

COMPONENTS CONTRIBUTING TO GROWTH
IN THE FIELD OF PIANO IMPROVISATION USING POPULAR MUSIC

By

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ILLUSTRATIONS



If you can remember,
you can always forget.

If you understand,
you will remember forever.

ABSTRACT

The advancement and accessibility to technology has made it easier than ever to create music, utilizing new sound effects, texture, timbre that musicians were once not able to physically produce by solely relying on musical instruments. My thesis explores the field of improvisation on piano, where ‘improvisation’ is not simply viewed as a term that is strictly associated with the jazz genre, but more as a general term that possesses a life of its own. Conducted as a practice-based, as well as practice-led research, my thesis specifically examines the contributing elements that contribute to Growth, where Growth is largely defined by timbre using popular music as a transformative medium in turning it into solo piano music. LaRue (2011) states that articulation is served as an indicator or symptom of change, and he further notes that the chief requirement for evaluating articulation is a comprehensive awareness of its complexity, and thus reviewing potential sources of articulation available in the contributing elements (Sound, Harmony, Melody, Rhythm) can help with understanding the growth process of music.

KEYWORDS

Improvisation, Interpretation, popular music, piano music, timbre, growth

BACKGROUND

A piece of music can undergo substantial surface alteration (in terms of instrumentation, embellishment, transposition, or variation) and yet be recognized as the same piece (Bharucha & Krumhansl, 1983). Brodsky et al. (1998, 1999, 2003) developed a paradigm that exploited the compositional technique of theme and variation by embedding a well-known theme in the newly

composed notation. For instance, variation technique is widely used in western European classical music that explores a series of altered forms of the main theme as one collective musical piece. In a similar fashion, the constant rise of popular music has created a new musical phenomenon that calls for its own identity. Though not considered as a formal technique, ‘piano covers’, a commonly referred term utilized on online video sharing platform such as YouTube contains massive number of videos of people that share their unique arrangement of popular music as solo piano performances. These piano covers are played by people that possess varying degree of piano skills; some may be classically trained, and some may simply be amateur musicians that enjoy exploring their favorite tunes on piano. Just as there is no one way to listen for all music everywhere, different musical products present different dimensions and combinations of musical dimensions to listen for (Silverman et al., 2014). Among thousands of these shared videos, it is commonly observed that these individuals in the videos do not use any sheet music as a visual cue. In other words, they are sharing their unique interpretation of what they hear “by ear” - a major feature in the field of improvisation.

LITERATURE

Improvisation, as defined by Pressing (1988), is a system of expertise, relating to standard expertise theory with its emphasis on deliberate practice and development of domain-specific skills. These skills may include real-time perceptual coding of events, optimal attention allocation, decision making, prediction of the action of others, error correction, movement control, and the ability to ‘integrate these processes into an optimally seamless set of musical statements that reflect both a personal perspective on musical organization and a capacity to affect listeners. McPherson *et al.* (1997) studied relations between types of performances and

found that performing rehearsed music was most influenced by length of study and ability to sight read, whereas the ability to improvise was mostly influenced by the ability to play by ear. The study also found that playing music by ear seemed to exert a positive influence on the ability to sight read (McPherson, 1995). While different studies show positive impact on developing improvisation skills, Gabrielsson (2003) claims that most of the improvisation-related work concerns jazz music. Toiviainen (1995) mentions that in learning to improvise, a student essentially mimics the playing of other musicians, a kind of imitative learning that can be modelled and simulated by an artificial neural network approach to model bebop-style jazz improvisation. Nachmanovitch (1990, p.22) then argues that any good jazz player has innumerable tricks he can fall back on whenever he gets stuck, but to be an improviser you have to leave the tricks behind, and go out on a limb and take risks, as improvisation is intuition in action, a way to discover the muse and learn to respond to a call.

Improvisation in music calls for motions and change, an activity in the most broadly generalized sense, that no piece can exist without some form of change that we can observe and study (LaRue, 2011). Improvisation can also carry a notion that anything is possible, but lack of a conscious plan does not mean that the work is random or arbitrary, and that improvisation always has its rules, a kind of musical freedom (Nachmanovitch, 1990, p.26). To exemplify such concept, Buchanan cites the transformation of state of milk-cream that turns into butter. The thickening manifests more a propensity of the substances than the introduction of some outside agent, meaning an immanent transformation (Costa, 2011). This transformation can be seen as a form of conversation between one subject (milk-cream) with another (air) that results in a novel form of object. Furthermore, LaRue (2011, p.224) explains how a painter closely studies the

anatomy of bones and muscles, a knowledge that enables him to understand and later to recreate bodily motion with convincing power.

Eisner (2002) provides a wonderful metaphoric explanation that supports why the term ‘improvisation’ may deserve a separate entity of its own that does not necessarily have to rely on the term ‘jazz’. Eisner compares the work that the artist creates as a kind of conversation, meaning the work does the speaking, and at times it is also the artist who listens. This conversational quality is almost literally true in jazz improvisation (p.78), in which musicians do not know prior to performance what musical conversation will consist of, at least not in precise terms. What distinguishes the term ‘improvisation’ from ‘jazz improvisation’, is the absolute presence of the element of surprise. Eisner states ‘surprise’ as one of the rewards of work in the arts (p.78). To pursue surprise requires the willingness to take risks, for while surprise itself may emerge, its pursuit is a choice. In choosing to pursue surprise one selects an uncertain path, and it is here that familiar schema and customary techniques may prove ineffective. If there exists a variety source of musical “tricks” that a musician can fall back on at any given musical moment, I argue if there exists a true raw element of surprise in jazz improvisation, based on what Toivainen refers to improvisation as a type of imitation-driven performance that models a certain quality of medium, exploiting the characteristics of jazz music. When one attends a jazz performance, improvisational quality is a given, and jazz, the genre itself, has already been pre-determined prior to even experiencing the improvisational dimension of the performance.

Complexity of concept of music

Elliott and Silverman (2015) state that the definition of music can differ due to multiple, multidimensional factors. They state that “explanation of what *should* be cannot overlook how a

particular facet of life has been understood or practiced in the past or present... and that generating new ways of looking at and doing things depends on thing beyond what we've been told something is, or how some activity is currently being practiced, in order to arrive at good explanations of what something *should be or become.*" (p.55). Elliott further states that "although music is a word and most people have some sense of what this word means, the question of what music is can't be answered satisfactorily by a concise definition, a narrow concept of music, or an ethnocentric perspective" (p.56). While I recognize that different forms of music are practiced all around the world, Elliott's point that fundamentally distinct types of activities that are carried to fulfill different needs and ways of being human, acts as an important source of information that molds together the concept of improvisation, a musical conversation that would also vary among different individuals. Furthermore, it is said by Eisner (2002) that "visions of the aims and content of arts education are neither uniform nor discovered simply by inspection... yet we often assume that the aims to which a field is directed are given by the field itself (p.25). Learning mathematics and science in school, for example, present concrete problem-solving approach behind learning. Music, on the other hand, is a fluid subject because it conveys emotional properties that is considered expressional (Elliott, 2015). When it comes to music, any individual is entirely entitled to refer to oneself as a "musician", even without any formal training in music. While solving a math equation may not necessarily spark an emotion, emotion is an integral part of a musical experience, which all humans are capable of feeling. Music, is an incredibly open subject that anyone is entitled to "own" a piece of.

Philosophy and improvisation

Silverman (2014) introduces a fascinating realization in her paper, stating that ‘when “philosophy” is offered, it usually consists of reading, summarizing, repeating, or memorizing the ideas of basic texts in the field. Rarely, if ever, do students learn to “do” philosophy in the basic sense of conducting systematic conceptual analyses, making careful distinctions, developing warranted and ethical arguments (p.55). Silverman’s statement also resonates with the concept of improvisation, a form of practice in music that deals greatly with the application of musical knowledge. Furthermore, Elliott and Silverman (2016) point out that, according to Aristotle, praxis does not separate outcomes and process and that for Aristotle, praxis is enacted and embodied in the doing of the activity. If *techne* - which concerns skills, carry no ethical responsibility, and praxis fails. In other words, technical skills are not, by themselves, individuating, self-actualizing nor creative (p. 14). The failure to emphasize the significance of learning improvisation for music students in higher education, seems to present a similarly problematic situation, as music making is still very much concerned with reading music than “creating” music that utilizes application of one’s collective musical knowledge.

Combining yesterday’s theories in the modern era

When it comes to acquiring musical “knowledge” from the instruction perspective in the 21st century, behaviorist, cognitivist and constructivist perspectives should be thoroughly explored. While the fundamental theory of music may have not changed over the years, what is crucial to consider is that much of the world outside of the theories, including where and with whom we learn, as well as how that knowledge is stored and accessed, has changed (Ertmer, 2013). Technology has made it possible to acquire information, whether formally or informally,

and thus encouraging constant interaction with others has transformed the learning process (p.66).

Behaviorist perspective

Ertmer and Newby (2013) emphasize the significance of environmental conditions that influence learning. The learner is characterized as being reactive to conditions in the environment, where no attempt is made to determine the structure of a student's knowledge nor to assess which mental processes it is necessary for them to use (Winn, 1990). One could compare learning new music with physical sheet music as a visual cue that instructs the learner what to do. Here, the learner acquires knowledge from the use of instructional cues, practice and reinforcement. Facilitating the linking of stimulus-response pairs from a behaviorist perspective frequently utilizes cues and reinforcement. When it comes to acquiring musical knowledge following a classical music-based form of learning, a *structured* fluidity is emphasized such as note accuracy, control of dynamic in exact musical moments, physical posture as examples. The irony of fluidity from the behaviorist perspective of designing instruction, is that fluidity demands a notion of perfection that is actually quite rigid. Furthermore, Schunk (1991) attributes forgetting to the “nonuse” of a response over time, presenting a clear detachment between the learner and the content that was supposed be “learned”. The learner, while being the one doing the learning, in fact has little or no control over the process of learning whatsoever.

Cognitivist perspective

Cognitivism unveiled its presence in the late 1950s (Snelbecker, 1983). The shift from behaviorist's performance-driven learning to a cognitive orientation has opened doors for the instructional design to become more concerned not so much with what learners *do* but *what* they know and *how* they come to acquire it (Ertmer, 2013). This theory makes a statement that environmental "cues" and instructional components alone cannot account for all the learning that results from an instructional situation. From cognitivist perspective, learning results when information is stored in memory in an organized, meaningful manner that can be analyzed, decomposed, and simplified into basic building blocks. While a behaviorist uses reinforcement to modify behavior in the desired direction, cognitivists make use of knowledge of results to guide and support accurate mental connections (p.53). Knowledge then becomes more meaningful, as cognitive emphasis imply understanding that individuals bring various learning experiences to the learning situation which can impact learning outcomes. Individuals with music training, as an example, could include a group of self-taught musicians, whether they choose to learn to play Mozart by reading sheet music, or learn to play by ear simply by listening to music. The contrasting mode of learning between these two contrasting cases can also result in different learning outcomes.

Constructivist perspective

Constructivist dimension defines knowledge as a function of how the individual creates meaning from his or her own experience (Ertmer, 2013). Humans are seen as "those that create meaning

as opposed to acquiring, where the world we know stems from our own interpretations that is open to change” (p.55). Behavior is situationally determined and situations co-produce knowledge, along with cognition, through activity. Constructivist views every action as “an interpretation of the current situation based on an entire history of previous interactions” (Clancey, 1986). Representations of experiences are not formalized or structured into a single piece of declarative knowledge and then stored in the head (Ertmer, 2013, p.56). The emphasis is not on retrieving *intact* knowledge structures, but on providing learners with the means to create novel and situation-specific understandings by “assembling” prior knowledge from diverse sources appropriate to the problem at hand (p.56). Content is no longer pre-specified, or is the instruction predesigned. Furthermore, memory is no longer a context-independent process (p.58). Meaningfulness and authenticity are specifically emphasized when it comes to designing instruction from a constructivist perspective, and constructivist strategies are especially suited to dealing with ill-defined problems through reflection-in-action. The term ‘improvisation’, while the context could carry the notion of action that is spontaneous and unplanned, it may very well be suited as an application-driven music learning concept that calls for a deeper exploration of meaning.

Musical understanding and improvisation

Just as there is no one way to listen for all music everywhere, different musical products present different dimensions and combinations of musical dimensions to listen for (Silverman et al, 2014). Eisner (2002) points out that one of the most important visions of arts education is related to creative problem solving, but one of the challenging features of work in the arts is the

tendency to revert to familiar routines in order to resolve a visual problem, and that the easiest road to follow is to try to repeat past victories (p.79). Elliott (2015) states that musical understanding is *working understanding*, as the word *understanding* points to something deeper than verbal knowledge about musical products. It implies a related network of knowings that exhibit themselves in musically expressive and creative processes and products, not linear or verbal, but weblike and procedural. The word *working* suggests a practical, situated, experiential, intuitive, and embodied form of knowing- knowing anchored in the contexts and purposes of specific musical praxes (p.229). While, according to Campbell (2014), that oral transmission is the teacher's active role in transmitting the music on the instrument, aural transmission is the student's hearing and receive of the music. Both these actions are in play in many cultures, and Elliott (2015) encourages that we ask ourselves how teaching any aspect of music- music making, listening, pieces of music, and musical experiences actually enables students to achieve the diverse human values or goods that music can offer (p.115). Sarath (2014) states that improvisation uniquely promotes assimilation of influences from the musical landscape into the emergent artistic voice, thereby enabling levels of intimacy, meaning, and understanding that are not possible when interpretive performance alone is the prescribed mode of engagement (p.59). Not to mention, improvisation involves both performing and composing, requiring being able to cultivate and call on various forms of memory systems: a human effort to compose in real time (Elliott, 2015).

Phenomenology: a battle between sign of existence and struggle of acceptance

LaRue states (p.230) that good analysis requires an active imaginative approach: we look and listen to improve an evolving hypothesis concerning the growth of a piece, testing,

correcting, and replacing one possibility after another. He further expands on good analysis, in which the more experience we acquire, the larger our fund of hypotheses becomes.

According to Manen (1997), to be conscious is to be aware, in some sense, of some aspect of the world, and phenomenology is keenly interested in the significant world of the human being. Consciousness itself cannot be described directly, otherwise such description would reduce human science to the study of consciousness or ideas (p.10). Here, piano improvisation can be understood as a kind of rooted, musical release that act as a constantly evolving product of one's conscious being. Manen (1997) further describes how people tend to get a certain satisfaction out of grasping at a conceptual or “theoretical” level the basic ideas of phenomenology, even though a real understanding of phenomenology can only be accomplished by “actively doing it” (p.8). To a certain degree, people live their lives with a purpose to seek ways to distinguish themselves from others, defining their roles by specific occupation titles, which indirectly indicate their special skills that we possess that set us apart from others. Prior to discovering the fascinating world of improvisation, I recall having frequently experienced a situation where people asked what I did for a living. Once I responded by saying that I was a pianist, the most common response I received from people was, “*Oh, I used to play the piano!*” or “*I also play the piano!*”. For a long time, more specifically, when I was only exposed to the world of classical piano music, my immediate reaction from people’s response used to be a sense of annoyance, as I felt my skills were being undervalued by someone that claimed to be on the same level as I were in terms of acquiring special skills. Based on my personal experience alone, I could understand why so many conservatory-based, western classical music repertoire-focused organizations were born out of a desire to educate musicians who would advance classical Western European music through homegrown orchestras and opera companies, and a need to

educate teachers to perpetuate the appreciation of classical music in schools to educate teachers (Sarath, 2014).

Despite the past efforts to bring reform in music education, it is said that change has been confined largely to surface adjustments - what might be best characterized as “curricular tinkering” at the expense of the systemic, foundational overhaul that is necessary (Sarath, 2014, p. 57). Although emergence of coursework and programs to bridge the gap between academic and real world musical engagement (such as jazz, world, music, popular music) has been implemented, the approach still remains problematic because it fails to acknowledge that these additive attempts at change have left the conventional curricular and cultural core largely intact, and left newer areas on the periphery (p. 57). Sarath further states that “new offerings atop an unchanging foundation has not only placed additional stress on the conventional curricular foundations, but has reified the divide between music study and real-world musical practice” (p. 57). While the technology quickly shifts and evolves with time, which naturally changes the way people obtain new information, it only seems natural that the teaching methods evolve. The struggle of acceptance that the life we live evolves in many dimensions with time, is perhaps another topic that needs further exploration and evaluation as a separate study that deserves a much-needed attention.

Phenomenology and Improvisation

When it comes to describing a visual artist, we do not separate those that can start creating art “from scratch” (blank canvas) from those that can draw over an artwork that already has been completed. While imitation-based drawing may be a great way to practice, the evaluation of the degree of authenticity may be what distinguishes great visual artists from

others. In a similar fashion, Eisner describes an architect who may be asked to design a house with particular features or to design a kitchen that performs in particular ways. The form such a house or kitchen possesses, however can be extraordinarily diverse, and competent architects are likely to provide several versions for a client to select from (p.160). Another example would be a chef who is able to make a deliciously tasting dish that accentuates his creative imagination with given ingredients. When it comes to classical pianists, however, the performer is extremely limited from unleashing their creative freedom, other than following the instructor's guidance, or from watching and/or listening to the performer's preferred performance that's played by other professional pianists for imitation purposes. These extreme examples could be viewed as offensive, but I believe strongly that these examples are not overtly exaggerated. At the same time, it stands to reason that anyone who has invested a great deal of time and energy into a lifelong artistic pursuit will be passionate about his or her chosen field (Allsup, p.33)

METHOD

In 2008, the abundance of popular music tapped my curiosity to start exploring songs that were not written for piano. I practiced 'active listening', a term that I refer to as I engage in aurally dissecting and manipulating musical layers that carry distinct timbre and rhythm. Timbre, as defined by LaRue (2011), is acoustical tone-quality, the character of the sound wave produced by various frequencies in single or combined sources of sound, where his choice of timbres are defined by traditional musical instruments. Based on active listening, I have transformed hundreds of songs from popular music into solo piano performances that capture the essence of the "fullness" that the original song carries. I crafted the term 'artistic piano interpretation' to

collectively refer to my improvisational performances through popular music that resonate the musical excitement and intimacy as solo piano music. Pursuing my Master's degree in music education that led up to writing my thesis served as the perfect opportunity for me to look back on the already completed improvisation performances to analyze my own process of improvisation in depth. Eisner (2002) also states that phenomenological research, unlike any other kind of research, makes a distinction between appearance and essence, between the things of our experience and that which grounds the things of our experience (p.32).

Closer (Taggart et al, 2016) is a song from the electronic dance music genre by American DJ duo named The Chainsmokers. Prior to exploring the technical details of the song during the live process of the improvisation performance, I first searched for the lyrics (Appendix A) to better understand the story behind the song. In order to become familiarized with the melody with rhythmic and note precision, I sang along with the song while keeping the main sentimental emotion in mind. Individual instrumentations that were audibly distinguishable were recognized and imitated on piano, as there typically exists multiple instrumentations that combine to become a song with one collective sound. I had three hours of time to utilize a recording space to come up with the “final” take of *Closer* as my improvised performance. While the performance or any specific musical ideas were not explored nor practiced prior to the recording session, the final video version captured the take that contained the least number of disruptive pauses. For the purpose of this particular research, I re-recorded the performance using a MIDI controller through Logic Pro X, a digital audio workstation software, and the notation was generated (Appendix B) from the MIDI recording. Lastly, the reflective style analysis approach established by LaRue was implemented in discussing the practice below. My artistic piano interpretation

performance of *Closer* is accessible via the YouTube link
(<https://www.youtube.com/watch?v=L1TyN3hPaiM>).

There are three main questions that my thesis aims to address:

1. What role does each contributing element (Sound, Harmony, Melody, Rhythm) play in my artistic piano interpretations of *Closer*?
2. How might pianists express timbral changes from popular music recordings through the piano?
3. How might interpretation-based listening be used as an approach for learning piano improvisation skills for music students in higher education?

STYLE ANALYSIS

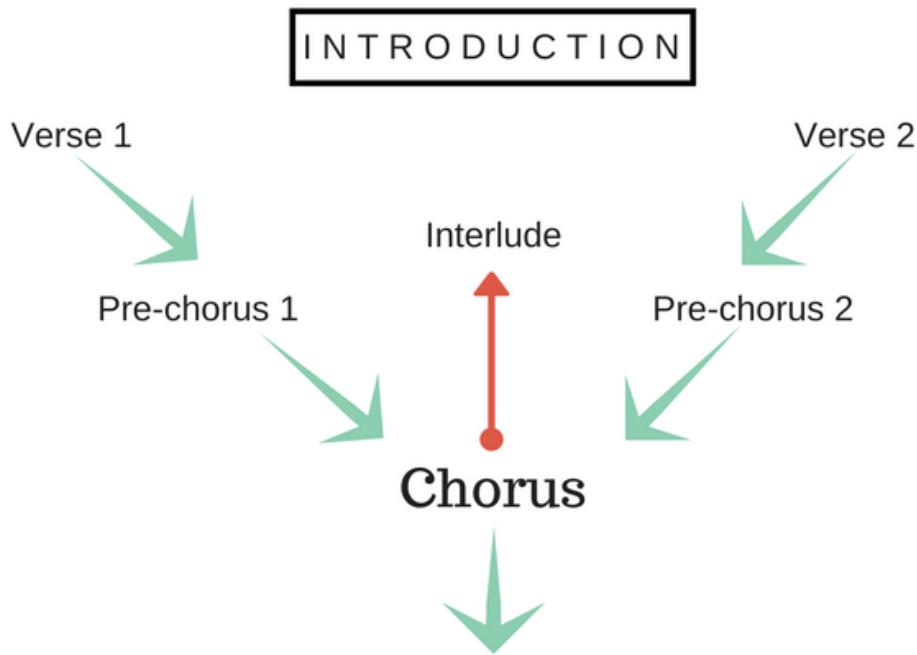


Figure 1. Visual structure analysis of *Closer*

Every song carries a story, if not, a message to a certain degree. For *Closer*, the chorus takes the central position as the main message behind the song is stored there, represented by its unchanging words (Figure 1.). The words to each verse is different: verse 1 is sung by the male artist, who tells a story from a male perspective, while verse 2 is sung by the featured artist, who tells a story from a female perspective. While the interlude plays a transitional role between the verses, it also plays an important literal role as it helps to bind the story from verse 1 to verse 2. Interlude is represented as an afterthought as it is repeated several times in between sections. Each section is marked as a distinct episode that is linked to another episode, indicated with an arrow. The coda/ending results as the product from the synthesis of individual sections/episodes. The introduction is not particularly attached to any particular section, but establishes the landscape of the song with the chordal structure that cycles throughout the song.

Sound

Closer unfolds with the introduction, where the smudged sounding notes approach the listener from a distance, which becomes increasingly audible until a full echo-effect is established. The reverberation effect, commonly found in popular music is used in order to achieve a “sonically created spatiality” (Björnberg, 2005). Since the use of this special sound effect is served as one of popular music’s main sound characteristics, it was crucial to recognize and recreate the effect on piano. In order to best capture the effect of reverberation, careful control over the use of the sustain pedal was a basic technical requirement. The absence of the sustain pedal use was intentional in order to emphasize the punctual articulations that were present in Verse 1. In comparison to a story from a book that unfolds with time, the song also unfolds sonically that creates a sense of development. The timbre shifts dramatically from the introduction to Verse 1, where the singer begins to sing and the reverberation effect is suddenly diminished. As the song unfolds with more narration told through the lyrics, the sound becomes more fabricated with newly added or removed instrumentations. *Closer* tells a story (appendix A) about two lovers who reminisce about their past, premature relationship upon meeting in a hotel bar many years after their breakup. The overall sound is rich in its polyphonic texture, where each instrumentation is sonically unique from other that are clearly identifiable and manipulable. The dynamic throughout the song remains constant, where the song never grows or diminishes in volume, but richer and deeper with each added or removed instrumentation. Unlike many classical piano music pieces where dynamic contrasts are strongly marked and emphasized, use of technology for popular music by adding or removing instrumentation instead plays a role in shifting the overall thickness of sounds.

Harmony

As most comprehensive definitions of ‘popular music’ include some reference to recording technology (Bjornberg, 2007), the use of technological tools for music making also introduces unlimited variety of harmonic possibilities created with each distinctly sounding instrumentations. According to Bharucha (1984), a perceived hierarchy of stability exists for chords, that in the context of a given key, the chords based on the first (tonic), fourth (subdominant), and fifth (dominant) degrees of the diatonic scales are more stable than the others. The chordal structure of *Closer* is made up of four chords - Db major/ Eb major/ F minor/ Eb major that repeats throughout the entire song. The key of *Closer*, theoretically speaking, is in Ab major, however, the note Ab - the tonic - never makes its presence in the chordal structure, yet the song does not present any clear evidence of instability. Despite having established the key signature of the performance on Logic Pro X as Ab major, the notation generated through Sibelius automatically converted the key signature for the introduction section of the song as Ab minor. As LaRue (2011) describes, enlarged diatonicism is an innovative type of expanded tonality where free exchange of major and minor forms of the same key occurs (p.54). While the shift between Ab major and minor keys are not readily evident due to the absence of tonic in both keys, a sense of harmonic unity is achieved. Bharucha and Krumhansl (1983) states that the theoretic analysis of music into abstract chord functions suggests the possibility that listeners have an internal representation of these chord functions, which may be activated not only by direct sounding of these chords, but also by certain melodic patterns.



Figure 2. Analysis of the harmony (introduction section)

The first three measures (Figure 2.) show chords that play a structural function, whereas the fourth measure shows a chord that plays an ornamental function. The coordinated pattern of articulation in both hands help with defining the structural function of the chords. Eb as the highest note in the right hand that acts as an anchor note, as it serves function to carry the chord progression as one collective group while ensuring each chord to proceed to the next chord smoothly.

Melody

According to Bharucha (1984), the sequence of tones formed by the highest tone of each chord is often heard as the melody. When it comes to popular music, the immediate way to define the melody is to detect the line that is being sung by the lead vocalist.

In the process of my improvised performance, one of the most important things to keep in mind was to clearly distinguish the melody not just note-wise, but also rhythm-wise in my playing. The act of improvisation can often lead to an act of “jamming”, where the harmonic chord structure carries more significance than bringing out the melody itself. Furthermore, it was also important to avoid re-creating the melody that sounded “karaoke-like”, which occurs when the melody is exaggerated by overtly separating the physical distance from other notes that cover other instrumentation sounds. The first verse of *Closer* is sung by one male singer, and the

second singer joins the first singer by doubling the melody line an octave above. In the second verse, the melody stays identical, however it is being sung by the feature artist. The female artist tells a different story in the second verse, sharing a completely contrasting narration compared to the first verse that was being sung by the male singer. LaRue (2011) also confirms that register duplications can create genuinely climactic ranges for Sound without necessarily similar effects on Melody (p.72). While the chorus section often indicates the climax of a song, the major 3rd interval present in the chorus of the song indicates a small movement between notes, while the repetitiveness of three notes that are present in the chorus seems to be contributing towards delivering the main message from the song: the desire to maintain the youthful spirit in the romantic relationship. As described by Eisner (2002, p.25), when description is thus mediated by expression (a work of art, body expression), the description seems to contain a stronger element of interpretation.

Rhythm

Musically naïve listeners are constantly exposed in everyday life to the regularities underlying the music of their culture, which enables them to acquire implicit knowledge of them. (Bharucha, 1984). Despite the presence of multiple, distinct rhythmic layers present in various instrumentations of a song, the rhythm that is present in the melody is clearly distinguishable, which allows listeners to be able to sing along without being distracted letting another rhythmic layer present from other instrumentation. It is extremely common to observe situations where young people with no formal music training are capable of singing along with their latest favorite tune, while those with formal piano training present clear struggle with singing along with rhythmic accuracy. The rhythm present in the melody in a song from popular music is somehow

a foreign information that are not typically found in Classical piano music. Syncopation is widely present in individual instrumentation which simultaneously create multiple rhythmic stresses. Stress is also variable in duration, according to LaRue (2011). Release of tension can be achieved with rests, but the release could also not necessarily occur instantaneously. A larger stress can be emphasized by grouping notes as a phrase, as shown in Figure 3. LaRue (p.90) concludes that rhythm results from changing combinations of duration and intensity within all elements and dimensions of Growth.



(a)



(b)

Figure 3. Rhythmic representation

- a) The excerpt illustrates highly syncopated rhythm of the melody. The disjointed notes separated by multiple sixteenth rests require an active engagement of counting involving subdivisions.

- b) This counterpoint excerpt also illustrates highly syncopated rhythm, where the pattern of articulation does not present any coordination with the articulation of the melody.

Growth

The change in combination of instrumentations can be considered as a form of new event. When new instrumentation is added or omitted from the existing state, it fulfills or denies expectations by confirming, reducing or intensifying, according to LaRue (2011). Omitting certain instrumentation, although audibly absent, can still have an effective role indicating a sense of growth with the development of instrumentation. In order to perform a thorough examination of the development of instrumentation throughout the original song, I implemented active listening as a method to mark distinct instrumentations that were audibly apparent. In addition to the lead vocal that carries the melody, six other distinct instrumentations were realized and recorded - totaling seven uniquely sounding instrumentations. While it is certainly possible that the original song may have been composed with more instrumentations, active listening exercise is more concerned with recognizing instrumentations that are distinctly audible, as practicing improvisation through popular music is focused on recreating and reproducing a similar a sense of fullness that the original song carries on piano. In order to interpret the changing timbre in each section of *Closer*, I had varied the range of register covered to emulate the degree of thickness of timbre. The coverage of varied register helps to create a sense of growth as one collective sound as the performance progresses. Change in dimension is shown in Figure 4 to illustrate the timbral growth process in the artistic piano interpretation of *Closer*. Similarly, change of register to emulate timbral shift serves function as musical narrator that guides the listener along the musical journey. Furthermore, LaRue (2011) states that true

peaks and lows affect the main structural line itself, which we trace in the register that yields the greatest continuity of general impression rather than by hopping wildly between registers as the orchestration changes (p.72).

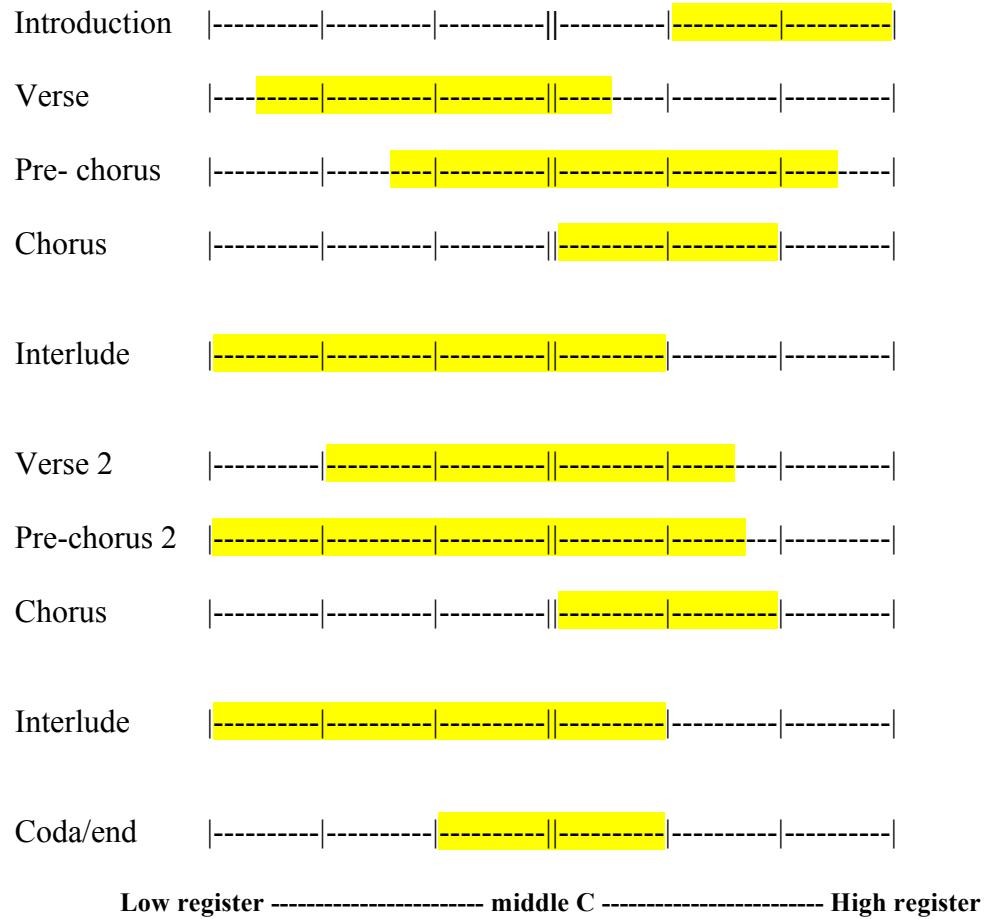


Figure 4. Change of register as an indication of timbral shift

A visual map of registration shift in each section in the artistic piano interpretation performance of *Closer*. The horizontal axis represents a keyboard layout, where the separators indicate new octaves (left: lower register/ right: higher register). In comparison to a widely known classical music structure such as sonata form (exposition, development, recapitulation), structure of popular music is often split into more sections that are shorter in duration. *Closer*

consists of 10 distinct sections that make up the structure of this particular song. While the melody remains identical note-wise in the verse and chorus section, the shift of register could represent contrasting narratives told from each singer's perspective that expresses different thoughts. Change of register also marks a new section within the structure as an indicator of growth as the song unfolds with time.

On LaRue's style analysis

According to LaRue (2011, p.232), SHMRG approach effectively groups stylistic observations in advance, making the comparison and evaluation of any two works, even of two entirely different eras possible without lost effort on preliminary sorting of characteristics. LaRue mentions that the core of Classic music is coordination, as exemplified in the works of great composers such as Mozart or Beethoven (p.233). As contrast, if considering the music of Debussy, carefully graduated color contrasts often produce more sense of movement than do harmony, rhythm or melody.

When it comes to analyzing the style of popular music, the contributing elements that help define Growth presents novel challenges, as timbre serves as an important key element that is present throughout the entire song. In romantic music concentration (S emphasis) - and in early music such as plainsong (M emphasis) and recent music such as electronic tapes (S emphasis) - the predominance of one or another single element demands horizontal analytic procedure developed to illuminate the controlling element rather than a coordinated analysis by dimensions (LaRue, 2011, p.233). Based on the direction (horizontal or vertical) of pathway that different pieces of music are analyzed from, it seems blurred at times whether what is being evaluated or compared is the style analysis of music itself, or the composers.

DISCUSSION

Introducing popular music to classical musicians

According to Allsup (2011), classically trained music teachers bring a certain hesitation to popular music, despite the general enthusiasm that popular music has become a growing area of music study. Allsup further states a danger that exists with classical musicians, that a common strategy associated with the teaching of popular music that it is a useful way to help young students create a bridge to classical music, essentially tricking students into liking classical music by working backward (p.31). This is an approach that goes entirely against any one of instructional design perspectives mentioned in the earlier section. In other words, to the eyes of classical musicians, popular music is viewed as a medium that a student knows and likes, and ultimately aims to end with what the teacher knows and likes. Perhaps it is a sense of exclusive pride that classical musicians carry, assuming that “classical music is somehow more valuable than popular music, and that popular music is unworthy of study in its own right, and that by some difficult and roundabout journey, that students can learn to appreciate, through exposure, a finer “elevated” experience - like learning to enjoy oyster or fish eggs” (p.32). Manen (1997) states that the broad field of phenomenological scholarship can be considered as a set of guides and recommendations for a principled form of inquiry that neither simply rejects or ignores tradition, nor slavishly follows or kneels in front of it (p.18). There requires a bridge that can travel both ways to prevent “tricking” classical musicians to take interest in popular music, and vice versa.

Manen (1997) further emphasizes the point with the concept of validating circle of inquiry, that in order to become adept at the validating process one has to learn to insert oneself in the

tradition of scholarship in such a way that one can become a participating member of the tradition (p.27).

Interpretation-based improvisation

Given that a phenomenological description is always one interpretation, and no single interpretation of human experience will ever exhaust the possibility of yet another complementary, or even potentially richer or deeper description (Manen, p.31), popular music can be approached as a medium that classically trained pianists, or any piano enthusiasts for that matter, can utilize as the ground model for exploring interpretation-based learning. Just as there is no way of concretely evaluating how a person listens to a song, there are infinite number of ways of interpreting the same song by different people.

Composition-based approach of learning improvisation can be a challenge because classical and popular musicians tend to hear, see, and conceptualize harmonic motion differently (Allsup, 2011, p.32), not due to their fault by any means, but because classical musicians have never had much experience in educational scenarios that fall outside the master/apprentice model.

Instead, interpretation-based improvisation is an approach that more classical pianists would be less hesitant about when it comes to approaching an unfamiliar zone. Just as visual artists first learn to draw by imitating works by other artists, interpretation welcomes the unfamiliar process of improvisation by incorporating a familiar form of practicing classical music. When I used to take classical piano lessons and was given a new piece to work on, I usually sought for a DVD recording performed by a professional pianist. Watching and listening to another pianist perform the same piece gave me clear ideas on how the music *should* sound,

the posture that matched the performance that appropriately portrayed the composer in imagination, and the duration of rests and longer pauses to fully appreciate the purpose of certain moments of silence that I wanted to rush at times. As no one pianist's performance could sound identical to another pianist, watching the DVD served as a great source for me to interpret the piece that had been previously performed by another artist into my own performance. While imitative dimension was certainly not absent during the process of watching and listening to another performer's version, it is also true, that if another artist watched the same DVD, that his or her ultimate interpretation would be different even though the piece may be identical. This interpretation-based approach of learning classical music welcomes the opportunity for the interpretation process to lead with a sense of reliability in one's expressiveness. My expressive interpretation was being validated by having it compared to another master performance example. Unless a composer is alive or if there is a recording of the great classical composers that are available, it is simply impossible to know how these classical composers, such as Mozart and Beethoven truly meant for their master pieces to be performed. One can argue that the terms arranging and improvising may be interchangeable, but Elliott (2015) clearly states the difference, that arranging includes different types of composing-based musicing such as editing, transcribing, harmonizing, orchestrating as opposed to improvising, which involves both performing and composing aspect. Furthermore, improvisation requires being able to cultivate and call on various memory system, including implicit memory, explicit memory, declarative memory, and procedural memory (Elliott, 2015).

Interpretation-based improvisation using popular music

The general notion claimed by classically trained musicians, such as Scruton (1996), says Green, that learning popular music does not require disciplined study compared to learning classical music is a simplistic conclusion that lacks evidence. However such short-sighted claim also affords a place for its existence largely due to the unsolved, ongoing challenge behind rethinking the fundamentals of traditional music education by bringing popular music to school. Allsup (p.33) further supports the reason behind the difficulty of implementing popular music in school by stating that it is not popular music that is the problem, but actually the opportunity itself, a chance to test out a new way of teaching and learning music.

How to listen

Listening to popular music could refer to two very different experiences. One approach is to listen to a song as one collective work: the melody of a song dominates the sound despite the presence of multiple instrumentations that carry their distinct characteristics in terms of texture of sound, harmony, rhythm and even a sub-melody line of its own that does not clash with the dominating melody line. This approach could be compared to listening to a classical symphonic piece. The listener is not necessarily distracted by the presence of individual instruments in an orchestra, and the listener is submerged within the “fullness” of sound that satisfies the overall listening experience. The subtle movement of the body or head is synchronized with the downbeats of a song, and the movement also feels natural as the feeling does not go against what keeps the sound grounded. Another approach is to listen to a song by aurally manipulating different instrumentations that are present within the song. This approach requires what I refer to as active listening, as listening involves going much deeper and wider in depth that goes beyond

navigating the clearly identifiable melody line. When listening to a song, one rarely has to question what the melody of the given song is, as it is simply indicated by what the singer sings. Active listening demands profound speculation of ear training where one must be able to keep the focus on following the same instrumentation sound without letting sounds from other instrumentation interfere the listening process.

Interpretation-based improvisation practice using popular music is distinct from a type of music arrangement, abundantly found on web video platforms such as YouTube. Commonly referred to as ‘piano covers’, there are thousands of videos of people that share their arrangement of trending popular music. The ones that share cover videos on the web possess varying degree of piano skills, some that are classically trained, and also those that are amateur musicians that may simply enjoy exploring selectively chosen songs from popular music as solo piano renditions. Utilizing active listening approach provides the learner with a wealth of musical information that exists in each instrumentation. The process can be compared to listening to an orchestral piece, and attempting to notate what is being heard in each instrumental section. Manipulating specific instrumentations present in popular music, while varying largely in terms of timbre, can play a significant role that helps the learner with recognizing distinguishable sounds that are present in a song. In other words, the contrasting instrumental sounds that are being used in much of popular music are not necessarily bundled to fit within a category that belongs to one bigger instrumental family. For example, a piece of classical orchestral music usually consists of a family of instruments that are defined by timbre, such as strings, brass, and woodwinds. String instruments include multiple instruments, such as violin, cello, viola, and double bass, that are not necessarily readily distinguishable from one another, as one instrument can decide to play notes that are in the higher or lower register than its normal range.

CONCLUSION

Limitation of technology: Notation *by* technology vs. *through* technology

Given the latest developments in music technology, finding a healthy balance between the utilization of technological tools and teaching/learning improvisation becomes crucial to foster a better understanding of music without letting the tools invade as sources of distraction. While utilizing technology to explore the field of improvisation serves as a convenient tool, the computer software's inability to distinguish the movement between two hands when converting live playing into notation results in inaccurate visual representation, as shown in Appendix B.

Learning to listen

Moreover, analyzing an improvised performance through notation demands advanced ear training skills that require a heightened listening experience to explore Sound, Harmony, Melody and Rhythm. Teaching improvisation in a sense can seem tedious, as the varying degree of musical interpretation can lead to infinite variety of improvisation results. I believe strongly that diving into the field of music improvisation largely starts with students to explore and experiment with multiple musical elements rather than teachers that lead with explanation and demonstration.

Approaching an unfamiliar zone through familiar practice

Implementing popular music as a medium for learning improvisation skills for classically trained musicians is a wonderful way of approaching an unfamiliar field of knowledge as an application-based form of learning. Sarath (2014) also resonates the significance, emphasizing

that contemporary improvisers-composers-performers whose roots can be traced in part to the European classical tradition will be able to view the European classical tradition and its treasures through a wide-angled, globally oriented, and creativity-based lens.

Sound human science research helps those who partake in it to produce action sensitive knowledge (Manen, 1997, p.21). Afterall, auditory is a key sensory that allows us to distinguish music from other forms of art, such as visual art. Rather than simply learning to play the piano as a mechanics- focused goal, interpretation-based approach of learning improvisation allows the learner to gain a deeper understanding of music that goes beyond touching the surface. Popular music also allows the opportunity for pianists to develop their ear training. Creativity and diversity would then be integrated within the music education curriculum, which helps to broaden the purpose behind acquiring special music knowledge that goes beyond learning technical skills.

Improvisation as application-focused learning

When I had first learned about Green's How Popular Musicians Learn: A Way Ahead for Music Education (2002), I recall initially feeling displeased with the way the title had been written that made it sound like another category that had been created to define musicians by genre. Once I read the book and learned about her acknowledgement of lack of resources for popular music learning, it came to me as no surprise to learn that most popular music learners actually acquired their skills and knowledge outside formal music education. How I went about developing and learning improvisation skills in the later years also came from exploring and seeking challenges by engaging in various non-music-related activities. It was not until I decided to actively step out of my comfort zone of learning classical music from the books, that I finally

discovered what it was that led me to have more control over my musical abilities more than ever before. I realized that letting go of my fear and turning those uncertain feelings into action was a very similar feeling I had when I was forced to sight-read music for the singers I had never rehearsed with in my elementary school's singing competition. There was no turning back.

APPENDIX A: Closer (lyrics) - The Chainsmokers (Taggarti, 2016)

Verse 1:

Hey, I was doing just fine before I met you
I drink too much and that's an issue but I'm okay
Hey, you tell your friends it was nice to meet them
But I hope I never see them again

Pre-chorus 1:

I know it breaks your heart
Moved to the city in a broke down car
And four years, no calls
Now you're looking pretty in a hotel bar
And I can't stop
No, I can't stop

Chorus 1:

So baby pull me closer in the backseat of your Rover
That I know you can't afford
Bite that tattoo on your shoulder
Pull the sheets right off the corner
Of the mattress that you stole
From your roommate back in Boulder
We ain't ever getting older

Interlude:

We ain't ever getting older
We ain't ever getting older

Verse 2:

You look as good as the day I met you
I forget just why I left you, I was insane
Stay and play that Blink-182 song
That we beat to death in Tuscon, okay

Pre-chorus 2:

I know it breaks your heart
Moved to the city in a broke down car
And four years, no call
Now I'm looking pretty in a hotel bar
And I can't stop
No, I can't stop

Chorus 2:

So baby pull me closer in the backseat of your Rover
That I know you can't afford
Bite that tattoo on your shoulder
Pull the sheets right off the corner
Of the mattress that you stole
From your roommate back in Boulder
We ain't ever getting older

Interlude:

We ain't ever getting older
We ain't ever getting older

Coda/ending:

So baby pull me closer in the backseat of your Rover
That I know you can't afford
Bite that tattoo on your shoulder
Pull the sheets right off the corner
Of the mattress that you stole
From your roommate back in Boulder
We ain't ever getting older
We ain't ever getting older (we ain't ever getting older)
We ain't ever getting older (we ain't ever getting older)
We ain't ever getting older (we ain't ever getting older)
We ain't ever getting older (we ain't ever getting older)
We ain't ever getting older

We ain't ever getting older
No we ain't ever getting older

APPENDIX B: Notation of Closer: complete instrumentation analysis for piano

Closer: complete instrumentation analysis for piano

J = 100

01:00:00:00
1,1
Marker ##

INTRODUCTION

Lead Vocal

Layer 2

Layer 3

Layer 4

Layer 7

Layer 2

Layer 3

Layer 4

Layer 7

1 2 3 4 5 6 7 8 9 10

VERSE 1

2

5

Lead Vocal

Lower Lead Vocal

Layer 2

Layer 3

Layer 6

Layer 7

Lead Vocal

Lower Lead Vocal

Layer 2

Layer 6

Layer 5

Layer 7

//

3

PRÉ-CHORUS 1

13

Lead Vocal

Layer 6

Layer 4

Layer 7

Lower Lead Vocal

Layer 6

Layer 4

Lead Vocal

Drone

Layer 7

17

CHORUS 1

4

=

22

Lead Vocal

Lower Lead Vocal

Layer 6

Drone

Layer 7

Lead Vocal

Lower Lead Vocal

Layer 6

Layer 4

Layer 5

Drone

Layer 7

27

INTERLUDE

//

31

Lead Vocal

Lower Lead Vocal

Layer 6

Layer 4

Layer 7

34

Lead Vocal

Lower Lead Vocal

Layer 6

Layer 4

Layer 7

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