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Lectio praecursoria:
Student-Centered Musical Expertise in Popular
Music Pedagogy and Hard Rock Groove:
a Design-Based and Psychodynamic Approach

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Student-Centered Musical Expertise in Popular Music Pedagogy and Hard Rock Groove: a Design-Based and Psychodynamic Approach¹

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A common problem in the field of education is that student-centered pedagogy remains poorly actualized despite a widespread interest in utilizing it (EUA 2019). On the other hand, excessively teacher-directed education has sadly prevented many learners from discovering or demonstrating their musical abilities in the past (Green 2008, 13). Within popular music instrumental learning, the study that we discuss today suggests a solution to this problem. I explore a fresh approach to instrumental popular music pedagogy that aims to integrate the advantages of student-centeredness and pedagogues' musical expertise. To that end, I introduce the Student-Centered Musical Expertise (SCME) design. In contrast with many student-centered views, where the pedagogue only plays the role of a facilitator, this design emphasizes the pedagogue's role as a professional musician but also combines it with empathy by applying the students' favorite music as learning material. Furthermore, since it has been acknowledged that student-centeredness is a context-sensitive phenomenon (EUA 2019), a highly specific musical application is needed. At the same time, in music, I have been puzzled by the fact that the pedagogy of the musical phenomenon called groove has seen very little research. A common belief is that groove cannot be taught, that it is only a feel that you either have or you don't. Additionally, groove has not been studied academically in the genre hard rock. Therefore, for a practical and musically detailed implementation of my pedagogical design, I also present a thorough study on hard rock groove.

¹ Based on the lectio praecursoria presentation at the public defense of the doctoral dissertation in the University of Helsinki on May 14, 2022. The dissertation is openly available in Helda at: <http://urn.fi/URN:ISBN:978-951-51-8048-3>

This study is founded on Design-Based Research, however it is also a multi-disciplinary study that combines critical examinations of music analysis, music pedagogy, the learning sciences, and psychodynamic psychology. For an overview of this book, I take a brief look at these different layers in the following.

First, why is student-centeredness desired in popular music pedagogy in particular? It is typical for popular musicians to have a long-term history with personally favored music as a listener already before starting instrumental studies (see Green 2002). In addition to internalizing the sonic qualities of music, a person also ascribes emotional meanings to his or her favorite music through prolonged engagement with that music as a listener. Here, I see an important association with psychodynamic psychology, which emphasizes emotional and subliminal meanings, and personal history. Music therapeutical and music pedagogical applications of so-called object relations theories suggest that a person's relationship with music is subconsciously invested with the same psychic mechanisms as a person's emotional attachment to other human beings who are close and significant (see Kurkela 1993). This offers illumination on the profound emotional meaning of personally favored music. In the context of popular music pedagogy, I suggest that this perspective can deepen the theoretical understanding of why student-centeredness is beneficial. The most important theories that I applied in this study include Donald Winnicott's transitional object (Winnicott 2005 [1971]; see also Kurkela 1993) and true self (Winnicott 1965 [1960]; see also Kurkela 1993). According to psychodynamic views, these concepts are primordial elements of a person's mental health. They are crucial because they are formed already in early infancy, and importantly, they remain fundamental throughout life. These are the foundations of a person's sense of mental safety, integrity, creativity, and also, ability to enjoy cultural experience such as music. Therefore, personally favored music pieces that have a vivid connection to these mechanisms are profoundly important in maintaining an individual's psychic wellbeing and a meaningful life, as has been researched by Kari Kurkela (1993), for example.

Although this offers an understanding of the importance of student-selected repertoire, I argue that student-centered pedagogy simply is not enough in the entire pedagogical setting. In essence, a pedagogue is a professional musician who has valuable insight into his or her own specialty, as well as the music tradition overall, which should not be bypassed even if student-centeredness is employed.

This leads me to the practical aspect. With my pedagogical design, I aim for a pedagogy that at the same time develops ambitious musical outcomes *and* promotes a good relationship with music. As I emphasize the pedagogue’s musical expertise, I aim to retain certain features of the master-apprentice tradition of learning, although it has been criticized starkly in pedagogical research. However, I specifically suggest that, instead of being authoritarian, the pedagogue applies his or her musical expertise to processing student-selected repertoire and, for example, designing personalized exercises. For this, a pedagogue needs extensive ability in music analysis and rapid transcription skills. Since maximal specificity in research on student-centeredness is desirable (see Hoidn 2017; EUA 2019), I further elaborate the Student-Centered Musical Expertise (SCME) design into three practical configurations. They concretize in different ways how students’ favorite music can be utilized in order to learn applicable musical concepts (e.g., scales, chords, technical skills). These configurations are depicted in Figure 1. I call them A) Inductive (bottom-up), B) Deductive (top-down), and C) Relative Student-Centered Musical Expertise. In this study, I explore the utilization of all three configurations.

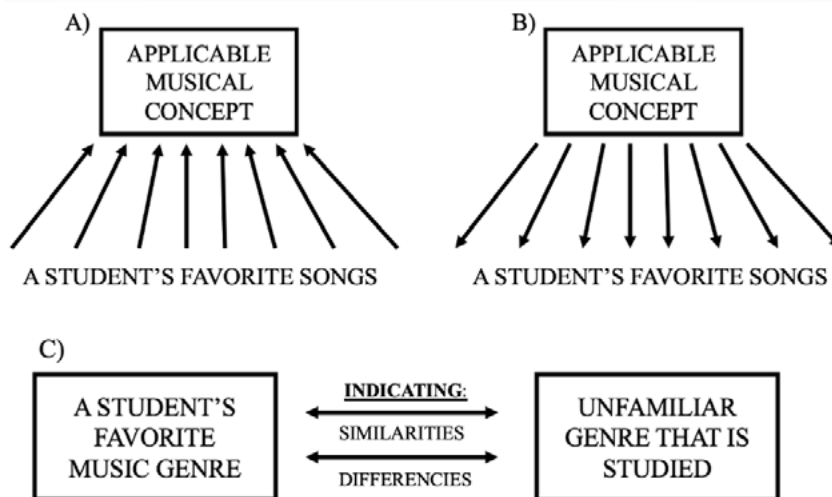


Figure 1. Practical configurations of Student-Centered Musical Expertise (SCME). A) Inductive, B) Deductive, and C) Relative SCME. Figure: Kristian Wahlström.

The pedagogical aim of my design is to establish the following phenomena as the three leading forces of the learning process. These theoretical concepts appear at the bottom of Figure 2: firstly, Edward Deci's (1975) intrinsic motivation; secondly, Winnicott's true self (1965 [1960]), and thirdly, audiation (see Gordon 1985; Elliott 1995, 228; Elliott & Silverman 2015, 350–351) which enables a learner to hear the music internally. I term their close connection the *Intrinsic Triumvirate of Learning Music*.

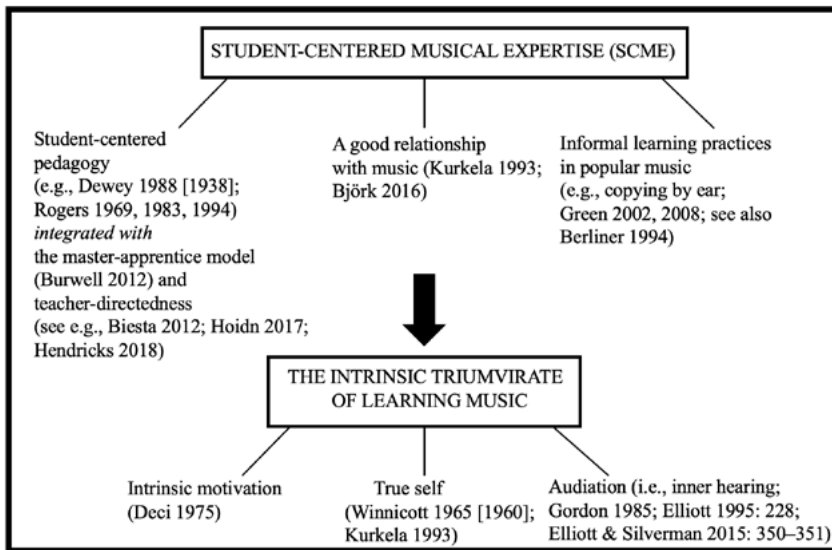


Figure 2. Central concepts behind the SCME approach. The pedagogical goal of the SCME approach is ultimately summarized as the *Intrinsic Triumvirate of Learning Music*. Figure: Kristian Wahlström.

What can this be used for? I move on to my aim for a musically detailed implementation and present my in-depth analysis of hard rock groove. The musical phenomenon called "groove" has been defined as rhythmic intensity that induces forward motion (Butterfield 2010), encourages physical involvement (Madison 2006), and involves a sensation of pleasure (Danielsen 2006). I explored groove in the genre hard rock mainly through spectral analysis of recordings of the band AC/DC. I researched the recordings to the millisecond. This illuminated musical aspects that have been previously considered somewhat mysterious. As the central components of groove, I focus on timing, dynamics, phrasing, time-feels,

and interplay. I am particularly interested in phrasing that is in-between even phrasing and swing phrasing (cf. Figure 3).



NOTATION	RATIO	SPS	BUR
 =	1:1	50/50	1.0
 =	2:1	67/33	2.0

Figure 3. Phrasing: even (above) and swing (below). In this study, phrasing that essentially appears in-between these theoretical extremes is termed *Moderate Swing Phrasing*, and in its most subtle forms, *Implied Moderate Swing Phrasing*. Abbreviations; SPS: *Swing Percentage Split* (Wahlström 2022) and BUR: *Beat-Upbeat Ratio* (Benadon 2006). Figure: Kristian Wahlström.

Spectral analysis of recordings confirmed an assumption that stemmed from my long experience as a performer. Namely, my main finding is that an essential characteristic of hard rock groove is a phrasing of eighth notes that is almost imperceptibly swinging – although it appears to be even. In other words, what has previously been considered even phrasing is actually not even on closer inspection. I term this effect *Implied Moderate Swing Phrasing*. You will hear and see samples of this shortly. Moreover, this phrasing is often contrasted with rushing, anticipated upbeats. Together, these contrasting micro-rhythmic features induce tension and release, which in turn promotes forward motion musically. *Implied Moderate Swing Phrasing* creates a loose effect, while strictly even phrasing produces a stiff impression. This analysis offers illumination on the performance of *different* grooves. I researched these distinctive nuances by comparing two versions of AC/DC’s song “Hell Ain’t a Bad Place to Be”. The original studio version is on the album *Let There Be Rock* (1977), and the live recording is on the live album *If You Want Blood...You’ve Got it* (1978). I have played these two versions repeatedly to colleagues in music and to students of all levels throughout the last ten years or more. Frequently, the listeners describe the studio version as stiff and the live version as lively, forward-propelling, danceable, and loose, in comparison.

Listen to the stiff studio version at [01:37–01:53], *without* *Implied Moderate Swing Phrasing*.

Then, listen to the forward propelling and loose live version at [01:34–01:49], *with Implied Moderate Swing Phrasing*.

Below, Figure 4 shows spectrograms of AC/DC’s rhythm guitar player Malcolm Young’s performances in “Hell Ain’t a Bad Place to Be”. The studio version is above the standard notation and the live version is below the staff. The light grey areas depict the sounding tones, the black areas indicate silence. The narrow vertical lines form a theoretical grid referring to even phrasing. The circled note durations in the studio version are within the grid, thus depicting even phrasing. In contrast, in the live version they exceed the grid, which implies swing phrasing. The lowest part in this figure zooms in on the live version, highlighting extended downbeat eighth notes (1st, 3rd, and 4th circles from the left). This suggests that Malcolm Young manipulates the note durations and thus constitutes an *illusion* of a Moderate Swing Phrasing in the live version and, in contrast, an even phrasing in the studio version. Additionally, you can see an anticipated upbeat eighth note (2nd circle from the left), which contributes to creating the micro-rhythmical tension and release that I mentioned earlier. These alternative ways of performing offer an artistic means of creating different grooves.

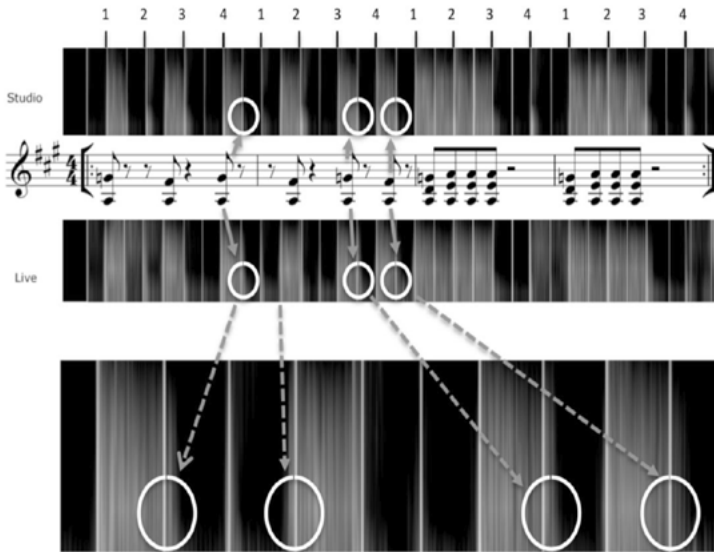


Figure 4. Spectrograms of Malcolm Young’s rhythm guitar performances in AC/DC’s “Hell Ain’t a Bad Place to Be”, studio version [01:37–01:53] (above the staff) and live version [01:34–01:49] (below the staff), visible area: 1378–5512 Hz. Figure: Kristian Wahlström.

Now you might ask: "So what?". Well, my point is that since groove can be analyzed, it can indeed be practiced, and therefore it can also be taught. Consequently, I studied how exacting groove skills can be taught in a student-centered way. This leads me to the core of my study, the utilization of my pedagogical design in practice.

To scrutinize the utilization of my pedagogical design, I explored the individual studies of nine of my electric guitar students at the Helsinki Pop & Jazz Conservatory. I video-documented their weekly lessons for a semester of three months. To access the students' experiences of their learning with the Student-Centered Musical Expertise approach, I employed the Video-Stimulated Recall interviewing method. This means that the students watched excerpts of their own lessons and commented on them. In other words, the students who participated in this study engaged in an analysis of their own learning. I made audio recordings of my semi-structured interviews with each individual student. We studied groove with five students. With the four other participants, we concentrated on other musical focuses. In total, I documented 65 lessons, which comprise approximately 45 hours of video-material.

The results of this study suggest that the Student-Centered Musical Expertise approach succeeds in integrating the advantages of student-centered pedagogy and a pedagogue's musical expertise. An essential tool in actualizing this integration was musical exercises that are on the one hand specific enough to be musically effective, and on the other hand open enough to be applicable to various student-selected repertoires. I give a few examples in the following. In Figure 5 (see below), from the top: first is depicted the widely known exercise of practicing with the metronome on beats two and four in a 4/4 time signature. Second, a more challenging timing exercise is having the click only on beat four. Third, practicing mid-tempo songs at very slow tempos (i.e., 40 bpm) is often an especially demanding exercise even for experienced professional performers.

The figure displays three musical exercises, each with a guitar part and a drum part. The guitar part is in 4/4 time and features a specific rhythmic pattern of eighth notes, labeled 'A5'. The drum part is in 4/4 time and features a specific rhythmic pattern of eighth notes, labeled 'Click'. The three exercises are arranged vertically, with the top exercise having a standard drum pattern, the middle exercise having a half-time feel, and the bottom exercise having a tempo marking of quarter note = 40 and a standard drum pattern.

Figure 5. Three established timing exercises. The rhythm guitar part exemplified here is from AC/DC's "It's a Long Way to the Top (If You Wanna Rock 'N' Roll)" (1976). In this study, these exercises were applied to student-selected repertoire. Figure: Kristian Wahlström.

For a pedagogical implementation of my main musicological finding, Implied Moderate Swing Phrasing, I developed a systematic phrasing exercise (see Figure 6, see below). Phrasing that is in-between even and swing is much more obvious in the 16th notes in funk than it is in rock. Therefore, the idea that I presented is that the students also practiced rock riffs first over a funky drumbeat that employed a half-time feel (see top segment of Figure 6). The students practiced an even, then clearly swinging, and finally moderately swinging phrasing. Then, we applied moderately swinging phrasing over the original rock drumbeat without a half-time feel (see middle and bottom segments of Figure 6). Through this exercise, we were able to transfer a nuance of the rather obvious swing from 16th notes in funk to the considerably more subtle swing of eighth notes in rock. As a result, the students did learn to perform Implied Moderate Swing Phrasing and their groove improved considerably. Most importantly, we applied all the above exercises to songs that the students chose themselves from

their favorite music, in addition to the introductory examples of AC/DC that I first gave them.

EXERCISE FOR IMPORTING IMPLIED MODERATE SWING PHRASING FROM FUNK TO HARD ROCK:

The figure displays three musical exercises. Each exercise consists of a guitar part (top staff) and a drum part (bottom staff).
 - The first exercise is marked with a tempo of $\text{♩} = 65$. The guitar part features a repeating eighth-note riff with accents and slurs. The drum part is a simple bass drum and snare pattern.
 - The second exercise is marked with a tempo of $\text{♩} = 130$. The guitar part features a similar eighth-note riff but with more complex articulations. The drum part remains the same.
 - The third exercise is also marked with a tempo of $\text{♩} = 130$. The guitar part features a similar eighth-note riff with some notes marked with 'x' and slurs. The drum part remains the same.

Figure 6. Exercise for Implied Moderate Swing Phrasing. Here, the exemplified guitar riff is AC/DC’s “Hell Ain’t a Bad Place to Be” (1977; 1978). This practice was developed in this study, and essentially applied to student-selected repertoire. Figure: Kristian Wahlström.

Overall, the learning results in this pedagogical study were consistently of a high musical standard, as the students agreed when we watched the video-documented materials at the end of the semester. This study showed that the research participants’ skills, for example in groove, developed considerably through challenging work, and at the same time the music that they practiced felt personally meaningful. One of the students expressed this when he heard his playing from a video-documented guitar lesson: “It does sound like me. Only it’s more accurate”. This comment could be rephrased as the student becoming “the ‘best’ version of themselves”,

which music educationalist Marissa Silverman (2020, 31) discusses as she explores music education that sets *eudaimonia*, human flourishing in Aristotelian ethics, as its primary pedagogical aim. Eudaimonia has been further developed in music education by honored opponent, Professor Gareth Dylan Smith (e.g., Smith & Silverman 2020). Thus, this approach *both* promoted musically ambitious learning outcomes *and* supported the students' good relationships with music – *not one or the other*. Music education cannot only rely on accomplished individuals, what is needed are pedagogical models that can be repeated. To that end, the Student-Centered Musical Expertise design offers a readily applicable tool for popular music instrumental education. The results of this study suggest that *a pedagogue's highly advanced musical knowledge does not necessarily impel an authoritarian, teacher-directed pedagogy*. This perspective is fundamentally different from much of advanced education where highly specialized expert knowledge has typically been combined with an educator imparting it as such. This is where I suggest that popular music education could be developed. Therefore, with this study I aim to contribute to dismantling the dichotomy between the master-apprentice tradition and student-centered learning, and instead I intend to offer a model for music education that is at the same time musically exacting and promotes personal integrity.

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Discography

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