an improvisation.

In response to the analytical use of the term "motives," Gushee believes it to imply a shift in analytical focus from that of the oral to the composed, and unprofitable as it refers to the performance as not one possible arrangement among many but to the performance as a fixed creation – from the variations of a basic form to the repetitions or transformations of a motive that make form (Gushee 1977, 248). Though Gushee does acknowledge that intentional pre-composed elements do exist in the oral poetic of jazz, he prefers to see Young's structural approach as more flexible. Consequently, Gushee sees Lester Young as making use of a schematic "rhetorical plan" in his approach to improvisation, divided into three parts including:

1. An intelligible musical idea – to attract focus from the band to the soloist.

2. Demonstration of instrumental talent – including technical facility, expressivity/musicality, originality of ideas, and to some degree logic.
3. A recognizable or clichéd lick – to essentially “wrap up” the performance.

Gushee states, “there is no reason why [the rhetorical plan] should be complicated; after all, it only determines the course of musical events in a general way, and over relatively long durations. Perhaps it is in this respect not unlike the general thematic plan of the epic poet-singer, or the sequence of movements in a [classical] concerto” (Gushee 1977, 251). Though there is an overarching focus on a schematic rhetorical plan, Gushee believes that deeper internal structural elements work to create further coherence in the improvisation, resulting in a greater degree of “memorability” in the performance, contributing to the ability of the work to be notable and aesthetically valued.

An additional criticism Gushee holds towards common methodology in jazz analysis includes the excessive description of formulas in an overtly vertical “melody-over-harmony” approach that neglects the more advanced dimension of how the phrases work together to create a schematic system. Gushee states:

Jazz performance is sometimes explained as based on harmonic progression. This is often meant in some fairly strict sense, that is, jazz uses the pitches of the “vertical” harmonies as the primary constituents of “horizontal” phrases. An extreme example would be a solo consisting only of the arpeggiation of the changes. Approaches to such an extreme do exist but are not generally admired, unless in some instances as tours de force (Gushee 1977, 247).

Gushee also makes note of incautious assumptions among analysts of what the chord changes actually are, relying on a lead sheet or fake book rather than from the rhythm section as actually recorded. Constantly referring to jazz improvisation as “oral composition,” Gushee makes clear his belief that as jazz improvisation is a distinctly oral-written tradition, the nature of its composition quite often proceeds along several structural tracks at once, requiring multiple angles of analysis to uncover what contributes to the profundity or coherence of an improvisation (Gushee 1977, 253).

2.5 – Henry Martin

Henry Martin’s analysis of Charlie Parker’s improvisational style in his 1996 book *Charlie Parker and Thematic Improvisation* recounts Parker’s improvisational approach as one that is beyond simply formulaic attributes, and deemed structurally “thematic.” Martin makes the case that more than simply a stringing together of unrelated formulas, Parker’s solos are closely tied to the thematic material of the composition’s melody, stating:

What is slighted in Owens’ study is how Parker transcends the mechanical application of formulas; and how in many instances their effectiveness lies in unexpected motivic connection to the original thematic material...this book, then, is a corrective, redistributive balance of Owen’s assessment (Martin 1996, 5).

Possessing many similarities to Owens' study, Martin's musical source material is largely the same (including the three categories of blues, rhythm changes and popular standards), and uses an adapted Schenkerian-style method of analysis. However, Martin prefers the use of the term "voice-leading" analysis over "Schenkerian" analysis, as Schenker did not develop for or apply his techniques to jazz, and because Martin's analytical method is based on the voice-leading and harmonic practices of bebop. Furthermore, Martin finds that a single, definitive answer for Schenker's highest level (background) of voice-leading analysis as applied to the highly chromatic melodies of bebop improvisation proves futile, due to the increased status of extended chord tones, and the function of sevenths as consonances requiring no further resolution. Instead, Martin prefers to base his analytical conclusions closer to the foreground level of the Schenkerian system:

The criteria for a pitch to be "advanced" to a more background level are unclear. The consonance-dissonance requirement that often suffices at the foreground is simply impossible to apply unarbitrarily to high levels where evidence of "support" is more equivocal (Martin 1996, 20).

The subjectivity and ambiguity of note significance is further increased as applied to jazz, where perhaps only avoid-tones (non-triadic pitches that create a minor ninth interval against a structural chord-tone) can be conclusively found to hold less significance among other available diatonic pitches at a given time. Martin observes that in practice, Schenkerian analysis derives higher (background) levels by invoking:

1. Diminution from the foreground: the value of a pitch's hierarchy based on the supremacy of the triad.
2. The completion of implied patterns: quite often descending figures that resolve ultimately to the tonic pitch.
3. The prominence or importance of favoured pitches: (most vaguely) through repetition, accent, or registral placement.

Regardless of these subjective and often vague qualifications for structural pitch hierarchy, the function of individual notes can be classified perhaps more objectively, with Martin seeing them as belonging to one of six categories:

- Chord-Tones (notes that build the essential structure of the chord)
- Passing Tones (notes moving stepwise from one chord tone to another)
- Neighbour Tones (complete: leaves and returns to the same chord tone by step – incomplete: essentially skipping over a chord tone, leaves by step or leap, and approaches a different chord tone by leap or step)
- Suspensions (chord tones acting to prolong a chord after its completion)
- Anticipations (chord tones acting to anticipate a chord before it begins)
- Appoggiaturas (notes that act to enclose around a chord tone, or that begin a new phrase by approaching a chord tone by step or leap)

Despite the ambiguity and subjectivity of background structure in Schenkerian analysis, Martin nonetheless believes that an investigation of background-level voice-leading interpretations can in fact reveal some of the overall processes of an individual piece:

For the power of voice-leading analysis lies in its advocacy of harmony as primary in large-scale tonal progressions: it shows how tonal compositions are unified through nested harmonic structures, and how these may be related to foreground material (Martin 1996, 21).

Martin argues that most relevantly, the issue of thematic relatedness must be examined from the perspective of either the player or listener; either as intentionally projected by the artist or inferred by the analyst (Martin 1996, 34). Martin believes that a shift to the point of view of the listener proves profitable to his study of thematic improvisation, as “what is important [to my study] with respect to its structure is what can be heard and felt, not what was intended” (Martin 1996, 36). Martin admits however, that “potential musical connections, even cogent ones are numerous – theoretically even infinite – such plethora of musical relatedness cannot possibly be at the conscious grasp of any musician, however gifted” (Martin 1996, 36). On the other hand, Martin believes that studies in the field of pedagogy or historiography are more suited to an investigation of the player’s intentions:

... musicians who wish to improvise well naturally would like insight as to the thought processes of players they emulate. And certainly most of us would like to know what highly regarded players were thinking or intending, for its own obvious interest (Martin 1996, 36).

Martin’s study of thematic relatedness, investigated from the perspective of the listener and using an adapted Schenkerian-style approach to analysis, finds evidence of many unifying features in Parker’s improvisations that tie them to the underlying foreground motives, large-scale voice-leading structures and

large scale thematic elements of the piece's melody on which they are based.

Though acknowledging the formulaic elements within Parker's playing, Martin makes a case that the use of a formulaic system does not preclude a group of notes from being all or partly thematic.

Chapter 3

A Contemporary Approach to Jazz Discourse

3. 1 – Pedagogical vs. Analytical

In addition to distinctions of motivic, formulaic, schematic and thematic structural coherence and aesthetic value discussed in Chapter 2, discourse in jazz improvisation can also be identified with regard to the *function* it serves: as belonging to the sphere of either pedagogical, or analytical discourse. These functional distinctions are observed by Henry Martin in his article “Jazz Theory: An Overview” (1996) from the *Annual Review of Jazz Studies*. In the article, discourse is defined as such:

Pedagogical: “musician-based” – focused on fundamental rudiments or speculative techniques, suggesting the creative strategies or cognitive processes in which a musician may be involved.

Analytical: “listener-based” – focused on elements of structure, general stylistic trends, and musical connections, often concerned with aesthetic issues of relevance.

In some cases, pedagogical and analytical discourse may overlap: a jazz theorist may adopt an analytical point of view in order to establish elements of style in a given artist, and then switch to a pedagogical point of view to show how the style of that artist functions or may be emulated. Within Martin’s paper, the proposition of some unifying principles for jazz discourse are also provided:

We should never neglect what brought us to jazz itself: the music, and our emotional and aesthetic response to it ... attempting to fathom what is happening sonically to the extent that it can be pinned down ... to pursue a closer scrutiny of how jazz *works* as music (Martin 1996, 4).

Emotional and aesthetic responses are highly relevant to Metheny's music, and the qualitative meanings associated with what is being expressed and felt in the music will be recognized in this study's discourse. Qualitative meanings can sometimes go unaccounted for in the theoretical discourse of jazz improvisation, with aesthetic judged solely on their structural and quantifiable features. In the excerpts of Schuller, Owens and Martin we observed in Chapter 2, aesthetics were judged on solely structural and quantifiable features. A principal rationale for a focus on quantitative attributes is understandable, being that written elements can be convincingly defined as objective, with demonstrative musical connections justified beyond what could otherwise be defined as speculative. Yet much of what is internalized and indeed conveyed by the practicing jazz musician is learned by the process of audiation: the process by which the brain assigns meaning to musical sound.

More than simply the perception of sound, developed audiation includes the necessary understanding of music to enable the conscious prediction of patterns in unfamiliar music and sound, particularly important in the performance practice of improvisation. In the distinctly oral/written tradition of jazz improvisation, developing musicians learn not just through the study and

use of sheet music, but owe much of their development to the act of oral transmission. These oral elements most often include:

- The verbal explanation of conceptual elements and the musical demonstration of jazz vernacular, by way of fellow musicians, who are most often older and more experienced
- The imitation of performances from recordings – jazz musicians often encounter periods throughout their development where they become engrossed in emulating the recordings of particular musicians
- The development of unique and individual cognitive ideas, that generate from knowledge the musician has already gained through written, recorded, or orally transmitted means

For Metheny, his development as an improviser had a great deal to do with his emulation of the recordings of Wes Montgomery and the successive cognitive ideas that lead to the development of his own improvisational voice.

Metheny recounts:

My earliest success as a player, around Kansas City when I was thirteen, fourteen years old, was under the auspices of sounding as close to Wes Montgomery as I could (Niles 2009:20). The way Wes was playing just made me want to listen to it again and again and again. Through that process of listening you naturally memorize things; you memorize not only what Wes or Miles [Davis] was playing but what was happening underneath them and around them ... really understanding a few records kind of allows you a window into the [mechanics of jazz as a whole] (Niles 2009, 14).

On Metheny's advancement towards the development of his own distinctive improvisational aesthetic:

[But] wouldn't it be better to look at Wes and say, 'Wow. This guy found a way of playing that was all his own' ... Why not find my own thing, as a tribute to Wes rather than the overt 'Here's some octaves' and so forth...then there's a period of roughness after that because that is part of what your vocabulary is, but it was a worthy moment for me to get to that place (Niles 2009, 21).

The study of written and quantifiable elements is simply one out of a collection of pertinent non-written oral and cognitive details involved in the process of forming for a jazz improviser. Yet, as many of these details are processed verbally and internally, the theoretical meanings associated with them remain non-standardized, consequently making the notion of oral transmission somewhat problematic for the jazz theorist. Martin relates his grasp of this particular dilemma in his article:

It can be argued that in learning to play by ear, a player internalizes rules in the broad sense, but does not learn terms or engage in the linguistic conventions commonly associated with those rules. Nor can such a player develop speculative models to extend musical ideas beyond what can be heard informally (Martin 1996, 5).

While addressing the need for a system of terms, Martin's argument holds the assumption that the jazz musician who learns orally is therefore verbally incapable of articulating musical meaning. Hypothetically, if a jazz musician were to learn to improvise purely through the imitation of musical recordings, the musician would then lack the ability to verbally articulate musical ideas in

widely accepted terms, however this scenario is rarely if ever the case. More often, a combination of oral transmission, the study of written elements, and the emulation or transcription of recorded music will guide the development of the improviser. Paul Berliner echoes this same sentiment in his book *Thinking In Jazz: The Infinite Art of Improvisation*:

Traditionally, jazz musicians have learned without the kind of support provided by formal educational systems. There have been no schools or universities to teach improvisers their skills; few textbooks to aid them. Master musicians, however, did not develop their skills in a vacuum. They learned within their own professional community - the jazz community (Berliner 1994, 35).

Because much of the process in forming for the jazz improviser has historically occurred outside the realm of institutionalized formal training, the verbal articulations that illustrate musical meaning often do not belong to a standardized system of terms in the purest sense. Martin asserts that “the analyst aims to show how the music works *in and of itself*” (Martin 1996, 10), a purely analytical stance that circumvents these oral elements. It is however in the interests of this study that qualitative components are incorporated to encompass the realm of jazz pedagogy, as pedagogy must reach beyond only written elements.

3. 2 – Pedagogical Continuity

Yet, while there is no shortage of pedagogical studies in jazz, their quality may be lacking, as Martin states: “What the field [of pedagogy] most urgently

needs is more articles and books discussing in musical detail either specific musicians, stylistic periods, or bodies of repertory...what is most urgently needed is a sense of continuity in the field" (Martin 1996, 13). It is the aim of this study then, to provide a resource enhanced by the recognition of oral transmission and qualitative meaning, beyond a purely quantitative-analytical approach. Outlining the difficulties in developing studies for jazz pedagogy in an oral tradition, Martin writes:

[Jazz] musicians nowadays prefer putting their ideas directly into practice – rather than publishing material about them. Perhaps the time is ripe for the pedagogical expertise developed over the past centuries in European music to be adapted to the special needs of jazz improvisation (Martin 1996, 13).

The notion that jazz musicians have been historically more focused on directly applying theoretical ideas than publishing information about them is one of the difficulties of an orally transmitted art form, and a primary motive for the importance of pedagogical research in jazz. It would however, prove misleading to approach jazz pedagogy primarily from the values of the Western art music tradition, a largely non-oral art form. Even more so, many elements of traditional classical technique prove non-applicable for the jazz musician. With reference to Lawrence Gushee's notion of jazz improvisation as a distinctly mixed oral/written tradition requiring multiple approaches of discourse, my study of the improvisational style of Pat Metheny acts to serve both analytical and pedagogical functions through a process of defining aesthetics in not only

their structural and quantifiable components, but also to address the qualitative musical meanings that are expressed through oral transmission, from a uniquely jazz-oriented perspective.

3.3 – Reductive vs. Processual

Just as the function of improvisational study is a matter of focus, John Brownell in his 1994 *Jazzforschung* article “Analytical Models of Jazz Improvisation” discusses in greater depth the *object* of study in jazz analysis, regarding the treatment of the improvisation as chiefly “reductive” or “processual.” Brownell explains that the ambiguity surrounding improvisation lies in the dual nature of its definition, being both an act and a product: “It is not always clear just what is being discussed: is the activity a performance, a composition, or a kind of editorial activity which blurs the performance/composition distinction altogether?” (Brownell 1994, 10). In other words, are we discussing the record of the improvisation after it has been completed? Brownell’s definition of improvisation as “performing music as an immediate reproduction of simultaneous mental processes,” establishes it as something to be distinguished from composition; a distinct subset in fact: composition processed in real-time. Would it then be valid to apply the analytical methods developed within the context of pre-composed European art music to the largely internal processes of improvisation? If improvisation is to be judged by the same structural-aesthetic standards of composed art music

without the merits of its spontaneity accounted for, it is to undoubtedly fall short of the carefully pre-composed art form by comparison. Jazz then, must be judged by different standards. Brownell identifies four common goals and attitudes often inferred by the jazz analyst, classifying these approaches as distinctly critical, categorical, ethnomusicological or pedagogical in nature:

Critical: To apply aesthetic value to structural features, with the subtle context of legitimizing jazz within the realm of music scholarship – to be comparably as complex, profound, and subtle as Western art music.

Categorical: To identify styles or commonalities, especially evident when used in comparative analysis – Kernfeld, (1980) identifies “Two Coltranes,” in a study that distinguishes improvisational creativity from uninspired pattern playing between stylistic periods.

Ethnomusicological: To define improvisation as a specific manifestation of a general form of human musical behaviour, especially regarding the act of oral transmission.

Pedagogical: To provide a written resource for the advancement of improvisational proficiency, that supplements the traditional socio-cultural processes of skill acquisition in the oral tradition.

Though the common approach in jazz discourse has been to treat the analysis of jazz improvisation as a subset of composed music, with the transcribed solo as equivalent to the score (often with more of a “critical” or “categorical” attitude), certain analytical models have developed an

understanding of improvisation inspired by Albert Lord's studies of the formulaic methodology of epic singer-poets, and have concentrated more on the improvisational process than its product, (often with a more "ethnomusicological" or "pedagogical" attitude). Brownell divides these two analytical attitudes into "reductive" and "processual" models:

Reductive: improvisation observed as a static object.

Processual: improvisation as the unfolding of a dynamic process.

Brownell is an advocate of the processual model, and puts forth a criticism deemed "notism": the fixation on the object of analysis over the process from which it is formed, arguing that what results from a "notist" analysis is a frozen record of what is really a dynamic process. Brownell asserts that one of the most prominently reductive forms of analysis in common practice is Schenkerian analysis, a technique that serves primarily to define harmonic and melodic structuralism to the neglect of several other significant attributes. A reductive, notist perspective within the formulaic method of jazz analysis would be to provide a taxonomy that establishes a principal formula and rigidly distinguishes its variants. However the formula, both in the literal and musical sense, is not a specific arrangement of elements but is rather a form or template, which is filled according to the needs of the moment. The process of identifying a formulaic *system* is therefore a processual mode of analysis and is fundamentally distinct.

3.4 – Formulaic Analysis

While reductive models borrow the majority of their analytical techniques from the theory of western art music, Brownell contends that processual models rely chiefly on paradigms derived from two non-musical sources: literary theory and linguistics. In literary theory, the ability of individual epic-poets to memorize extremely long passages of poetry was long regarded as more the stuff of legend than a tangible performance practice. It was not until Albert Lord's literary-theory study *The Singer of Tales* (1960), that mechanisms for the reproduction of epic poetry in a culture without writing were made clear. Lord explained that the bard in the Serbo-Croatian epic tradition is constrained in his choice of words by customary patterns of meter, syntax and sound, and as a result of these constraints, he tends to cast his most common ideas in similar phrasing, deemed formulas. These formulas serve as solutions to the problem of expressing a narrative within a particular set of restraints and the added demands of a live performance. They may also serve as the basis for the creation of unique expressions, as the singer can substitute key words in a phrase and create entirely new phrases modeled on the pattern of his formulas.

Thomas Owens' 1974 UCLA dissertation "Charlie Parker: Techniques of Improvisation" was directly influenced by Lord's formulaic concept, and was the first to apply the notion of formulaic devices to the discourse of jazz improvisation. Another prominent study in the field of jazz improvisation to be

influenced by Lord's theory is Gregory Smith's "Homer, Gregory, and Bill Evans? The Theory of Formulaic Composition in the Context of Jazz Improvisation" (1983), where Smith argues that the parallels between the creative process of the oral epic poet and the improvising jazz musician are exact, with both performers operating in the processual mode. For Smith, Lord's work shifted the focus from a literary analysis based solely on the content of epic poetry to a theory based on the facts of oral composition. But while formulaic analysis offers a more complete view of a complex activity, its use alone lacks addressing something essential to both language and music, the problem of meaning.

3.5 – Music and Meaning

Since both language and music are primarily forms of communication, the social relationship between performer and listener is relevant. Though musical communication has been an area of some concern for ethnomusicologists, it has received little attention in the field of musical analysis or pedagogy. A primary reason for this neglect may come from some inherent assumptions held by the music theorist, assumptions which may illustrate a fundamental lack of what constitutes a socio-cultural understanding of music. For example: Alan Perlman and Daniel Greenblatt in "Miles Davis Meets Noam Chomsky: Some Observations on Jazz Improvisation and Language Structure" propose an implicit hierarchy in a jazz audience based on the musical awareness of its members; the authors

divide listeners into “inside” (those with knowledge of jazz music and style) and “outside” (those with no special knowledge). The authors assert that:

The rest of the audience – the outside audience – really do not hear or understand improvised solos. For the outside audience, jazz improvisation does not have structural or historical meaning...they have no sense at all of what to *expect* from a solo (Perlman and Greenblatt 1981, 181).

It is true that few members of the jazz club or concert hall audience have studied music to the extent that the musician has – but does this make their understanding of music imperfect? Perlman and Greenblatt’s assumption overlooks the fact that each member of the audience has undoubtedly been surrounded by tonal music throughout their entire lives: they have listened to the radio, been to performances, bought records, talked to others about music, sung in a choir, played in a band, the list goes on. Simply because the listener does not grasp a rapid course of notes one by one or comprehend the movements of complex harmony does not make their perception of meaning through music false or imperfect; if this were the case, jazz clubs and concert halls simply would not exist.

These listeners simply understand what they hear in a more fundamental way: they are following the arc of the melody, the mood of the harmony, the vitality of the rhythm, the texture of the timbre, impacts of the dynamics, recognitions of the form, and so on. This “non-expert” element of understanding is often not addressed in jazz discourse, but jazz music’s incorporation of art-

music elements within an essentially informal-oral tradition makes it a strong candidate for studies that acknowledge the expression of meaning between performer and listener. This question of meaning through expression leads us again to the study of language, where attempts have been made to find parallels between musical elements and linguistics. The first logical step here might be to observe the methodology developed for the analysis of poetry to the analysis of music; in other words, the study of semantics. Yet, the same semantic categorizations that apply to poetry do not apply to music. Lerdahl and Jackendoff in “A Generative Theory of Tonal Music” contend that:

[Music’s meaning is] in no sense comparable to linguistic meaning; there are no musical phenomena comparable to sense and reference in language, or to such semantic judgments as synonymy, analyticity, and entailment. Likewise there are no substantive parallels between elements of musical structure and such syntactic categories as noun, verb, adjective, preposition, noun phrase, and verb phrase (Lerdahl and Jackendoff 1983, 5-6).

Though formulas have semantic value for the epic poet, the same cannot be said for the musical fragments identified by Thomas Owens or Gregory Smith. Further attempts then, to define musical meaning were made through the search of a set of universal principles that act to convey meaning. A fundamental idea in structural linguistics, the concept of “deep structure” is the web of relationships between grammatical units (the syntax) that underlies language, popularized by Noam Chomsky and others. Music theorists quickly attempted to find parallels for deep structure within musical analysis, most notably by focusing on the

analytical models of Heinrich Schenker, with their background, middleground and foreground levels of structural organization. Yet, it can be argued that music need not abide by such specific structural requirements to possess meaning.

Leonard B. Meyer in *Emotion and Meaning in Music*:

Beneath the profusion of seemingly disparate styles, it was argued, lay fundamental absolute principles, which governed the structure and development of music everywhere...but when these laws were not discovered, this form of monism was discredited and went out of fashion (Meyer 1956, 49).

Yet despite this, many music analysts continue to place emphasis on the background structures that they believe to govern music's meaning, often citing Schenkerian-style analysis.

Another angle on the musical comparison to linguistics in practice is the "well-formedness" criteria, or the aesthetics that "allow" music's formation to be meaningful. An example of this would include the rules of counterpoint and functional harmony that dictated acceptable melodic and harmonic motion in the Western Baroque-era art music of Bach and his contemporaries. Yet if one is to compare music to linguistics in this sense, it can be seen that the structure of a word is not the only criterion that creates its meaning: for example, a well-formed word need not be meaningful – the construction "dorg" is well-formed in that it follows the rules for word construction in English, but holds no widespread meaning. Another combination of the same letters, "rgdo," is neither well-formed nor meaningful. Yet both of these words could conceivably hold meaning; one need only read the post-modernist literature (see Douglas

Coupland and others) or observe the Internet, to find that traditional semantics have been altered in the modern era; as colloquial slang and vowel-less acronyms become increasingly more widespread and pervasive. The rules that define effective semantics in language no longer lie solely in the hands of published literary professionals, and the “non-expert” linguist has gained greater influence. Therefore, above semantics or the notion of aesthetic requirements, the fundamental element in the perception of meaning through language is simply that it possesses a referent: an attribute allowing it widespread familiarity or contextualization. Consequently, some have argued that this same principle applies to inherent meanings within music.

3. 6 – Music and Cognition

Theorist Daniel Levitin in his book *This Is Your Brain on Music* presents an understanding of music based on neuroscience, concerning himself with the way the brain assigns meaning to music. Levitin finds that the brain is responsive to perceptions of expectation based on previous experience over preferred aesthetic qualities that impose intrinsic value, writing:

Our ability to make sense of music depends on experience, and on neural structures that can learn and modify themselves with each new song we hear, and with each new listening to an old song. Our brains learn a kind of musical grammar that is specific to the music of our culture, just as we learn to speak the language of our culture (Levitin 2006: 108).

Perhaps then, that just as in the perception of language, the fundamental requirement for creating meaning through music is simply that it possesses a “referent,” being that it holds representation tied to experience and familiarity. To process music, starting at the purely physiological level, the brain manages to sort a disorganized mixture of molecules (soundwaves) that beat against a membrane (the eardrum) through a process of feature extraction, followed by a process of feature integration. First, specialized neural networks in the brain extract elements of pitch, timbre, spatial location, loudness, reverberant environment, note durations and onset times through a process called “bottom-up processing”; these operations can be processed concurrently or independently of one another, and are the building block attributes for the cognitive perception of music.

The brain then combines these basic elements to coalesce an integrated representation of form and content through a process called “high-level processing.” The higher-level areas of our brain, mostly the frontal cortex, are receiving a constant flow of information about what has been extracted so far, continually rewriting older information. Meanwhile, the brain works diligently to predict what will come next in the music. It is the setting up and subsequent manipulating of expectations that is at the heart of music’s meaning; the source of which can be a reaction to any number of the aforementioned “bottom-up” elements. The manipulation of expectations to these elements can be established in a few major ways:

- What has already come before in the piece of music we're hearing
- What we remember will come next if the music is familiar, based on previous exposure to the particular piece
- What we expect will come next if the genre or style is familiar, based on previous exposure to this type of music
- Any additional information we've been given, such as a summary of the music we've read, visual or other sensory stimulus (Levitin 2006, 104)

How then, does music actually manifest into cognitive representations of meaning and emotion?

Music then, can be thought of as a type of perceptual illusion in which our brain imposes structure and order on a sequence of sounds. Just how this structure leads us to experience emotional reactions is part of the mystery of music. After all, we don't get all weepy eyed when we experience other kinds of structure in our lives, such as a balanced checkbook or the orderly arrangement of first-aid products in a drugstore (Levitin 2006, 109).

Levitin goes on to explain that in the brain the amygdala, long considered the seat of emotion in mammals, sits adjacent to the hippocampus, long considered the centre for memory storage and retrieval. Neurological studies have shown that the amygdala is highly activated by experiences that trigger memories holding a strong emotional component, and that much of our sensory perceptions are bound to emotion through memory. Scent is widely accepted to be the strongest sense tied to memory, with the ability to evoke memories and

emotions associated with a particular smell. An image of a significant time or place can trigger emotions tied to specific memories. And not least, the words that comprise the language that we hear and read can provoke emotion through a depiction of the human experience. Much like language, music is a readily *generative* experience: in that one learns to recognize a system of identifiable components through which to create a vast number of potential outcomes. Music's widely varied, multi-dimensional set of parameters act to create any number of cognitive abstractions of structure and form in our minds, recognized through the subsequent setting up and manipulation of expectation.

3.7 – Summary: Contemporary Outlooks in Musical Analysis

Many contemporary theorists in musical analysis are perhaps moving towards a more processual and less reductive approach. A more reductive analytical framework chiefly aims to provide objective quantifiable evidence related to structure and form, often circumventing subjective and speculative detail. Schenkerian analysis is, for example, one of the more reductive frameworks for analysis, aiming to illustrate large-scale structural continuity within a piece of music, and value it accordingly. Nicholas Cook, in his article "Schenker's Theory of Music as Ethics" in *The Journal of Musicology* (1989), reveals some of Schenker's incentive behind his popular analytical methodology. Cook details that in the original edition of Schenker's *Das Meisterwerk in der Musik* (1925), various philosophical or political views were closely tied to his

insights into musical structure and performance. Schenker perceived there to be a fundamental lack of musicianship and intellect among performers and audiences alike. In Schenker's words:

The audience as well as performers ... plod along from one passage to the next with the laziest of ears and without the slightest musical imagination. All they hear is the constant change between tonic and dominant, cadence and cadence, melodies, themes, repetitions, pedal point (Cook 1989).

Such metaphysical excerpts have since been removed, perhaps through a revisionist approach, as they are absent from Oswald Jonas' 1954 edition of Schenker's "Harmony" (Cook 1989). Nonetheless, Schenker's method suppresses foreground contrast in order to stress the large-scale continuity of the music; in other words, the connections that he believed performers failed to acknowledge or convey.

Alternative approaches to analysis have found success in the field of music scholarship as well. Theorist Steve Larson in his article "Integrated Music Learning and Improvisation: Teaching Musicianship and Theory Through Menus, Maps and Models" in *College Music Symposium* (1995) details his view that the study of music is achieved best when "integrated": that is, the combining of different ways of understanding musical relationships. Larson's ways of musical understanding include intellect (mind), visual (eyes), aural (ears), vocal (voice), digital (fingers), emotional (heart), kinesthetic (body) and that to integrate two or more of these ways of knowing strengthens one's understanding. For

example: someone may know intellectually that the fourth and seventh scale degrees are active tones that tend to resolve to the third and eighth degrees respectively, and may also recognize these resolutions as an aural event. However, until that person associates these two ways of knowing, the learning is not integrated and thus the person would not be able to identify the resolution. In integrating two ways of knowing, each form of understanding is strengthened by the other (Larson 1995). In the same way, an element of musical structure may be observed as more than purely one type of structure; what is deemed structural or motivic may also be seen as melodic or formulaic, and the acknowledgment of the structure as more than one type may only strengthen an analytical understanding of it. Noted musicologist Bruno Nettl has also championed the integrated approach to musical analysis, favoring cooperation among all domains of music scholarship, encouraging the interdisciplinary potential of music research that embraces all levels of music education in his article “Thoughts on Improvisation: A Comparative Approach” from *The Musical Quarterly* (Nettl 1974). As we observe, as an alternative to a more objective approach, musical analysis may also be subjective: a prominent example of a speculative study in jazz analysis is George Russell’s *Lydian Chromatic Concept of Tonal Organization, Volume One: The Art and Science of Tonal Gravity* (2001). Based on the theoretical concept of “tonal gravity,” Russell argues that the Lydian mode, not the Ionian, is the true centre for harmonic resolution. Though controversial, Russell’s unique concept managed to inspire Miles Davis, John

Coltrane and countless others to experiment with different tonal centers, and was a catalyst for the modal movement in jazz. Henry Martin has commented, "One is hard pressed to think of any creative thought in music theory as having as much power in jazz since." (1996:13). Bold in its assertion and admired for its meticulousness, Russell's theoretical study managed to make an indelible impact on jazz history; the use of alternate tonal centers is arguably as much an inherent attribute of contemporary jazz today as is functional harmony.

Chapter 4

Jazz Pedagogy and Analysis: Elements of Style

In developing coherence through improvisation, musical components may transmit musical meaning from performer/composer to listener by way of general style familiarity or particular idiosyncrasies of a performer's musical approach. These attributes of a particular performer's musical approach may be termed "elements of style," and a listener's recognition of familiar musical elements may be termed "style familiarity." Elements of style are compiled through the performer's process of forming, a process that varies greatly from one musician to another. In traditional Western art music traditions this pedagogical process is deemed formal training, being that it is held in accordance with conventional requirements and customs. In jazz training however, the notion of pedagogy more often includes greater variances in development and methodology, in an ongoing process that constantly shapes an improviser's musical lexicon.

Paul Berliner (1994) has noted how in the early stages of development, the methodology of a jazz performer often manifests itself in unique forms of musical representation that may vary from musician to musician. Many jazz musicians, particularly those with a deficiency in formal musical training, may think of music in more graphic visualizations, by memorizing corresponding finger patterns and positions, or in abstract "shapes." Indeed, the use of a

standardized system for representation is not a prerequisite for musically conveying musical ideas. In fact, musical literacy has varied greatly among virtuosic improvisers over time. Louis Armstrong was not known to be a prolific sight-reader, but his sense of relative pitch was quite advanced, allowing him the ability to reproduce the melody and bass accompaniment to a piece after a single hearing (Berliner 1994, 28). With reference to varied processes of forming among musicians, Berliner notes:

The varied and subtle ways in which a music culture actually shapes the sensibilities and skills of its members are not always apparent to the members themselves until they encounter individuals whose backgrounds differ from their own (Berliner 1994, 30).

This is a worthwhile consideration for the jazz analyst as well; though an artist's conceptualization should not dictate a theorist's style of analysis, a reflection on the varied ways in which an improviser or composer conceptualizes their music may indeed prove valuable.

4. 1 – Alternative Analytical Readings / Analytical Overlap

Often in musical analysis, a theorist may observe a musical component or element of style in one representative or conceptual light and not another. The analysis of a piece in a more notist style of analysis may lack the acknowledgment of an alternative analytical reading or an area of analytical overlap. For example, we can observe a disparity between Gunther Schuller's interpretations of Sonny Rollins' motivic style (in his *The Jazz Review* paper on

Rollins' "Blue 7" solo, see Chapter 2), versus Rollins' own self-proclaimed conceptual approach to improvisation. Schuller observes the strong semblance of seemingly purposeful thematic development, where motives emerge and reappear in similar or developed forms much later in the improvisation; the idea being that they are employed to create a structure of logic not dissimilar to the aesthetic values of Western art music traditions. However in a 2009 Q radio interview with Jian Ghomeshi (CBC), Rollins elaborated on his conceptual approach to improvisation, and where he strives to have his cognitive activity focused:

I want to be connecting to the subconscious ... that's where I want to go...where everything is blotted out and where creativity happens. To get there I practiced – I'm a prolific practicer, I still practice everyday. You really have to have the skills – then, you want to *not* think when you're playing. When I play in concert sometimes I play things that surprise me – I say, 'Wow, where did that come from, how did I think of that?' It brings me back to consciousness for a moment, when I realize that I'm thinking. But in general, you want to be away from consciousness (CBC, 2009).

Rollins' recounting of his own improvisational process provides some evidence that his cognitive activity is focused on the moment at hand. Though this does not discount long-term structural planning in his improvisation, his desire for the evasion of conscious thought leaves additional conceptual readings of musical components open to interpretation as well. While the motivic connections and structural planning observed by Schuller in his improvisations are one analytical reading, another could observe the phrases as "formulaic" or idiosyncratic elements of style; the characteristic use of a

distinctive phrase favored by Rollins. Nonetheless, we can observe that an alternative analytical reading or area of analytical overlap is perceivable, and though not dictated by, it may be informed by the artist's conceptualization.

Rollins is not the only jazz improviser to acknowledge the desire for cognitive focus on the present moment. Drummer Max Roach also defined his conceptual approach to improvisation as a response to the moment at hand, based on what directly precedes it:

After you initiate the solo, one phrase determines what the next is going to be. From the first note that you hear, you are responding to what you've just played: you just said this on your instrument, and now that's a constant. What follows from that? And so on and so forth. And finally, let's wrap it up so that everybody understands that that's what you're doing. It's like language: you're talking, you're speaking, you're responding to yourself. When I play, it's like having a conversation with myself (Berliner, 1994:192).

Further, Max Roach has noted that not only does he observe a communication with himself when he improvises, but also a communication with the accompanying musicians in the ensemble, the audience, and notably his "influences," or the lineage of musicians that have influenced his elements of style.

4.2 – Components of Style

In visual art, the process of assimilating ideas from another artist's work is commonly referred to as "appropriation." This process is much the same in music, as musicians transcribe and develop elements of musical vocabulary from

other musicians in order to generate their own individual musical lexicon, typically referred to as “musical borrowing.” In Metheny’s own words, his musical output is broadly defined as an appropriation of many his favorite musical attributes: whether that be the appropriation of a particular musician’s style, the idiosyncrasies of a genre, or a more conceptual element.

I started writing tunes that referenced everything I loved. That includes a lot of qualities about having grown up in Missouri, a lot of qualities that are in fact related to what was happening in pop music at the time (Niles 2009, 19). I can't really say too much more than what [what my musical output] is: a very accurate picture of where I was at that moment that in many ways reflects things that I still believe to be true (Niles 2009, 35).

In an effort to best categorize and define elements of style, the *New Grove Dictionary of Jazz* has described three main approaches to improvisation in the entry “Jazz Improvisation”: a paraphrase, formulaic and motivic style.¹

Paraphrase Improvisation: the variation or excerpt of a recognizable melodic theme. Introduced by Andre Hodier (1956)

Formulaic Improvisation: the building of new material from a diverse body of fragmentary ideas. Introduced by Thomas Owens (1974)

Motivic Improvisation: the building of new material through the development of a single fragmentary idea. Introduced by Gunther Schuller (1958)

¹ The aforementioned approaches to improvisation are outlined by Gushee (1977) as frameworks for analysis, however *New Grove* defines them through a pedagogical lens.

The *New Grove Dictionary* elaborates that paraphrase improvisation grew out of simple ornamental flourishes on the original melody of a piece's theme (an early approach to improvisation), but can also include allusions to recognizable themes from other pieces. Formulaic improvisation (other terms: ideas, figures, gestures, motifs, fragments, licks) is usually distinguished by rhythmic and intervallic shape, tonal relationships and principal harmonic goals. Motivic improvisation is achieved through the use of one or more (but never more than a few) motifs that form the basis for a section of improvisation, that are then developed through transposition, rhythmic displacement, diminution, augmentation or inversion.

Though some improvisers may favor the use of one of these approaches more than another, it is more likely that a combination of these three approaches is employed throughout the course of an improvisation. Deliberate versus spontaneous use of stylistic elements is also an area of concern. In the same article, *New Grove* also cites the notion of *risk and repetition* as a fundamental concern for the jazz improviser:

The essence of improvisation in jazz is the delicate balance between spontaneous invention and reference to the familiar. With spontaneous invention comes the danger of loss of control but also the opportunity for creativity of a high order, yet without reference to the familiar, paradoxically, creativity cannot truly be valued.

In the process of experimentation, musicians learn to transform accidents into creative readjustments of the improvisational line. Through taking risks, jazz

improvisers aim to redefine conventional standards of virtuosity through spontaneous ingenuity. Yet the element of risk may vary greatly from improviser to improviser. Charlie Parker's performances based on the same piece were often startlingly different, achieved through his varied use of formulas. By contrast, Louis Armstrong often repeated many details of a solo in different performances of the same piece. Yet, where his well-rehearsed reiterations lack surprise, they maintain all other qualities of great melodic and rhythmic improvisation. Returning to Hodier's concept of continuity of thought, a consideration of an improviser's process of forming for becomes relevant when making aesthetic observations. As we have observed, sound development and coherence for an improviser can be achieved in various ways, ranging from spontaneous free variation, deliberate pre-planning, to the crystallization of thought over time and with much practice.

4.3 – Metheny's Elements of Style

As Pat Metheny is the subject of my research, an investigation of his approach to conceptualization, pre-planning, risk and repetition is valuable:

The ideal result is to walk out on stage warmed-up, prepared, and ready to go without ever having 'thought' of any particular idea, so that the first solo of the first tune is really the first moment of the day that I am fully engaged in the more narrative type of playing that I aspire to (Metheny 2011).

This quote comes from Metheny's book *Pat Metheny: Guitar Etudes*, in which presented warm-up etudes are not pre-composed pieces, but rather transcriptions of improvised scalar patterns and intervals as performed by Metheny that mimic the unstructured and spontaneous quality of improvisation, while avoiding any formulaic elements of style. The idea for Metheny when warming up is to improvise abstract ideas in a variety of keys, and manipulate their development through its "natural conclusion" to new ideas, over an improvised harmonic framework. Because Metheny is so well-versed in specific, standard, and generalized frameworks in the jazz idiom, he aims to avoid practicing them prior to a performance so as to allow himself an unequivocal element of risk, and to rid himself of the repetitive or unintentional structural planning that inhibits the "narrative" style of improvisation he speaks of.

For Metheny, spontaneous creation is a primary goal. Structural pre-planning of the improvisation is not of primary concern. As Hodier in *Jazz: It's Evolution and Essence* discusses, the crystallization of thought over successive performances on a piece will play a large part in the sound development of Metheny's improvisations. Lawrence Gushee's concept of the "schematic rhetorical plan" might be another sufficient method to express this. Throughout the course of an improvisation, musical events act to create overall continuity and coherence. To develop this coherence, we can observe four large-scale categories of musical events at work to create coherence in the improvisational style of Pat Metheny: Melodic, Structural, Motivic, and Formulaic. *The New Grove*

Dictionary of Jazz article “Improvisation” outlines three of these categories of improvisation (see above), labeling the Melodic category as “Paraphrase” and excluding the Structural category. We will expand upon these definitions to best describe the way in which Metheny is observed to employ them.

Melodic: More than simply paraphrase improvisation (embellishments on a melodic theme), the Melodic category of improvisation is that which is readily tuneful, accessible and ultimately memorable. Though sophistication is often a mandate of the jazz vernacular, simple more step-wise diatonic melodic content is an element of improvisation that can also be used to great effect and is often overlooked. Metheny’s use of the Melodic category adds accessibility to his improvisations and often gives them a singable quality. In this category, an improviser may utilize ‘ear playing’, more than in any other.

Structural: Structural improvisation is the use of arpeggiation to outline chord tones, extensions, and voice-leading structures. Fluency in this category of improvisation is achieved through the dedicated practice and application of musical fundamentals, including triads, tertial seventh-chord sequences, arpeggiated intervallic chord structures, and upper-structure triads. Metheny is able to generate non-formulaic structural content through a strong grasp of these musical fundamentals.

Motivic: The manipulation of a melodic phrase (motive) that follows the development of a musical idea for a prolonged period. This manipulation

of melody makes the Motivic category the most readily generative, and the most similar to the compositional techniques of European art music traditions. As our brains crave structure and form, this generative manipulation of melody acts to create memorable content by virtue of inherent merits, outside the realm of style familiarity or a formulaic approach.

Formulaic: Calling upon a diverse body of fragmentary ideas, it is the development of an idiosyncratic collection of formulas, distinguishable by rhythmic and intervallic shape, tonal relationships and harmonic goals. Distinctive and individualistic, Metheny's formulas play a large role in defining personalized characteristics of his style. Additionally, formulas may also contain Melodic, Structural and Motivic components, making them the most inclusive and versatile improvisational mode for study.

Though equally adept in each of these improvisational categories, Metheny's use of a formulaic system will receive the greatest attention for the purposes of this study. The formulaic category's distinguishable features and harmonic relationships establish style familiarity and recognition, readily encouraging systematic classification and qualitative definition of characteristic elements of style. Thomas Owens (1974) asserts that a formulaic system is necessary to allow for the conception of coherent ideas at high tempos of improvisation, and it should be no secret that the consistent level of coherence maintained throughout Metheny's improvisations owes much of its fluency to

formulaic elements of style. Formulaic systems also contain a myriad of appropriated elements from a performer's process of forming, including theoretical concepts, stylistic vernacular and appropriated genres, typifying a performer's style and transmitting a high degree of musical meaning.

Furthermore, with the aim of this study as both analytical and pedagogical, the analysis of Metheny's use of formulas sheds light on not only on how they contribute to overall coherence, but also their theoretical applications; providing a primary resource for any musician interested in effectively appropriating elements of Metheny's improvisational style.

Chapter 5

A Formulaic System

In the three-tier formulaic analysis of Pat Metheny's improvisational approach that follows, we will define the musical considerations that unify a collection of formulas into "formulaic categories", grouped and defined by their quantitative structural attributes and qualitative function they serve within an improvisation. These formulaic categories are comprised of "formulaic species" and their variants, categorized based on primary structural attributes and variants thereof. Finally, the smallest units, which we will identify as "formulaic components"; we will examine their interrelationship with larger formulas herein.

Let us begin by establishing style familiarity: Metheny's improvisational style is grounded in the vernacular of mainstream jazz concepts, with a flair for spontaneity and free variation. This is a musical tradition that originated in the late 1930's with musicians like Coleman Hawkins, was established in the late 1940's by Charlie Parker and his contemporaries, and further developed by musicians like John Coltrane and Ornette Coleman in the 1950's, Wayne Shorter and Herbie Hancock in the 1960's, Michael Brecker and Chick Corea in the 1970's, and beyond. Jazz soloists such as these established and popularized many of the customary elements of style that are still used in jazz improvisation today and inform the melodic devices used by Pat Metheny. These elements of

style include the devices like melodic chromaticism through melodic enclosures and passing tones, the establishment melodic vocabulary for harmonic cadences, the application of structural devices like tertial seventh chord arpeggios and triads, melodic devices based on both paraphrase or free variation, pentatonic vocabulary evoking the aesthetic of blues and folk, the use of generative motivic devices, and the use of melodic reharmonization inferring temporary alterations to a theme's harmonic framework. Each of these melodic devices are manifested in the improvisational style of Pat Metheny, both at the formulaic component level and formulaic species level, and ultimately inform the formulaic categories that comprise Chapters 6-12.

Much as Owens or Martin depict Charlie Parker's improvisational style as embracing a significant formulaic component, so too does the improvisational style of Pat Metheny. It can be argued that in order to enable a high level of melodic coherence while engaging with the chromaticism and sophisticated elements of style that typify mainstream jazz vernacular, the development of a formulaic system for jazz improvisers is essential. The development of this formulaic system is for many performers a central part of what gives their style much of its individuality and character. Pat Metheny's formulas are uniquely his own, largely acting to "avoid the cliché" while still keeping in line with mainstream jazz concepts.

5. 1 – Metheny’s Formulaic Components

Pat Metheny’s formulaic elements of style are complex, and therefore it is useful to first observe small-scale idiosyncratic “formulaic components” before examining larger-scale formulaic excerpts from his improvisations. Large-scale formulaic phrases are observed to be the sum of these smaller formulaic components, and an examination of them will help prepare us for the more complex “formulaic species” that lie in the chapters ahead. These formulaic components are presented in their most distilled form, within the most straightforward harmonic context. Fingering markings have been provided as an additional consideration for guitarists to provide an understanding of how these components are executed along the fretboard, and slur markings indicate technical considerations of hammer-ons and pull-offs. We will continue to refer to formulaic components with the term “figures” throughout this research. Each formulaic component is named and described, with its formulaic application explained:



Figure 1: Diatonic enclosure. The target note is a scale tone, approached from a scale tone above and below.



Figure 2: Non-diatonic enclosure. The target note is a scale tone, approached from a non-diatonic note above or below.



Figure 3: Chromatic passing tone fragment. Uses a chromatic passing note between two scale tones on an upbeat.

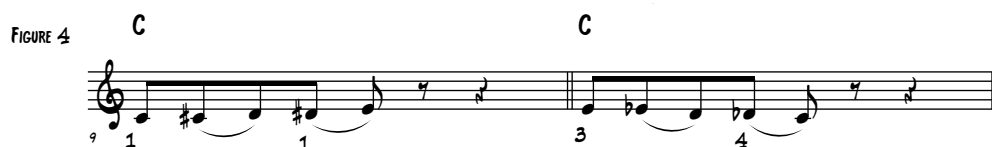


Figure 4: Chromatic passing tone sequence. Uses chromatic passing notes, in a scale fragment featuring two adjacent ma2 intervals.



Figure 5: Descending enclosure chain. Each chromatic m3 interval acts to encircle the next, descending until reaching a target note.



Figure 6: Diatonic enclosure featuring an ascending chromatic passing tone fragment.



Figure 7: Descending chromatic passing tone fragment to enclosure.



Figure 8: Expanded ascending enclosure. In this example the target note is approached from a m3 below, two descending chromatic notes above, and a ma2 below.



Figure 9: Triad arpeggiation with enclosures. The enclosures are featured on the third and fifth degrees of a major triad.



Figure 10: Descending ma2 to enclosure.



Figure 11: Descending pentatonic run to diatonic enclosure. In this example a V major pentatonic scale outlines a Ima7 chord.



Figure 12: Ascending scale fragment to descending chromatic passing tone fragment to enclosure.



Figure 13: Ascending/descending pentatonic run to enclosure.



Figure 14: Descending chromatic passing tone fragment to descending pentatonic run to enclosure.



Figure 15: Ascending/descending major scale fragment (root, ma2, ma3, ma4, ma3, ma2, root).



Figure 16: Enclosure to ascending scale fragment.

FIGURE 17



Figure 17: Melodic minor scale fragment to tertial arpeggio. The phrase begins on the ma6 degree, with tertial arpeggiation beginning on the m3 degree.

FIGURE 18



Figure 18: Ascending root position V major triad arpeggio to Ima7 arpeggio from the ma7 to scale fragment from the ma6.

FIGURE 19



Figure 19: Descending root position major triad to chromatic passing tone fragment to enclosure.

FIGURE 20



Figure 20: Descending root position II minor triad over V7 chord. Begins on the P5 of IIm and resolves to a ma3 of V7.

FIGURE 21



Figure 21: Descending II diminished triad over V7b9 chord. Begins on the dim5 of Ildim and resolves to a ma3 of V7b9.

FIGURE 2.2

The musical notation for Figure 2.2 is as follows:

- Staff: Treble clef.
- Chord 1: G7(b9). The notes are G4 (quarter), Bb4 (quarter), D5 (quarter), and F#5 (quarter). The notes Bb4 and D5 are beamed together.
- Chord 2: C. The notes are C4 (quarter), E4 (quarter), G4 (quarter), and Bb4 (quarter). The notes E4 and G4 are beamed together.

Figure 22: Descending V7 altered dominant scale fragment (b9, root, m7), resolving to the ma3 of I major.

FIGURE 23

The musical notation for Figure 23 is as follows:

- Staff:** Treble clef, key signature of one flat (Bb).
- Measure 1:** Labeled **G^{7ALT}**. It contains a half note G4 (labeled 1), a half note A4 (labeled 2), a half note Bb4, a half note Ab4, a half note G4, and a half note F4. A slur connects the first two notes (G4 and A4).
- Measure 2:** Labeled **C**. It contains a half note G4 (labeled 1), a half note A4, a half note Bb4, a half note Ab4, a half note G4, and a half note F4. A slur connects the first two notes (G4 and A4).

Figure 23: Expanded descending altered dominant fragment (P5, ma3, #9, b9, root, m7), resolving to the ma3 of I major.

FIGURE 24

Figure 24 shows two measures of music. The first measure is labeled **GMA7** and contains the notes G4, A4, B4, and G4, with fingerings 2, 1, and 1 indicated below. The second measure is labeled **C** and contains the notes G4, A4, B4, and G4, with fingerings 3, 4, and 1 indicated below.

Figure 24: Chromatic passing tone sequence featuring two adjacent ma2 intervals until reaching scale tone target note.

FIGURE 25 C

47 3 1 2 1

Figure 25: Enclosure to descending chromatic passing tone fragment to enclosure.

FIGURE 26 C

49

Figure 26: Chromatic passing tone fragment to enclosure chain.

FIGURE 27 $G7\sharp 5(\sharp 11)$



Figure 27: Whole tone scale, V7 chord application. Often applied through the use of augmented triads to achieve $\sharp 4$ and $\sharp 5$ scale tones on over a dominant chord.

FIGURE 28 $Cm(b9)$

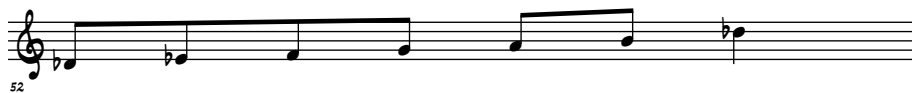


Figure 28: Whole tone scale, I chord application. Applied over either a minor or major tonic chord, this application achieves $b2$, $b3$, 4, 5, 6 and $ma7$ scale tones.

FIGURE 29



Figure 29: Descending IV triad to ascending V triad, in this example, over a V7 chord. The IV triad outlines $P4$, $ma2$ and $m7$ V7 scale tones.

FIGURE 30



Figure 30: Motivic interval structure. These interval structures ($ma3$ - $ma7$ - $ma3$ -root, $ma3$ -root- $ma3$ -root, and $ma3$ - $ma3$ - $ma3$ -root) are applied in a motivic ascending or descending sequence. Notably, the third note in

each phrase is not played with a new pick attack, but is a sustained continuation of the first note of the phrase; therefore a slur marking is applied to connect these two notes. In fact, the note's attack is cleverly produced on the guitar with a "deadened pull-off" from the second note of the phrase with the third or fourth finger. This is both a technical consideration for guitarists wishing to emulate this component and also a notable demonstration of Metheny's thoughtful ingenuity with which he crafts his formulas. Since the phrase requires just three pick strokes for a four-note arpeggiated phrase, it allows Metheny to perform the formula with greater ease at higher tempos.

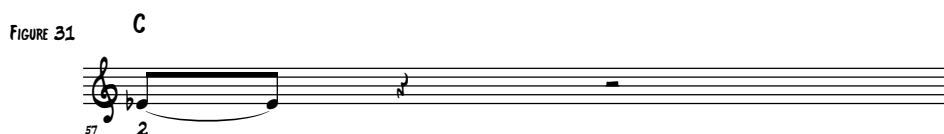


Figure 31: Chromatic approach tone. A non-diatonic note on a downbeat acts to ornament or approach a scale tone.

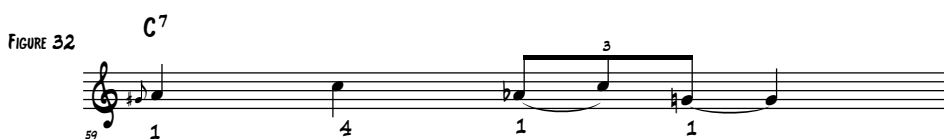


Figure 32: Chromatic descending cliché. A chromatic descent from ma6 to P5 featuring the root as a pedal point, in this example over a V7 chord.



Figure 33: Pentatonic superimposition. This example uses a descending Db major-based pentatonic run (ma2, dim2, root, ma6, P5, ma3, root) as a tritone substitute, to achieve b13, P5, #11, #9, b9, m7, #11 G7alt scale tones, resolving through enclosure.



Figure 34: Motivic P5 intervals, used in a diatonic sequence. In this example, the sequence descends from the ma7 and ma3, to the ma2 and P5 of Cma7#11, accessing each P5 interval and avoiding the dim5 interval between root and aug4.

Many of these formulaic components are derivative in the sense that they are simply expansions, developments upon, or combinations of other formulaic components. Therefore, it follows that the assembly of Metheny's formulaic system builds its complexity through the sophisticated manipulation of these fragmentary ideas. The creation of larger phrases deemed "formulaic species" occurs as the sum of these component parts, and each of these melodic fragments are commonly adapted, expanded and combined to create unique variations. It should be noted that an alteration such as that of an enclosure from diatonic to non-diatonic in a melodic line is an easily interchangeable and minor consideration. This adjustment may at times be made to accommodate a

fingering preference of Metheny's in the midst of an improvisational line. However, a component that begins on a non-scale tone versus a scale-tone becomes a significant consideration, as this translates into a deliberate fingering consideration, and therefore requires a degree of pre-planning for how it lays on fingerboard of the guitar. The interval structure of formulas may also adapt to the harmonic context (major vs. minor, etc.), and may begin and end at different pitch levels when applied in context. Finally, the rhythmic placement of these examples is not definitive; the pitch level, intervallic structure and rhythmic displacement of these fragments are assumed manipulations of formulaic components when approaching full-scale improvisation.

5. 2 – Formulaic Categories

This study categorizes Metheny's system of formulas under seven formulaic categories. These formulaic categories that will be the subject of analysis for Chapters 6-12, including: Enclosure Chromaticism Formulas, Passing Tone Chromaticism Formulas, Cadence Vocabulary Formulas, Melodic Cliché Formulas, Pentatonic Formulas, Motivic Formulas, and Reharmonization Formulas. Their definitions outline the quantitative and qualitative characteristics that unify the formulaic species within each category, and provide some insight into their implications within the scope of a larger coherence:

1. Enclosure Chromaticism Formulas: Melodic sophistication achieved by the encircling of target notes, through the use of diatonic or non-diatonic chromatic notes.

2. Passing Tone Chromaticism Formulas: Melodic sophistication achieved by the addition of non-scale passing tones in the melodic line, often placed on up-beats.

3. Dominant Cadence Vocabulary Formulas: The use of nuanced mixolydian, mixolydianb2b6 (harmonic minor), altered (melodic minor), diminished, or whole tone scale phrases. Creates melodic tension and resolution over a V7-I or V7-Im harmonic cadence, and illustrates harmonic voice-leading structures.

4. Melodic Cliché Formulas: Consistent melodic phrases that become formulaic through repeated featured use. These phrases might be individualistic, or a paraphrase of another performer or indicative of a greater musical lexicon or era. Establishes a simpler evocative style familiarity among other more complex formulaic events.

5. Pentatonic Formulas: The application of the pentatonic scales to jazz-based harmonic contexts. Often associated with the melodies of blues or folk music, pentatonic-based phrases incorporate style familiarity beyond the realm of jazz.

6. Motivic Formulas: Consistent interval structures applied to various pitch levels. Purely generative and conceptually simple for the

improviser, they are both easily identifiable and tangible for the listener.

Used to create melodic and rhythmic interest through consistent motivic repetition.

7. Reharmonization Formulas: Phrases that imply harmony other than the harmonic framework of the theme. Similar to a cadence, reharmonization involves a diatonic resolution to achieve both the release of tension and an aesthetic of melodic sophistication.

5.3 – Formulaic Species

Finally, each formulaic category is comprised of formulaic phrases of the same type, deemed “formulaic species.” A formulaic species can be defined as the application of a formulaic component of a specific variety as a melodic centerpiece or focus, whose frequency of use warrants the acknowledgement of it as such. This melodic centerpiece component may be expanded upon by the addition of other formulaic components or species, and/or in combination with components from other formulaic categories. This three-tier system for categorization including formulaic categories, formulaic species, and formulaic components, will allow us to view Metheny’s formulaic improvisational approach in a highly comprehensive, logical, and systematic way.

Chapter Six

Enclosure Chromaticism Formulas

In this category, we may observe seven major formulaic species of *enclosures*. As discussed in Chapter 5, the device of an enclosure is employed to produce melodic sophistication through the generative encircling of target notes, often prolonging the arrival of chord tones on downbeats. First, a definition of the formulaic component that is the centerpiece of each species will be outlined:

Species A: Enclosure to ascending scale fragment (fig. 16)

Species B: Descending passing tone fragment to enclosure (fig. 7)

Species C: Expanded ascending enclosure (fig. 8)

Species D: Descending chromatic enclosure chain (fig. 5)

Species E: Enclosure to descending passing tone fragment to enclosure (fig. 25)

Species F: Chromatic passing tone fragment to enclosure chain (fig. 26)

Species G: Descending ma2 to enclosure (fig. 10)

Each of these formulaic phrases are excerpts taken from one of the four source material Metheny improvisations: “Solar,” “Old Folks,” “Son of Thirteen” or “Snova.” Their component parts, application, and relation to the harmony will be defined. It should be noted that a formulaic component may begin in the midst of a previous component, as some formulaic components begin with the same interval structure as others end. This may be seen as an advantageous feature as formulaic improvisation is designed to flow lucidly. It should also be noted that

some formulaic species make use of only one component, where most species make use of combinations of multiple components. The formulaic species in each formulaic category chapter recount each occurrence of their use within the source material improvisations.

6.1 – Enclosure Chromaticism (Species A, B, C, D, E, F & G)

Species A
Solar: Bar 29

Fma7



Fig. 16

Ex. 1 – Species A – Solar: Bar 29: A diatonic enclosure from the ma7 of Fma7 to ascending scale fragment (root, ma2, m3, P5) (fig. 16), the m3 scale tone creating a minor melodic function in place of the Fma7 harmonic framework.

Species B
Solar: Bar 4

C7

Fma7



Fig. 7

Ex. 2– Species B – Solar: Bar 4: A descending chromatic passing tone fragment to non-diatonic enclosure from the root of C7 to the ma3 of Fma7 (fig. 7).

Species C
Solar: Bar 5

Fma7




Fig. 8

Ex. 3 – Species C – Solar: Bar 5: An expanded ascending enclosure from the ma3 to the P5 of Fma7 (fig. 8) to a descending root position F major triad.

Species B, A, G & C
Solar: Bar 200

Ex. 4 – Species B, A, G & C – Solar: Bar 200: A descending chromatic

passing tone fragment to non-diatonic enclosure from the m7 of Bb7 to the ma2 of Ebma7 (fig. 7), to an enclosure from the ma2 of Ebma7 to ascending scale fragment (root, ma2, ma3, P5) (fig. 16), to a descending diatonic phrase from the ma7, to a descending ma2 to enclosure from the root of Ebm7 to the ma3 of Ab7 (fig. 10), to an expanded ascending enclosure from the ma3 of Ab7 to the P5 of a suspended Ab7 (fig. 8), to a descending root position Ab major triad to chromatic passing tone fragment from the root to m7 of the suspended Ab7 (fig. 19).

Species E & D.1
Solar: Bar 62

Ex. 5 – Species E & D – Solar: Bar 62: An ascending diatonic phrase from

the P4 of Cm7, to an enclosure to descending chromatic passing tone fragment from the dim2 (fig. 25), to descending enclosure chain from m3 of Gm7 to the aug5 of C7 (fig. 5), to a whole tone scale application anticipating the C7 chord in the form of two adjacent descending/ascending augmented triads (aug5, ma3, root) (ma2, aug5, m7) (fig. 27).

Species F
Solar: Bar 53

Fma7 Fm7

Fig. 26 Fig. 30 Fig. 1 Fig. 31 Fig. 28

Ex. 6 – Species F – Solar: Bar 53: A descending chromatic passing tone

fragment to descending enclosure chain from the ma2 of Fma7 to the m7 of fm7 (fig. 27), to a Cm7 motivic interval structure (m3, m7, m3, root) giving m7, P4, m7, P5 F minor scale tones anticipating the Fm7 (fig. 30), within which an enclosure from m7 to ma6 occurs (fig. 1) to a chromatic approach tone from m6 to ma6 (fig. 31), to a whole tone scale application through a descending augmented triad (ma6, P4, dim2) (fig. 28).

Species A, E & D
Solar: Bar 106

Ebm7 Ab7 Dbma7 Dm7b5 G7b9 Cm7

Fig. 16 Fig. 25 Fig. 24 Fig. 2 Fig. 30 Fig. 5

Ex. 7 – Species A, E & D – Solar: Bar 106: An enclosure from the ma7 of

Dbma7 to ascending scale fragment (root, ma2, ma3, escape tone m3, P4, P4, ma6, ma7) (fig. 16), to an enclosure to descending chromatic passing tone fragment from the ma7 of Dm7b5 to the #9 of G7b9 (fig. 25), to a descending passing tone sequence from the #9 of G7b9 to the dim5 of Cm7 (fig. 24), to an enclosure from the dim5 to P4 of Cm7 (fig. 2), to a Dm7 motivic interval structure (m3, m7, m3, root) giving P4, root, P4, ma2 C minor scale tones (fig. 30), to a descending enclosure chain from P4 to m3 (fig. 5).

Species A & G
Old Folks: Bar 51

Dm7 D^b7 Cm7 F7

Fig. 16 Fig. 10 Fig. 16

Ex. 8 – Species A & G – Old Folks: Bar 51: An enclosure from the ma2 of Dm7 to ascending scale fragment (m3, P4, P5, m7, m3, root) (fig. 16), to a descending ma2 to enclosure from the P5 of Dm7 to the P4 of Cm7 (fig. 10), to an enclosure from the P4 of Cm7 to ascending scale fragment (m3, P4, P5, m7) (fig. 16), to an ascending diatonic phrase (ma6, P5, m7) over F7.

Species A & C
Son of Thirteen: Bar 99

Bm(ma7) B^bma7(#11)

Fig. 16 Fig. 8 Fig. 11

Ex. 9 – Species A & C – Son of Thirteen: Bar 99: An enclosure from the ma7 of Bm(ma7) to ascending scale fragment (root, ma2, m3, P5) (fig. 16), within which an expanded ascending enclosure begins from the m3 of Bm(ma7) to the aug4 of an anticipated Bma7#11 (fig. 8), to a descending C major pentatonic fragment (ma3, ma2, root) giving Bma7#11 scale tones aug4, ma3, ma2 to enclosure resolving to the root (fig. 11).

Species B & C
Old Folks: Bar 36

F7 B^bma7

Fig. 7 Fig. 8 Fig. 1 Fig. 1 Fig. 1

Ex. 10 – Species B & C – Old Folks: Bar 36: A descending chromatic passing tone fragment to enclosure from the root of F7 to the ma3 of Bbma7 (fig.

7), to an expanded ascending enclosure from ma3 to P5 (fig. 8), to an enclosure from P5 to aug4 (fig. 1), to a diatonic enclosure from aug4 to P5 (fig. 1), to a diatonic enclosure from aug4 to P5 repeated up the octave (fig. 1).

Species C, D & E

Old Folks: Bar 45 G7(#11)



Ex. 11 – Species C, D & E – Old Folks: Bar 45: An expanded ascending

enclosure from the ma3 to m7 of G7#11 (fig. 8), to an descending A major pentatonic-based run (m6, P5, ma3, root) giving m7, ma6, aug11, ma2 G7#11 scale tones (fig. 11), within which a descending enclosure chain begins from aug4 to ma3 (fig. 5), to an ascending whole tone scale fragment (ma3, aug4, aug5, m7) (fig. 27), to an enclosure to descending chromatic passing tone fragment to enclosure chain from ma7 to P5 (fig. 25), to a G major root position triad arpeggio with an enclosures surrounding the ma3 (fig. 9), before ending on the root.

Species F & D

Son of Thirteen: Bar 251



Ex. 12 – Species F & D – Son of Thirteen: Bar 251: A descending passing

tone fragment from the P4 to m3 to a lengthy descending enclosure chain from the ma2 of Bm(ma7) resolving to the #9 of the C#7alt chord (fig. 26), (fig. 5).

Species E & D.2

Son of Thirteen: Bar 153



Ex. 13 – Species D – Son of Thirteen: Bar 153: An enclosure to descending chromatic passing tone fragment from the root to ma6 of Gma7 (fig. 25), to descending enclosure chain from aug5 to aug4 (fig. 5), to a non-diatonic enclosure from aug4 to P5 (fig. 2), to a descending D major pentatonic run (fig. 11), to an F#7alt chord structure.

Species A, C & D

Old Folks: Bar 47 C7



Ex. 14 – Species A, C & D – Old Folks: Bar 12: An enclosure to ascending scale fragment from the ma6 of C7 (fig. 16), to an expanded ascending enclosure from root to ma2 (fig. 8), to an enclosure from the ma2 of C7 to the non-diatonic m3 of Bb7 (fig. 1), to an ascending Bb Dorian scale fragment (m3, P4, P5, ma6, m7), to the P4 of an anticipated Em9, to a descending chromatic passing tone fragment from the P5 to P4 of Em9 to a dim2 to ma2 (fig. 14), to a descending enclosure chain from the root (fig. 5).

Species G.1
Son of Thirteen: B \flat ma7(#11) Fma7(#11)
Bar 101 39

Fig. 10

Ex. 15 – Species G.1 – Son of Thirteen: Bar 101: A ma7 interval from the root to ma7 of Bbma7#11 falls to the ma6, before a ma2 interval from aug4 to ma3 to enclosure from ma3 to the P5 of Fma7#11 (fig. 10), before a tertial descent down a F major root position triad.

Species G & D A ma7(#11) Cma7(#11)
Son of Thirteen:
Bar 120 41

Fig. 10 Fig. 5

Ex. 16 – Species G & D – Son of Thirteen: Bar 120: A descending phrase from the ma3 of Ama7#11 leads to a diatonic m2 interval from root to ma7 to enclosure from ma7 (fig. 10), beginning a descending enclosure chain from ma7 to the aug4 of Cma7#11 (fig. 5).

Species G.2 C7sus C#7sus
Son of Thirteen:
Bar 147 43

Fig. 10

Ex. 17 – Species G.2 – Son of Thirteen: Bar 147: A descending phrase from the P4 of C7sus leads to a m2 interval from m7 to ma6 to enclosure from ma6 to the P5 of C#7sus (fig. 10), to a tertial descent down a C# major root position triad.

6.2 – Enclosure Chromaticism: Patterns of Use

For each Formulaic Species of Enclosure Chromaticism, we may draw conclusions as to how their Formulaic Components are most prominently used, based on the evidence compiled in this chapter. Drawing these conclusions is enormously helpful to the improviser who desires to apply them, as it is vital for an improviser to correlate the tonalities and scale tones to which they are associated and understand what function they serve in the improvisational line in order to begin to use them effectively. I will analyze the Formulaic Component associated with each Formulaic Species, and describe their related tonalities, scale tones and melodic functions accordingly, beginning with the simplest or most frequent application and working towards the most complex or least frequent application.

Species A (Fig. 16):



Figure 16: Enclosure to ascending scale fragment. We will observe this intervallic arrangement to be the component’s “essential structure.”

Enclosure Chromaticism component Species A (Fig 16) is a relatively ordinary phrase in the jazz vernacular and not particularly exclusive to Metheny, being that it consists of an enclosure followed by an ascending scale fragment. It is

also the only component featured in this chapter that is purely diatonic. It is in Metheny's varied application of the component where we may find complexity and insight:

Firstly, the most simple and relatable application of Species A begins with an enclosure of the root of a ma7 chord, and is found in three excerpts of the Enclosure Chromaticism formulaic category:

Species A
Solar: Bar 29

F ma7

Fig. 16

Ex. 18 – Species A (Solar: Bar 29): in this example, the component begins with an enclosure of the root of an Fma7 chord. This is a unique example, in that the melody includes a m3 over the ma7 chord, in a brief reharmonization. In this example the component exists independently as its own phrase.

Species B, A, G & C
Solar: Bar 200

B^b7 E^bma7 E^bm7 A^b7 D^bma7

Fig. 7 Fig. 16 Fig. 10 Fig. 8 Fig. 19

Ex. 19 – Species B, A, G & G (Solar: Bar 200): in this example, the component begins with an enclosure of the root of an Ebma7 chord, and is preceded by a brief prefix (fig. 7) to begin the phrase.

Species A, E & D
Solar: Bar 106

E^bm7 A^b7 D^bma7 Dm7b5 G7b9 Cm7

Fig. 16 Fig. 25 Fig. 24 Fig. 2 Fig. 30 Fig. 5

Ex. 20 – Species A, E & D (Solar: Bar 106): in this example, the component begins with an enclosure of the root of a Dbma7 chord, and begins a period of extended phrasing.

A second related and relatively simple application of Species A begins with an enclosure of the root of a m7 chord, found in one excerpt:

Species A & C
Son of Thirteen: Bar 99 Bm(ma7) Bma7(#11)

Ex. 21 – Species A & C (Son of Thirteen: Bar 99): Here the component begins with an enclosure of the root of Bm(ma7). Only the m3 is adapted to suit the harmony, otherwise the essential structure is identical. The component acts to begin a larger phrase.

A third application of Species A is to begin with an enclosure of the m3 of a m7 chord, found in one excerpt:

Species A & G
Old Folks: Bar 51 Dm7 Db7 Cm7 F7

Ex. 22 – Species A & G (Old Folks: Bar 51): Here the component begins with an enclosure of the m3 of a Dm7 chord, and recurs with an enclosure of the m3 of a Cm7 chord. The essential structure is identical, and only the target note of the enclosure has changed, being the m3. In each case, the component begins its phrase.

A fourth application of Species A is to begin with an enclosure of the m7 of a dom7 chord, found in one excerpt:

Species A, C & D
Old Folks: Bar 47 C7

The musical notation shows a single staff in treble clef with a key signature of one flat (Bb). The melody begins with a half rest, followed by a quarter note Bb, which is the m7 of C7. This is followed by a series of eighth and sixteenth notes, including an ascending pair of ma3 intervals (Bb to C, C to D). The phrase is divided into five groups of notes, each labeled with a figure number: Fig. 16, Fig. 8, Fig. 1, Fig. 14, and Fig. 5. Above the staff, the chord symbols Bb7 and (Em9) are indicated. The phrase ends with a double bar line.

Ex. 23 – Species A, C & D (Old Folks: Bar 47): Here the component begins with an enclosure of the m7 of C7. In this particular example, an ascending pair of ma3 intervals interrupts the essential structure. However like many other examples of Species A, the component marks the beginning of a larger phrase.

Overall, a significant characteristic of the Enclosure Chromaticism component Species A (Fig. 16) is the fact that the component is consistently used as a starting point in a melodic phrase. In some cases the component stands on its own as an independent phrase. Additionally, the component is applied in a variety of contexts (ma7, m7, m(ma7) and dom7 chords), and the target note of the initial enclosure is applied to a variety of chord tones (including the root, m3, and m7). There is clear evidence that Metheny is adept in his use of Enclosure Chromaticism's Species A component, and favours its use as an initial phrase or starting point for enclosure-based phrasing in his improvisations.

Species B:



Figure 7: Descending chromatic passing tone fragment to enclosure. We will observe this intervallic arrangement to be the component's essential structure.

Where Species A is a phrase common within the general jazz vernacular, Enclosure Chromaticism component Species B (Fig. 7) is more idiosyncratic in its essential form. Where many jazz improvisers may use simply a chromatic interval below the target note to complete this component's enclosure, Metheny uses either a ma2 or m3 interval below the target note to add an idiosyncratic sophistication to the component. An added bonus is the fact that the m3 interval falls more readily under the hand on the guitar than its chromatic alternative, which involves a larger four or five-fret stretch.

Firstly, a relatively simple use of the Species B component targets an enclosure of the ma3 of a ma7 chord, approached from the root of a dom7 chord, found in two excerpts:



Ex. 24 – Species B (Solar: Bar 4): Here the Species B's enclosure targets the ma3 of Fma7 from the root of C7, with the note preceding the target note a m3 below.

Additionally, the component is followed by component Species C (Fig. 8). Note: the root of C7 can conversely be observed as the P5 of Fma7, as the use of this component may not necessarily warrant the presence of a V7 chord.

Species B & C
Old Folks: Bar 36

Ex. 25 – Species B & C (Old Folks: Bar 36): Here Species B's enclosure targets the ma3 of Bbma7 from the root of F7, the note preceding the target note being a m3 below. Again, the component precedes Species C (fig. 8).

A second application of Species B targets an enclosure of the ma2 of a ma7 chord, approached from the m7 of a dom7 chord, found in one excerpt:

Species B, A, G & C
Solar: Bar 200

Ex. 26 – Species B, A, G & C (Solar: Bar 200): We can observe an enclosure of the ma2 of Ebma7 from the m7 of Bb7 (or the P4 of Ebma7), the note preceding the target note being a ma2 below. In this example, the component precedes Species A (Fig. 16).

Conclusion:

A significant characteristic of Enclosure Chromaticism component Species B (Fig. 7), is that it is used to precede other components, namely Enclosure Chromaticism component Species C (Fig. 8) and Species A (Fig. 16). In

that sense, we could label Species B a 'prefix' component, rather than a melodic centerpiece. It is idiosyncratic both in its essential intervallic structure, and the technical considerations of its ease of use.

Species C:



Figure 8: Expanded ascending enclosure. In this example the target note is approached from a m3 below, two descending chromatic notes above, and a ma2 below. We will observe this intervallic arrangement to be the component's essential structure.

With Enclosure Chromaticism component Species C (Fig. 8), Metheny takes the concept of a three-note enclosure and expands it to five notes. The concept of expanding the number of notes in an enclosure is not unique to Metheny, however the intervallic arrangement of the essential structure is. The interval of a ma2 below preceding the target note avoids a typical chromatic arrangement and adds idiosyncrasy. Species C's intervallic structure also frees the hand to descend positions linearly along the neck of the guitar, with the component typically displacing the first finger from its preliminary note to the target note of its enclosure.

Firstly, the most prominent application of Species C's enclosure targets the P5 of a ma7 chord, approached from the ma3, found in two excerpts:

Species C
Solar: Bar 5

Ex. 27 – Species C (Solar: Bar 5): Here the component's enclosure targets the P5 of Fma7, approached from the ma3, followed by a descending major triad.

Species B & C
Old Folks: Bar 36

Ex. 28 – Species B & C (Solar: Bar 36): Here the component's enclosure targets the P5 of Bbma7, approached from the ma3. It is preceded by component Species B and followed by an enclosure (Fig. 1) of the P5 from the aug4.

A second related application is an enclosure of the P5 of a dom7 chord, approached from the ma3, found in one excerpt:

Species B, A, G & C
Solar: Bar 200

Ex. 29 – Species B, A, G & C (Solar: Bar 200): Here the component's enclosure targets the P5 of Ab7, approached from the ma3. The essential structure is identical and only the chord quality is altered; in this context the component acts to outline the voice-leading of a II-V-I progression. It is preceded by a descending ma2 to enclosure (Fig. 10) and followed by a descending major triad to chromatic passing tone fragment (Fig. 19).

A third and more complex application of Species C is an enclosure of the m7 of a dom7 chord, approached from the ma3, found in one excerpt:

Species C, D & E
Old Folks: Bar 45 G7(#11)

28

Fig. 8 Fig. 11 Fig. 5 Fig. 27 Fig. 25 Fig. 9

Ex. 30 – Species C, D & E (Old Folks: Bar 45): In this application of the component, the target note is adjusted, making the distance between the m7 target note and the preliminary ma3 a larger aug4 interval. Other than this particular interval, the essential structure is identical. The component is followed by a descending pentatonic run component (Fig. 11).

A fourth complex application of Species C is an enclosure of an aug4 that anticipates a ma7(#11) chord, approached from the m3 of a m(ma7) chord:

Species A & C
Son of Thirteen: Bar 99 Bm(ma7) B^bma7(#11)

23

Fig. 16 Fig. 8 Fig. 11

Ex. 31 – Species A & C (Son of Thirteen: Bar 99): The first note and target note of the phrase are adjusted, making the distance from the aug4 target note and the preliminary m3 a smaller ma2 interval. Otherwise, the essential structure is identical. The component is preceded by a Species A component (Fig. 16) and followed by a descending pentatonic run component (Fig. 11).

A fifth complex application of Species C is an enclosure of the ma2 of a dom7 chord, the phrase beginning on the root:

Species A, C & D
Old Folks: Bar 47 C7

Fig. 16 Fig. 8 Fig. 1 Fig. 14 Fig. 5

Ex. 32 – Species A, C & D (Old Floks: Bar 47): The preliminary and target note of the component are adjusted, making the interval between the ma2 target note and the preliminary root note smaller. In addition to this, the note preceding the target note is a semi-tone lower than the preliminary, unlike the essential structure where this note is typically a semi-tone higher than the preliminary. The component is preceded by Species A (Fig. 16), and followed by an enclosure of the m3 of Bb7 (Fig. 1).

Species C is another Enclosure Chromaticism formula with both melodic and technical idiosyncratic considerations. Its essential structure frees the hands to descend positions along the neck of the guitar, and as such, each example of the component is followed by a phrase at a lower pitch level, often a descending component. In two instances, the Species C is followed by a descending major triad (including Fig. 19), it is followed by a descending pentatonic run (Fig. 11) twice, and followed by an enclosure (Fig. 1) that begins at a lower pitch level twice. In addition, Species C is preceded by Species A (Fig. 16) twice, Species B (Fig. 7) twice, and Species G (Fig. 10) once. These excerpts show definite patterns of use for Species C and other components that Metheny has clearly practiced as preceding and following the phrase, allowing Metheny to apply them to the varied pitch levels and harmonic contexts that are evident in

the above excerpts.

Species D:



Species A, E & D
Solar: Bar 106

E^bm7 A^b7 D^bma7 Dm7b5 G7b9 Cm7

Fig. 16 Fig. 25 Fig. 24 Fig. 2 Fig. 30 Fig. 5

Ex. 33 – Species A, E & D (Solar: Bar 106): Here the P4 scale tone occurs on a strong beat three, with the chromatic aug4 on a weak beat four, resolving to the m3 on beat one.

A second and related application of Species D is a descent from the aug4 to the ma3 of a dom7(#11) chord:

Species C, D & E
Old Folks: Bar 45

G7(#11)

Fig. 8 Fig. 11 Fig. 5 Fig. 27 Fig. 25 Fig. 9

Ex. 34 – Species C, D & E (Old Folks: Bar 45): In this case, an aug4 scale tone occurs on the upbeat of beat two, the non-diatonic P4 occurs on beat three, resolving to the ma3 on the upbeat of beat three, and prolongs into beat four.

A third application of Species D is to be preceded by Species E (Fig. 25), continuing the descending chromatic movement. Found in two excerpts:

Species E & D.1
Solar: Bar 62

Cm7 Gm7 C7

Fig. 25 Fig. 5 Fig. 27

Ex. 35 – Species E & D.1 (Solar: Bar 62): Here we can observe Species D to begin on a m3 chord tone over a Gm7 on beat one, descending chromatically to the aug5 anticipating the C7 chord on beat three; all while continuing the chromatic

descent of Species E (Fig. 25) from the dim2 of Cm7 begun in beat three of bar one.

Species E & D.2
Son of Thirteen: Bar 153



Ex. 36 – Species E & D.2 (Son of Thirteen: Bar 153): In this second excerpt we can observe a descent from the aug5 to aug4 over a ma7 chord, acting to set up an enclosure of the P5, continuing the chromatic descent of Species E (Fig. 25) that began on the root of Gma7 in beat one of bar one.

A fourth and different type of application is a lengthy descent from one scale tone to another, and like the previous application, it continues a descending chromatic movement; this time of a descending chromatic passing tone fragment to enclosure, or Species F (Fig. 26). Found in one excerpt:

Species F & D
Son of Thirteen: Bar 251



Ex. 37 – Species F & D (Son of Thirteen: Bar 251): Continuing the chromatic descent of Species F (Fig.26) from the P4 of Bm(ma7), the enclosure chain descends from the ma2 to the ma6, to eventually resolve not by enclosure but chromatically through chromatic approach tone (Fig. 31) to resolve to the #9 scale tone of C#7alt.

A fifth and more complex application of Species D occurs where the phrase acts to anticipate the harmony of the following bar, found in one excerpt:

Species A, C & D
Old Folks: Bar 47 C7

Ex. 38 – Species A, C & D (Old Folks: Bar 47): Anticipating an Em9 chord in the following bar, the enclosure chain descends from the root of Em9, to resolve on the m7 in the following bar.

A sixth and more complex application occurs where Species D bridges two tonalities, found in one excerpt:

Species G & D
Son of Thirteen:
Bar 120

Ex. 39 – Species G & D (Son of Thirteen: Bar 120): In this excerpt, Species D descends from the ma7 chord tone of Ama7(#11), and resolves to the scale tone aug4 of Cma7(#11).

It should be noted that in each excerpt, Species D is preceded by an already descending phrase, therefore it can be said that Metheny prefers the use of this component to extend an already descending improvisational line. There are some patterns of use, where Species E precedes the component twice, and Species F precedes the component once. In other cases, Species D is used to connect two ideas or components. Like Species B and C before it, Species D is

melodically idiosyncratic through use of wider ma2 intervals preceding the target note, and like Species B and C, allows the Enclosure formula to fall more readily under the hand.

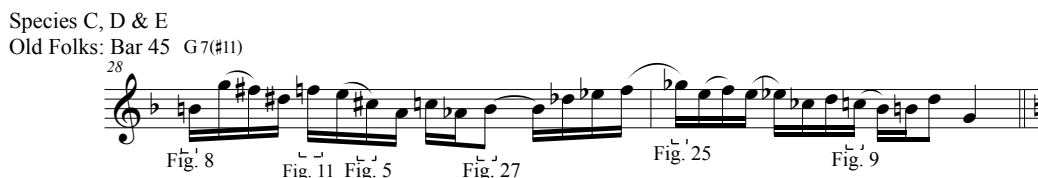
Species E:



Figure 25: Chromatic enclosure to descending chromatic passing tone fragment to enclosure, with the target note approached from a ma2 below. We will observe this to be the component's essential structure.

Species E of Enclosure Chromaticism is an expansion of Species B, being preceded by a chromatic enclosure. We will observe Species E's applications and patterns of use:

A preliminary application of Species E occurs over a dom7 chord, where the target note of the initial enclosure is the m7:



Ex. 40 – Species C, D & E (Old Folks: Bar 45): Over a G7(#11) chord, the component begins on the ma7 with a chromatic enclosure targeting the m7, continues down a chromatic passing tone fragment to the m6, before an enclosure reaches the P5 target note from a m3 below, in a slight deviation from the essential structure.

A second application of Species E is one that is followed by Species D (Fig. 5), found in two excerpts:

Species E & D.1
Solar: Bar 62

Cm7 Gm7 C7

Fig. 25 Fig. 5 Fig. 27

Ex. 41 – Species E & D.1 (Solar: Bar 62): Over a Cm7 chord, Species E begins with a chromatic enclosure of the root, and descends through a chromatic passing tone fragment to the m3, before continuing with Species D.

Species E & D.2
Son of Thirteen: Bar 153

Gma7 F#7alt

Fig. 25 Fig. 5 Fig. 2 Fig. 11

Ex. 42 – Species E & D.2 (Solar: Bar 153): Over a Gma7, the Species E begins with a chromatic enclosure of the ma7, and descends through a chromatic passing tone fragment to the ma6. In a break from the essential structure, the rhythm strays from straight eighth-notes, to a more syncopated one with rhythmic pauses, before continuing with Species D.

A third application occurs over a m7b5 chord, where the target note of the initial enclosure is the m7:

Species A, E & D
Solar: Bar 106

Fig. 16 Fig. 25 Fig. 24 Fig. 2 Fig. 30 Fig. 5

Ex. 43 – Species A, E & D (Solar: Bar 106): Here Species E begins on the ma7 of Dm7b5, and continues with a chromatic enclosure of the m7, followed by a chromatic passing tone fragment to the m6. This is followed by an expanded chromatic passing tone phrase that ends on the non-diatonic dim5 of Cm7 on beat one of the following bar.

In each excerpt, Species E is preceded by an ascending phrase, providing some evidence that Metheny favours the application of this component to change directions in the improvisational line. For patterns of use, Species D follows Species E in two excerpts.

Species F:

FIGURE 26 C

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Figure 26: Chromatic passing tone fragment to descending enclosure chain.

Species F is simply a combination of Species B and Species D, combining the chromatic passing tone fragment of Species B as a prefix to the enclosure chain of Species D. We will observe the component's applications and any patterns of use:

The first application begins on the P4 of a m(ma7) chord:

Species F & D
Son of Thirteen: Bar 251

Bm(ma7) C#7alt

Fig. 26 Fig. 5

Ex. 44 – Species F & D (Son of Thirteen: Bar 251): Here Species F begins its descending chromatic fragment on the P4 of Bm(ma7), targeting the ma2 which begins the descending enclosure chain.

A second application of Species E begins on the ma2 of a ma7 chord, where the target note anticipates the harmony of the following bar:

Species F
Solar: Bar 53

Fma7 Fm7

Fig. 26 Fig. 30 Fig. 1 Fig. 31 Fig. 28

Ex. 45 – Species F (Solar: Bar 53): Here the component begins on the ma2 of Fma7, continues its descending enclosure chain from the root and resolves to the m7, anticipating the Fm7 harmony in the following bar.

Both excerpts of Species F begin on scale tones, and both are unique: one excerpt features an elongated chromatic descent, where the other features an anticipation of harmony. In both excerpts, the component acts to begin the phrase, and in both cases the component begins on a scale tone.

6.3 – Enclosure Chromaticism: Conclusions

The definition of component parts, application, and relation to the harmony is somewhat exhaustive, as enclosure chromaticism is the formulaic category where combinations of formulaic components are most prominent. Therefore, formulas don't follow an "essential structure" as do formulas in further formulaic categories, which we will observe in the following chapters. Despite its complexity, enclosure chromaticism is one of the most fundamental elements of vocabulary required for jazz improvisation, and Metheny demonstrates a strong command of it with lucid application.

Chapter 7

Passing Tone Chromaticism Formulas

In this category, we may observe four major formulaic species of *passing tones*. As previously discussed, the device of passing tones are employed to produce melodic sophistication through chromatic notes placed between scale tones, often placed on up-beats. First, a definition of each formulaic species will be outlined:

Species A: Passing tones within an ascending, then descending melodic contour.

Species B: Passing tones within an ascending melodic contour.

Species C: Passing tones within a descending melodic contour.

Species D: Descending major triad to chromatic passing tone fragment (Fig. 19)

In each phrase that follows, the use chromatic passing tones are a focal point, adding sophistication to the melodic line. Each species' component parts, application, and relation to the harmony will now be defined. To conclude at the end of the chapter, we will observe unique features and frequency of use of chromaticism between individual scale tones.

7.1 – Passing Tone Chromaticism: Species A:

Species A.1
Solar: Bar 60

Fig. 12 Fig. 31

Ex. 46 – Species A.1 – Solar: Bar: 60: An ascending passing tone fragment from the ma3 to dim5 to b13 of Dm7b5 (implying D7alt) to a descending chromatic passing tone fragment from the root of G7b9 to an enclosure from m7 to the ma3 of Cm7 (fig. 12), the ma3 acts as a downbeat chromatic approach tone resolving to the m3 of Cm7 (fig. 31).

Species A.2
Solar: Bar 205

Fig. 3 Fig. 2 Fig. 3 Fig. 2 Fig. 5

Ex. 47 – Species A.2 – Solar: Bar 205: This chromatic passing tone sequence gradually ascends by half-step from the dim5 of Cm7 to the root note of the C7 chord (fig. 3) in bar 205-207, then continues with an ascending/descending chromatic passing tone sequence from the root to the m3 of Fma7 to an enclosure from the m3 to ma2 (fig. 7), to a chromatic passing tone fragment from ma2 to ma3 (fig. 3), to a non-diatonic enclosure from the m3 to aug4 of Fma7 (fig. 2), beginning a descending enclosure chain from aug4 to ma3 (fig.5).

7.2 – Passing Tone Chromaticism: Species B

Species B.1

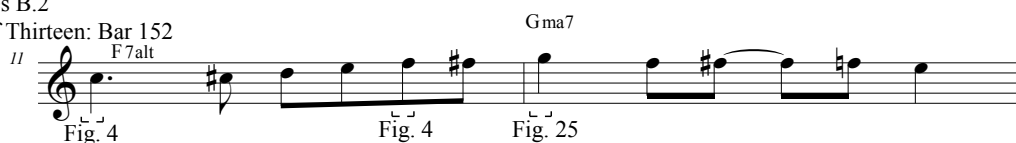
Old Folks: Bar 40 Eb9



Ex. 48 – Species B.1 – Solar: Bar 40: An ascending diatonic phrase, to a chromatic passing tone fragment from the ma4 to P5 of Fma (fig. 3), to a chromatic approach tone from aug4 to P5 (fig. 31) before ascending a ma6 interval to the ma3.

Species B.2

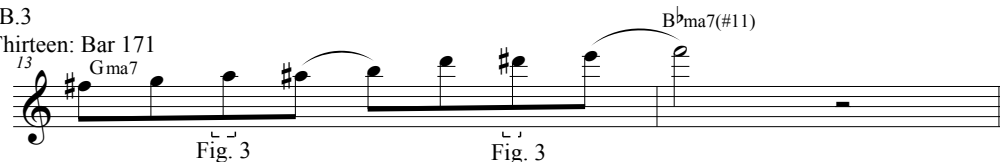
Son of Thirteen: Bar 152



Ex. 49 – Species B.2 – Son of Thirteen: Bar 152: An ascending phrase, first through the P5 and b13 of F7alt, to a G major scale fragment anticipating the Gma7 from P5 to root featuring a chromatic passing tone from m7 to root, to an enclosure from the root to ma7 to a descending chromatic passing tone fragment from ma7 to ma6 (fig. 25).

Species B.3

Son of Thirteen: Bar 171



Ex. 50 – Species B.3 – Son of Thirteen: Bar 171: An ascending phrase featuring a chromatic passing tone between the ma2 and ma3 degrees of Gma7 (fig. 3), to a chromatic passing tone from the ma4 an P5 degrees of Bb major anticipating Bbma7(#11) (fig. 3).

Species B.4

Son of Thirteen: Bar 196



Ex. 51 – Species B.4 – Son of Thirteen: Bar 196: An ascending phrase featuring a chromatic passing tone between the m7 and root of $Gma7(\#11)$ (fig. 3), to an enclosure from root to ma7 to descending chromatic passing tone fragment from ma7 to ma6 to diatonic enclosure from ma6 to P5 (fig. 25).

Species B.5

Son of Thirteen: Bar 208



Ex. 52 – Species B.5 – Son of Thirteen: Bar 208: An ascending D major root position triad (V) arpeggio to $Gma7$ arpeggio from ma7 to P5 to a G major scale fragment anticipating $Gma7\#11$ (fig. 18), to a chromatic approach tone from m3 to ma3 of $Gma7\#11$ (fig. 31), ending on the P5.

Species B.6

Son of Thirteen: Bar 250



Ex. 53 – Species B.6 – Son of Thirteen: Bar 250: An ascending B melodic minor scale fragment, to an ascending/descending chromatic passing tone from the m3 to P4 to m3 of $Bm(ma7)$ (fig. 3).

Species B.7
Snova: Bar 44

Ex. 54 – Species B.7 – Snova: Bar 44: A chromatic approach tone from the m3 to ma3 of Ama7#11 (fig. 31), beginning a B major (V) triad-based arpeggio (ma2, ma3, ma5) giving Ama7#11 scale tones ma3, aug4, ma6, to an ascending Ema7 arpeggio (ma7, root, ma3, P5) giving Ama7#11 scale tones aug4, P5, ma7, ma2 to a scale fragment from m3 to ma6 (fig. 18), to a chromatic passing tone series from the ma2 to aug4 anticipating the Fma7#11 (fig. 24), ending on the ma3.

Species B.8
Snova: Bar 71

Ex. 55 – Species B.8 – Snova: Bar 71: An ascending Eb major triad root position triad (V) arpeggio to Abma7 arpeggio from ma7 to P5 (fig. 18), to a chromatic passing tone between the m7 and root of G7b9 (fig. 4), to a chromatic approach tone from m3 to ma3 (fig. 31), to a descending chromatic passing tone fragment from m7 to m6 to an enclosure from m6 to P5 (fig. 7), to a descending pentatonic fragment (P5, ma3, ma2) to an enclosure from ma2 to b9 (fig. 11), within which a descending enclosure chain had begun from the ma2 of G7b9 resolving to the root of F#7sus (fig. 5), descending down a B major root position triad giving root, ma6, P4 F#7sus scale tones.

7.3 – Passing Tone Chromaticism: Species C

Species C.1
Old Folks: Bar 22 $E\flat_9$ $A7$

Fig. 14 Fig. 31 Fig. 21

Ex. 56 – Species C.1 – Old Folks: Bar 22: A descending chromatic passing tone fragment from ma6 to P5 to a descending Eb major pentatonic-based run (P5, ma3, ma2, root, m7) to a diatonic enclosure from the m7 to the ma3 of A7 (fig. 14), to a chromatic approach tone from m3 to ma3 (fig. 31), to an ascending C#dim7 arpeggio giving ma3, P5, m7, b9 over A7 (fig. 21), resolving to the root of A7.

Species C.2
Old Folks: Bar 39 $E\flat_9$

Fig. 7

Ex. 57 – Species C.2 – Old Folks: Bar 39: A descending P5 interval from ma6 to ma2, to an Eb Mixolidian scalar descent, to a chromatic passing tone fragment from aug4 to ma3 to an enclosure from ma3 to ma2 (fig. 7).

Species C.3
Son of Thirteen: Bar 214 $Bm7$ $F\sharp m7$

Fig. 3

Ex. 58 – Species C.3 – Old Folks: Bar 39: A descending tertial B minor phrase P4, ma2, m7, P5, to a chromatic passing tone from the ma6 to P5 anticipating the F#m7 (fig. 3).

Species C.4

Son of Thirteen: Bar 252

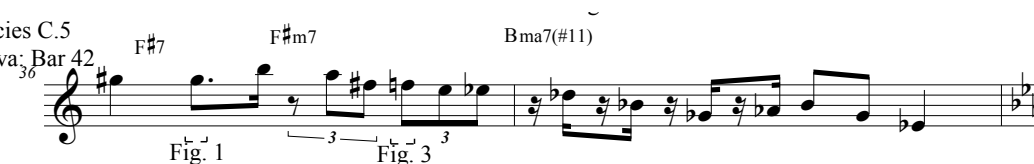


Ex. 59 – Species C.4 – Son of Thirteen: Bar 252: A descending C# altered phrase

#9, b9, root, to a descending chromatic passing tone fragment from root to m7 to an enclosure chain from m7 to the ma6 of Cma7#11 (fig. 26) to a diatonic C major scale fragment ma6, ma7, root, ma2, ma3 to tertial arpeggio ma3, P5, ma7, ma2.

Species C.5

Snova: Bar 42



Ex. 60 – Species C.5 – Snova: Bar 42: A diatonic enclosure from the ma2 to m3 of

F3m7 (fig.1), to a chromatic passing tone sequence from the aug4 to ma3 anticipating the Bma7#11 (fig. 3), to a Bma7#11 tertial-based descending phrase ma2, ma7, P5, ma6, ma7, P5, ma3.

7.4 – Passing Tone Chromaticism: Species D

Species D.1 D^bma7
Solar: Bar 83

Fig. 3 Fig. 19

Ex. 61 – Species D.1 – Solar: Bar 83: A chromatic passing tone fragment from ma3 and ma2 (fig. 3), to a descending Ab root position major triad to chromatic passing tone fragment from P5 to ma4 to an enclosure from P4 to ma3 (fig. 19).

Species D.2
Snova: Bar 73 F[#]7sus

Fig. 11 Fig. 19

Ex. 62 – Species D.2 – Snova: Bar 73: A descending B major root position triad giving root, ma6, P4 F[#]7sus scale tones, to a descending B major pentatonic based run (root, ma6, P5, ma3) giving F[#]7sus scale tones P4, ma2, root, ma6 within which begins an enclosure from root to m7 (fig. 11), to a descending tertial arpeggio m7, P5, m3 to a chromatic passing tone fragment from m3 to ma2 to enclosure (fig. 19).

7.5 – Passing Tone Chromaticism: Patterns of Use

For each Formulaic Species of Passing Tone Chromaticism, we may draw conclusions as to how their Formulaic Components are most prominently used, based on the evidence compiled in this chapter. I will analyze the frequency that passing tones are used between individual scale tones, to examine trends in their

application. I will begin with the passing tone between R-b2-2 and work sequentially through to R-7b7, describing their related tonalities and melodic functions accordingly.

Frequency and Patterns of Chromatic Passing Tones:

R-b2-2: A.2 (C7)

2-b3-3: A.2, B.3, B.7 (Fma7, Gma7, Fma7)

b3-3-4: A.2, B.6 (Gm7, Bm(ma7))

b3-3 (Approach Tone), (Fig. 18): B.5, B.8 (Gma7, G7b9)

b3-2-b2: D.2 (F#7sus)

3-4-b5: A.1 (Dm7b5)

3-4-#4: B.7 (Fma7#11)

3-b3-2: D.1 (Dbma7)

4-#4-5: B.1 (Eb9)

b5-5-b6: A.2 (Cm7)

#4-4-3: C.2 (Eb9)

5-#5-6: B.2 (F7alt)

5-b5-4: D.1 (Dbma7)

b6-6-b7: A.2 (Cm7)

6-#5-5: A.2, C.1, C.3 (Cm7, Eb9, F#m7)

b7-7-R: B.2, B.4, B.8 (Gma7, Gbma7, G7b9)

b7-6-b6: B.8 (G7b9)

7-b7-6 (Fig. 25): B.2, B.4 (Gma7, Gbma7)

R-7-b7: C.4 (C#7alt)

R-7-b7 resolving to m3 of tonic: A.1, A.2 (G7b9 | Cm7, C7 | Fma7)

R-7-b7 resolving to ma3 of tonic: C.5 (F#7 | Bma7#11)

7.6 – Passing Tone Chromaticism: Conclusions

We can observe a remarkable adaptability with Metheny's use of passing tone chromaticism, with 18 unique permutations and 21 unique applications. For each permutation, the scale degree is accompanied by which Species it belongs to, as well as the chord to which it applies. Chord symbols which are underlined, indicate a non-diatonic application, or a reharmonization. In two cases, the permutation is found within a formulaic component (Fig. 18, Fig. 25). Certain permutations are used over the identical or similar harmonic application, displaying some evidence that their applications are practiced. Metheny's use of passing tone chromaticism is also notable in his ability to anticipate the harmony of the following bar within the last two beats of the current bar, evidenced in Species B.1, B.2, B.7, notably all with an ascending contour. Metheny is also impressively adept in his ability to place non-chord tones on downbeats and resolve them within the flow of the melodic line. Notably, the contour of descending, then ascending is vacant as a passing tone chromaticism species.

Chapter 8

Dominant Cadence Formulas

Most jazz improvisers possess a collection of Dominant Cadence Formulas to apply over perhaps the most common chord progression in jazz: the II-V7-I. Metheny shows evidence of three main dominant cadence formula species, which I will describe below:

Dominant Cadence A: The definitive feature of this formula is a diminished triad descending from the dim5 to the root, which is preceded and followed by varied components.

Dominant Cadence B: Descends the altered dominant scale stepwise featuring chromatic passing tones.

Dominant Cadence C: Typified by an ascending diatonic phrase over the II_m7 chord, to an enclosure resolving to the ma3 of the V7 chord, followed by a large interval or arpeggiated triad.

The formulas' component parts, application, and relation to the harmony are defined below. To conclude at the end of the chapter, we will observe patterns for frequency of use, unique applications and distinctive features.

8.1 – Dominant Cadence: Species A

Species A.1
Old Folks: Bar 35

The musical notation for Species A.1, Old Folks: Bar 35, is in 4/4 time. It begins with a whole rest, followed by an eighth-note ascending scale fragment (G4, A4, B4) marked 'Fig. 12'. This is followed by a descending chromatic passing tone (B4, A4, G4) marked 'Fig. 21'. The melody then features a descending Cm diminished triad (C4, B3, A3) in root position over the F7 chord, marked 'Fig. 6'. This is followed by a descending Cm diminished triad (C4, B3, A3) in root position over the F7 chord, marked 'Fig. 7'. The phrase concludes with a diatonic enclosure (B4, A4, G4) marked 'Fig. 12' and a descending chromatic passing tone (B4, A4, G4) marked 'Fig. 6'.

Ex. 63 – Species A.1 – Old Folks: Bar 35: An ascending scale fragment begins on the P5 of Cm7 to a descending chromatic passing tone fragment from ma3 to ma2 of the F7 chord to an enclosure from root to b9 (fig. 12), to a descending Cm diminished triad in root position over F7 resolving to the ma3 (fig. 21), the phrase then follows its tertial descent up the octave on the b9 of the F7 beginning a diatonic enclosure with ascending chromatic passing tone from b9 to root (fig. 6), to a descending chromatic passing tone from root to m7 to an enclosure from the root of F7 to the ma3 of Bbma7 (fig. 7).

Species A.2
Snova: Bar 55

The musical notation for Species A.2, Snova: Bar 55, is in 4/4 time. It begins with a whole rest, followed by an eighth-note ascending scale fragment (G4, A4, B4) marked 'Fig. 12'. This is followed by a descending chromatic passing tone (B4, A4, G4) marked 'Fig. 21'. The melody then features a descending B diminished triad (B4, A4, G4) in root position over the Bm7b5 chord, marked 'Fig. 11'. This is followed by a descending B diminished triad (B4, A4, G4) in root position over the Bm7b5 chord, marked 'Fig. 11'. The phrase concludes with a diatonic enclosure (B4, A4, G4) marked 'Fig. 12' and a descending chromatic passing tone (B4, A4, G4) marked 'Fig. 6'.

Ex. 64 – Species A.2 – Snova: Bar 55: An ascending scale fragment begins on the P4 of Bm7b5 to a descending passing tone fragment from m7 to m6 to an enclosure from m6 to dim5 (fig. 12), beginning a descending B diminished triad in root position (fig. 21), jumping a m13 interval to the #9 of of E7b9 beginning a descending E minor pentatonic run giving #9, root, m7, P5, P4, #9 E7alt scale tones to an enclosure from the #9 to the ma2 of Eb7sus (fig. 11), to an ascending Eb7sus scale fragment.

Species A.3
Snova: Bar 63

Fig. 24 Fig. 7 Fig. 12 Fig. 21 Fig. 6 Fig. 7 Fig. 28

Ex. 65 – Species A.3 – Snova: Bar 63: A descending chromatic passing tone

sequence from the ma6 of F7sus to an enclosure from #9 of F7 to the ma6 of Bbm7 (fig. 24 + fig. 7), to an ascending Bb major scale fragment from the ma6 to a descending chromatic passing tone from the ma7 to ma6 to enclosure from the ma6 to the dim5 of Bm7b5 (fig. 12), beginning a descending B diminished triad resolving to the ma3 of E7alt (fig. 21), raising a ma6 interval to the b9 of E7alt beginning a diatonic enclosure with ascending chromatic passing tone from b9 to root (fig. 6), to a chromatic passing tone from root to m7 to an enclosure from m7 to the m3 of Am7 (fig. 7), to a descending E augmented triad giving m3, ma7, P5 A melodic minor scale tones (fig. 28).

Species A.4
Solar: Bar 119

Fig. 7 Fig. 21 Fig. 6

Ex. 66 – Species A.4 – Solar: Bar 119: A descending chromatic passing tone to

enclosure from ma6 to dim5 in anticipation of Dm7b5 (fig. 7), to a descending second inversion F minor triad giving Dm7b5 scale tones dim5, m3, m7 (fig. 21), to an enclosure featuring an ascending chromatic passing tone from the b9 of G7b9 to the P5 of Cm7 (fig. 6).

Species A.5
Solar: Bar 167

Chords: D^bma7 , $Dm7b5$, $G7b9$, $Cm7$

Figures: Fig. 7, Fig. 21, Fig. 2

Ex. 67 – Species A.5 – Solar: Bar 167: A descending phrase from the ma2 of D^bma7 featuring a chromatic passing tone sequence from the ma7 of D^bma7 to the dim5 of $Dm7b5$ (fig. 24), to a descending D diminished root position triad from the dim5 resolving to the ma3 of $G7b9$ (fig. 21), following its tertial descent up the octave with an enclosure from the b9 of $G7b9$ to the P5 of $Cm7$ (fig. 6).

Species A.6
Solar: Bar 179

Chords: D^bma7 , $Dm7b5$, $G7b9$, $Cm7$

Figures: Fig. 24, Fig. 21

Ex. 68 – Species A.6 – Solar: Bar 179: A descending phrase from the ma2 of D^bma7 featuring a chromatic passing tone sequence from the ma7 of D^bma7 to dim5 of $Dm7b5$ (fig. 24), to a descending D diminished root position triad from the dim5 of resolving to the ma3 of $G7b9$ (fig. 21), following its tertial descent up the octave to resolving from the b9 of $G7b9$ to the P5 of $Cm7$.

Species A.7
Solar: Bar 43

Chords: $Fm7$, $Bb7$

Figures: Fig. 26, Fig. 20

Ex. 69 – Species A.7 – Solar: Bar 43: A chromatic passing tone fragment through a descending enclosure chain from the ma7 of $Fm7$ to the ma2 of $Bb7$ (fig. 26), to a descending root position F minor triad that resolves to the ma3 of $Bb7$ (fig. 20), before raising a ma6 interval to the b9 of $Bb7$.

8.2 – Dominant Cadence: Species B

Species B.1
Solar: Bar 24

Dm7b5 G7b9

Fig. 7

Ex. 70 – Species B.1 – Solar: Bar 24: A descending chromatic passing tone

fragment from the m3 of Dm7b5 to an enclosure resolving to the P5 of G7b9 (fig. 7), descending down a root position G major triad.

Species B.2
Solar: Bar 71

D^bma7 Dm7b5 G7b9 Cm7

Fig. 7 Fig. 5 Fig. 7

Ex. 71 – Species B.2 – Solar: Bar 71: A descending chromatic passing tone from

the m3 in anticipation of Dm7b5 to an enclosure to the P5 of G7b9 (fig. 7), to an descending G altered dominant passage (P5, ma3, #9, b9) over G7b9 (fig. 23), continuing through a chromatic passing tone fragment from the root of G7b9 to an enclosure from the m7 of G7b9 to the m3 of Cm7 (fig. 7).

Species B.3
Solar: Bar 147

Gm7 C7 Fma7

Fig. 6 Fig. 7 Fig. 23 Fig. 7 Fig. 30

Ex. 72 – Species B.3 – Solar: Bar 147: A diatonic enclosure featuring an ascending

chromatic passing tone from the b13 to m7 in anticipation of C7 (fig. 6), to a descending chromatic passing tone fragment to enclosure from m7 to P5 (fig. 7), to a descending C altered dominant passage (P5, ma3, #9, b9) over C7 (fig. 23),

to a chromatic passing tone fragment from the root in suspension of the C7 resolving to the ma3 of Fma7 (fig. 7), to a F major motivic interval structure (m3-ma7-ma3-root) (fig. 30), ending on the ma2.

Species B.4
Old Folks: Bar 24



Ex. 73 – Species B.4 – Old Folks: Bar 24: Beginning with a ma7 leap from the ma3 to the #9 of D7b9, followed by a chromatic approach tone from #9 to ma3 (fig. 31), to a descending D altered dominant run (root, b13, P5, 3, #9, b9, root, m7) over D7b9 resolving on the m3 of the Gm7 (fig. 23).

Species B.5
Snova: Bar 40



Ex. 74 – Species B.5 – Old Folks: Bar 40: A chromatic approach tone from the ma7 (fig. 31), begins a G descending altered dominant run (m7, P5, #11, ma3, #9) over G7b9 to a descending chromatic passing tone fragment from the #9 to an enclosure resolving to the root of F#7sus (fig. 7).

Species B.6
Snova: Bar 70



Ex. 75– Species B.6 – Snova: Bar 70: A descending Eb altered dominant phrase (b13, ma3, P4, b9, root, m7) over Eb7 resolving to the ma3 of Abma7 (fig. 23).

Species B.7 C#7alt Cma7(#11)
 Son of Thirteen:
 Bar 253 15

Fig. 23 Fig. 5

Ex. 76 – Species B.7 – Son of Thirteen: Bar 253: A descending C# altered

dominant phrase (#9, b9, root, chromatic passing tone ma7, and m7) over C#7alt (fig. 23), leads to a descending enclosure chain from m7 resolving to the ma6 of Cma7#11 (fig. 5).

8.3 – Dominant Cadence: Species C

Species C.1 Fm7 Bb7 Ebma7
 Solar: Bar 7

Fig. 6 Fig. 22

Ex. 77 – Species C.1 – Solar: Bar 7: A scalar ascent from the m3 of Fm7, to an enclosure featuring an ascending chromatic passing tone fragment from the P5 resolving to the ma3 of Bb7 (fig. 6), to a descending altered dominant fragment from the b9 resolving to the ma3 of Ebma7 (fig. 22), before jumping a m7 interval to the ma2.

Species C.2 Ebma7 Ebm7 Ab7 Dbma7
 Solar: Bar 20

Fig. 6

Ex. 78 – Species C.2 – Solar: Bar 20: A tertial Ebma7 passage (ma3, P5 root) to a scalar ascent from the root to P5 of Ebm7, continues with an enclosure featuring an ascending chromatic passing tone from the P5 of Ebm7 to the ma3 in

suspension of Ab7 (fig. 6), before jumping a m6 interval to the root in suspension of Ab7.

Species C.3
Solar: Bar 30

Ex. 79 – Species C.3 – Solar: Bar 30: A descending chromatic passing tone

fragment to enclosure from the P5 resolves to the ma2 of Fm7 (fig. 7), continuing with an enclosure to ascending scale fragment (fig. 16), continuing with a tertial ascent to an enclosure from the P4 of Bb7 to the ma3 (fig. 1), raising a m6 interval to the root.

Species C.4
Solar: Bar 69

Ex. 80 – Species C.4 – Solar: Bar 69: An ascending Eb minor scalar to descending pentatonic run anticipates Ebm7 to an enclosure from the P4 to the m7 of Ab7 (fig. 13), raising a ma7 interval to the ma6 of Ab7, before descending a first-inversion Ab major triad over the giving ma2, ma7, P5 over Dbma7.

Species C.5
Old Folks: Bar 11

Ex. 81 – Species C.5 – Old Folks: Bar 11: An ascending scale fragment begins from the melodic minor-borrowed ma7 through ma2 of Am7b5 to a tertial ascent through the m7 and b9 of D7b9 (fig. 16), to a non-diatonic enclosure from the P4

resolving to ma3 (fig. 2), to a diminished triad (giving chord tones ma3, P5 and b9) (fig. 21).

Species C.6
Son of Thirteen: Bar 164

15

A 7alt

Dm(ma7)

Fig. 6 Fig. 9 Fig. 26 Fig. 30

Ex. 82 – Species C.6 – Son of Thirteen: Bar 164: A scalar descent from the root of A7alt (through the m7, b6 and P5), to a diatonic enclosure featuring an ascending passing tone fragment from P4 to ma3 (fig. 6), to a major triad arpeggiation in root position with an enclosure around the root (fig. 9), to a descending chromatic passing tone fragment to enclosure chain from root resolving to the m3 of Dm(ma7) (fig. 26), to a motivic interval structure (m3-ma9-m3-root) (fig. 30).

8.4 – Dominant Cadence: Patterns of Use

Based on the evidence compiled in this chapter, we can observe patterns for frequency of use and unique features for each formulaic species of dominant cadence vocabulary. I will work through them from Species A to C.

Dominant Cadence – Species A:

Species A breaks down into component phrases, the heart of which is consistently based on a descending diminished triad followed by a m6 or ma6

interval. The phrases preceding and following the triad are varied with some distinct patterns of use, which I will conclude with below.

Begins With:

- Descending chromatic passing tone to enclosure, preceding the descending diminished triad: A.1, A.2, A.3, A.4
- Ascending diatonic phrase over IIm7 chord, preceding the descending chromatic passing tone to enclosure: A.1, A.2, A.3
- Descending chromatic passing tone sequence to enclosure to begin, preceding the ascending diatonic phrase over IIm7: A.3
- Descending chromatic passing tone sequence resolves to dim5 of the descending diminished triad: A.5, A.6
- Descending chromatic passing tone to descending enclosure chain resolves to the P5 preceding the descending minor triad: A.7

--> Followed By:

- Descending root position diminished triad from the b9 to the P5 of the V7 chord, resolves by step to the ma3, then returns to the b9 with a ma6 interval: A.1, A.3, A.5, A.6
- Descending root position minor triad from ma2 to P5 of V7 chord, resolves by step to the ma3: A.7
- Descending root position diminished triad b9 to P5 of V7, then jumps an octave to the #9 of the dom7 by way of a ma13 interval: A.2

- Slight variation of diminished triad with a descending 2nd inversion minor triad from dim5 to m7 of IIm7b5, before returning through a m6 interval to the b9 of V7: A.4

--> Followed By:

- Ascending chromatic passing tone enclosure to descending chromatic passing tone to enclosure resolving to the ma3 of Ima7: A.1
- Ascending chromatic passing tone enclosure to descending chromatic passing tone to enclosure resolving to the aug5 of V7. Then descends down a root position augmented triad through the aug5, ma3, and root of the V7 chord before resolving to the root or the Im7 chord: A.3
- Ascending chromatic passing tone enclosure resolving to the P5 of Im7: A.4
- Enclosure resolving to the P5 of Im7: A.5
- Resolves by step to the P5 of Im7: A.6
- A descending E minor pentatonic run from the #9 of Edom7 including the b9 and resolving to the Root: A.2

We can observe components to be favoured or more practiced, based on their frequency of use. Other less frequent components are observed to be variations of their essential form, or additive phrases that act to elongate the archetype. It is notable that in each case an interval of a ma6 or m6 consistently follows the diminished triad. There is variation through which Metheny resolves each formulaic species, and we may see this as a theme as we continue our

observation of his improvisational tendencies. Because Metheny is adept with enclosure and passing tone formulaic components, he is free to resolve these Dominant Cadence formulas to a chord tone of the tonic triad lucidly and with variety.

Dominant Cadence – Species B:

Species B is the application of a descending altered scale stepwise and with passing tones, over a IIIm-V7-I , a V7-I , or a bII7-I progression. There are some patterns of use for phrases preceding the altered scale descent, starting pitches for the descent, and how the altered scale descent resolves, which I will conclude with below.

Begins With:

- Descending chromatic passing tone to enclosure from the m3 of IIIm7b5 resolving to the P5 of V7: B.1, B.2
- Ascending enclosure with chromatic passing tone to descending chromatic passing tone to enclosure from m3 of IIIm7 to the P5 of V7: B.3

--> Followed By:

- Descending root position major triad from the P5 of V7: B.1
- Descending altered scale beginning on the P5 of V7 (5, 3, #9, b9, R) resolving to the m3 of Im7 via a chromatic passing tone to enclosure: B.2
- Descending altered scale beginning on the P5 of V7 (5, 3, #9, b9, R) resolving to

the ma3 of Ima7 via a chromatic passing tone to enclosure: B.3

- Descending altered scale beginning on the root of V7 (R, b13, 5, 3, #9, b9, R, b7),

resolving to m3 of Im7 by step: B.4

- Descending altered scale beginning on m7 of bII7 (b7, 5, #11, 3, #9, b9),

resolving through an enclosure from the b9 of bII7 to the root of I7sus: B.5

- A typical 'cliche' descent from the ma3 of V7 (3, b9, R, b7), resolves by step to the ma3 of Ima7: B.6

- Descending altered scale beginning on the #9 of bII7 (#9, b9, R, b7), resolving to the ma6 of Ima7(#11) through a descending enclosure chain from the m7 of bII7: B.7

We can observe that in three species (B.1, B.2, B.3), a chromatic passing tone to enclosure component from the m3 of the IIm chord precedes the altered scale descent. In two species (B.2, B.3), the descending altered scale begins with a P5 and follows the identical interval structure. In Species B.3, the interval structure is simply elongated, beginning on the root to include the root and b13. Another recurring feature is the resolution to a ma3 (B.3, B.6) or a m3 (B.2, B.4) of the Ima or Im chord. Notably, other starting pitches of the altered scale are used as well, two occurring over the less common bII7-I progression, in which the bII7 chord is not simply a tritone substitute.

Dominant Cadence – Species C:

Species C is the application of an ascending diatonic phrase over the IIm7 chord, followed by an enclosure with chromatic passing tone resolving to the ma3 of V7, typically followed by a large ascending interval, over a IIm7-V7-I progression. There are some patterns of use and some unique applications, which we can observe below.

Begins With:

- Ascending diatonic phrase beginning on the root of the IIm7 chord: C.2, C.3
- Ascending diatonic phrase beginning on the root of the IIm7b5 chord: C.5
- Ascending diatonic phrase beginning on the m3 of the IIm7 chord: C.1
- Ascending diatonic phrase beginning on the P5 of the IIm7 chord: C.4

--> Followed By:

- Enclosure with ascending chromatic passing tone resolving to the ma3 of V7: C.1, C.2, C.6
- Diatonic enclosure resolving to the ma3 of V7: C.3
- Non-diatonic enclosure resolving to the ma3 of V7: C.5
- Descending ma2 to enclosure resolving to the m7 of V7: C.4

--> Followed By:

- ma6 interval: C.2, C.3
- m7 interval: C.1
- ma7 interval: C.4

- Arpeggiated diminished triad over V7 outlining 3-5-b9 scale degrees: C.5
- Arpeggiated major triad over V7 outlining 3-5-R scale degrees: C.6

We can observe that the diatonic phrase over the IIm7 chord shows patterns of use, beginning on the root in three species (C.2, C.3, C.5), but making use of the m3 and P5 as starting points as well. The ma3 is used as the target note of an enclosure in all but one species (C.4), showing a clear pattern of use. The recurrence of a large interval is evident, pre-existent as a motive in Dominant Cadence Species A. Ma6 intervals complete the phrase in Species C.2 and C.3, m7 and ma7 intervals complete the phrases in Species C.1 and C.4 respectively. A new motive of an arpeggiated triad is evident in Species C.5 and C.6.

8.5 – Dominant Cadence – Conclusions:

Overall, Metheny is shown to use just three major archetypes of Dominant Cadence Species. The IIm7-V7-I progression is among the most common in jazz, and so it is interesting that Metheny should have so few formulaic archetypes for which to approach this progression. Through an observation of the transcriptions of Metheny's improvisations in the appendices of this study, it becomes evident that Metheny often uses fluid combinations of shorter fragmentary ideas to improvise through cadence progressions, in

opposition to the lengthier and more visibly pre-rehearsed vocabulary that we've studied in this chapter.

Chapter 9

Melodic Cliché Formulas

Melodic Cliché formulas are phrases that are found to be popular among a wide variety of jazz improvisers. Though the scope of this research does not include quantifying their popularity or origin, most jazz researchers should find these phrases to sound familiar. As an improviser, it seems that for Metheny a goal is to “avoid the cliché,” however including a few carefully selected cliché type phrases into his improvisations injects a distinctive style familiarity by way of recognizable referents. Each formula’s component parts, application, and relation to the harmony are defined below. To conclude at the end of the chapter, we will observe unique features and patterns of use.

9.1 – Cliché: Species A

Species A.1
Solar: Bar 84

Dm7b5 G7b9

Fig. 17

Ex. 83 – Species A.1 – Solar: Bar 84: An Ab melodic minor scale fragment begins on the m3 of Dm7b5 and continues as a tertial arpeggio (through ma3, b13, root and #9) of G7b9 (fig. 17).

Species A.2
Solar: Bar 192

Dm7b5 G7b9

Fig. 17

Ex. 84 – Species A.2 – Solar: Bar 192: An Ab melodic minor scale fragment begins on the m3 of Dm7b5 and continues as a tertial arpeggio (through ma3, P5, m7 and root) of G7b9 (fig. 17).

Species A.3
Old Folks: Bar 39

Eb9

Fig. 17

Ex. 85 – Species A.3 – Old Folks: Bar 39: A Bb melodic minor scale fragment begins on the ma3 of Eb9 (through the aug4, P5, ma6) of Eb 129ydian dominant and continues as a tertial arpeggio (from m7, ma2, aug4 to ma6) (fig. 17).

Species A.4
Old Folks: Bar 49

Em7b5(9) A7b9 Dm7

Fig. 13 Fig. 16 Fig. 17 Fig. 31 Fig. 17 Fig. 22

Ex. 86 – Species A.4 – Old Folks: Bar 49: An ascending to descending G minor pentatonic run begins on the m7 of Em7b5(9) (through root, m3, m6, dim5) to an enclosure to the P4 (fig. 13), to a G melodic minor scale fragment (through P4, ma2, m3, dim5 and m7) of Em7b5(9) (fig.16), continuing tertially to a chromatic approach tone (#9 to ma3) (fig. 31), to a Bb melodic minor scale fragment from the m7 of A7b9 (through root, b9, #9) to a tertial ascent (through ma3, P5, m7) (fig. 17), to a descending altered dominant fragment (with b9 and #9) resolving to the m3 of Dm7 (fig. 22).

Species A.5
Solar: Bar 210

Ex. 87 – Species A.5 – Solar: Bar 210: An ascending/descending C Lydian-based pentatonic run (ma6, root, ma6, aug4, ma3) from the ma3 of Fma7 gives ma3, P5, ma3, a non-diatonic dim2, and ma7 scale tones to an enclosure from ma7 to the m7 of Fm7 (fig. 13), to a tertial descent down a root position Ab major triad giving m7, P5, m3 chord tones to a chromatic passing tone fragment from m3 to the P5 of Bb7 (fig. 19), to an ascending Ab Melodic Minor scale fragment (ma6, ma7, root, ma2, m3) from the P5 of Bb7 giving P5, ma6, m7, root, b9 altered dominant scale tones (fig. 17), to a tertial arpeggio through a Bdim triad giving b9, ma3, P5, ma3 altered dominant scale tones (fig. 21), resolving to the root of Ebma7 before ending on the P5.

9.2 – Cliché: Species B

Species B.1
Old Folks: Bar 17

Ex. 88 – Species B.1 – Old Folks: Bar 17: An ascending/descending C major scale fragment (R-2-3-4-3-2) from the m6 of Em9 (E Locrian ma2) (fig. 15), to an arpeggiated A major triad over A7 before leaping up the octave to the P5.

Species B.2
Son of Thirteen: Bar 133

Ex. 89 – Species B.2 – Old Folks: Bar 133: A descending E major scale fragment (4-3-2-R) from the m3 of F#m9 (fig. 15), to a descending enclosure chain resolving the ma2 of Gma7 (fig. 5).

Species B.3
Son of Thirteen:
Bar 96

Ex. 90 – Species B.3 – Son of Thirteen: Bar 96: An ascending/descending A major scale fragment (R-2-3-4-3-2-R) beginning on the m7 of Bm(ma7) through m7, root, ma2, m3 (fig. 15), before descending to the P5 to an enclosure chain from P5 to m3 (fig. 5).

Species B.4
Son of Thirteen:
Bar 111

Ex. 91 – Species B.4 – Son of Thirteen: Bar 111: An ascending/descending Db major scale fragment from the P5 of Fbma7#11 (fig. 15), descending to the ma3 before a diatonic enclosure from ma7 to the P5 of Ama7#11 (fig. 1), before ascending an A major pentatonic based run through P5, ma6, root, ma2, ma3, and aug4.

9.3 – Cliché: Species C

Species C.1
Solar: Bar 105

Ex. 92 – Species C.1 – Solar: Bar 105: A descending passing tone fragment from the ma2 of Ebma7 (fig. 3), to a descending Gb (IV) triad to ascending Ab triad (V) over Ab7 (fig. 29), resolving to the root of Db.

Species C.2
Son of Thirteen:
Bar 122

Ex. 93 – Species C.2 – Son of Thirteen: Bar 122: An arpeggiated C triad (V) begins on the aug4 of Bbma7#11 (IV chord) and outlines extensions ma6 and ma2 (fig. 29), before resting on the ma7 of Fma7#11.

9.4 – Cliché: Species D

Species D.1
Old Folks: Bar 15

Ex. 94 – Species D.1 – Old Folks: Bar 15: An ascending scale fragment leads to a descending chromatic passing tone fragment on the ma6 of C7 with a root pedal point (fig. 32), to a non-diatonic enclosure from the P4 of C7 to the root of Em9 (fig. 2), to an ascending ma3 to descending P4 interval motive that mirrors the previous pedal point motive with the exclusion of a chromatic passing tone.

various harmonic contexts to outline the harmony. Metheny inverts the cliché to an ascending phrase and extends it, to include ma6 and ma7 melodic minor scale tones, creating the melodic scale phrase archetype (6-7-R-2-b3-5-7-2). There are some unique applications and distinct patterns of use, which we will observe below.

Begins With:

- Ascending melodic minor scale fragment (6-7-R-2) of the melodic minor scale:

A.1, A.2, A.3, A.4(2)

- Enclosure around the root of the melodic minor scale: A.4(1)

--> Followed By:

- Ascent through a tertial m(ma9) structure, from the m3 to the ma9: A.1, A.3,

A.4(1)

- Ascent through a tertial dom7 structure, from the ma3 to the root: A.2, A.4(2)

- Ascent through a tertial dom7(b9) structure, from the b9 to the P5: A.5

The ascent of the tertial m(ma9) structure is applied to three unique harmonic contexts, including Altered Dominant, Lydian Dominant, and Locrian Natural 2. The m(ma9) structure outlines Altered Dominant scale tones (3-b13-R-#9) for G7b9 in Species A.1, Lydian Dominant scale tones (b7-9-#11-13) for Eb9 in Species A.3, and Locrian Natural 2 scale tones (b5-b7-9-11) for Em7b5(9)

in Species A.4(1). The tertial dom7 and dom7(b9) structures are applied to their native harmonic contexts in Species A.2, Species A.4(2), and Species A.5.

Species B

This cliché phrase (Fig. 15) is a melodic scale fragment with the archetype (R-2-3-4-3-2-R) that is a simple melodic gesture to both hear and perform on the guitar. Metheny applies it to a few different harmonic contexts and with some patterns of use that we will observe below.

Begins With:

- The component begins from the m7 degree, over the tonic VIIm7 tonality, which the IIm9-V7 progression implies: B.1
- The component begins from the m7 degree, over a m(ma7) chord: B.3
- The component begins with a descent from the m3 of a IIm7 chord, in a truncated application of the component's second-half: B.2
- The component begins from the P5 degree of a ma7(#11) chord: B.4

--> Followed By:

- A descending enclosure chain from the P4 to m3 of the m(ma7) chord: B.3
- A descending enclosure chain from the P4 of F#m9 resolving to the ma2 of Gma7: B.2

We can observe that (Fig. 15) is applied by Metheny to a four distinct harmonic contexts, namely Aeolian, Dorian, Lydian and Melodic Minor. In two cases, Metheny follows (Fig. 15) with a descending enclosure chain (Fig. 5), showing a pattern of use for these components.

Species C

The cliché phrase (Fig. 29) is a common IV or V major triad application over a IVma7 or V7 tonality. There is one example of use for each:

- A descending IV major triad to ascending V major triad over a IIm7-V7-Ima7 progression, accessing the (11-9-b7-R-3-5) of the V7 chord: C.1
- An ascending/descending V major triad over a IVma7(#11) tonality, accessing the (9-#11-13) of the IVma7#11 chord: C.2

Species D

This chromatic descending cliché phrase (Fig. 32) occurs over V7 tonalities, with three similar applications, each slightly unique:

- A chromatic descent from the ma6 to P5 of the V7 of a IIm7-V7 progression, featuring the root as an escape tone: D.1
- A chromatic descent from the ma6 to P5 of the IV7 chord, featuring the root as an escape tone: D.2
- A chromatic descent from the ma6 to P5 of a V7 chord, featuring the P4 as an escape tone: D.3

9.6 – Cliché: Conclusions

Through cliché phrases, Metheny creates style familiarity within the greater canon of jazz vocabulary. While there are some patterns for use, Metheny largely applies them to various harmonic contexts in an adaptive nature.

Chapter 10

Pentatonic Formulas

Pentatonic scales are some of the most widely used in music. They can be applied to virtually any style or genre, not the least of which includes jazz improvisation. Metheny favours pentatonic applications imposed over various tonalities to create unique scale tone combinations. There are three archetypes of pentatonic application:

Species A: Descending pentatonic run to diatonic enclosure (Fig. 11).

Species B: Ascending/descending pentatonic run to enclosure (Fig. 13).

Species C: Descending pentatonic run (Fig. 11) to an ornamentation featuring the $\dim5$ degree, to a chromatic passing tone to enclosure (Fig. 7).

Each formula's component parts, application, and relation to the harmony are defined below. To conclude at the end of the chapter, we will observe unique features and patterns of use.

10.1 – Pentatonic: Species A

Species A.1
Solar: Bar 58

Ex. 97 – Species A.1 – Solar: Bar 58: A descending Eb major pentatonic run from the ma2 of Dbma7 evokes Lydian scale degrees ma2, ma7, ma6, aug4, ma3 (fig. 11), before a chromatic approach tone trill between the m6 and P5 (fig. 31).

Species A.2
Old Folks: Bar 38

Ex. 98 – Species A.2 – Old Folks: Bar 38: A descending F major pentatonic run from the of Bbma7 through scale degrees ma3, ma2, ma7, ma6, P5 (fig. 11), to an enclosure chain from the ma5 resolving to the ma3 of Eb9 (fig. 5).

Species A.3
Son of Thirteen:
Bar 148

Ex. 99 – Species A.3 – Son of Thirteen: Bar 148: A descending D major pentatonic run from the ma6 of A7sus through ma6, P5, P4, ma2, ma7 scale degrees to enclosure to the ma3 of D#7alt (fig. 11), before a quartal ascent through degrees ma3, m7, #9, to a tertial ascent through #9, #11, m7, before a chromatic passing tone fragment resolving to the b13.

Species A.4
Son of Thirteen:
Bar 150

D#7alt Dma7 F7alt

Fig. 11 Fig. 5

Ex. 100 – Species A.4 – Son of Thirteen: Bar 150: A descending E mixolydian pentatonic run from ma6 of Dma7 through aug4, ma3, ma2, root (fig. 11), to a descending enclosure chain resolving to the P5 of F7alt (fig. 5).

Species A.5
Son of Thirteen:
Bar 194

Gbma7(#11)

Fig. 11

Ex. 101 – Species A.5 – Son of Thirteen: Bar 194: A descending Db major pentatonic run from the ma3 of Gbma7#11 through ma2, ma7, ma6, P5, ma3 scale degrees to an enclosure to the root (fig. 11), to a descending m3 interval from ma2 to ma7.

Species A.6
Son of Thirteen:
Bar 211

Bbma7(#11) Fma7(#11) Em7

Fig. 11 Fig. 5

Ex. 102 – Species A.6 – Son of Thirteen: Bar 211: An ascending ma3 interval from the P5 to ma7 of Bbma7#11, to a descending F major pentatonic run from the ma3 through ma2, ma7, ma6, P5 to an enclosure to the ma7 of Fma7#11 (fig. 11), to a descending enclosure chain from the non-diatonic aug5 to the P5 of Em7 (fig. 5), to a G major arpeggio through chord tones P5, m7 and m3.

Species A.7
Son of Thirteen: Cma7(#11)
Bar 254 17

Fig. 17 Fig. 11 Fig. 10

Ex. 103 – Species A.7 – Son of Thirteen: Bar 254: A major scale fragment from the ma6 of Cma7#11 to a tertial ascent ma3, P5, ma7, ma2 (fig. 17), to a descending B minor-based pentatonic run from the b13 of Eb7#9 through altered scale tones P4, #9, b2, a non-diatonic ma7, and #11 (fig. 11), to an ascending scale fragment featuring a non-diatonic dim2 over Abma7#11.

Species A.8
Son of Thirteen:
Bar 206 20

Fig. 11 Fig. 11

Ex. 104 – Species A.8 – Son of Thirteen: Bar 206: An E major pentatonic run descends from the ma2 of Ama7#11 through ma7, ma6 (fig. 11), to an enclosure chain accessing the P5 (fig. 5), to a descending B major pentatonic run from the aug4 of Ama7#11 through ma6, ma3, ma2 (fig. 11), ending on the ma7.

10.2 – Pentatonic: Species B

Species B.1
Son of Thirteen: Bm(ma7)
Bar 99 22

Fig. 13

Ex. 105 – Species B.1 – Son of Thirteen: Bar 99: A B minor pentatonic ascending/descending run from the root of Bm(ma7) through m3, P4, P5, ma6 to

Species C.2
Old Folks:
Bar 43 ^{3/}

Fig. 11 Fig. 7

Ex. 108 – Species C.2 – Old Folks: Bar 43: A ma7 interval from the m3 of Dm7 to the ma7, begins a descending D minor pentatonic run interjected by a P4 to dim5 trill before continuing its descent (fig.11), to a chromatic passing tone fragment to enclosure from P5 resolving to m3 (fig. 7), before a scalar ascent to P5.

10.4 – Pentatonic: Patterns of Use

Based on the evidence compiled in this chapter, we can observe patterns for frequency of use and unique features for each formulaic species of pentatonic vocabulary. We will work through them from Species A to C.

Species A

This pentatonic phrase (Fig. 11) is a descending legato run that is applied to various harmonic contexts and patterns of use, observed below:

- A descending V major pentatonic run, applied over a bVIIma7 chord: A.1
- A descending V major-based pentatonic run with an added #11 scale tone, over a IVma7#11 chord: A.7
- A descending V major pentatonic run with a descending enclosure chain through a P5 passing tone, over a IVma7#11 chord: A.8
- A descending I major pentatonic run over a IVma7 chord: A.2, A.5, A.6

- A descending I major pentatonic run over a V7 chord: A.3
- A descending IV major pentatonic run over a IVma7 chord, with a #4 alteration:
A.4

Species B

This ascending/descending pentatonic run to enclosure (Fig. 13) is applied to two harmonic contexts:

- A native minor pentatonic run over a m(ma7) chord, including a ma6 scale tone: B.1
- A V major pentatonic run over a IVma7#11 chord, followed by a descending VIIm descending pentatonic run over a IIIm7 chord: B.2

Species C

This descending pentatonic blues-based run is applied to two harmonic contexts:

- A descending F minor pentatonic run beginning from the root of Fma and resolving to the ma3 then root: C.1
- A descending D minor pentatonic run beginning from the ma2 of Dm7 and resolving to the m3 then P5: C.2

10.5 – Pentatonic: Conclusions

Metheny's application of pentatonic vocabulary shows some distinguishable patterns of use while imposed over various tonalities to create unique scale tone

combinations. Because pentatonic vocabulary is so widespread and recognizable, it creates both a sense of style familiarity and a strong melodic hook for the creation of memorable events within an improvisation.

Chapter 11

Motivic Formulas

Motivic formulas are those that repeat in similar and varied interval structures throughout series of chord changes. There are three archetypes Metheny uses in his improvisations:

Species A: A descending pentatonic phrase (5-3-2-R) (Fig. 11)

Species B: An interval structure derived from the harmonic shell (3-7-3-R) (Fig. 30)

Species C: Diatonically shifting P5 intervals (Fig. 34)

Each formula's component parts, application, and relation to the harmony are defined below; within their definitions are observed unique features and patterns of use.

11.1 – Motivic: Species A

Species A.1
Solar: Bar 88

The musical notation for Species A.1, Solar: Bar 88, is presented in four staves. The first staff begins with a C7 chord and a descending C major pentatonic motive (P5, ma3, ma2, root). The second staff features an Fma7 chord and continues the motive. The third staff shows an Ebma7 chord and the motive. The fourth staff includes a Dbma7 chord and the motive. The notation is marked with 'Fig. 11' and 'Fig. 23' to indicate specific figures. Chord changes are indicated by labels: C7, Fma7, Bb7, Ebma7, Ab7, Dm7b5, and G7b9.

Ex. 109 – Species A.1 – Solar: Bar 88: A descending C major pentatonic motive

(P5, ma3, ma2, root) in bar 88 begins diatonically over C7, and ascends/descends with an identical interval structure throughout the chord changes in rhythmic groupings of either two or three beats (fig.11). In bar 89 over Fma7, a D major pentatonic structure gives scale tones ma3, ma7, ma6 and a non-diatonic dim2 on an offbeat passing tone. In bar 90 an E major pentatonic structure acts as a chromatic passing phrase reaching F major pentatonic in bar 91 giving scale tones P5, ma2 and a non-diatonic ma3 on an offbeat passing tone over Fm7. In the second half of bar 92 an E major pentatonic structure gives b9, m7, b13, #11 altered dominant scale tones over Bb7. An Eb minor interval structure is adjusted to P5, m3, ma2, root in over Ebm7 in bar 93-94. In bar 96 a Db major pentatonic structure gives altered dominant scale tones before an

enclosure from b13 to P5 (fig.1) before a descending altered dominant fragment through P5, ma3, #9, b9 (fig.23).

11.2 – Motivic: Species B

Species B.1
Solar: Bar 149

Fig. 7 Fig. 30 Fig. 30 Fig. 30

Fig. 30 Fig. 30 Fig. 30 Fig. 30 Fig. 30 Fig. 30 Fig. 30 Fig. 30

Fig. 30 Fig. 30 Fig. 30 Fig. 30

Ex. 110 – Species B.1 – Solar: Bar 149: A descending passing tone fragment to enclosure from the P5 to ma3 of Fma7 (fig. 7), to a motivic interval structure (ma3-ma7-ma3-root) that adapts to the voice leading of the chord changes (fig. 30). In bar 151 the structure consists of m3-m7-m3-ma7, in bar 152 the structure consists of ma3-m7-ma3-root of Eb7 being the tritone-substitute of Bb7, resolving to the ma3-ma7-ma3-root structure of Ebma7 in bar 153. A m3-m7-m3-root structure anticipates Ebm7 in bar 153 before another D7 ma3-m7-ma3-root tritone substitution structure resolves to a ma3-ma7-ma3-root structure anticipating Dbma7 on bar 154. A root-P5-root-b13 structure in bar 156 over G7b9 resolves to an Eb root-ma3-root-ma3 structure beginning on the last upbeat of bar 154 that outlines the m3 and P5 of Cm7. From here a chromatic

sequence continues with Ema7 (root-ma3-ma7-ma3), Fma (root-ma3-root-ma3), F#ma7 (root-ma3-ma7-ma3), and Gma (root-ma3-root-ma3), ascending before reaching the P4 of Gm7 in bar 159.

Species B.2
Snova: Bar 74

Fig. 7 Fig. 30 Fig. 30 Fig. 30 Fig. 30

Ex. 111 – Species B.2 – Snova: Bar 74: A descending chromatic passing tone fragment to enclosure from the m3 of F#7sus to the root (fig. 7), beginning a sequence of motivic interval structures Dma7 (ma3-ma7-ma3-root), C#ma7 (ma3-ma7-ma3-root), C7 (ma3-m7-ma3-root), B7 (ma3-m7-ma3-root) in bar 75-76 (fig. 30), before reaching the ma3 of Bma7#11 in bar 77.

Species B.3
Son of Thirteen:
Bar 177

Fig. 26 Fig. 30 Fig. 30

Species B.3 – Son of Thirteen: Bar 177: A descending chromatic passing tone fragment to enclosure chain from the root of A7alt to the m3 of Dm(ma7) (fig. 26), begins a motivic interval structure (m3-ma2-m3-root) that repeats in a three-beat rhythmic pattern through bar 178-181 (fig.30). A motivic interval

structure then begins with (P5-P5-P5-m3), then moves diatonically through the B melodic minor scale with this same structure step-wise or intervallically through bar 182-188 (fig. 30), before a melodic descent from the m3 of Bm(ma7) in bar 189 reaching the aug4 of Bbma7#11 in bar 190.

11.3 – Motivic: Species C

Species C.1 G^bma7(#11)
 Son of Thirteen:
 Bar 107 ³⁸

Chapter 12

Reharmonization Formulas

Reharmonization formulas are those that temporarily infer harmonic information beyond what the piece's basic harmonic structure suggests. Each formula's component parts, application, and relation to the harmony are defined below; within their definitions are observed unique features and patterns of use.

12.1 – Reharmonization: Species A

Species A.1
Solar: Bar 37

Cm7 Gm7 C7

Fig. 31 Fig. 31 Fig. 7 Fig. 33 Fig. 6 Fig. 26

Ex. 113 – Species A.1 – Solar: Bar 37: Chromatic approach tones embellish the root and P4 of a C minor scale run over Cm7 (fig. 31), before a descending chromatic approach tone fragment to enclosure from the dim5 to m3 in bar 38 (fig. 7), to a descending Gb major pentatonic-based run (ma6, m6, P5, ma3, ma2, root, P5) which as the tritone substitute (bV) of C7 gives altered dominant-based scale tones #9, ma2, b9, m7, b13, #11 (fig. 33) in bar 38-39, before a diatonic enclosure featuring an ascending chromatic passing tone fragment between the ma3 and b9 of C7 resolving to the root (fig. 6) in bar 39-40, continuing on with a descending chromatic passing tone fragment to enclosure chain from the root.

Species A.2
Solar: Bar 61

Fig. 33 Fig. 25 Fig. 26 Fig. 27

Ex. 114 – Species A.2 – Solar: Bar 61: A descending D major (II) pentatonic-based run (ma2, dim2, root, ma6, P5, ma3, root) gives C minor scale degrees ma3, m3, ma2, ma7, ma6, dim5 (fig. 33) in bar 61, to an ascending C Aeolian run that leads to an enclosure from a dim2 to a descending chromatic passing tone fragment from the root to a descending enclosure chain from m7 to aug5 (fig. 25 + fig. 26) in bar 62-63, to a C whole tone scale-derived descending C augmented triad to ascending D augmented triad giving root, ma2, ma3, aug4, aug5, m7 scale degrees anticipating C7 (fig. 27) in bar 63-64.

Species A.3
Solar: Bar 190

Fig. 15 Fig. 2 Fig. 8 Fig. 33

Ex. 115 – Species A.3 – Solar: Bar 190: An expanded ascending enclosure from the ma3 to P5 of Ab7 (fig. 8), to a descending D major (II) pentatonic-based run (dim2, root, ma6, P5, ma3, root) which as the tritone substitute (bV) of a suspended Ab7 gives P5, #11, #9, b9, b7, #11 altered dominant scale tones (fig. 33) in bar 191, before resolving to the m3 of Dm7b5 in bar 192.

12.2 – Reharmonization: Species B

Species B.1
Solar: Bar 133

Ex. 116 – Species B.1 – Solar: Bar 133: A descending non-diatonic enclosure from the dim5 of Cm7 to the P4 (fig. 2), begins a descending Db major pentatonic run (ma3, ma2, root, ma6, P5) giving P4, m3, dim2, m7, m6 C minor scale tones to an enclosure from m6 to P5 (fig. 11), beginning an ascending/descending C major pentatonic run (P5, ma6, root, ma6) giving P5, ma6, root, ma6 C minor scale tones (fig.13) in bar 134, back to a Db major ascending/descending pentatonic run (root, ma2, root, ma6) giving dim2, m3, dim2, m7 C minor scale degrees (fig. 13), before returning to a descending C major pentatonic run over C7 in bar 135 (fig. 11).

12.3 – Reharmonization: Species C

Species C.1
Solar: Bar 41

Ex. 117 – Species C.1 – Solar: Bar 41: Descending/ascending augmented triads give (m3, ma7, P5) (ma6, dim2, P4) (P5, m3, ma7) (dim2, P4, ma6) scale tones derived from the whole tone scale.

Species C.2
Old Folks: Bar 12

D7b9 G7

Fig. 7 Fig. 27 Fig. 10 Fig. 9 Fig. 27

Ex. 118 – Species C.2 – Old Folks: Bar 12: A descending chromatic passing tone from the root of D7b9 to the ma3 of G7 (fig. 7), to a G whole tone scale fragment (ma3, aug4 aug5, m7) over G7 (fig. 27), to a descending ma2 interval to enclosure from the m7 to P5 (fig. 10), to a G major root position triad arpeggiation featuring non-diatonic enclosures beginning on the P4 though the ma3, P5, R (fig.9), to ascending augmented triads (ma3, aug5, root) (aug4, m7, ma2) (aug5, root, ma3) (fig. 27).

12.4 – Reharmonization: Conclusions

Reharmonization formulas act to create melodic interest beyond diatonic, typical altered dominant or simple reharmonization vocabulary. These Reharmonization phrases stand out in an improvisation as they break away from the piece's basic harmonic structure, and create unique events that break up a sense of predictability in the melodic line.

Chapter 13

Analysis: Metheny's "Son of Thirteen" Improvisation

Having concluded our comprehensive examination of Metheny's formulaic system, we will observe how this formulaic system functions within the larger context of an improvisation, on Metheny's original composition "Son of Thirteen." For this analysis of Metheny's improvisation on "Son of Thirteen," we will refer to page 175 of Appendix A. Referring to formulaic, melodic, structural, and motivic categorizations, I will demonstrate the extent to which Metheny's use of these concepts establishes overall coherence. Beginning with Section A1 of the improvisation, "Son of Thirteen" begins with a B melodic minor phrase over Dm(ma7) through bar 88-92, in anticipation of the Bm(ma7) harmony in bar 93. A blues phrase with a dim5 grace note typical of the blues vernacular, bridges the first phrase to a descending P5 interval between Bm(ma7)'s P5 and root. The Melodic Cliché Species B.3 formula follows in bar 94-95, to the Pentatonic Species B.1 formula in bar 95-96, establishing the first motivic connection, as these two phrases are identical in ascending/descending contour. The next phrase in bar 97-98 contains a repeating dotted-quarter note figure, which is an elaboration on the two-beat figure phrase from bar 88-89, establishing a second motivic connection. This phrase ends with a descending P5 interval between ma2 and P5, recalling the descending P5 interval in bar 93, for a third motivic connection. The Enclosure Species A & C formula in bar 99-

100 resolves to the Enclosure Species G.1 formula over Bbma7#11 in bar 101 which, like the phrase on bar 99-100, ends with a descending phrase using a fig.10 enclosure component, for a fourth motivic connection. A descending tertial phrase of an F major root position triad in bar 102 over Fma7#11 leads to an ascending tertial phrase of a C minor root position triad over Abma7#11, for a fifth motivic connection. Another descending P5 interval between the aug4 and ma7 of Ebma7#11 in bar 104 continues the P5 motivic theme, for a sixth motivic connection. An ascending ma7#11 tertial phrase begins from root position in bar 105-106, continuing the tertial motive from bar 103 with the same off-beat rhythmic placement. The Motivic Species C.1 formula in bar 107-11 completes the P5 interval motive with descending P5's in three-beat figures, for a seventh motivic connection. The Cliché Species B.4 formula in bar 111-112 leads to an ascending pentatonic-based phrase in bar 113-114 over Ama7#11, which leads to melodic phrasing through bar 114-119. The descending Enclosure Species G & D formula in bar 120 resolves to a melodic phrase with a ascending/descending contour in bar 121-122 over Cma7#11 and Gma7#11, becoming a motive. The Cliché Species C.2 formula in bar 122-124 over Bbma7#11 has an identical contour to the motivic phrase in bar 121-122, as does the Pentatonic Species B.2 formula in bar 124, and the following pentatonic phrase in bar 125-126, to complete the motivic ascending/descending contour sequence for an eighth motivic connection. A tertial ascent outlining F#m9 in bar 127-130 with off-beat rhythmic placements, leads to a step-wise melodic

phrase in bar 130-133. The descending Cliché Species B.3 formula in bar 134 resolves to the beginning of section B.

An extended period of motivic phrasing in D major through bar 135-145 begins Section B. Three phrases throughout bar 135-142 end with motivic descending intervals (a ma3 in mm135-136, ma2 in bar 137-138, and P5 in bar 138-142) and each phrase is followed by a brief rhythmic pause, drawing a ninth motivic connection. A four-note step-wise descending phrase in bar 143-144 is followed by another four-note step-wise descending phrase at a lower pitch level in bar 145-146, for a tenth motivic connection. In bar 148-149, the Enclosure Species G.2 formula begins with a sustained note to a descending run to enclosure, and this continues as a motive within the Pentatonic Species A.3 formula in bar 149 and the Pentatonic Species A.4 formula in bar 150-151, for an eleventh motivic connection. It is also noteworthy that a tertial descent follows the motivic phrase in bar 149, whereas a quartal ascent follows the motivic phrase in bar 150. The Chromatic Passing Tone Species B.2 formula in bar 152 leads to the Enclosure Species E & D.2 formula in bar 153-156, ending with a cadential chord structure.

Section A2 begins with melodic notes followed by Dm(ma7) chord structures in both bar 157 and bar 159, and a step-wise quarter-note triplet melodic phrases in both bar 158 and bar 160 for a twelfth motivic sequence. Continuous descending/ascending phrases in bar 160 and bar 161 follow the same contour at different pitch levels for a thirteenth motivic event. A blues

phrase in bar 163-164 leads to a melodic phrase that ascends step-wise through a sequence of chord changes in bar 165-167. A four-note step-wise descending phrase in bar 168 begins a new motive, as the contour of this phrase is mirrored in bar 169-170, in the first five notes of Chromatic Passing Tone Species B.3 formula in bar 171, in the melodic phrase in bar 173-174, and in the first five notes of the Cadence Species C.6 formula in bar 174-175 for a fourteenth set of motivic connections, and completes the first chorus of the improvisation.

The Motivic Species B.3 formula begins Section A1 as a three-beat figure through bar 176-180 over Dm(ma7), then moves step-wise and intervallically through Bm(ma7) in bar 181-187 for a fifteenth motivic event. Two pairs of arpeggiated chord structures and rhythmic figures occur through a series of chord changes in bar 189-192 for a sixteenth motivic event. The Pentatonic Species A.5 formula in bar 194-196 leads to the Chromatic Passing Tone B.4 formula in bar 196-198 followed by a descending melodic phrase. An ascending phrase in bar 200-201 leads to a motivic three-note three-beat figure in bar 202-204, for a seventeenth motivic event. The Pentatonic Species A.8 formula then descends in bar 205-207, followed by the ascending Chromatic Passing Tone Species B.5 in bar 208-210. In bar 211-212, the Pentatonic Species A.6 formula holds a descending run to enclosure that acts as a repeated motive in bar 213, and again in the descending Chromatic Passing Tone Species C.3 formula in bar 214-215 (with a passing tone in place of the enclosure), for an eighteenth motivic connection. A pentatonic-based ascending phrase follows with a dotted-

quarter note rhythmic motive in bar 215-218, and a melodic and blues-based phrase in bar 219-221 completes Section A.

Section B begins with a period of motivic phrasing through bar 223-234, where a sustained note followed by a descending m3 interval in bar 224 informs the sustained note and descending m3 interval in bar 125-126, and a dotted quarter note rhythmic motive in bar 227 informs ascending chord structures in bar 228 and bar 229 for a nineteenth motivic passage. In bar 231-234 phrases of identical contour occur, for a twentieth motivic event. A gradually ascending melody with accompanying chord structures occur with repeated rhythmic figures in bar 235-240, to an ascending/descending step-wise phrase ascending in bar 241-242, for a twenty-first motivic event.

Section A2 begins with a blues phrase in bar 244-245, leading to a motivically rhythmic phrase through bar 246-249 where the rhythmic placement of notes plays off an alternating mix of on-beats and off-beats, for a twenty-second motivic event. The Enclosure Species F & D formula follows in bar 250-252, leading to a pair of motivic eighth-note phrases through a series of chord changes in bar 253-256. The Cadence Species B.7 formula over C#7alt in bar 253 descends to an enclosure in the same manner as the Pentatonic Species A.7 formula over Eb7#9 in bar 255, and the ascending step-wise phrase over Cma7#11 in bar 254 holds an identical interval structure to the first five notes of the phrase in in bar 256, for a twenty-third motivic event. In bar 257-262, a rhythmic motive is used as chord tones are selected over a series of chord

changes, for a twenty-fourth motivic event. Cadential chord structures through bar 263-264 signal the end of the improvisation, leading to the chordal comping that supports the drum solo.

Chapter 14

Summary and Conclusions

Pat Metheny's formulaic system, with its unique three-tier approach dividing formulaic information into a connected system of categories, species, and components, has revealed insight into his improvisational forming process, while demonstrating the practical application of formulaic concepts. Having documented Metheny's elements of style, formulaic components, categories and species, and an analysis of Metheny's improvisation on "Son of Thirteen," it is clear that Metheny's improvisational style establishes coherence through formulaic, melodic, structural, and motivic concepts, possessing the proficiency to exhibit sound development through continuity of thought and spontaneous variation. In an even more global sense, sound development through the formulaic, melodic, structural, and motivic concepts observed within Metheny's improvisation on "Son of Thirteen", can be attributed to four key areas: style familiarity, balance, structure and connectivity.

Metheny's highly idiosyncratic formulaic system establishes both the framework for his improvisational style, as well as a system of identifiable components that represent a nuanced style familiarity. Each of Metheny's formulaic components adds a layer of complexity through the application of idiosyncratic interval structures, beyond that which can be considered typical or derivative of mainstream jazz vernacular. While genre style familiarity is

established insofar as this formulaic system stems from mainstream jazz concepts, Metheny's use of a highly stylized system of components establishes an artistic style familiarity that is uniquely particular to him as an improviser. Style familiarity also is tied to what a listener subconsciously expects to hear and how the artist reinforces or defies this, through both risk and repetition. With an overly formulaic approach there is the danger of predictability, of not fulfilling the listener's desire for spontaneous or connected ideas, while spontaneous creation accompanies the risk of loss of control. As creativity in jazz improvisation is a balance of both spontaneous invention and reference to the familiar, Metheny's creative process can be valued for its nuanced approach to style familiarity through a contrast of both formulaic depth and inventive spontaneity.

This leads us to Metheny's next area of improvisational strength: balance. Metheny has appropriated a diverse collection of stylistic elements to comprise his approach to improvisation. With regard to Metheny's formulaic system, his formulaic categories are well rounded, with no more than a handful of distinct formulaic species. While the number of formulaic species within these categories is not exhaustive, there is often a more comprehensive collection of variants for each species. It is clear that Metheny prefers to focus on a tangible number of formulaic species that he has great facility and control with, so that they may be used in an adaptive and generative manner, allowing greater opportunity for continuity of thought through spontaneous invention. Beyond a

practical consideration for balance in Metheny's formulaic system, is the balance between Metheny's formulaic, motivic, melodic, and structural elements of style, as these devices are also offered with a consistent regard for balance.

Within this balance of stylistic elements there is an observable structure to the prolongation and segmentation of concise musical phrases and devices. Metheny's improvised phrase lengths often mirror the piece's harmonic phrase lengths, or subdivide them into logical segments. Within Metheny's improvisation on "Son of Thirteen," harmonic phrase lengths typically follow structural patterns of eight, four, and two-bar phrase lengths. Connecting melodic phrases typically follow a structural pattern, beginning around the fourth or eighth bar in a harmonic phrase length, to initiate a new idea on the first or second bar of the following harmonic phrase. As such, Metheny's improvised melodic phrases are observed to be cohesive to harmonic phrase lengths, acting to mark the structure and character of the piece upon which they are performed. The segmentation of melodic devices is also evident within the content of these harmonic phrases. A combination of formulaic and motivic melodic content may mark one harmonic phrase length, while a mixture of melodic and structural melodic content may mark another harmonic phrase length. For example, in each chorus of "Son of Thirteen", Metheny clearly performs the first twelve bars of the 'B Section' in a distinctly melodic fashion over the diatonic harmonic phrase length, marking the harmonic rhythm's break

from shifting modal key centers to a temporarily functional harmonic sequence in D Major, in a clear demonstration of structured diatonic melodicism.

Overall, none of these attributes of Metheny's improvisational style would truly communicate to such a degree without their connectivity. Through formulaic, motivic, structural, melodic devices and a regard for style familiarity, balance and structure, Metheny's improvisational style demonstrates its connectivity through melodic ideas that are sound in their development and inventive their spontaneity. The appropriation of these elements into a manner that is effectively familiar, balanced, structured, and connected can not be attributed to simply one principal; however a life-long respect and appreciation for music, a level of prudence, open-mindedness, and self-governance are certainly characteristics that have become clear through research of Metheny's process of forming and the investigation of his music. From the smallest components to the broadest overview of Metheny's three-tier formulaic system and improvisational elements of style, there is a high order of detail, thoughtfulness and resonant individuality that enables within the music a great capacity for communication between performer and listener.

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Appendix A – Transcriptions

From the recording:
Metheny, Pat. *Question and Answer* (Nonesuch 511494)
Track 1

Pat Metheny: Guitar Performance on

Solar

(M. Davis)

Transcription by Noel Thomson

Swung 8ths

(Quarter Note = c. 250)

Chord progressions and measure markers:

- Measures 1-4: D^bma7, Dm7b5, G7b9
- Measures 5-8: Cm7, Gm7, C7
- Measures 9-12: Fma7, Fm7, B^b7
- Measures 13-16: E^bma7, E^bm7, A^b7, D^bma7, Dm7b5, G7b9
- Measures 17-20: Cm7, Gm7, C7
- Measures 21-24: Fma7, Fm7, B^b7
- Measures 25-28: E^bma7, E^bm7, A^b7, D^bma7, Dm7b5, G7b9

*Metheny's management team, The Kurland Associates, has authorized all included transcriptions.

2 Solar

29 F[♭]ma7 F[♭]m7 B[♭]7

33 E[♭]ma7 E[♭]m7 A[♭]7 D[♭]ma7 Dm7b5 G7b9

37 C[♭]m7 G[♭]m7 C7

41 F[♭]ma7 F[♭]m7 B[♭]7

45 E[♭]ma7 E[♭]m7 A[♭]7 D[♭]ma7 Dm7b5 G7b9

49 C[♭]m7 G[♭]m7 C7

53 F[♭]ma7 F[♭]m7 B[♭]7

57 E[♭]ma7 E[♭]m7 A[♭]7 D[♭]ma7 Dm7b5 G7b9

Solar

3

61 Cm7 Gm7 C7

65 Fma7 Fm7 Bb7

69 Ebma7 Ebm7 Ab7 Dbma7 Dm7b5 G7b9

73 Cm7 Gm7 C7

77 Fma7 Fm7 Bb7

81 Ebma7 Ebm7 Ab7 Dbma7 Dm7b5 G7b9

85 Cm7 Gm7 C7

89 Fma7 Fm7 Bb7

4 Solar

93 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

97 $Cm7$ $Gm7$ $C7$

101 $Fma7$ $Fm7$ B^b7

105 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

109 $Cm7$ $Gm7$ $C7$

113 $Fma7$ $Fm7$ B^b7

117 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

121 $Cm7$ $Gm7$ $C7$

Solar

5

125 F^{ma}7 F^m7 B^b7

129 E^bma7 E^bm7 A^b7 D^bma7 Dm7b5 G7b9

133 C^m7 G^m7 C7

137 F^{ma}7 F^m7 B^b7

141 E^bma7 E^bm7 A^b7 D^bma7 Dm7b5 G7b9

145 C^m7 G^m7 C7

149 F^{ma}7 F^m7 B^b7

153 E^bma7 E^bm7 A^b7 D^bma7 Dm7b5 G7b9

6

Solar

157 Cm7 Gm7 C7

161 Fma7 Fm7 Bb7

165 Ebma7 Ebm7 Ab7 Dbma7 Dm7b5 G7b9

169 Cm7 Gm7 C7

173 Fma7 Fm7 Bb7

177 Ebma7 Ebm7 Ab7 Dbma7 Dm7b5 G7b9

181 Cm7 Gm7 C7

185 Fma7 Fm7 Bb7

The musical score for 'Solar' is written in treble clef with a key signature of two flats (Bb and Eb). It consists of eight staves of music. The first staff (measures 157-160) features a melodic line with eighth and quarter notes, accented by Cm7, Gm7, and C7 chords. The second staff (measures 161-164) continues the melody with Fma7, Fm7, and Bb7 chords. The third staff (measures 165-168) includes Ebma7, Ebm7, Ab7, Dbma7, Dm7b5, and G7b9 chords. The fourth staff (measures 169-172) returns to Cm7, Gm7, and C7. The fifth staff (measures 173-176) features Fma7, Fm7, and Bb7. The sixth staff (measures 177-180) includes Ebma7, Ebm7, Ab7, Dbma7, Dm7b5, and G7b9. The seventh staff (measures 181-184) features Cm7, Gm7, and C7, ending with a triplet of eighth notes. The eighth staff (measures 185-188) features Fma7, Fm7, and Bb7.

Solar

7

189 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

193 $Cm7$ $Gm7$ $C7$

197 $Fma7$ $Fm7$ B^b7

201 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

205 $Cm7$ $Gm7$ $C7$

209 $Fma7$ $Fm7$ B^b7

213 E^bma7 E^bm7 A^b7 D^bma7 $Dm7b5$ $G7b9$

217 $Cm7$ $Gm7$ $C7$

From the recording:

Metheny, Pat. Question and Answer (Nonesuch 511494)

Track 8

Pat Metheny: Guitar Performance on

Old Folks

(Metheny)

Transcription by Noel Thomson

Ballad

(Quarter Note = c. 120)

The musical score is written for guitar in standard notation, featuring a key signature of one flat (B-flat) and a 4/4 time signature. The score consists of eight staves of music. Chords are indicated by letters above the staff, and fingerings are indicated by numbers 1-4. The score includes various musical notations such as slurs, ties, and triplets.

Chords and fingerings shown in the score:

- Staff 1: (A) E^bM9, A⁷
- Staff 2: D^bM7, D^b7, C^bM7, F⁷
- Staff 3: B^bM^bA^b7, E^b9
- Staff 4: A⁷, D⁷(^b9)
- Staff 5: G^bM7, C⁷
- Staff 6: A^bM7(^b5), D⁷(^b9)
- Staff 7: G⁷
- Staff 8: C⁷

OLD FOLKS

2

(A2)

E \flat M9 A7
 D M7 D \flat 7 C M7 F7
 B \flat M A7 E \flat 9
 A7 D7(b9)
 G M7 C7
 A M7(b9) D7(b9)
 G M7 C7
 F

OLO FOLKS

[B] FMA \sharp 7 C7 \sharp 5 3

C \flat 7 F7

B \flat MA \sharp 7

E \flat 9

F A7 3

D \flat 7

G7(\sharp 11)

C7

OLD FOLKS

4

A2

The musical score for "Old Folks" consists of ten staves of music. The key signature is one flat (B-flat). The score includes various chords and melodic lines with triplets and octaves.

Staff 1: Chords: E^M9, A⁷.

Staff 2: Chords: D^M7, D^b7, C^M7, F⁷.

Staff 3: Chords: B^bM^A9⁷, E^b9. Includes an octave line (8^{va}).

Staff 4: Chords: A⁷, D⁷(^b9).

Staff 5: Chords: G^M7, C⁷.

Staff 6: Chords: A^M7(^b5), D⁷(^b9).

Staff 7: Chords: G^M7, C⁷. Includes an octave line (8^{va}).

Staff 8: Chord: F.

Staff 9: Chords: E^M7, A⁷.

Pat Metheny: Guitar Performance on

From the recording:
Metheny, Pat. *Day Trip* (Nonesuch 2-376828)
Track 1

Son Of Thirteen

(Metheny)

Even 8ths, Two-Feel
(Quarter Note = c. 270)

Transcription by Noel Thomson

(A1) Dm(MA57)

Bm(MA57)

5 LET RING

9

Bbm(MA57(#11)) Fm(MA57(#11)) Ab(MA57(#11)) Eb(MA57(#11))

13

Gbm(MA57(#11))

17

21

Am(MA57(#11))

25 LET RING LET E SUSTAIN

2

SON OF THIRTEEN

Musical score for "Son of Thirteen" (2). The score is written in treble clef with a key signature of one sharp (F#). It consists of several staves of music with various chords and melodic lines.

The score includes the following chords and markings:

- Staff 1 (Measures 29-36):
 - Measures 29-30: Cmaj7(#11)
 - Measures 31-32: Gmaj7(#11)
 - Measures 33-34: Bbmaj7(#11)
 - Measures 35-36: Fmaj7(#11)
- Staff 2 (Measures 37-40):
 - Measures 37-38: E7sus
 - Measures 39-40: B7sus
 - Measures 41-42: F#7sus
 - Measures 43-44: F#m9
 - Measures 45-46: LET RING
- Staff 3 (Measures 47-50):
 - Measures 47-48: Gmaj7
 - Measures 49-50: F#m7
 - Measures 51-52: E m7
 - Measures 53-54: F#m7
- Staff 4 (Measures 55-58):
 - Measures 55-56: Gmaj7
 - Measures 57-58: F#m7
 - Measures 59-60: E m7
 - Measures 61-62: F#m7
 - Measures 63-64: LET RING
- Staff 5 (Measures 65-68):
 - Measures 65-66: C7sus
 - Measures 67-68: C#7sus
 - Measures 69-70: A7sus
 - Measures 71-72: D#7ALT
 - Measures 73-74: LET RING

The score also includes a circled "8" in measure 47 and a circled "5" in measure 55.

SON OF THIRTEEN

The musical score is written in treble clef with a key signature of one sharp (F#). It consists of several systems of music, each with a specific chord or melodic theme indicated above the staff.

- System 1 (Measures 69-72):** Chords: D^MA⁷, F⁷A^{LT}, G^MA⁷, F[#]7^AL^T. A triplet of eighth notes is marked over measures 70-72.
- System 2 (Measures 73-76):** Chord: D^M(M^AS⁷) (labeled A2). Melodic line starting on F#.
- System 3 (Measures 77-80):** Chord: B^M(M^AS⁷). Melodic line starting on B.
- System 4 (Measures 81-84):** Chords: C[#]7^AL^T, C^MA⁷#11, E^b7#9, A^bM^AS⁷#11. Melodic line starting on C#.
- System 5 (Measures 85-88):** Chords: E^MA⁷#11, G^AO⁰9. Melodic line starting on E.
- System 6 (Measures 89-92):** Chord: B^bM^AS⁷#11. Melodic line starting on Bb. The phrase "LET RING" is written below the staff with a dashed line.
- System 7 (Measures 93-96):** Chord: D^M(M^AS⁷) (labeled A1). Melodic line starting on D.
- System 8 (Measures 97-100):** Chords: B^M(M^AS⁷), CLICHE SPECIES B.3, PENTATONIC SPECIES B.1. Melodic line starting on B. The phrase "LET RING" is written below the staff with a dashed line. A reference "RE: MM.94" is noted at the end.

4

SON OF THIRTEEN

RE: MM.95 ENCLOSURE SPECIES A & C

97 RE: MM.88-89

ENCLOSURE SPECIES G,1 FMA7#11 A^bMA7#11 E^bMA7#11

101 RE: MM.100 RE: MM.102 RE: MM.95

105 G^bMA7#11 RE: MM.103-104 RE: MM.95

MOTIVIC SPECIES C.1

109

A^bMA7#11

113

ENCLOSURE SPECIES G & D

117

CMA7#11 GMA7#11 B^bMA7#11 CLICHE SPECIES C.2 FMA7#11 PENTATONIC SPECIES B.2

121 RE: MM.121-122 RE: MM.121-122

125 E^bM7 B^bM7 RE: MM.121-122

SON OF THIRTEEN

A2 ⁶ **DM(MA7)**

157 RE: MM.157-158

Bm(MA7)

161 RE: MM.161

C#7ALT **CMA7** **E^b7#9** **A^bMA7#11**

EMa7#11 **GMA7#11** CHROMATIC PASSING TONE SPECIES B.3

163 RE: MM.168 RE: MM.168

B^bMA7#11 **A7ALT** CADENCE SPECIES C.6

165 RE: MM.168 RE: MM.168

A1 **DM(MA7)** MOTIVIC SPECIES B.3

Bm(MA7)

165

SON OF THIRTEEN

$B^bMa7(\#11)$ $FMa7(\#11)$ $A^bMa7(\#11)$ $E^bMa7(\#11)$ 7

189 RE: MM.189 RE: MM.191

$G^bMa7(\#11)$ PENTATONIC SPECIES A.5

195 CHROMATIC PASSING TONE SPECIES B.4

$A^bMa7(\#11)$ THREE-BEAT FIGURE

197 PENTATONIC SPECIES A.8

$C^bMa7(\#11)$ $G^bMa7(\#11)$ $B^bMa7(\#11)$ $F^bMa7(\#11)$ PENTATONIC SPECIES A.6

203 CHROMATIC PASSING TONE SPECIES B.5

E^bM7 B^bM7 CHROMATIC PASSING TONE SPECIES C.6

209 RE: MM.211-212 RE: MM.211-212

F^bM7

215

The musical score is written on a single staff in treble clef. It begins with a key signature of one flat (Bb) and a common time signature. The first line contains four chords: BbMa7(#11), FMa7(#11), AbMa7(#11), and EbMa7(#11), followed by the number 7. Below the staff, there are two measures of music starting at measure 189, with a dashed line indicating a repeat from measure 191. The second line starts at measure 195 with a GbMa7(#11) chord and is labeled 'PENTATONIC SPECIES A.5'. The third line is labeled 'CHROMATIC PASSING TONE SPECIES B.4' and shows a chromatic descending line. The fourth line starts at measure 197 with an AbMa7(#11) chord and is labeled 'THREE-BEAT FIGURE'. The fifth line is labeled 'PENTATONIC SPECIES A.8' and shows a chromatic ascending line. The sixth line starts at measure 203 with a CbMa7(#11) chord and is labeled 'CHROMATIC PASSING TONE SPECIES B.5'. The seventh line starts at measure 209 with an EbM7 chord and is labeled 'CHROMATIC PASSING TONE SPECIES C.6'. The eighth line starts at measure 215 with an FbM7 chord. The score includes various musical notations such as chords, melodic lines, and repeat signs.

SON OF THIRTEEN

8

219

223

227

231

235

239

243

245

[8] $GMA7(\#11)$ $F\#M7$ $EM7$ $F\#M7$

$GMA7(\#11)$ $F\#M7$ $EM7$ $F\#M7$

$GMA7(\#11)$ $F\#M7$ $EM7$ $F\#M7$

$C7sus$ $C\#7sus$ $A7sus$ $D\#7ALT$

$DMA7$ $F7ALT$

$GMA7$ $F\#7ALT$

[A2] $DM(MA7)$

RE: MM. 224

RE: MM. 227

RE: MM. 231-232

RE: MM. 235-236

8va

OFF-BEAT ON-BEAT OFF-BEAT

SON OF THIRTEEN

ENCLOSURE SPECIES F & D 9

B \flat M(MA7)

C \sharp 7ALT CAEDENCE SPECIES B.7

CMA7(#11)

E \flat 7#9

PENTATONIC SPECIES A.7

A \flat MA7(#11)

RE: MM.253-254

E \flat MA7(#11)

GMA7(#11)

RE: MM.257-258

B \flat MA7(#11)

A7ALT

A1 D \sharp M(MA7)

B \sharp M(MA7)

Pat Metheny: Guitar Performance on

From the recording:
Metheny, Pat. *Day Trip* (Nonesuch 2-376828)
Track 4

Snova (Metheny)

Transcription by Noel Thomson

Even 8ths, Two-Feel
(Quarter Note = c. 134)

Amadd9 Am(b6) Am9 Am(b6)

Am7(b13)

A1 Am7 F/A G sus4 G/F

5 EbMaj7 Eb7sus Eb7 AbMaj7 G7(b913) G7(b9b13)

9 F#7sus4 F#7 F#m7 3 Bma7(#11) AMaj7(#11)

13 FMaj7(#11) EbMaj7(#11) Dm7 Bbmaj9(#11) Ab13sus G7sus4 Bb/E

A2 Aadd9(#11) F/A AbMaj7(#11) Abdim7

17 G7sus4 Gm7 C9 FMaj7#5 FMaj6 Bm7(b5) E9

21

2

Snova

E^b7sus13 A^bma7/E^b F m7 F[#]7sus F[#]7 B Maj7/F[#] E Maj7
 25

A 7sus D⁶ G 7sus C⁶ F 7sus B^b9 B m7(b5) E 7alt
 29

[A1] A m7
 33

F/A G 7sus G 7/F
 35

E^bma7 E^b7
 37

A^bma7 G 7b9
 39

F[#]7sus F[#]7 F[#]m7
 41

Snova

3

43 Bma7(#11) Ama7(#11)

45 Fma7(#11) Ebma7(#11) Dma7

47 Bbm7(#11) Ab13 G7sus E7b9

A2 49 Aadd9

51 F/A Abdim7

53 G7sus Gm7 C7

55 Fma7 Bm7b5 E7b9

Snova

5

71 A^bma7 $G7b9$

73 $F\#7sus$ $F\#7$ $F\#m7$

75 $Bma7(\#11)$ $Ama7(\#11)$

77 $Fma7(\#11)$ $E^bma7(\#11)$ $Dm7$

79 $B^bma7(\#11)$ A^b13 $G7sus$ $E7b9$

A2 81 $Aadd9$

83 F/A A^bdim7

6

Snova

85 δ^{ma} G 7sus G m7 C7

87 F ma7 B m7b5 E7b9

89 E b7sus A b ma7/E b F m7

91 F #7sus B ma7/F # E ma7

93 A 7sus D ma7 G 7sus C ma7

95 F 7sus B b ma7 B m7b5 E7alt

97 A m7

Detailed description: This is a musical score for a piece titled 'Snova' (No. 6). The score is written for a single melodic line on a treble clef staff. It consists of seven measures, each with a measure number and a chord symbol above it. Measure 85 starts with a treble clef, a key signature of one sharp (F#), and a common time signature. The first measure contains a triplet of eighth notes (F#, A, C) followed by a quarter rest, with a '3' under the triplet. The second measure contains a quarter note G, a quarter note A, and a quarter note B. The third measure contains a quarter note C, a quarter note D, and a quarter note E. The fourth measure contains a quarter note F#, a quarter note G, and a quarter note A. The fifth measure contains a quarter note B, a quarter note C, and a quarter note D. The sixth measure contains a quarter note E, a quarter note F#, and a quarter note G. The seventh measure contains a quarter note A, a quarter note B, and a quarter note C. Measure 87 starts with a treble clef, a key signature of one sharp (F#), and a common time signature. The first measure contains a quarter note F#, a quarter note G, and a quarter note A. The second measure contains a quarter note B, a quarter note C, and a quarter note D. The third measure contains a quarter note E, a quarter note F#, and a quarter note G. The fourth measure contains a quarter note A, a quarter note B, and a quarter note C. The fifth measure contains a quarter note D, a quarter note E, and a quarter note F#. The sixth measure contains a quarter note G, a quarter note A, and a quarter note B. The seventh measure contains a quarter note C, a quarter note D, and a quarter note E. Measure 89 starts with a treble clef, a key signature of one flat (Bb), and a common time signature. The first measure contains a quarter note Bb, a quarter note C, and a quarter note D. The second measure contains a quarter note Eb, a quarter note F, and a quarter note G. The third measure contains a quarter note Ab, a quarter note Bb, and a quarter note C. The fourth measure contains a quarter note Db, a quarter note Eb, and a quarter note F. The fifth measure contains a quarter note Gb, a quarter note Ab, and a quarter note Bb. The sixth measure contains a quarter note Cb, a quarter note Db, and a quarter note Eb. The seventh measure contains a quarter note Fb, a quarter note Gb, and a quarter note Ab. Measure 91 starts with a treble clef, a key signature of two sharps (F#, C#), and a common time signature. The first measure contains a quarter note F#, a quarter note G#, and a quarter note A#. The second measure contains a quarter note B#, a quarter note C#, and a quarter note D#. The third measure contains a quarter note E#, a quarter note F#, and a quarter note G#. The fourth measure contains a quarter note A#, a quarter note B#, and a quarter note C#. The fifth measure contains a quarter note D#, a quarter note E#, and a quarter note F#. The sixth measure contains a quarter note G#, a quarter note A#, and a quarter note B#. The seventh measure contains a quarter note C#, a quarter note D#, and a quarter note E#. Measure 93 starts with a treble clef, a key signature of two sharps (F#, C#), and a common time signature. The first measure contains a quarter note A#, a quarter note B#, and a quarter note C#. The second measure contains a quarter note D#, a quarter note E#, and a quarter note F#. The third measure contains a quarter note G#, a quarter note A#, and a quarter note B#. The fourth measure contains a quarter note C#, a quarter note D#, and a quarter note E#. The fifth measure contains a quarter note F#, a quarter note G#, and a quarter note A#. The sixth measure contains a quarter note B#, a quarter note C#, and a quarter note D#. The seventh measure contains a quarter note C#, a quarter note D#, and a quarter note E#. Measure 95 starts with a treble clef, a key signature of one flat (Bb), and a common time signature. The first measure contains a quarter note Bb, a quarter note C, and a quarter note D. The second measure contains a quarter note Eb, a quarter note F, and a quarter note G. The third measure contains a quarter note Ab, a quarter note Bb, and a quarter note C. The fourth measure contains a quarter note Db, a quarter note Eb, and a quarter note F. The fifth measure contains a quarter note Gb, a quarter note Ab, and a quarter note Bb. The sixth measure contains a quarter note Cb, a quarter note Db, and a quarter note Eb. The seventh measure contains a quarter note Fb, a quarter note Gb, and a quarter note Ab. Measure 97 starts with a treble clef, a key signature of one sharp (F#), and a common time signature. The first measure contains a quarter note F#, a quarter note G, and a quarter note A. The second measure contains a quarter note B, a quarter note C, and a quarter note D. The third measure contains a quarter note E, a quarter note F, and a quarter note G. The fourth measure contains a quarter note A, a quarter note B, and a quarter note C. The fifth measure contains a quarter note D, a quarter note E, and a quarter note F. The sixth measure contains a quarter note G, a quarter note A, and a quarter note B. The seventh measure contains a quarter note C, a quarter note D, and a quarter note E.

Appendix B – Formulaic Components

Formulaic Components

FIGURE 1

FIGURE 2

FIGURE 3

FIGURE 4

FIGURE 5

FIGURE 6

FIGURE 7

FIGURE 8

FIGURE 9

C



C



CMA7



C



C



C



C



C



FORMULAIC COMPONENTS

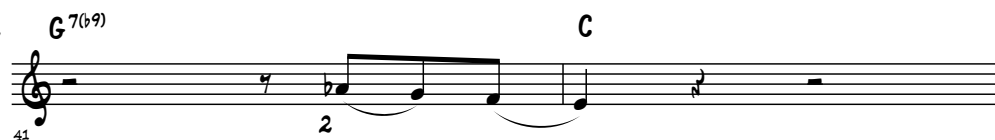
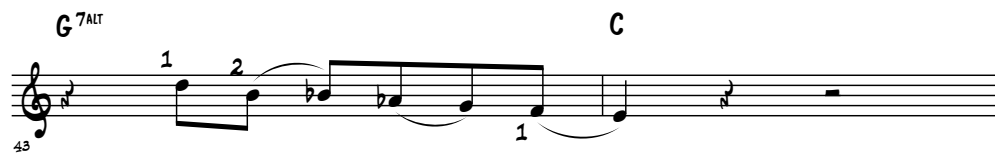
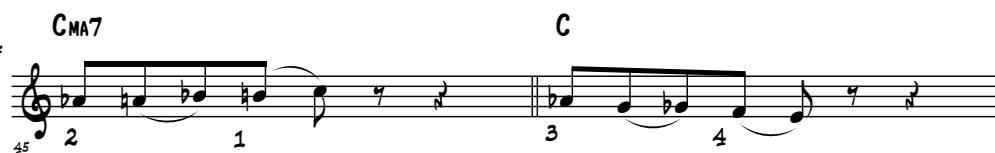
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FIGURE 17 C^M(MA7)

FIGURE 18 C



FIGURE 19 C

FIGURE 20 G⁷FIGURE 21 G^{7b9}FIGURE 22 G^{7(b9)}FIGURE 23 G^{7ALT}FIGURE 24 C^{MA7}

4

FORMULAIC COMPONENTS

FIGURE 25 C



FIGURE 26 C



FIGURE 27 G7#5(#11)



FIGURE 28 Cm(b9)



FIGURE 29 G7



FIGURE 30 C



FIGURE 31 C

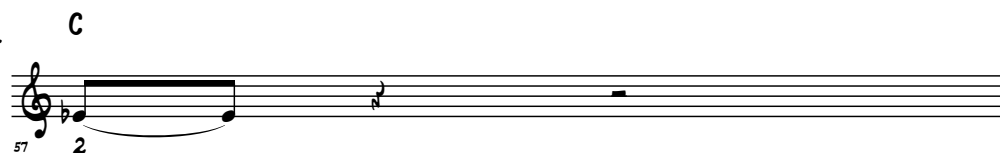
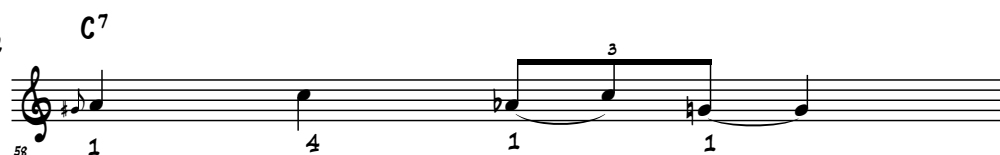


FIGURE 32 C7



FORMULAIC COMPONENTS

5

FIGURE 33



FIGURE 34



Appendix C – Formulaic Categories and Species

Enclosure Chromaticism

Species A, B, C, D, E, F & G

Species A

Solar: Bar 29

F^{ma}7

Fig. 16

Species B

Solar: Bar 4

C7 F^{ma}7

Fig. 7

Species C

Solar: Bar 5

F^{ma}7

Fig. 8

Species B, A, G & C

Solar: Bar 200

B^b7 E^bma7 E^bm7 A^b7 D^bma7

Fig. 7 Fig. 16 Fig. 10 Fig. 8 Fig. 19

Species E & D.1

Solar: Bar 62

Cm7 Gm7 C7

Fig. 25 Fig. 5 Fig. 27

Species F

Solar: Bar 53

F^{ma}7 Fm7

Fig. 26 Fig. 30 Fig. 1 Fig. 31 Fig. 28

Species A, E & D

Solar: Bar 106

E^bm7 A^b7 D^bma7 Dm7b5 G7b9 Cm7

Fig. 16 Fig. 25 Fig. 24 Fig. 2 Fig. 30 Fig. 5

Species A & G

Bar 51
21

Dm7 D \flat 7 Cm7 F7

Fig. 16 Fig. 10 Fig. 16

thirteen: Bar 99 Bm(ma7) B^bma7(#11)

23

Fig. 16 Fig. 8 Fig. 11

s: Bar 36

The musical notation for Bar 36 is shown on a single staff. It begins with a treble clef and a key signature of one flat (B-flat). The bar contains several measures of music. Above the staff, the chord F7 is indicated above the first measure, and Bbm7 is indicated above the subsequent measures. Below the staff, five figures are labeled: Fig. 7, Fig. 8, Fig. 1, Fig. 1, and Fig. 1. The notation includes various note values, rests, and accidentals.

Example 12 is a musical notation on a single staff. It consists of a sequence of figures: Fig. 8, Fig. 11, Fig. 5, Fig. 27, Fig. 25, and Fig. 9. The notation includes various musical symbols such as notes, rests, and accidentals.

Bm(ma7) C#7alt

30

Fig. 26 Fig. 5 Fig. 31

een: Bar 153

Fig. 25 Fig. 5 Fig. 2 Fig. 11

Bar 47 C7 Bb7 (Em9)

Fig. 16 Fig. 8 Fig. 1 Fig. 14 Fig. 5

Enclosures - Species A, B, C, D, E, F & G

3

Species G.1

Son of Thirteen: B^b_{maj7}(#11)

Fma7(#11)

Bar 101

[illegible]

Fig. 10

Species G & D

Son of Thirteen:

Ama7(#11)

Cma7(#11)

Bar 120

Fig. 10 Fig. 5

Species G.2

Son of Thirteen:

C7sus

C#7sus

Bar 147

Fig. 10

Passing Tone Chromaticism

Species A, B, C & D

Species A.1
Solar: Bar 60

Dm7b5 G7b9 Cm7

Fig. 12 Fig. 31

Species A.2
Solar: Bar 205

Cm7 Gm7

Fig. 3 Fig. 4 Fig. 2 Fig. 3 Fig. 2 Fig. 5

Species B.1

Old Folks: Bar 40

Eb9 F

Fig. 3 Fig. 31

Species B.2

Son of Thirteen: Bar 152

F7alt Gma7

Fig. 4 Fig. 4 Fig. 25

Species B.3

Son of Thirteen: Bar 171

Gma7 Bbma7(#11)

Fig. 3 Fig. 3

Species B.4

Son of Thirteen: Bar 196

Gbma7(#11)

Fig. 3 Fig. 25

Species B.5

Son of Thirteen: Bar 208

Cma7(#11) Gma7(#11)

Fig. 18 Fig. 31

2

Passing Tones - Species A, B, C & D

Species B.6

Son of Thirteen: Bar 250



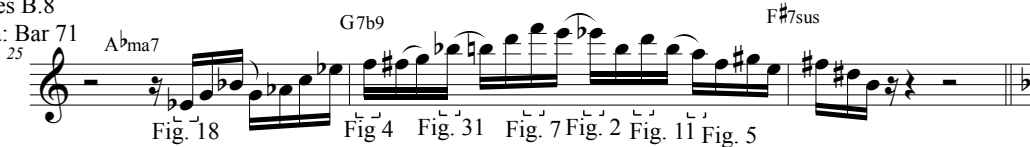
Species B.7

Snova: Bar 44



Species B.8

Snova: Bar 71



Species C.1

Old Folks: Bar 22



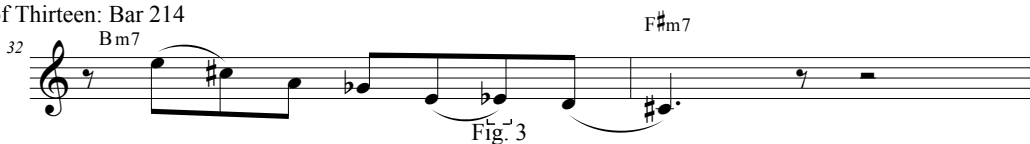
Species C.2

Old Folks: Bar 39



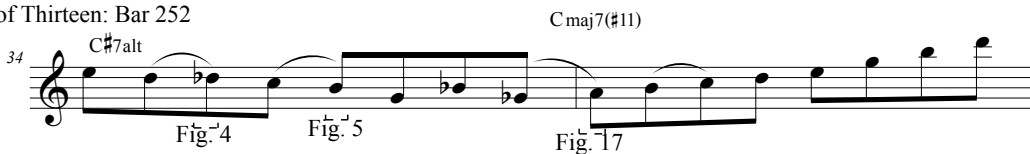
Species C.3

Son of Thirteen: Bar 214



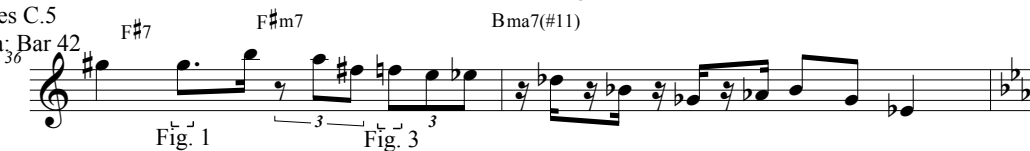
Species C.4

Son of Thirteen: Bar 252



Species C.5

Snova: Bar 42



Passing Tones - Species A, B, C & D

3

Species D.1

D \flat ma7

Solar: Bar 83



Species D.2

Snova: Bar 73

F \sharp 7sus

Dominant Cadence

Species A

Species A.1

Old Folks: Bar 35

[illegible]

Species A.2

Snova: Bar 55

Species A.3

Snova: Bar 63

Fig. 24 Fig. 7 Fig. 12 Fig. 21 Fig. 6 Fig. 7 Fig. 28

Species A.4

Solar: Bar 119,

.4
 119
 10

 Fig. 7 Fig. 21 Fig. 6

Species A.5

Solar: Bar 167,

Species A.6

Solar: Bar 179

Fig. 24 Fig. 21

Species A.7

Solar: Bar 43

A.7
ar 43
9

Fm7 B^b7

Fig. 26 Fig. 20

Dominant Cadence

Species B

Species B.1
Solar: Bar 24

Dm7b5 G7b9

Fig. 7

Species B.2
Solar: Bar 71

D^bma7 Dm7b5 G7b9 Cm7

Fig. 7 Fig. 5 Fig. 7

Species B.3
Solar: Bar 147

Gm7 C7 Fma7

Fig. 6 Fig. 7 Fig. 23 Fig. 7 Fig. 30

Species B.4
Old Folks: Bar 24

D7b9 Gm7

Fig. 31 Fig. 23

Species B.5
Snova: Bar 40

G7b9 F#7sus

Fig. 23 Fig. 7

Species B.6
Snova: Bar 70

E^b7 A^bma7

Fig. 23

Species B.7
Son of Thirteen:
Bar 253

C#7alt Cma7(#11)

Fig. 23 Fig. 5

Species C.1
Solar: Bar 7

Species C.2
Solar: Bar 20

Species C.3
Solar: Bar 30

Species C.4
Solar: Bar 69

Species C.5
Old Folks: Bar 11

Species C.6
Son of Thirteen: Bar 164

Clichés

Species A, B, C & D

Species A.1
Solar: Bar 84

Dm7b5 G7b9

Fig. 17

Species A.2
Solar: Bar 192

Dm7b5 G7b9

Fig. 17

Species A.3
Old Folks: Bar 39

Eb9

Fig. 17

Species A.4
Old Folks: Bar 49

Em7b5(9) A7b9 Dm7

Fig. 13 Fig. 16 Fig. 17 Fig. 31 Fig. 17 Fig. 22

Species A.5
Solar: Bar 210

Fma7 Fm7 Bb7 Ebma7

Fig. 13 Fig. 19 Fig. 17 Fig. 21

Species B.1
Old Folks: Bar 17

Em9 A7

Fig. 15

Species B.2
Son of Thirteen: Bar 133

F#m9 Gma7

Fig. 15 Fig. 5

Species B.3
Son of Thirteen: Bar 96


Bm(ma7)

Fig. 15 Fig. 5

Species B.4

Son of Thirteen:

Bar 111

18 

Species C.1

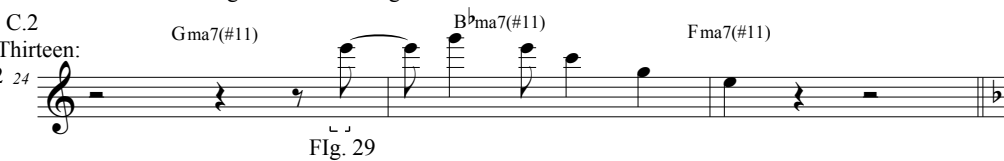
Solar: Bar 105

21 

Species C.2

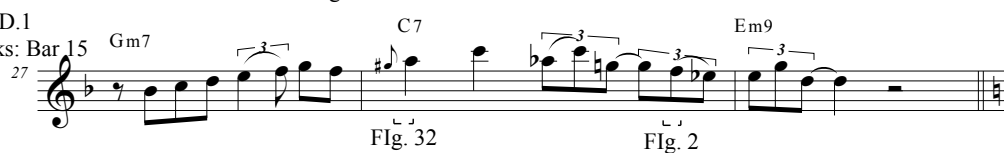
Son of Thirteen:

Bar 122

24 

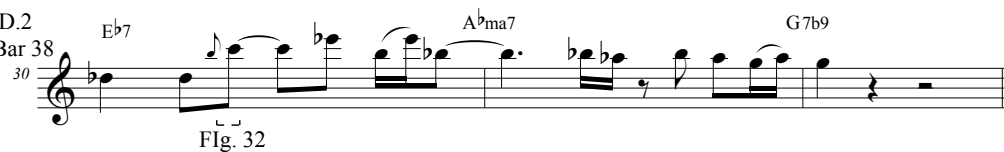
Species D.1

Old Folks: Bar 15

27 

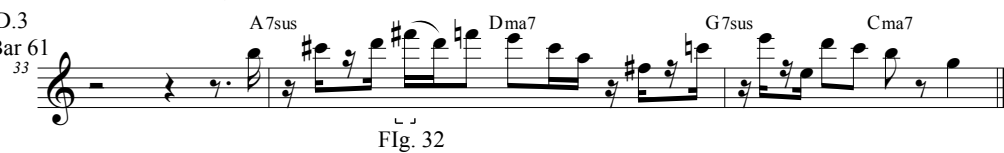
Species D.2

Snova: Bar 38

30 

Species D.3

Snova: Bar 61

33 

Pentatonics

Species A, B, C & D

Species A.1
Solar: Bar 58

Fig. 11 Fig. 31

Species A.2
Old Folks: Bar 38

Fig. 11 Fig. 5

Species A.3
Son of Thirteen:
Bar 148

Fig. 11 Fig. 3

Species A.4
Son of Thirteen:
Bar 150

Fig. 11 Fig. 5

Species A.5
Son of Thirteen:
Bar 194

Fig. 11

Species A.6
Son of Thirteen:
Bar 211

Fig. 11 Fig. 5

Species A.7
Son of Thirteen:
Bar 254

Fig. 17 Fig. 11 Fig. 10

Species A.8
Son of Thirteen:
Bar 206

Fig. 11 Fig. 11

2

Pentatonic

Species B.1

Son of Thirteen: Bm(ma7)



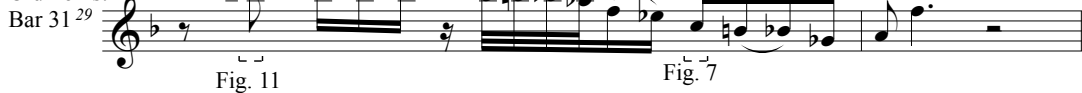
Species B.2

Son of Thirteen: Fma7(#11)



Species C.1

Old Folks:



Species C.2

Old Folks:



Motivic

Species A, B & C

Species A.1
Solar: Bar 88

1 88

C7 F#m7

Fig. 11 Fig. 11 Fig. 11 Fig. 11

4 F#m7 Bb7

Fig. 11 Fig. 11 Fig. 11

6 Eb#m7 Eb#m7 Ab7

Fig. 11 Fig. 11 Fig. 11

8 Db#m7 Dm7b5 G7b9

Fig. 11 Fig. 11 Fig. 11 Fig. 23

Species B.1
Solar: Bar 149

3.1

149

10

Fig. 7

Fig. 30

Fig. 30

Fig. 30

Fig. 7

B \flat 7

Fig. 30

14

E \flat ma7

E \flat m7

A \flat 7

D \flat ma7

Dm7b5

G7b9

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Fig. 30

18

Cm7

Gm7

Fig. 30

Fig. 30

Fig. 30

Fig. 30

Species B.2
Snova: Bar

3.2
Bar 74

Fig. 7 Fig. 30 Fig. 30 Fig. 30 Fig. 30

F#7sus F#7 F#m7 Bma7(#11)

The musical notation for Bar 74 is shown on a single staff. It begins with a whole rest, followed by a quarter rest, and then a series of eighth notes. The notes are grouped into five pairs, each labeled with a figure number below it: Fig. 7, Fig. 30, Fig. 30, Fig. 30, and Fig. 30. Above the staff, the chords F#7sus, F#7, F#m7, and Bma7(#11) are indicated, corresponding to the first four pairs of notes respectively. The final pair of notes is not associated with a specific chord label.

2

Motivic

Species B.3 A 7^{alt} Dm(ma7)

Son of Thirteen:

Bar 177 24

Fig. 26 Fig. 30

29 Bm(ma7)

Fig. 30

33 Bbm7(#11)

Species C.1 Gbm7(#11)

Son of Thirteen:

Bar 107 38

Fig. 34

Species A.1
Solar: Bar 37

Species A.2
Solar: Bar 61

Species A.3
Solar: Bar 190

Species B.1
Solar: Bar 133

Species C.1
Solar: Bar 41

Species C.2
Old Folks: Bar 12

The page contains seven staves of musical notation, each representing a different species and a specific bar of music. The notation is in treble clef and 4/4 time. The key signature is B-flat major (two flats). The staves are labeled as follows:

- Species A.1**: Solar: Bar 37. Chords: Cm7, Gm7, C7. Figures: Fig. 31, Fig. 31, Fig. 7, Fig. 33, Fig. 6, Fig. 26.
- Species A.2**: Solar: Bar 61. Chords: Cm7, Gm7, C7. Figures: Fig. 33, Fig. 25, Fig. 26, Fig. 27.
- Species A.3**: Solar: Bar 190. Chords: Ebm7, Ab7, Dbm7, Dm7b5, G7b9. Figures: Fig. 15, Fig. 2, Fig. 8, Fig. 33.
- Species B.1**: Solar: Bar 133. Chords: Cm7, Gm7. Figures: Fig. 2, Fig. 11, Fig. 13, Fig. 13, Fig. 11.
- Species C.1**: Solar: Bar 41. Chord: Fm7. Figure: Fig. 28.
- Species C.2**: Old Folks: Bar 12. Chords: D7b9, G7. Figures: Fig. 7, Fig. 27, Fig. 10, Fig. 9, Fig. 27.