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## Zones of approximate development: Chordal thinking and the interpretation of music scores

Bjerstedt, Sven

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LUND UNIVERSITY

PO Box 117  
221 00 Lund  
+46 46-222 00 00

Sven Bjerstedt: *Zones of Approximate Development:  
Chordal Thinking and the Interpretation of Music Scores*

In her doctoral dissertation, Cecilia Hultberg (2000) introduces the somewhat surprising concept “*zone of approximate development*” (p. 28). This daringly independent reference to Vygotsky’s theory of cultural history is quite inspirational. In this paper, I will take Cecilia Hultberg’s notion as a point of departure for some reflections on how experiences from aural-based musical practice, especially ‘chordal thinking’, may influence and facilitate pianists’ interpretation of musical scores.

### Aural and visual skills in jazz pianists

The musical literacy of jazz musicians is a complex topic. Knowledge and skills in this field have often been dependent on experiences in diverse, polymusical environments including several musical traditions, as well as on different experiences in formal training, instrument selection, and performance participation. Berliner (1994) holds that “[b]y the [nineteen-]forties, learning to read music was part of the training of most jazz musicians” (p. 775). In the early days, however, the pianist in a jazz band was often considered or expected to be *the* band member – not seldom the only one – who would possess music reading skills. Hence, pianists in New Orleans and elsewhere were sometimes referred to as “Professors”.

I will present two extensive citations that are relevant to the interrelations of aural skills and visual (reading) skills in pianists with experiences from the jazz field. In 1918, twenty-year old pianist Lil Hardin (Armstrong) – later of ‘Louis Armstrong and His Hot Five’ fame – was a proficient enough music reader to work successfully as a sheet music demonstrator at Jones Music Store in Chicago. Her experiences exemplify the important dynamics between aural-based and visual-based music acquisition:

Almost every day there was a jam session and I took charge of every piano player that dared to come in. But one day the great Jelly Roll Morton from New Orleans came in and I was in for a little trouble. I had never heard such music before, they were all his original tunes. Jelly Roll sat down, the piano rocked, the floor shivered, the people swayed while he ferociously

attacked the keyboard with his long skinny fingers, beating out a double rhythm with his feet on the loud pedal. I was thrilled, amazed, and scared. Well, he finally got up from the piano, grinned, and looked at me as if to say, "Let this be a lesson to you." [...] [S]uddenly, remembering that he had played nothing classical, I sat down at the piano very confidently, played some Bach, Chopin, and the *Witches' Dance*, which they especially liked. The session ended with me still the winner. (Shapiro & Hentoff, 1955/1966, pp. 92–3)

The following week Lil Hardin was invited to play the piano with the New Orleans Creole Jazz Band that had just arrived in Chicago.

When I sat down to play I asked for the music and were they surprised! They politely told me they didn't have any music and furthermore never used any. I then asked what key would the first number be in. I must have been speaking another language because the leader said, "When you hear two knocks, just start playing." It all seemed very strange to me, but I got all set, and when I heard those two knocks I hit the piano so loud and hard they all turned around to look at me. It took only a second for me to feel what they were playing and I was off. The New Orleans Creole Jazz Band hired me, and I never got back to the music store – never got back to Fisk University. (ibid., p. 93)

This story may seem almost incredible. Nevertheless, many jazz musicians will undoubtedly be able to relate similar experiences. How is it possible for a pianist to play successfully with a band under circumstances where she is completely unfamiliar with the repertoire beforehand? A good ear is part of the answer, of course: in order to improvise a suitable accompaniment, the pianist must be able to hear very quickly the key and the first chord of the piece, as well as its tempo and rhythmic character. Another important part of the answer is familiarity with the genre, including knowledge of common harmonic sequences such as, for instance, the blues form and a number of frequent functional harmonic progressions.

While music reading skills are in focus in the first of these two stories, several aspects of aural-based music acquisition are crucial in the second one. Lil Hardin was clearly very gifted in both areas. Throughout the history of jazz, the knowledge development of pianists and other instrumentalists have included the dynamics of these two fields. My main point in this paper is to direct attention to how experiences from jazz and popular music, especially the phenomenon of chordal thinking, may function as a resource in processes of music score interpretation. The next section presents a few brief reflections on the impact of chords and chordal thinking on the practices and strategies of pianists.

## The implications of chord symbols

In jazz practices, the harmonic sequences of the musical material are of great consequence as a foundation for the more or less improvised contributions by 'soloists' as well as accompanying musicians. These harmonic sequences have many names: for instance, the 'chords', the 'harmonies', or the 'changes'. They are typically notated in a kind of shorthand, a little reminiscent of the figured bass notation of the Baroque era, consisting of chord symbols which are easy to write and read, but which are also, to a certain extent, ambiguous and open to interpretation.

The chord symbols that musicians in several genres have come to take for granted first appeared on sheet music and lead sheets around 1930. The ukulele craze in the 1920s had led to the addition of four-string ukulele (or banjo) tablature to some published pop-song sheet music. After a few years, chord symbols began to be inserted above the tablature. The original intent may have been entirely pragmatic; however, in the words of Kernfeld (2006), this transition from piano music to string tablature and then to chord symbols represented "an absolutely crucial move from the specific to the abstract" (p. 49).

Kernfeld (2006) further underlines the importance of this development:

However simple and practical the original intent may have been in adding tablature and then chord symbols to sheet music to provide a mechanical guide to string players, these additions soon thereafter took on a life of their own, for anyone who cared to make use of them. Indeed an accomplished pianist, rather than trying to play the specified piano part as it was written, might now take another route and make up an accompaniment. [...] [W]ith chord symbols available, it was no longer necessary or even expected that a pianist would follow the notated piano part. (p. 50)

Indeed, in the 'fake books' commonly used in jazz there is no piano part. As an important part of their musical learning development, jazz pianists typically internalize a significant number of different ways of performing chords and chord sequences. Preferably, in order to execute a specific piece of music, pianists should be able to choose from different potential solutions on the basis of a large number of contextual considerations.

Reinholdsson (1998) comments on the relative *simplicity* of fake book lead sheets compared to the original piano score: "for ease of sight reading and for ease of performative execution, less details are embraced" (p. 266). He analyses the differences in *purpose, structure and content* between (a) the original/official/commercial sheet music rendition of a popular song and (b) the lead sheet rendition of the same tune included in a fake book:

### **Purpose**

(a) "Prescriptive purpose of [...] composer and lyricist";

(b) “Descriptive purpose of [...] educator and editor, with indication of significant other” (e.g., a famous [jazz] musician on whose recorded version of the song the lead sheet is based).

### ***Structure and content***

(a) “Vocal part (lyrics) with thoroughly composed instrumental part (piano accompaniment) and chord designations on top of staff system”; (b) “No lyrics; single line melody for unspecified instrument with chord designations on top of staff”. (Reinholdsson, 1998, p. 266)

Fake book lead sheets clearly require a lot of knowledge and experience in the pianist – with regard to alternative ways of performing chord sequences, but also, importantly, with regard to several contextual factors. The fake book pianist is to a very great extent a “co-creative interpreter” (Hultberg, 2000, p. 22).

Notably, the fake book is not exclusively a phenomenon of popular music. On a couple of commercial websites, *classical fake books* are presented in this way:

An amazingly comprehensive collection (650 pages!) for all classical music lovers. [...] All entries contain a fake book style presentation with melody line and harmony sketched in above it in chord labels. ([www.sheetmusic1.com/fakebook.classical.html](http://www.sheetmusic1.com/fakebook.classical.html))

Want to teach or learn opera arias but don't have good enough piano skills to read the accompaniment fluently? These books will help you [...] They all have chord symbols in to aid accompaniment and sight reading. There are versions with a full piano part, and more succinct versions with just the vocal line and important cues. ([www.classicalfakebooks.com](http://www.classicalfakebooks.com))

Arguably, in order to make use of such classical fake book collections, classical pianists, just like their colleagues in jazz and popular music, will have to internalize a number of different ways of performing chords and chord sequences, and be able to choose among them based on different contextual considerations.

## **Pianists' approaches to music notation: Zones of approximate development**

Hultberg (2000), applying a socio-cultural perspective to her investigation of pianists' approaches to music scores, points to the importance of creativity and earlier experiences to the individual's development. In her presentation of how the musical score has been treated in earlier musical practice, Hultberg particularly focuses on the “co-creative interpreter” exemplified by Johann Joachim Quantz's treatise on flute performance as well as by Franz Liszt's interpretive processes (Hultberg, 2000, pp. 22–4). Based on her

empirical study, Hultberg discerns two approaches to the musical score. In a *reproductive* approach musicians strive to follow the instructions provided in order to attain the appropriate musical expression. In an *explorative* approach the score is perceived as an invitation to look for implicit musical meaning, to understand musical intentions, and to express one's understanding of the music in a personal way. In the explorative approach, the musical score is a document providing incomplete, coded information which has to be decoded and completed through the interpreter's "investigation of implicit meaning" (p. 116). This requires "familiarity of conventions", in the same way as the strategy used in the practical-empirical method of Quantz and Liszt (pp. 120–1).

Being a jazz pianist, I cannot help noting that Hultberg (2000) does not discuss how experiences from aural-based music could influence an explorative approach to music reading. Among the participants in her study there is at least one clear example of a pianist ("Peter") whose approach to notated music is informed by his experiences with popular music genres. When he interprets a time signature, he says: "I draw parallels to jazz" (p. 93). Furthermore, very much in line with the re-creational approach or "creative licence" advocated by "[m]any musicians, musicologists and music educators" (p. 33), Peter adds harmonic changes in his interpretation, stating that "you have got that licence" (p. 121).

In my own experience as well as in the experience of other jazz pianists with whom I have discussed these things, ways of 'thinking in chords' from aural-based music may play an important role to the interpretation of musical scores from the Western classical tradition. Very much in line with the socio-cultural perspective of Hultberg's investigation, certain kinds of earlier musical experiences can clearly be influential to musicians' approach to the score: namely, experiences of musical contexts that (i) are identified as relevant to the one in the score in question, and (ii) can be understood in terms of chord analysis of the kind employed in jazz and popular music.

In this brief essay, one concrete example – based on personal experience – will have to suffice as an attempt to illustrate how chordal thinking may influence the process of music score interpretation. In a future study I hope to be able to expand on these issues in an empirical investigation including a number of pianists with experiences from the field of jazz.

In Frédéric Chopin's E-flat major Nocturne, Op. 9, No. 2, there is in the second half of bar 12 a chord sequence which may be represented by these chord symbols:

Bb – Bb7/A – E/G# – C7/G – F7 – Bb7

(the letter after the slash indicates the bass note of the chord).

Such chord symbols, needless to say, are not included in any ordinary printed edition of Chopin's Nocturne. However, many pianists with jazz experience in their explorative approach to the printed score will probably execute this passage by way of chordal thinking, through an identification and an understanding of its chromaticism and functional harmonic progression, based on an analysis of its chord sequence. In this process, pianists may become "co-creative interpreters" in the sense that their rendition may be an accurate rendition of the chord sequence but *not* an exact note-to-note rendition of the printed score.

An explorative approach including chordal thinking may influence the pianist's approach in a number of interesting ways. For instance, if the next to last chord is not read and played by the pianist in a note-to-note manner but rather identified, understood and performed as a F7 chord, then the execution of this chord may perhaps include octave doubling of the third interval (the note A), or it may *not* include octave doubling of the root note (F) or the fifth interval (C). These alternatives are all inaccurate with regard to the exact notation. Nevertheless, since they are accurate representations of an F7 chord, the incorrect alternatives might still in some contexts be considered serviceable within this musical sequence. (In the context of a 'classical fake book' alternative chord voicings would have to be tolerated.) Furthermore, such forbearance might facilitate a more fluent playing.

This brief exemplification can only serve as an indication of the ways in which experiences from jazz and popular music might inform pianists' approaches to notated music. Obviously, additional examples and a fuller discussion of these issues are called for. Within the narrow framework of this paper, hoping that such perspectives might provide a valuable complement to those presented in Hultberg's (2000) study of pianists' approaches to musical notation, I have merely attempted to introduce briefly the hypothesis that pianists' reading skills may be influenced in important ways by their aural skills and by their experiences from musical practice in fields of aural-based music such as, for instance, jazz music. In particular, the phenomenon of chordal thinking emerges as an important asset.

Arguably, the "move from the specific to the abstract" (Kernfeld, 2006, p. 49) brought about by chordal thinking is what may help pianists more easily produce reasonably accurate – though probably not note-to-note accurate – renditions of notated music. In jazz, musicians are arguably *always* "co-creative interpreters" in the sense of Quantz or Liszt (Hultberg, 2000, p. 22); and the phenomenon of chordal thinking is crucial to their practice. In the same way as in jazz, though to a lesser degree, a pianist who is 'thinking in chords' while interpreting notated music may also take on the role as a co-creative interpreter. In order to facilitate musical continuity and avoid performance interruptions due to reading difficulties, such a pianist may choose to employ chordal thinking as a means to "make up" some elements of the music "rather than trying to play the specified piano part as it was

written” in every detail (Kernfeld, 2006, p. 50). Alluding to the golden rule of mechanics, this kind of approach could be described in these words: what you lose in (note-to-note) accuracy, you gain in musical fluency. Consequently, alluding to the concept introduced by Cecilia Hultberg, such pianistic strategies could also be described as *zones of approximate development*.

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