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Metal Mayhem to Music Theory: The Use of Heavy Metal Music in Collegiate Music Theory Instruction

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METAL MAYHEM TO MUSIC THEORY: THE USE OF HEAVY METAL MUSIC IN
COLLEGIATE MUSIC THEORY INSTRUCTION

by

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METAL MAYHEM TO MUSIC THEORY: THE USE OF HEAVY METAL MUSIC IN
COLLEGIATE MUSIC THEORY INSTRUCTION

Weston Michael-Andrew Bernath, M.A.

Western Michigan University, 2020

Heavy metal music is excluded from the common music theory textbooks used in the current undergraduate basic musicianship sequence. Metal is a genre of music designed as scary music that is heavy sonically. Metal is valuable as a tool for the preponderance of social issues and advocacy for social and environmental justice. Its compositional content samples across the common practice period through the twentieth and twenty-first centuries. In addition to providing enhanced perception and clarity in lecture examples, metal provides performance practice elements and metal-specific aesthetic characteristics that add new theoretical studies to the standard theory curriculum. Metal challenges students to consider contemporary music analysis techniques based on timbre, texture, orchestration and non-traditional performance methods that span the spectrum from popular to art music. A series of lessons derived from the learning objectives within the common music theory course curriculum has been created for reference and example.

ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

Rationale

A music theory sequence covers the elements and practices of primarily art music from the past to instill soon-to-be professional musicians with the knowledge and skills needed to understand its composition and function. These necessary covered theoretical concepts exist in a myriad of genres beyond the common practice period and twentieth century.

Heavy metal, one such genre that has existed for half a century, contains numerous beneficial music aesthetics specific to the genre that provides students with greater instructional material than that in the standard curriculum. Matthew Brubitzer-Stull's article, "Contention in the Classroom: Encouraging Debate and Alternate Readings in the Undergraduate Theory Class," claims that "engaging students in discourse designed to hone their analytic thinking skills will allow for greater interaction in the classroom and greater variety in written work."[1] Metal music supplies a variety of these theoretic discourses through a repertoire that provides a multitude of functional musical parameters. Some of these beneficial instructional attributes may provide clarity in moments where the traditional repertoire may fail to fully enlighten collegiate music students, especially when exploring musical parameters beyond melody, harmony and time/order. The repertoire offers social value in its ability to convey the existence of significant crises and advocate

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1. Matthew Brubitzer-Stull, "Contention in the Classroom: Encouraging Debate and Alternate Readings in the Undergraduate Theory Class," *The Journal of Music Theory Pedagogy* 17 (2003): 21-22.

for issues of social justice. The genre's repertoire is currently excluded in the common music theory textbooks. Metal music is valuable instructional material for the collegiate music theory curriculum as it contains an abundance of compositional characteristics beneficial for student learning that ought to be included in the music theory textbooks.

The Contents of Music Theory Textbooks

Music theory textbooks and curricula lack integration of non-art music (and for that matter, non-European music), the music of cultural diversity and music content variety. Philip Ewell, current Vice President of the Music Theory Society of New York State and associate professor of music at the City University of New York, addresses and dissects diversity issues currently facing the music discipline in his 2019 *Society for Music Theory* plenary presentation, *Music Theory's White Racial Frame*.[2] In this presentation, Ewell addresses the white-dominant nature of music theory content and the dismissal of Schenker's racist beliefs and how they impact the hierarchies of tonal relationships as parallel to racial hierarchical orders of superiority. In the data he presented on the percentage of music examples by non-white composers in the seven most common American music theory textbooks (by market share), he found that, on average, only 1.67% of the examples used are by non-white composers. He additionally argued that simply adding music of greater diversity, while still adhering to the over-privileging of harmony and tonal functionality study in the curriculum and nulling the value of largely non-Western Common Practice Period musical parameters, does not solve the problem of content diversity and cultural inclusivity.

In my analysis of music theory textbooks, four of which Ewell included in his analysis including *Tonal Harmony, with an Introduction to Post-Tonal Music* (29% of the market share), *The Musician's Guide to Theory and Analysis* (25% of the market share), *The Complete Musician: An Integrated*

2. Philip Ewell, "Ewell-SMT-Plenary," Vimeo (November 12, 2019).

Approach to Tonal Theory, Analysis, and Learning (8% of the market share) and *Harmony & Voice Leading* (5% of the market share), I found similar trends in regards to the inclusion of non-art music beyond the Western European-based tradition.[3] *Tonal Harmony*, the most popular American music theory text used in collegiate music theory programs, primarily contains musical content of the common practice period and to a lesser extent of the twentieth century. Of the few examples of non-art music curricular contents, the textbook includes a jazz tune by Charlie Parker, a selection from *The Godfather II*, Scott Joplin's "Fig Leaf Rag," Lionel Hampton's "Red Top" and a seldom few others.[4] Two other theory lesser popular textbooks, *The Complete Musician* and *Theory for Today's Musician*, likewise contain a vast majority of common practice period music.[5] These two texts similarly contain only a small minority of musical theatre, jazz and popular music examples such as Billy Joel's "The Longest Time." Though including non-common practice period repertoire gives instructors and students the possible opportunity to explore these genres, these examples are few and far between, failing to comprehensively explore the value and extent of their contrast to content that favors harmony and tonal functionality over other valuable musical parameters such as texture and timbre.

Some textbooks offer chapters and brief explorations of popular music and non-art music genres. The popular American textbook, *The Musician's Guide to Theory and Analysis*, offers a chapter of specifically dedicated to non-art music song theory in its chapter twenty-six, "Popular Song and Art Song" covering topics such as pentatonic and blues scales, ninth and sixth chord implications, twelve-bar blues, mode mixture chords and chords with altered fifths.[6] Although this chapter is

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3. Ewell, "Ewell-SMT-Plenary" (2019).

4. Stefan Kostka, Dorothy Panye, and Byron Almen, *Tonal Harmony, with an Introduction to Post-Tonal Music*, 8th ed. (New York: McGraw-Hill Education, 2018): 667-670.

5. Steven G. Laitz, *The Complete Musician: An Integrated Approach to Tonal Theory, Analysis, and Learning*, 3rd ed. (New York: Oxford University Press, 2012): 872-875; Ralph Turek, *Theory for today's musician* (New York: McGraw-Hill, 2007): 793-807.

6. Jane P. Clendinning and Elizabeth W. Marvin, *The Musician's Guide to Theory and Analysis* (New York: W. W. Norton & Company, Inc., 2005): 508-573.

quite insightful, it is a stand-alone chapter out of thirty-seven in the textbook and like the other textbooks previously-mentioned, it likewise does not adequately represent the complexity and depth as well as diminish the value of non-art music by only including this brief overview of their theoretical contents. One less prevalent textbook, *Music Theory for the Music Professional: A Comparison of Common Practice and Popular Music*, attempts to incorporate popular music concepts and examples into its theory curriculum at a greater frequency than the previously mentioned texts.[7] Unfortunately, textbooks like *Music Theory for the Music Professional* are not the norm; the majority contain seldom to no genre-specific concepts and examples of non-common practice period and/or non-art music origin.

Rather than integrate the genres more regularly in the texts, these instances of including non-art music genres tend to act as stand-alone topics apart from the general collegiate theory curriculum. Even among these few attempts to include non-common practice period and non-twentieth century art music into the music theory curricula, heavy metal music, which offers content that values a variety of music parameters, is ignored entirely in the textbooks reviewed here.

Heavy Metal Overview

Heavy metal is a genre of music designed as scary music that is heavy sonically and has existed in the mainstream popular music sphere with varying degrees of popularity since its inception in the late 1960s/early 1970s. The 2001 article in *New Grove Dictionary* on heavy metal by Robert Walser defines metal as,

> A term used since the early 1970s to designate a subgenre of hard rock music. From the nineteenth century it had been used to refer to artillery or poisonous compounds. During the 1960s, British hard rock bands and the American guitarist Jimi Hendrix developed a

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7. Richard Sorce, *Music Theory for the Music Professional: A Comparison of Common Practice and Popular Genres* (New York: Ardsley House Publishers, Inc., 1995).

more distorted guitar sound and heavier drums and bass that led to a separation of heavy metal from other blues-based rock.[8]

His same entry on Black Sabbath, the band who both titled and demarcated the aesthetics of the genre, further describes the band and their genre as "something separate from rock" as they moved "away from such topics as love, sex, partying and masculine strutting to brooding lyrics that dealt with evil, war, pain and drug addiction."[9] In the five decades to follow, metal has continued to expand as new bands emerged and adopt their aesthetics, further refining the music to be ever heavier, hitting its most recent height in popularity into 2000s decade with the band System of a Down ranking as number eight on the TOP40WEEKLY.COM *Top 100 Artists of the 00's*.[10] As with its origins in rock, blue and classical styles, the compositional techniques of these genres as well as new techniques designed to serve the heavy and dark aesthetics of metal are all contained within the genre.[11]

Metal, from its inception as scary music, has existed as music of thought often acting as a means of exploring subject matters of great significance and social ignorance.[12] Metal seeks to increase awareness of issues of concern for the public such as looming doom, government corruption, warmongers, aristocratic control, mental health, genocide and in recent years, environmental destruction, pollution and climate change. By eliciting awareness, it additionally advocates for social change through encouraging action. As the genre expanded during the late 1980s and 1990s, groups and artists began exploring topics of social justice for underprivileged persons including women, persons with mental illness, soldiers, the poor and disparaged cultures. In its end goal to challenge the mind and scare its listeners, metal has concentrated the most intense

8. Robert Walser, "Heavy Metal," *Oxford Music Online* (January 20, 2001, Accessed January 21, 2020).
9. Joel McIver, *The Complete History of Black Sabbath: What Evil Lurks* (New York: Race Point Publishing, 2016): 15-24; Robert Walser, "Black Sabbath," *Oxford Music Online* (January 20, 2001, Accessed January 21, 2020).
10. "Top 100 Artists of the 00's," TOP40WEEKLY.COM (2019, Accessed 21 January 2020).
11. Robert Walser, *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* (Wesleyan University Press, 2014): 104.
12. Chris Ayres and Ozzy M. Osbourne, *I am Ozzy* (New York: Grand Central Publishing, 2009): 82.

and drastic elements of all musics in a manner unseen before its inception. As a result, metal provides us with a myriad of musical contents non-existent in standard common practice period music.

Thesis Goals

To accomplish the task of advocating for heavy metal's inclusion in the music theory curriculum, I will begin in *CHAPTER II: GENRE BACKGROUND* by identifying its origins and defining its unifying compositional aesthetics using the academic sources currently present in its study. I will follow this with an analysis of metal's value as a music genre of advocacy and awareness as well as will problematize the genre's multifaceted relationship with society and gender manifestations. In terms of music theory, in *CHAPTER III: MUSIC THEORY APPLICATION*, I will discuss the specific instances in which metal may enhance the curriculum by serving as more effective teaching content in the collegiate music theory curriculum, citing both repertoire examples and specific instances in common music theory texts where the contents are best included. Next, I will define and discuss the meanings in which metal-specific music theory attributes can add to the current curriculum providing relevancy for aspiring professional musicians in the current twenty-first century environment. After exploring these concepts, I will provide multiple appendices containing a sample syllabus integrating these theoretical concepts, lesson plans/in-class activities, an example assignment and a list of useful metal repertoire for theory instructors. I am not suggesting that metal music replace all of the current curriculum repertoires. My goal here is to advocate for the inclusion of metal music in the basic music theory curriculum for the benefit of relevant instruction.

Terminology

Throughout this discourse on metal's inclusion in the music theory curriculum, it is necessary that the terms of various genres, styles and music periods must be defined for this thesis:

- The term *common practice period* is used frequently to describe the Baroque, Classical, Romantic and early tonal Twentieth-Century Era, roughly spanning from the beginning of the Baroque period around the year 1600 to approximately the beginning of the Second Viennese School founded by Arnold Schoenberg around the 1910s.[13] These works usually maintained specific social roles among the performer, composer and audience as well as specific etiquette surrounding their interactions. This term will be abbreviated as *CPP*.

- *Twentieth century art music* refers to the high art music composed during the twentieth century encompassing Neoclassicism, Free "Atonalism," Serialism, the Avant-garde movement, Musique Concrète, Minimalism, Postminimalism, electronic music, acousmatic music, soundscapes, sound art and any other genres conceived during this specific century to continue to build upon, modify or reject altogether the CPP music of the past. Music of this period may challenge the preconceived notions of music performance of enhancing attributes of the previous CPP. Music in this period spans the spectrum from the traditional composer-performer-audience order to compositions where these roles are challenged or shared.

- *Twenty-first century art music* is a chronological extension of *twentieth century art music*, encompassing ideas of the twentieth century, expanding on Postminimalism, electronic,

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13. J. P. Burkholder, Donald J. Grout, and Claude V. Palisca, *A History of Western Music*, 9th ed. (New York: W. W. Norton & Company, Inc., 2014): 288, 812-816.

acousmatic, electro-acoustic, sound art, soundscape, noise-based music and any other genres
or styles practiced for sake of art and in the academic sphere.

- *Non-common practice period* will refer to any music style or genre that does not fit into the
  category of what was previously defined as *CPP*. This term will be truncated to *non-CPP*.

- *Art music* is defined as music that was created for the intention of serving an artistic purpose;
  this refers to music that emulates challenges, enhances or mirrors the human experience
  and/or expression. Collectively, this includes *CPP*, *twentieth century art music* and *twenty-first
  century art music*.

- *Popular music* includes all music that has been created for general consumers and mass public
  enjoyment, intended for an audience of musically-uneducated individuals.[14] For this
  discussion, it will include the genres *rock* and *metal* as well as other related music styles
  popular to the public, including the hip-hop genres, popular country music, rock music,
  metal music, pop music, popular electronica music, movie and television soundtracks, video
  game music and any tunes popular to the public during the twentieth- and twenty-first
  century.

- *Rock* refers to a specific music genre in the overarching *popular music* category. *New Grove
  Dictionary* defines rock music as consisting of an ensemble of guitar, bass guitar, vocals, drum
  set and sometimes keyboard combining white-appropriated blues and rock'n roll music
  styles. The music style often includes "backbeat" snare hits and repeated subdivided
  rhythms to establish a groove with the bass guitar, rhythm guitar chordal accompaniment
  often using a distortion/overdrive effect, a lead guitar playing melodic lines and solos often
  distorted/over-driven as well and often harsh vocals, both shouted and sung. The genre is

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14. Richard Middleton, and Peter Manuel, "Popular music" (*Oxford Music Online*, January 13, 2015).

rooted in beliefs of rebellion and public accessibility often including themes of rebellion, sex, love, drugs, strength, aggression and masculinity. The genre encompasses the subgenres of hard rock, psychedelic rock, alternative rock and blues rock.[15]

- *Heavy Metal* refers to a specific music genre in the overarching *popular music* category comprised of qualities described in *CHAPTER II: GENRE BACKGROUND*, as differentiated from its origin genre, *rock* and blues music. More information will be disseminated on the specific aesthetic qualities and historical progression of the genre in *CHAPTER II: GENRE BACKGROUND, Origins and Compositional Aesthetics*. This term will be referred to simply as *metal*.

These definitions do not come without problem nor controversy, as the reasoning behind designating music as either *art music* and *popular music* alone contains a lengthy discussion on the natures of each as well as the issues around overly-compartmentalizing artwork. However, these terms must be clearly delineated to accurately discuss the implications of music content used in music theory texts and instruction for the sake of this conversation. This term list is not by any means inclusive of all musical styles, just those relevant to this exploration. The specific aesthetic qualities of metal music will be described and defined in detail in *CHAPTER II: GENRE BACKGROUND*, where the attributes of this specific genre will be explored in addition to its chronological development.

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15. Susan M. Fast, "Rock" (*Oxford Music Online*, January 31, 2014).

CHAPTER II

GENRE BACKGROUND

Origins and Compositional Aesthetics

Before discussing the use of metal music in the theory curriculum, the compositional aesthetic elements defining the genre must be determined. Particularly, there exists confusion about the separation of metal versus hard rock and rock music as a whole by those unfamiliar with either rock or metal music. Metal possesses specific characteristics not found or found seldom in rock music that benefit specific elements of music theory instruction. To simply group it together under an umbrella category of "rock music" would undermine the defining aesthetic principles which define the genre, its social value, its impact and its musicality. In this chapter, I will be conducting a brief survey of the origins of metal music from known academic texts and add new information from newly-published primary sources. I will then briefly discuss, based on its origins, its aesthetic development over the past half a century. The purpose of this survey is to demarcate the specific musical aesthetics which make metal its own clearly defined genre.

Origins of the metal genre trace back to the rock and blues music of the 1960s with further development during the 1970s. The first mention of the term "heavy metal" in music occurred in the Steppenwolf song "Born to be Wild" in 1968 when singer John Kay aggressively sings "heavy

metal thunder" about the roar of a group of motorcycles.[16] Rock and metal music expert Robert

Walser, in his *New Grove Dictionary* article on the genre, states the following as to the origins of the

genre:

> During the 1960s, British hard rock bands and the American guitarist Jimi Hendrix
> developed a more distorted guitar sound and heavier drums and bass that led to a
> separation of heavy metal from other blues-based rock. Albums by Led Zeppelin,
> Black Sabbath and Deep Purple in 1970 codified the new genre, which was marked
> by distorted guitar 'power chords', heavy riffs, wailing vocals and virtuosic solos by
> guitarists and drummers. During the 1970s performers such as AC/DC, Judas Priest,
> Kiss and Alice Cooper toured incessantly with elaborate stage shows, building a fan
> base for an internationally-successful style.[17]

Walser credits the groups Led Zeppelin, Deep Purple and Black Sabbath for establishing the

foundational aesthetics of the genre. His claim is that general aesthetic shared by these individuals

of metal's early years included four unifying characteristics: (1) the electric guitar with a distortion

effect playing chords built, (2) songs based on repeated "riff" motives, (3) "wailing vocals"

consisting of tense vocal hyperphonation in often high ranges for the male singers of those bands

and (4) guitar and/or drum solos. Walser mentions other groups including AC/DC, Alice Cooper,

Judas Priest and Kiss whose "elaborate stage shows" further encouraged the genre followed by Van

Halen in the 1980s continuing the trend.[18] Esa Lilja, in his 2009 dissertation on metal music, *Theory*

and Analysis of Classic Heavy Metal Harmony, mirrors Walser's crediting Led Zeppelin, Deep Purple and

Black Sabbath with creating metal putting them in the category of "Early Heavy Metal (ca. 1969-

1976)." Moreover, he mostly agrees with Walser's views on the primary aesthetic of metal, yet

argues that The Beatles and their song, "Helter Skelter" from their 1968 *White Album* as it suggested

a heavy distorted guitar sound with an even, strong drum beat.[19] Ian Christe's book, *Sound of the*

Beast: The Complete Headbanging History of Heavy Metal, likewise agrees with Walser and Lilja's crediting

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16. Christe, *Sound of the Beast: The Complete Headbanging History of Heavy Metal* (2004): 10.
17. Walser, "Black Sabbath" (2001).
18. Walser, "Black Sabbath" (2001).
19. Esa Lilja, "Theory and Analysis of Classic Heavy Metal Harmony," Ph.D. diss., University of Helsinki (IAML Finland, 2009): 29-32.

Black Sabbath, Deep Purple and Led Zeppelin for solidifying the early metal aesthetics; however,

credits Black Sabbath as being the single band who "brought and embodied a revolutionary new

beginning."[20] Given these academic studies and referenced sources, new information since their

publishing further clarifies metal's origins.

Black Sabbath lead singer Ozzy Osbourne's autobiography, *I am Ozzy*, published in 2009 and

Black Sabbath lead guitarist Tony Iommi's autobiography, *Iron Man Tony Iommi: My Journey Through*

HEAVEN & HELL with BLACK SABBATH, published in 2014, offer more evidence as to the

origins of metal and the founding of its aesthetic principles.[21] These two fairly recent sources offer

further support to expand upon the current literature on metal. Osbourne claims that he, along with

Iommi and his other fellow bandmates Geezer Butler (bass guitar) and Bill Ward (drum set) were

influenced by a combination of blues music, jazz music, church music, a competition to be "heavier"

than the hard rock music of fellow contemporaries such as Led Zeppelin and the experimental

sound of the later albums of The Beatles.[22] To achieve the desired "heaviness" to their sound,

Iommi employed new methods of arranging of sonic materials between the guitar and bass guitar

parts as described in his autobiography when describing their recording sessions:

> My guitar and Geezer's bass have to very much agree with each other, to make the
> wall of sound. All of them just see a bass as a bass, dumm-dum-dumm, clean and
> neat. But Geezer's sound is more crunchy, more raw, and he sustains stuff and he
> bends notes the same as the guitar, to make it fatter. Some of them would try to get
> him to take the distortion away, and it would be like tum-tum-tum. 'Fucking leave it!
> It's a part of our sound!' It took a lot of convincing for people to understand that.
> They'd always separate the sounds as well. They'd hear the guitar on its own and go:
> 'Oh, it's so distorted!' 'I know! But play it all together as a band and see what it
> sounds like!' People couldn't grasp that we were a band that sounded good together,
> no matter how an individual player sounded.[23]

20. Christe, *Sound of the Beast: The Complete Headbanging History of Heavy Metal* (2004): 10-11.

21. Ayres and Osbourne, *I am Ozzy* (2009); Tony Iommi and T J. Lammers, *Iron Man Tony Iommi: My Journey Through Heaven and Hell with Black Sabbath* (Boston: Da Capo Press, 2012).

22. Ayres and Osbourne, *I am Ozzy* (2009): 82-83, 89-90.

23. Iommi and Lammers, *Iron Man Tony Iommi* (2012): 62-63.

The "wall of sound" Iommi and Geezer were creating was accomplished by playing the guitar and bass in perfect octaves or root-fifth guitar power chords with the bass guitar doubling the root one octave lower. The bright distortion of the guitar and bass guitar occupied the otherwise empty sonic space above the usual lower ranges of the two instruments, further contributing toward creating the "wall of sound" without needing more than a few instruments. The confusion experienced by these recording engineers in the early 1970s arose from when these two parts were separated from one another on differing channels or judged based on their removal from the whole; this new heavy metal sound obtained its heaviness when the whole group supported a singular motive in rhythm, color and pitch.[24] Walser supports this claim to metal's use of distortion in his 2014-updated book, *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* saying that "the most important aural sign of heavy metal is the sound of an extremely distorted electric guitar" and that "the relationship to distortion as power is familiar." Walser also adds that this means of creating heaviness is supported by the rhythmic doubling provided by the drum set.[25] An example of this guitar-layering-with-heavy-distortion compositional technique can be seen in the riff of the song, "Iron Man," from their second album, *Paranoid* (1970). As seen in *Figure 1*, the guitar plays the riff in parallel perfect fifths while the bass guitar doubles the root notes of the power chords one octave lower. To reduce the heaviness of the riff and give space for the vocals in the mix, the guitar only plays the root notes of the riff during the verse sections as seen in *Figure 2*. This voicing and distortion of the guitar and bass guitar, in combination with the drum part, creates the dense "heavy" textures found in metal music from its inception through half a century to today's metal music.

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24. For further reading, Esa Lilja's dissertation ("Theory and Analysis of Classic Heavy Metal Harmony," Ph.D. diss., University of Helsinki (IAML Finland, 2009): 101-151) elaborates on this concept further in the Chapter Four, "Characteristics of Distorted Chords and Their Effects on Harmonic Construction" explaining the musical function and acoustic sonic impact of metal's intense distortion on its music composition.

25. Robert Walser, *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* (Middletown, CT: Wesleyan University Press, 2014): 41-42, 173-179.

Figure 1: The riff for "Iron Man" consists of a diatonic B minor motive played in parallel perfect fifths with the bass guitar doubling the motive one octave lower. This perfect fifth and octave doubling, in addition to the distortion, make the motive sound "heavy." The electric guitar and bass guitar pitches sound one octave lower than the written note.

Figure 2: The verse material for "Iron Man" is the same as the riff material without the added perfect fifth above the motive, making it sound less "heavy." This reduction gives more sonic space for the vocals in the mix. The electric guitar and bass guitar pitches sound one octave lower than the written note.

In summary, metal as a genre exists with a specific collection of unifying characteristics as determined by the groups who collectively defined the genre from its conception. The academic sources agree that metal requires guitar/bass guitar distortion, songs based on repeated "riff" motives, harsh vocal timbres and instrumental virtuosity. The first true metal, Black Sabbath, defined the genre as being music intended to scare its audiences and sought to make the music sound heavy through the use of distorted guitar/bass guitar octave and perfect fifth layerings of riff

motives. The scary music aesthetic evolves into thought-provocative themes of socio-institutional criticism or awareness. This assessment and origin analysis of metal composition aesthetics is not all-encompassing of all metal music; each metal subgenre has its premises on achieving its individual aesthetic. This analysis of metal's historical and aesthetics origins exists for the benefit of those unfamiliar with metal's origins and unifying aesthetic elements and to support claims in *CHAPTER III: MUSIC THEORY APPLICATION.*

<div align="center">

Social Implications
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Social Value through Advocacy and Awareness

The 1970s: Scary Music

From its inception by its main pioneering band Black Sabbath, metal has differentiated itself from its parent genres of rock and blues in its intended social interpretation. This split began in 1969 when the members of the band decided that their music should be scary music created to frighten its listeners after observing long lines of people waiting to watch horror films in theatres. Before creating the songs that would later become part of their first album formally recorded and published in early 1970, singer Ozzy Osbourne recalled guitarist Tony Iommi saying, "Isn't it strange how people will pay money to frighten themselves? Maybe we should stop writing blues and write scary music instead."[26] With that decision, they additionally decided to rename their band from Earth to Black Sabbath, the same-named shared by the 1963 horror film titled, *Black Sabbath*. This name change consecrated their new scary direction.[27] Unlike rock music that developed alongside metal through the 1970s and 1980s, which focused themes of rebellion, sex, masculinity, love and

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26. Ayres and Osbourne, *I am Ozzy* (2009): 82-83.
27. Ayres and Osbourne, *I am Ozzy* (2009): 83-85.

care-free party life,[28] metal focused its thematic material primarily on subjects that frightened society. The early Black Sabbath albums, *Black Sabbath* (1970),[29] *Paranoid* (1970), *Master of Reality* (1971), *Volume 4* (1972) and *Sabbath Bloody Sabbath* (1973), cover themes of warfare (during this time, the Vietnam War was coming to a close while the Cold War persisted), mental illness, social rejection, the results of drug use/vices, social corruption, evil, black magic. Judeo-Christian Biblical events and Satanic themes. Each corresponding album art cover likewise depicted the frightening themes of their music as seen in *Figure 3* with the cover of *Sabbath Bloody Sabbath* (1973). Many of these themes scare the general European-American public afraid of the unknown, unable to grasp concepts still unfamiliar to science and the looming possibilities of apocalyptic desolation during the Cold War.
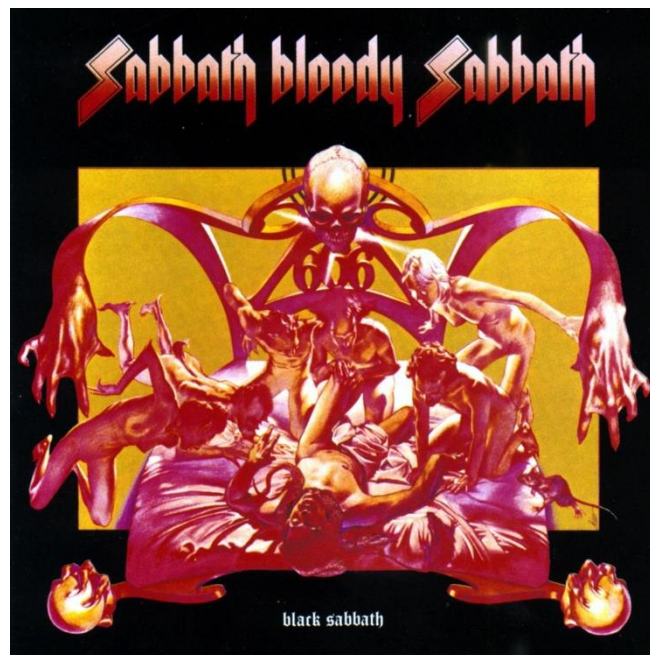
Figure 3: The cover art of *Sabbath Bloody Sabbath* (1973) depicts a scene where people are attacked helplessly by an abstract skeleton-like creature. The number 666 is seen in the middle of the art representing the presence of the devil's influence.

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28. Fast, "Rock," *Oxford Music Online* (2014).

29. *I am Ozzy* (page 85 and 91) adds that, due to the uncovering of the Charles Manson murders in 1969, the public was interested in scary macabre themes, ultimately aiding in the rapid sales of this first album.

This concept of social awareness through scary music continues strong in metal music as seen through the metal bands of each decade. Scaring people through a combined use of lyrical content and scary or dark musical content resulted in music that brought awareness to issues often ignored in society. Metal musicians found that their music was a space to bring awareness to the issues plaguing the same society whose efforts aimed to ignore; it is a space where the public can be scared into comprehending the severity of significant evils in our world. Metal's primary value exists in its ability to convey awareness to and state possible remedial action towards poignant social issues relevant to each of its respective period.

The 1980s: Socio-political Corruption Awareness, Institution Critiques, Evils and Inner Turmoil

Following the early years of Black Sabbath in the 1970s, another wave of metal bands continued the scary music tradition bringing new dimensions of social awareness. British metal band Iron Maiden released their first three albums, *Iron Maiden* (1980), *Killers* (1981) and *The Number of the Beast* (1982) in the early 1980s where they continued Black Sabbath's socially frightening music topics adding themes of folklore, exploration, history, murder and genocide. Songs such as "Run to the Hills" (1982) gives reference to the story of the systematic genocide and slaughter of Native Americans in the United States. "The Number of the Beast" (1982), in contrast, discusses an encounter with and the ever-looming presence of the devil in the world. Exploring such a variety of socially poignant themes encouraged others to do the same.

American metal band Metallic began releasing albums in the middle and late 1980s including *Kill 'Em All* (1983), *Ride the Lightning* (1984), *Master of Puppets* (1986) and *…And Justice for All* (1988). Metallica focused on themes of mass murder, death, mental illness, imprisonment, societal fears and socio-political issues such as government corruption. Songs such as "One" (1988) depicts the story

of a soldier who was severely injured due to an explosion and crippled, blinded and left unable to speak; "Disposable Heroes" (1986) likewise tells a story about a deceased young soldier and of the political corruption surrounding the reasoning for sending young men off to war. In contrast, songs like "Fade to Black" (1984) describe depression, solitude and suicide contemplation from a first-person perspective.[30]

Other metal bands from the 1980s including Megadeth, Anthrax, Slayer, Ozzy Osbourne in his solo career and Black Sabbath with their new lead singer Ronnie James Dio, using and adding to the dark and heavy aesthetics of metal, all contributed toward creating music around issues of warfare, governmental corruption, contradictory religious values, evils, mental illness, inner struggles and larger social injustices ignored by greater society. Much of the music created by these individuals gave space to discuss, bring awareness towards, criticize and advocate against permissible oppression via the means of greater governing institutions.

The late 1980s and 1990s: Self-awareness, Mental Illness, Social Rejection and Death

The late 1980s and 1990s brought new, heavier metal styles including the expansion of thrash metal, death metal which further augmented the previously-established heavy, dark metal aesthetics of the genre and nü metal which combined metal with hip-hop and gangster "reality" rap elements.[31] With the establishment of these new subgenres, new focuses on particular social issues existed to match. American thrash metal band Pantera published a series of albums challenging social perspective and social views: *Metal Magic* (1983), *Projects in the Jungle* (1984), *I Am the Night* (1985), *Power Metal* (1988), *Cowboys from Hell* (1990) and *Vulgar Display of Power* (1992). The song

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30. Brad Angle, Tom Beaujour, Richard Bienstock, Ian Christe, Brandon Geist, Chris Gill, Don Kaye, Jeff Kitts, Brad Tolinski, Mick Wall, Jon Wiederhorn, and Mikael Wood, "100 Greatest Metallica Songs" (*Guitar World*, March 2011, 33-84): 53, 46.

31. Ian Christe, *Sound of the Beast: The Complete Headbanging History of Heavy Metal* (New York: HarperCollin Publishers, 2004): 239-240; Chris McDonald, "Nü Metal" (*Oxford Music Online*, September 3, 2014).

"This Love" from *Vulgar Display of Power* (1992) juxtaposes mild sections of softer vocals and less guitar distortion with an aggressive, heavy section of strong guitar distortion and unison rhythms accented by the drums; "This Love" discusses self-reflections on a man's perverse abusive love for a woman, his regrets for his actions and desire for suicide. From the same album, the song "Mouth For War" speaks about using hate and frustration as feelings to motivate one to take productive action for change.

At the same time, Cannibal Corpse, in the newly-established Morbid Angel death metal style, created gruesome music involving brutality, suicide, murder, death and mass homicide/genocide in a series of albums. *Eaten Back to Life* (1990), *Butchered at Birth* (1991), *Tomb of the Mutilated* (1992), *The Bleeding* (1994), *Vile* (1996), *Gallery of Suicide* (1998), *Bloodthirst* (1999), *Gore Obsessed* (2002) and others to follow through the early twenty-first century contain songs which explicitly explore themes of death, dismemberment, homicide and gruesome themes involving the body. Such themes bring awareness to the brutality surrounding specific instances of harm and death; this heavier and more brutal metal subgenre created space for future metal bands to use to their benefits for future advocacy escapades.

Nü metal band KoЯn released a series of albums beginning in the middle 1990s which explored taboo themes of mental illness, self-harm, masochism, childhood trauma, social rejection and hazing by contextualizing them from a personal perspective. The albums *KoЯn* (1994), *Life is Peachy* (1996), *Follow the Leader* (1998), *Issues* (1999), *Untouchables* (2002) and *Take a Look in the Mirror* (2003) reflect on a variety of social and intrapersonal matters with details previous unseen by other metal bands. The song "Clown" from their eponymous first album speaks from the perspective of someone who was bullied immensely in school due to their social deviation. The chorus, repeated three times, the individual recalls the summation of violent and hateful encounters with the violent oppressors:

Try and hit me again if you like,
Throw your hate at me with all your might,
Hit me 'cause I'm strange hit me,
Tell me I'm a pussy and you're harder than me.
What's with you boy?
Think hard,
A tattooed body to hide who you are,
Scared to be honest, be yourself,
A cowardly man.[32]

Many of KoЯn's songs give an explicit description of similar encounters where social deviants are ridiculed by members of the "normal" social order. One such popular song, "Freak on a Leash" from their album *Follow the Leader* (1998), speaks about one's experience of isolation, inner conflicts and mental illness in detail chronicling their interpretations of their feelings which categorize them as a "freak." KoЯn insights awareness to the existence of individual trauma and resulting struggle and suffering through the use of explicit, descriptive lyrics in combination with gruesome metal and hip-hop musical aesthetics.

This new era of metal music explored further into personal inter struggles and conflicts minimally or not explored in the previous two decades of metal, bringing self and interpersonal awareness. The metal bands of the previous decade likewise explore some of these new concepts of manifested trauma while continuing the metal styles of the past. The introduction of new, heavier metal styles enabled the artists and bands the sonic capacity to express these personal deep struggles.

The 2000s and 2010s: Profound Crises, Social Justice and Environmental Destruction

The most recent decades in metal history have continued to expand upon the repertoire, aesthetics and issues of the past. However, the subjects addressed in this era have evolved to match the social and global issues of the new century and millennium; these topics are centered on multi-

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32. "Clown" from *KoЯn* (1994), Chorus text.

faceted social justice issues, further-exposing government corruption, challenging institutional control and global crises threatening the continuation of the Earth and life itself. System of a Down, the most popular metal band of the 2000s decade as mentioned in the *Introduction*, centered the vast majority of its songs on singular social or political issues, bringing awareness to deeper meaning and issues in the activities of everyone's everyday lives. These albums included their eponymous *System of a Down* (1998), *Toxicity* (2001), *Steal This Album* (2002), *Mezmerize* (2005) and *Hypnotize* (2005). Each track from the *Toxicity* (2001) and *Steal This Album* (2002) albums, though most under four minutes in length ("Shimmy" being only 1:51), focus on single injustices and issues: "Prison Song" brings light to the incarceration rate of the United States and its mandatory minimum sentencing laws regarding drug-related crimes; "Fuck the System" encourages listeners to challenge the greater oppressive institutions and their intentions to control the masses; "Boom!" brings awareness to the government's use of weapons of mass destruction and the resulting human suffering. "Violent Pornography," from the *Mezmerize* (2005) album, criticizes the views and omnipresent mistreatment of women as well as encourages its listeners to take action and "turn off your TV" to protest against its prevalence. These songs each utilize novel music styles in addition to those of metal to illustrate their intentions, effectively communicating their message.

American metal band Avenged Sevenfold explored more social justice themes, focusing both on the experience of the individual as well as global crises. *Sounding the Seventh Trumpet* (2001), *Waking the Fallen* (2003), *City of Evil* (2005), *Avenged Sevenfold* (2007), *Nightmare* (2009), *Hail to the King* (2013) and *The Stage* (2016) often explore themes of apocalyptic nature, individual suffering and individual struggle. "Brompton Cocktail" (2007) brings awareness to issues regarding hospice treatment advocating for assisted suicide as well as discusses the individual effects of drug usage. In contrast, the song "Exist" (2016) challenges the pervasive egocentrism accompanying humanity and encourages one to consider life from a global perspective. The album art for *The Stage* (2016), asseen

in *Figure 4*, depicts the same message as one is seeing the entire planet Earth and the moon from the vastness of space as a small object relative to the size of the canvas. Metal music of this type encourages broader thinking where one must consider the suffering of individuals as well as think about life and the Earth from a larger point-of-view than one's own limited perception.

Figure 4: The cover art of Avenged Sevenfold's, *The Stage* (2016) depicts our small Earth and its moon amongst the vastness of the cosmos. The Earth is surrounded by a nebula resembling the Avenged Sevenfold skull-with-bat-wings logo.

In terms of bringing awareness to specific global crises, French progressive/death metal band Gojira seeks to advocate for our environment through the use of their music. Albums such as *Terra Incognita* (2001), *The Link* (2003), *From Mars to Sirius* (2005), *The Way of All Flesh* (2008), *L'Enfant Sauvage* (2012) and *Magma* (2016) contain many songs which vividly criticism humanity's treatment of the Earth. "Global Warming" (2005), as one can imagine, discusses the eventual death of all life on Earth due to the resulting environmental impact from human activities which cause the rising of the Earth's temperatures. "Toxic Garbage Island" (2008) brings awareness to the amount of trash accumulating in the ocean as well as specifically the Great Pacific Garbage Patch. These and other

twenty-first century metal bands use the aesthetics of metal to express the significance and growing severity of social justice issues and large-scale crises.

Problematizing the Genre

Like most if not all music genres, metal contains its share of problematic social issues. Because of its origins in the music of Northern Europe, it is often viewed as being "white music" as the vast majority of its performers are of European heritage. Much like the music of Richard Wager was the favored aesthetic of the German Nationalist Third Reich movement, metal has been used as the music of white nationalism. Likewise, metal's music aesthetic desire for power and strength attracts a majority male performer and fanbase.[33] Because of this, females and non-males are often excluded from performance opportunities and in some cases, disparaged in the music itself.

White Nationalism

During the 1990s, metal and punk became the favored music genres of the White Nationalism movement in Scandinavian Europe as well as in the United States. Benjamin R. Teitelbaum's *Lions of the North: Sounds of the New Nordic Radical Nationalism* discusses the music styles used by White Nationalists over the past few decades in Northern Europe. Teitelbaum states that "nationalists use music to rally behind national distinctiveness" using that music as "a tool for integrating the nationist cause with mainstream society."[34] In the 1990s, death metal and other intense metal styles were created in Northern Europe as thus fit the model of a uniquely regional style that possessed intense sonic styles that suited and promoted the violent tendencies and goals of

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33. Deena Weinstein, *Heavy Metal: The Music and Its Culture* (Cambridge: Da Capo Press, 2000): 92-96, 221-224.
34. Benjamin R. Teitelbaum, *Lions of the North: Sounds of the New Nordic Radical Nationalism* (New York: Oxford University Press, 2017): 26-28.

the radicals.[35] Teitelbaum stated that the nationists of the twenty-first century "produce and consume light pop, folk music, singer-songwriter balladry, techno, and even rap and reggae."[36]

In terms of the metal scene further opposing any remaining White Nationalism presence in their music, recent efforts have been made to discourage any remaining activity and public association. The 2019 article, "Heavy Metal Confronts its Nazi Problem" found in *The New Yorker*, describes an extreme metal concert held Brooklyn, New York in late January of the same year with an anti-fascist theme. The goal of this concert was to speak out against and reject the small number of particularly socially-loud black metal groups that promote White Nationalist viewpoints. According to author Colin Moynihan, the festival was held to "give metal fans and anti-fascists a chance to see that there were areas where they could overlap" and that metal writer Kim Kelly agrees that "metal should not be allowed to become a breeding ground for right-wing extremism."[37] The vast majority of the current metal community rejects the views of racist extremists in favor of social inclusivity and exploring the number of themes discussed in the previous section, "Social Value through Advocacy and Awareness."

Hyper-masculinity and Misogyny

Similar to the rock genre, metal promotes concepts of hyper-masculinity through its performance models. Walser states in his book, *Running with the Devil*, that "metal musicians and fans have developed tactics for modeling male power and control within the context for patriarchal culture, and metal's enactions of masculinity include varieties of misogyny as well as 'exscription' of the feminine" through creating songs about "fantastic worlds without women." This "modeling of male power and control" exists through the power of the music and the actions of the performer

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35. Christe, *Sound of the Beast: The Complete Headbanging History of Heavy Metal* (2004): 251-257.
36. Teitelbaum, *Lions of the North: Sounds of the New Nordic Radical Nationalism* (2017): 27.
37. Colin Moynihan, "Heavy Metal Confronts Its Nazi Problem," The New Yorker (February 19, 2019).

such as "phallic thrusts of guitars and microphone stands."[38] The "fantastic worlds without women" exist in the music itself with songs speaking of freedom and power without including female figures in the narrative. Such exclusive musical subject matter and stage performance examples are among several examples where metal music excludes females and non-males from musical participation.

Beyond exclusion through non-inclusion, other examples of misogyny exist within the repertoire itself. Walser likewise states that examples of "narratives of male victimization" exist in the repertoire where stories of the "male entrapped, betrayed, or destroyed" by a "femme fatale."[39] Songs with such themes or mentions of women as "harlots," "sirens" or as a "succubus" who corrupt moral men or seek to control males through sex continue to occur even in the twenty-first century. Themes of women as controlling oppressors can exist to varying degrees such as in Ghost's "Ghuleh / Zombie Queen" (2013) to earlier metal songs such as Black Sabbath's "Evil Woman" (1970). Such songs further disparage female participation in metal music.

Despite these examples of misogyny in metal, Walser states that "blatant abuse of women in metal [music] videos is uncommon." He further states that despite "metal's notorious reputation among outsiders, few heavy metal [music] videos have ever approached the degree of narcissistic misogyny routinely displayed by pop star Michael Jackson." [40] Regardless of metal's arguable lesser amount of misogyny compared to its popular music counterparts, the aesthetics of the music itself encourage rhetoric of women as powerless. Deena Weinstein best summarizes this effect in her book, *Heavy Metal: The Music and Its Culture* saying, "power, the essential inherent and delineated meaning of heavy metal, is culturally coded as a masculine trait."[41] Metal's desire for exhibiting power through the music itself, with or without misogynist lyrical content, fuels the powerful-masculine-figure-passive-feminine-figure dichotomy.

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38. Walser, *Running with the Devil* (2014): 108-112.
39. Walser, *Running with the Devil* (2014): 117-120.
40. Walser, *Running with the Devil* (2014): 117.
41. Deena Weinstein, *Heavy Metal: The Music and Its Culture* (Cambridge: Da Capo Press, 2000): 66-67.

Despite its music content and culture promoting masculinity, many women have both participated in and made significant contributions to metal. During the late 1970s and 1980s, Joan Jett (of Joan Jett and the Blackhearts) and Lita Ford proved a woman can occupy the role of a lead hard rock "front-woman" being both a singer and lead/rhythm guitarist in their respective bands. Their work and presence in the hard rock scene helped pave the way for future frontwoman in metal bands and their inclusion in the heavy/hard music scene. In the 1990s, groups such as Epica and Evanescence brought frontwoman to the mainstream metal scene using the range of the soprano and mezzo-soprano classical vocal ranges with their frontwomen Simone Simon and Amy Lee. The 2000s and 2010s bring more frontwoman to the metal scene with groups such as Hailstorm and Stitched Up Heart. These frontwomen offer much of the same socio-institutional criticism in their music as bands with male lead singers yet offer a new perspective on social criticism. These groups offer songs further challenging and criticizing the treatment of women by a patriarchal society, sexual assault, masculinity and social definitions of beauty. Beyond music participation, some women have contributed greatly to metal in terms of their non-musical work. Ozzy Osbourne's band manager, Sharon Osbourne, is greatly responsible for the majority of his success despite his self-detriments. Sharon pulled Ozzy through multiple depressive episodes including his firing from Black Sabbath in 1978 and after the death of his guitarist Randy Rhodes in 1982 and repaired his wrecked finances.[42] Likewise, she is responsible for founding the popular metal festival *Ozzfest*. Despite metal music participation being coded as masculine, women have and continue to both participate in and make significant contributions to the genre.

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42. Ayres and Osbourne, *I am Ozzy* (2009): 193-198, 234-252.

Conclusion

Because metal is intended to be scary music, it creates a space for its artists to bring awareness to and advocate for change regarding large-scale social and global issues. The metal of the 1970s and 1980s focused on socio-political corruption, institution critiques, challenging religious institutions, inner struggles and the impact of war on the individuals involved. The metal of the late 1980s and 1990s focused on mental illness, individual trauma experiences, self-awareness, social rejection and specific experiences regarding death. The twenty-first century metal bands sought to bring awareness to the profound world and social crises including individual social justice issues, government/political corruption and environmental destruction threatening the continuation of life on Earth. This exploration of social advocacy themes evolved through time as new issues became relevant to each respective decade or time period.

It is important to note that, this survey of metal's value through social advocacy and awareness is far from entirely inclusive as many other bands are contributing and actively publishing albums during the same general eras depicted here. Likewise, not all of metal's music content has the goal of social advocacy. Songs with topics of frightening matter with no intention of advocacy, use as music advocating white nationalism and misogynist masculinity-endorsing aesthetics all exist within the genre. Despite this, the majority of metal music conveys themes of social justice, public awareness, social criticism and profound-crisis awareness; these issues are concerns for its performers and listeners, thus are centered as its primary compositional aesthetic goal.

CHAPTER III

MUSIC THEORY APPLICATION

Music Theory Enhancements

In terms of explicit theory instruction, metal's repertoire contains a vast array of music theory concepts in a variety of effective forms useful for application. In the current repertoire, there exist many metal-specific aesthetic elements that may function as more effective teaching material for their respective music theory concept. Some aspects of our traditional CPP teaching material lack in certain areas where metal may provide a greater quantity of examples as well as greater quality and clarity. In the metal repertoire, there even exist entire songs constructed on single music devices, often riff motives, and theoretical concepts that can be singularly harmonic, melodic or rhythmic often looped and repeated making the isolation of singular examples unthinkingly easy. The individual metal theory concepts, depending on the repertoire selected, can provide diversity in listening-level difficulty to better suit the semester of study and the challenge necessary for each stage. As a result, metal music examples act as more than basic material replacement; it can function to amplify the curriculum or go so far as to completely transform the teaching of specific concepts and content. For some students, especially during their early undergraduate study, this repertoire may potentially be more familiar to them than the CPP and art-music due to metal's often mainstream popularity in the past half a century.

In addition to simply replacing examples, an instructor could use metal in a variety of in-class activities such as composition, improvisation, aural perception, sight-singing, all types of dictation

and analysis. Because of the nature of metal performance, participation is both encouraged and necessary for proper experience and learning. Through metal, an instructor can engage students through instrumental performance opportunities involving improvisation using specific theory concepts, harmonic construction, orchestration, aural perception, dictation (repeating musical lines without seeing notation) and basic music composition. This performance is not limited to those in the standard metal band (guitars, bass guitars, keyboards, drum set and vocals) and can include all bowed strings, brass, woodwinds and all percussion. If one wishes to, these topics and individual concepts could additionally be applied to music theory curricula in kindergarten-twelfth grade education (as long as one considers the age-appropriateness of the instructional content for the individual years' learning goals, the current known/expected abilities and knowledge of the class, the musical schema of the students, community culture, community beliefs and possible parental-administrative retaliation).

In this section, I will be describing how each of the following metal-specific music elements can be applied to enhance the collegiate music theory curriculum taking into account the general content taught throughout a basic musicianship sequence.[43] These beneficial metal-specific aesthetic elements include special riff motives, modality content and clarity in the perceptions of music patterns, elements and structures. This perceptual clarity exists in its tonal centers and pitch content, harmonies, rhythm and meter and formal structure.

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43. In addition to the popular music theory texts, I will also be examining the music theory curricula of Western Michigan University for further activity and lesson pairing in *Appendix A*. In *Appendix B*, the specific topics will be paired with chapters found in common music theory textbooks such as *Tonal Harmony* by Stefan Kostka, Dorothy Panye and Byron Almen, *The Musician's Guide to Theory and Analysis* by Jane P. Clendinning and Elizabeth W. Marvin and others.

Riffs

The riff, derived from metal parent genre rock, is a musical motive consisting of specific melodic, rhythmic and harmonic content which is often repeated throughout a song and provides a basis for improvisation or sung text. The specific timbres, intervals, pitch content, register, articulation and rhythm all contribute to the mood the riff evokes. Because of their often easily-identifiable specific musical attributes and repetition as well as their frequent use in metal, they provide clear, obvious examples or as a possible composition and improvisation activity. In Guy Capuzzo's article, "A Pedagogical Approach to Minor Pentatonic Riffs in Rock Music," he describes in detail the benefits of using the minor pentatonic riffs found in blues-influenced rock music to teach about tendency tones and pitch classes. Metal, like rock, was likewise derived from blues melody/harmonic content, especially evident during its early years; Capuzzo identifies Black Sabbath's "The Wizard" (1970) as one such song relying on tendency tones and their relation to beat in a riff in a specific "two-note" segment.[44]

Unlike CPP music, which uses the tritone and other hierarchical tendency-driven intervals diatonically in major-minor tonality with specific dissonance-to-resolution function, metal uses the same intervals in their purest form for evoking moods through mostly riffs and other musical motives. The benefit of this is that they are easily identified by the listener and enables one to consider the sonic impact of pitch selection and intervallic orders in a motive. The construction of songs based on the intervals of monophonic motives dates back to the metal's founding ensemble: Black Sabbath. The majority of Black Sabbath's early songs and pieces from the 1970s albums contain numerous characteristic, easily identifiable riffs. These riffs contain a variety of melodic intervals using primarily sections of the blues scale as well as other minor and major variations

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44. Guy Capuzzo, "A Pedagogical Approach to Minor Pentatonic Riffs in Rock Music," *Journal of Music Theory Pedagogy* 23 (2009): 39-45.

designed to evoke their doom metal aesthetic. Black Sabbath in particular, makes frequent use of the raised 4th scale degree (or lowered 5th scale degree in some instances) often tritone interval between the tonic which emphasizes its raw sonic properties and complex acoustic ratio. Their first song, self-titled as "Black Sabbath" (1970), incorporates the augmented 4th scale degree as a primary melodic attribute. Its basic riff (see *Figure 5*), played by the distorted electric guitar and bass guitar, G5 - G - C#, repeats as the main motive during the chorus and verses. The first G5 chord and following G an octave higher establish a clear tonal center; the following C# perverts the purity of the perfect octave and sustains for the combined duration of the previous two notes/chords often with added ornaments such as a trill. On the repeat, the previous C# both descends an augmented 4th to the low G as well as ascends a minor second to the D, further reinforcing the dichotomy. During the verse (see *Figure 6*), the riff is reduced to G - G - C#, is lower in volume and the distortion quantity is reduced, allowing the vocals to take over the main melodic idea. The simplified octave of G compared to the G5 chord further emphasizes the ominous quality of the tritone between the tonic and the C#. The vocals follow a pattern augmented to the duration of the riff, with the pitch content of an ascending G minor pentachord for about two measures of time, followed by a high tonic then some use of the C# and D. Although this pitch material is limited, it effectively communicates an encounter with the devil and of his evil ways as portrayed by the lyrics of the song. Through the use of riffs, such as those from Black Sabbath and other metal bands who use riff motives, students can explore how intervals act as the basic building-block structure of music. Students will be able to see and hear how the specific intervals, their orders, timbre and durations all sonically contribute to the mood or interpretation of larger pieces, sections, phrases or individual motives through these minimally-complex easy-to-digest musical structures. Specifically, metal riffs, compared to other genres using the same style motives, utilize a variety of dissonant

Main Riff:

Figure 5: The riff for "Black Sabbath" uses the tritone interval as its main intervallic content. The electric guitar pitch sounds one octave lower than the written note.

Figure 6: The electric guitar and bass guitar in the verse melody and riff of "Black Sabbath" share the tritone-centric repeated motive accompaniment supporting the vocal melody also containing the same raised fourth scale degree. The electric guitar and voice (tenor) pitch both sound one octave lower than the written note.

intervals both in and out of the context of CPP harmony, enabling the instructor to find a variety of examples of uses of those intervals often scarce in the standard repertoire.

In terms of improvisation and composition, metal riffs enable countless more possibilities. When creating riffs, students can explore how limited collections of pitches are affected by the intervals, their order and duration impact the mood and sonorities of a musical motive. Additionally, students can explore the impact of timbre, register and articulation on musical ideas through instrument selection, tone modification via basic equalization controls (low, middle, high) and distortion effects. From there, students can begin to explore and experiment on basic riff can

be improvised and adapted to further the development of a song.[45] The benefit of using metal riffs

over the riff material of other genres is the acceptability of using dissonant intervals, such as the

augmented fourth diminished fifth as seen in the riff used in "Black Sabbath," not permissible in

CPP tonality. Because of this, students have greater freedom to explore the specific sonorities of

intervals and interval orders seen as improper in the standard classical repertoire, similar to how they

function in twelve-tone serialism however with explicit tonal centers.

Modality

Stephen Kostka, one of the authors of *Tonal Harmony*, discusses the compositional

techniques of twentieth century art music in his book, *Materials and Techniques of Twentieth-Century

Music*. In this text, Kostka cites multiple art music works of both the CPP and the twentieth century

which utilize the harmonic/melodic language of specific modes.[46] Understanding this concept is

crucial for comprehending the impact of today's post-twentieth century tonal language when

exploring melodic/harmonic functionality beyond major-minor tonality. As seen in the previously-

explored musical examples, metal composition consists of an abundance of modality, specifically

using the Aeolian, Dorian, Phrygian, minor pentatonic and other modified modes such as the

Phrygian mode with a raised third (making the tonic triad major). And, as dictated by the aesthetics

of metal music, those modes are clearly represented to the listener often in multiple octaves

simultaneously with bright timbres.

When discussing the Locrian mode specifically, Kostka states that "the Locrian mode has

rarely been used, probably because it lacks a consonant triad." In addition to its use in Dimitri

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45. A sample music theory lesson in teaching about motivic construction and interval usage through creating metal riffs can be found in *Appendix C*.

46. Stefan Kostka, *Materials and Techniques of Twentieth-Century Music* (Englewood Cliffs, NJ: Prentice-Hall Inc., 1990): 25-48.

Shostakovich's *String Quartet No. 10*, Opus 118 (1964) second movement,[47] the Locrian mode has been used in a number of songs in the metal repertoire. Ozzy Osbourne's, "Facing Hell" from his 2001 album, *Down To Earth*, uses the Locrian mode as the melodic scale upon which the main riff and chorus of the song is spelled. In addition to the bass guitar doubling the motive material one octave lower, it is also doubled a perfect fifth and octave higher in the distorted guitar part to add density to the song. The bass guitar (or the roots notes of the guitar) best demonstrates this use of the Locrian mode as seen in *Figure 7*. The low-C# is the tonal center and exists possible on the six-string baritone-tuned guitar or seven-string guitar and five-string bass guitar used in the song as they both include a low B-string (B1 for guitar and B0 for bass guitar). Because of the doublings, the simplicity of the motive material and the tonal center beginning nearly the lowest possible note on the extended-range guitar and bass guitar, this song makes a great opportunity to aurally demonstrate effective use of the Locrian scale while being able to clearly identify the song as using the Locrian mode and its intervallic relationships.

Figure 7: The main riff for "Facing Hell" uses the Locrian mode as its pitch content, as best seen in the bass guitar part. The guitar part often doubles the riff a perfect fifth and perfect octave higher as a power chord. The guitar and bass guitar sound one octave lower than written.

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47. Kostka, *Materials and Techniques of Twentieth-Century Music* (1990): 30-31.

Beyond the rarer uses of Locrian mode, metal music, throughout its history, offers effective compositional usage of a number of the other diatonic and modified modes in great clarity due to the heavy doubled aesthetics of metal music. The Aeolian mode is used in a number of metal songs, especially by bands such as Black Sabbath, Ozzy Osbourne (solo), Iron Maiden, Metallica, Megadeth, Judas Priests, Anthrax and Slayer during the first two decades of metal. Active use of the Aeolian mode is found in songs since the 1990s by bands such as Rammstein, Slipknot, Ozzy Osbourne (solo), The Black Label Society, Metallic, Pantera, Gojira, Cradle of Filth, Dragonforce, Dethklok and Evanescence. The Phrygian mode is favored amongst metal artists due to its gruesome dark flavor and preferred by metal bands from the past thirty years, ones of the early years and death metal bands alike including System of a Down, Avenged Sevenfold, Epica, КоЯn, Rammstein, Amon Amarth, Dimmu Borgir, Cradle of Filth, Slipknot and Ghost. Modified versions of the Phrygian scale, such as raised seventh scale degrees and raised thirds (to a major third) can be used to provide greater melodic tendency along with exoticism with North African, Southern Europe and Middle-Eastern flair to each individual song; bands such as Epica, System of a Down, Cradle of Filth, Dimmu Borgir and most black metal/symphonic metal groups utilize an abundance of modified Phrygian scales. Aeolian scales with variable lowered fifth scale degrees, creating a diminished fifth between the tonic and the fifth, can be found in any band wanting to incite an evil or demonic element to their music such as Black Sabbath, Ghost, Slayer, Dethklok and Dimmu Borgir. Because of the desire to create scary-type music, these are often the minor-type modes or ones with wide augmented intervals and modified lowered and raised scale degrees to suit such an aesthetic.

Clarity in the Perceptions of Music Patterns, Elements and Structures

The beneficial quality of the metal genre is its lack of subtleties in regards to change; metal, by its aesthetic nature, is refined to create intensity and drastic contrast. As discussed previously in the *Origins and Compositional Aesthetics* of *CHAPTER II*, metal music employs multiple concurrent compositional techniques to achieve its desired heavy aesthetic such as dense orchestration, thick timbres and layered voices. These are often achieved through layering musical passages and motives with the overtones provided by the barrage of timbres created by distortion effects and doublings in multiple octaves and real and diatonic transpositions simultaneously sounding. Moreover, these already strong musical structures are further strengthened by marcatissimo-accented percussion and rhythmic patterns, employing percussion-specific blast beats[48] techniques on the drum set creating as much percussion sound as physically possible to give the material as much impact and volume as soundingly possible. Because of a combination of these aesthetic principles, repeated figures and the reinforced nature of the musical content, any changes in the passage, timbre, motive/riff, orchestration and cadence arrivals appear as strikingly obvious. This genre-specific attribute of metal generates countless opportunities for demonstrating specific theoretical musical elements in a practical manner both in concordance with CPP rules or functional by additional musical functionalities and theoretical ideologies. Such genre attributes ultimately enable music theory instructors to scaffold students toward more changeling musical selections with specific elements of lesser obviousness and clarity both in and out of the CPP and twentieth century art-music canon.

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48. *Blast Beats* occur when a drummer seeks to create as much sound as physically possible on the drum set by creating a dense texture occupying all sonic registers of repeated/subdivided double-kick bass drum, snare or tom and a cymbal at fast tempi; Whitney Strub, "Behind the Key Club: An Interview with Mark "Barney" Greenway of Napalm Death," PopMatters (May 11, 2006).

Tonal Centers

One of metal's greatest strengths as theory content is the ease of aurally identifying its tonal centers and bass notes due to volume strength, bass-note reinforcement and often bright timbres applied to bass-note pitches. Much like CPP music, metal is mainly a genre of tonality where the tonal center of the piece is the one harmony repeated most frequently during the piece compared to other diatonic or non-diatonic harmonies. In metal however, the tonic note of the song is often the lowest pitch in the song and is reinforced through perfect fifths and octaves. More so, the electric guitar and electric bass guitar are often tuned to suit the tonal center as their lowest pitch. As a result of this, it is easy to hear (and feel if one were to listen to the music at a strong volume with a quality low-range-covering sound system while feeling the fundamental pitches of the bass guitar or keyboard) a tonal center or bass note of a chord; this would be beneficial to theory or aural perception instruction as either a step toward identifying tonal centers in more complex or semi-complex CPP music or as a task in its of itself being able to identify a tonal center in a timbre-dense/orchestration-dense texture, something metal provides in great quantities.

As discussed previously, metal songs, often inspired by CPP harmony or by alternative harmonic motivations, almost all have a clear tonal center oftentimes being the lowest note of the song. This concept of the lowest note also being the song's tonic in Epica's "Sancta Terra" (2007) is one great example of this as due to the obviousness of its tonal center through reinforcement of the key and tonic. The main riff of the piece, introduced from the beginning of the song, is accented in the strings in multiple octaves: B - B - C# - C# - D - B. These first three notes of the B minor pentachord suggest a tonic chord of B minor. The riff is repeated four times in the same manner with descending diatonic B harmonic minor scale figures in between in the upper woodwinds. After this, the guitar and bass guitar enter playing the riff one octave lower than the lower strings with the bass guitar now down to B0, further reinforcing the B in volume strength and foundation. At 1:04

into the song, before the chorus, an ascending bridging section of diatonic power chords reinforced by the orchestra contributing thirds and moving line of non-chord tones above the harmonies, leads the song toward is first dominant chord immediately before the chorus, solidifying its tonic as B. The chord itself further reinforces the tonality through the following chord progression of i - III - iv - V - i. This manner of repeated diatonic motivic material and obvious harmonies make for a piece whose tonal center is reinforced and established through mostly traditional CPP means including its frequency of occurrence, agogic accent, metric accent, volume strength and it is the absolute lowest pitch referenced regularly, making it an ideal sample for demonstrating the concept of the tonal center.

Such pieces of tonal obviousness could be integrated into a curriculum as scaffolding for students to gradually learn how to identify more challenging tonal centers. Looking again at the article, "Contention in the Classroom: Encouraging Debate and Alternate Readings in the Undergraduate Theory Class," Brubitzer-Stull offers multiple activities were students can engage with specific music theory fundaments in activities beyond basic lecture means. One of these activities, "Identifying Tonic," has students determine the tonic pitch from a passage of obscured clear tonal center by listing the arguments in favor of each possible tonic.[49] Metal repertoire fulfills the role as easier to find the tonic pitch, either through means of notation or through aural analysis of its recording (the means more appropriate for popular music styles). In the case of more advanced tonal center identification obscured by non-pitch-based means, a densely-textured or timbre-dense metal piece such as Gojira's "The Art of Dying" (2006), can also provide obscured tonal centers via multiple musical aesthetic properties including dense rhythmic subdivisions, overwhelming unpitched percussion presence, dense timbres, unclear harmonic motion and strong

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49. Brubitzer-Stull, "Contention in the Classroom: Encouraging Debate and Alternate Readings in the Undergraduate Theory Class" (2003): 26-30.

dynamics. Overall, metal provides a variety of material and example opportunities for multiple levels of difficulty in identifying and working with tonal centers.

Harmony

The clarity in pitch content and sheer strength of bass notes makes the task of identifying and analyzing the function of harmonies in metal fairly easy. Many of these harmonies are reinforced by strong bass notes and are perceptually enhanced by the brightest of guitar distortion. Beyond listening to distortion, some of the songs offer extra harmonic support from keyboards and vocals as well as additional instruments such as bowed strings, brass and woodwinds. Through its diversity in orchestration and voicing, pitch transparency results and thus contributes towards the students being able to aurally better comprehend the harmonic process of each song. These Metal songs are further beneficial to student exploration as they employ the use of both CPP harmony and functional harmony which exists outside of standard CPP harmonic hierarchies.

In terms of standard CPP harmony, metal offers many songs that present these chords in extreme clarity. These chords exist at regular intervals as well as at varying lengths of duration. A song such as Avenged Sevenfold's, "God Damn" (2016) offers a functional CPP-style harmonic progression in D minor. The bridge of the song, occurring at 2:20, has a chord progression of i – iv – V^7 – i (I) with each chord lasting four beats each or a measure each in a 4/4 time signature. The fourth measure of this sequence returns to minor tonic but the third raises on beat three to give a brief V/vi into the next sequence of chords. The next four-measure phrase includes the following chord progression (all one four-beat measure each in duration): iv – i^6 – $ii^{ø7}$ – V (returning to i in the next phrase). The bass line for this phrase includes a functional first-inversion chord via a diatonic, step-wise descent in the bass line in each chord: G (iv) – F (i^6) – E ($ii^{ø7}$). This song contains numerous functional CPP tonal elements, including 4-3 suspensions, all represented in high

clarity due to the song's heavy bass guitar, multiple guitar parts and vocal parts all support its harmonic integrity.

In terms of functional harmony which exists outside of standard CPP harmonic hierarchies, many metal songs contain chord progressions that require additional levels of reasoning to understand their non-CPP functionality. Avenged Sevenfold's, "I Won't See You Again Tonight, Part 1" (2003) offers a functional yet non-CPP chord progression in G minor during its chorus section: i – VI – III – ♭VII (vii) or Gm – E♭ – B♭ – F (F#m), with each chord lasting eight beats each and the ♭VII and vii each lasting four beats each with the vii being the result of a half-step raising of the power chord supporting the ♭VII without raising its third in the subsequent chord. Despite its non-CPP functionality, this chord progression sounds functional in the song. If one were to consider the chord progression in the key of the relative major, this harmonic analysis would result: iv – IV – I – V (#v). This harmonic analysis results in a chord progression which correctly follows the CPP harmonic hierarchy only with a shift as to its cadence point, cadencing on iv instead of I. As seen in *Figure* 8, a common tone analysis would additionally provide reasoning to this chord progression's functionality. Such a song offers students new means of exploring harmonic functionality as well as new means of viewing harmonic function.

Metal Songs consisting of modal pitch material likewise offer chordal functionality beyond standard CPP tonal progressions. Songs in the Aeolian mode often use progressions than employ variations of the VI – ♭VII – i chordal relationship. These types of chord progressions cadence using a ♭VII to i relationship. For example, the Black Sabbath (with Ronnie James Dio) song, "Holy Diver" (1983) implements such a chordal relationship in C minor. These chord progressions include orders such as i – III – ♭VII – i and i – ♭VII – VI – ♭VII – i. As mentioned in the previous example, the ♭VII to i cadence in the Aeolian mode can be viewed as a deceptive cadence in its relative major key. A i – III – ♭VII – i chord progression can be reinterpreted in its relative

major key as a functioning vi – I – V – vi progression. A i – ♭ VII – VI - ♭ VII – i chord

progression can be reinterpreted in its relative major key as a brief retrograde (vi – V – IV) plus a

functioning predominant–dominant–deceptive resolution (IV– V – vi) chord progression. Modal

functioning chord progressions such as these exist in abundance in the metal repertoire. These

modal chord progressions allow students to explore a variety of non-major/minor functionality.

Common Tone Analysis of "I Won't See You Again Tonight, Part 1,"
Verse/Chorus Chord Progression
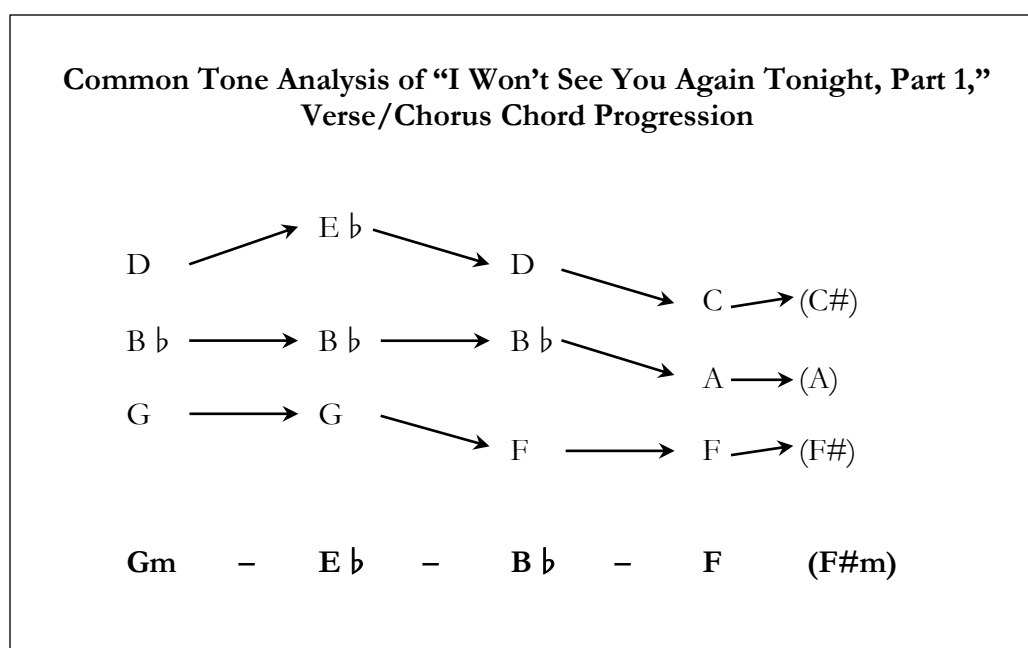
Figure 8: A common tone analysis of the verse and chorus chord progression of "I Won't See You Again Tonight, Part 1" further explores the functionality of the progression via common tones shared between chords. A part from the cadence point, F and F#m cadencing to Gm, each chord shares one or two notes in common with its successive chord. The extent of this common tone relationship found in the chord progression further supports its functionality.

Metal offers clarity in its use of harmonies due to its sheer strength in bass notes and

perceptual advantages through its use of distortion. These enhanced perceptual qualities are

beneficial towards aurally comprehending both standard CPP harmonies and functional non-CPP

chord progressions.

Rhythm and Meter

In addition to clarity in tonal centers/pitch content, harmony and form, metal music provides extreme clarity in rhythmic patterns and meter. Because the guitar and bass guitar are doubling the same motivic material, their strength and clarity are augmented in the mix. This doubling is often supported by a strong, percussive drum set, further increasing the clarity of the rhythmic perception of the motivic material. A heavy drum set with a strong, low bass drum and toms further supported by the low frequencies of low rhythm guitar and bass guitar, create a sonic environment where the rhythmic content is both heard clearly and felt internally. Metal music synthesizes a perfect storm of strong rhythmic and metric clarity that is both heard and felt (especially true if one is attending a live performance).

In addition to having a strong perception of rhythm and pulse, metal music offers a diversity of meters. Songs with duple or quadruple macro pulses with duple subdivision are by far the most common. Song examples for 2/4, 4/4 and 2/2 time signatures (also known as simple meter) include songs such as "For Whom the Bell Tolls" (1984) by Metallica, "Cowboys from Hell" (1990) by Pantera, "Saffron's Curse" (2000) by Cradle of Filth and "Monster" by Stitched Up Heart (2016). Songs with duple macro pulses and triple subdivisions are less common than those with duple subdivision but are just as obvious in terms of feeling their metric pulse. Songs with possible 6/8 and 12/8 time signatures (also known as compound meter) include the chorus of Slipknot's "Vermilion" (2004), "Lacrymosa" (2006) by Evanescence and "Toxic Garbage Island" (2008) by Gojira. Songs with mixed or changing meter exist within the repertoire as well. Dethklok's "Murmaider" (2007) begins in a 4/4 meter and periodically switches to a triple subdivision of the macro pulse without changing the tempo of the original macro pulse. As seen in *Figure 9*, the intro to Iron Maiden's "Number of the Beast" (1982) switches between a 4/4 and 12/8 time without changing the subdivision micro-pulse tempo. Songs with complex asymmetric meters are fairly

common as well due to their ability to convey "unevenness" and discomfort. System of a Down's "Question!" (2005) uses an asymmetric (3+3+2+2)/10 (possibly written as a 5/4 time signature), Amon Amarth's "Valhalla Awaits Me" (2007) uses a (3+3+3+3+2+2)/16 (possibly written as a 16/8 or 12/8+2/4 time signature) and Metallica's "Blackened" (1988) uses a 7/4 time signature through most of the song with occasion inclusions of other meters including 5/8. Asymmetric and changing meter examples can also be found frequently in the music of Epica, Tool and Opeth. The diversity of meters offered by metal artists offers ample opportunity to demonstrate effective and clear use of the many possibilities of metric settings.

Figure 9: The intro riff for "The Number of the Beast" alternates between 4/4 and 12/8 time signatures while maintaining the tempo of the micro eighth-note pulse.

The diversity of meters offered in metal music, coupled with the perceptual clarity of both macro and micro pulse, enables a multitude of scaffolding opportunities and a variety of difficulty levels available for teaching meter and pulse in the music theory classroom.[50]

Form

In terms of clear changes in musical material and obvious arrival points, discerning a form from most metal songs is fairly easy to task to accomplish. Perhaps due to metal's inspiration sources and eclectic inclusion from multiple genre sources,[51] Metal music is less standardized in its form compared to other popular music genres; however, many songs often contain juxtapositions of verse and chorus sections with occasional bridging instrumental material with variations. A song such as "Cemetery Gates" (1990) by Pantera, develops and builds by repeating and adding to previous sections, growing with more layers and altered musical contents. The form of the song is mostly denoted by changes in instrumentation, timbre, melody and dynamics. The form is a non-traditional ABCA'DC'A"D'C'EC'C" as described in *Table 1*:

50. See *Appendix B* for a sample lesson plan teaching meter using metal music examples.
51. Refer back to *CHAPTER II* for more details on the genres and musical styles which influenced metal.

Table 1: The formal structure of "Cemetery Gates" consists of a non-traditional ABCA'DC'A"D'C'EC'C" format with section delineations marked by a various changes in musical parameters.

Section	Time	Section Contents
A	0:00-0:54	F#m, Acoustic guitar, piano, vocals, high electric guitar elements, *mp* dynamic
B	0:54-1:33	The distorted lead guitar takes over with new melody (same chords and instrumentation as the previous section), different chords towards the end, end crescendo with low rumble noise, *mf* dynamic
C	1:33-2:07	The distorted lead guitar riff, bass guitar, drum set, faster tempo, *f* dynamic, eventual rhythm guitar power chords
A'	2:07-2:34	Same as A section in the chord progression in F#m and instrumentation with vocals, now with added bass guitar and drum set, slightly faster tempo than A and at a *mf* dynamic
D	2:34-3:02	Same chord progression as A in F#m, but with distorted rhythm guitar instead of acoustic guitar arpeggios, drum set, bass guitar follows rhythm guitar, same tempo as previous, harsh vocals, at a *f* dynamic, cadence to D major at end, the "verse" section
C'	3:02-3:29	Same as C, but with added semi-aggressive vocals, the "Chorus" section
A"	3:29-3:56	Same as A' section in the chord progression in F#m and instrumentation, new vocals and a slightly different melodic line
D'	3:56-4:24	Same instrumentation and contents as D, but with new lyrics and slightly different vocal melody, the "verse" section
C'	4:24-4:52	Same as C, but with added semi-aggressive vocals, the "chorus" section
E	4:52-5:46	A sequential combination of the contents of A'/A" and the later portion of C/C', all with a lead guitar solo of new melodic material and more rhythmic drive from the bass guitar and drum set
C'	5:46-6:14	Same as C, but with added semi-aggressive vocals, the "Chorus" section
C"	6:14-7:01	Same as C, but with added semi-aggressive vocals, the "Chorus" section, added descant lead guitar imitating the vocals, fragmentation of vocal melody, changes in rhythm in bass guitar and drum set, improvising, ends with reverberation and echoes

The D sections act as chorus thematic material that eventually develops into a section without change by the first D' section in cooperation with an E section as a pre-chorus repeated theme; the repeated sections in their prime variants possess changes in text and subtle changes in melodic content. The D section is further developed at the end of the song with variations in its original vocal melody by descant fragmentation and imitation in both the lead electric guitar and voice. The F and G sections contain near similar harmonic content to the E and D' sections respectively with significant modifications to the melodic content, timbre, increased orchestration density and greater subdivided rhythms. As analytical content, one can easily discern the nature of the repeated sections, but some additional thought and arguments are needed to divide the remaining sections. As a result, this and other complex-form metal songs require the students to consider the depth of parameters, beyond basic harmonic and melodic structures, when conducting a form analysis. The similarity of specific sections, students will inevitably have disagreements as to the nature and existence of the sections, enabling dialogue and sharing activities for classroom discussion. Because metal forms are often less predictable, it is more useful for teaching as students have to hear and analyze the form without anticipating a standardized form. These less predictable forms lack the same musical cues found in most CPP forms, thus causing the students to focus on form analysis and musical development.

In addition to the unpredictable forms, specific CPP forms such as ternary, rondo and symphony forms of fast-slow-fast[-slow] exist in the repertoire. System of a Down's "Bounce" (2001) follows a basic rondo form: ABACADA (*Table 2*). As seen in *Figure 10*, the A material is quite repetitive, based on a series of alternating A♭5 and G5 chords ending on a C5 chord on beat four of the second measure. The voice includes shoutings of the words, "jump," "bounce," "up" and "down" accenting strong beats while a vocal part consisting of the lyrics "pogo" to fill out the remaining space. The contents of this section act as unifying material for the B, C and D sections of

Table 2: The formal structure of "Bounce" consists of a traditional rondo form of ABACADA with section delineations marked by drastic changes in texture and general intensity.

| Section	Time	Section Contents
A	0:00-0:20	Heavily distorted guitar of low power chords, heavy low bass guitar, heavy drums, *ff* dynamic, dense texture, shouted vocals, "Jump," "bounce," "pogo, pogo..." lyrics
B	0:20-0:31	New melodic and accompaniment figures, palm-muted semi-heavy distorted guitar chords at a softer volume, bright bass guitar (not as heavy), less-heavy drums, sung and spoke lyrics, moderately-dense texture, *f* dynamic
A	0:31-0:41	Same as A section
C	0:41-0:52	New melodic and accompaniment figures, palm-muted semi-heavy distorted guitar in the higher register at a softer volume, bright bass guitar (not as heavy) middle register, less-heavy drums, sung and spoke lyrics (different text and melody than B section), moderately-dense texture, *f* dynamic
A	0:52-1:02	Same as A section
D	1:02-1:43	New melodic figures and textures, changing textures, distorted guitar only during beginning in the left channel only, often heavily distorted guitar playing low power chords, heavy low bass guitar, heavy drums supporting dense textures, growing volume beginning at *mf* crescendo to *ff*, shouted and sung vocals
A	1:42-1:54	Same as A section

Figure 10: This rhythm figure found in "Bounce" repeats throughout the A section with different words shouted at the beginning of each repetition. This material clearly delineates the reoccurring A section of the song.

the song, also relating to the topic of bouncing, pogo sticks and games. The changes in the form are clear due to drastic changes in texture, timbre density and volume, primarily contributed by the electric guitars, bass guitar and drums. Such a song of easy-to-identify changes in sections in combination with the repetitive nature of the section contents makes for an easy example of a CPP form type students can discern for themselves. Analyzing such a song, with or without the prior knowledge that it follows a classical-type form, will provide students with the opportunity to practice easier music in preparation for more challenging repertoire found in the standard music theory curriculum.

Metal music form identification and analysis is ideal for multiple levels of learning due to its continuum of simple, easily-recognizable forms to complex, sporadic abstracted syntaxes. Discerning some type of form, regardless of whether it is a CPP in nature, through-composed like a Metallica instrumental or a non-standard form, is made easier due to metal's often lack of subtitles; its cues and changes are easier to hear. As a result, scaffolding possibilities for students are many and training students to expect the musically unexpected becomes easily accessible to the instructor via the metal repertoire.

Music Theory Advancements

Beyond assisting in teaching the standard collection of music theory curricular content, metal offers many unique compositional aesthetic characteristics beneficial for music composition comprehension. These aesthetics mirror the values of works from the various post-tonal twentieth century movements as well as include composition values shared by the composers of the late twentieth and early twenty-first century composers. Similar to how metal music provides optimal clarity in conveying the theoretical elements of CPP music, it also provides optimal clarity for its shared twentieth century art music aesthetics of its various movements. In addition to providing great clarity, metal also includes an array of difficulty in each respective example enabling for multiple levels of challenge when identifying and exploring each or multiple theoretical concepts.

Because metal was founded in the 1960s and 1970s, it has inherited the art music aesthetics of the respective period and recently before. Robert Walser states twentieth-century art music's impact on metal saying that its innovators "tapped the modern music canon for musical techniques and procedures that they have then fused with their blues-based rock sensibilities."[52] Each of the individual twentieth-century art music movements each has had its effect on the aesthetics of the music. The neo-classicism movement contributed a re-interest in modality and their individual melodic/harmonic functionality. The avant-garde movement of the middle twentieth century contributed to expanding the definition of what could be considered musical material for the metal genre. The Minimalist and later Postminimalist movement provided its usage of repetitive motivic material (riff), contributed new means of providing development via subtle changes over long durations and gave a strong, consistent, driving rhythmic element to the music. The electroacoustic

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52. Walser, *Running with the Devil: Power, Gender, and Madness in Heavy Metal Music* (2014): 59.

music movement contributed to the processing of acoustic sounds, mostly distortion effects for electronically-amplified instruments such as the electric guitar and an emphasis on timbre, gesture and texture as primary musical devices. These compositional techniques and aesthetic principles aim to seek the scary/thought-provoking and heavy goals of metal music, resulting in some entirely new musical devices and methods.

For this chapter, I will be exploring a few of the metal-specific music composition devices as well as twentieth century art-music aesthetics/values present in the music. With each aesthetic principle or composition element covered, I will describe the method in which each is beneficial towards understanding the new music of the past few decades. The purpose of this chapter is to explore compositional aesthetics not found in the CPP music and thus not found in a music theory curriculum based on CPP music.

Timbre

One of the most unique and characteristic elements of metal is its many timbres resulting from the variety of instruments and electronic effects processing, the most iconic of which is the heavy distortion of the guitar and bass guitar. Megan Lavengood, in her dissertation, "A New Approach to the Analysis of Timbre," argues that "timbre is undoubtedly one of the most immediate aspects of musical experience" and that it enables "even non-musicians to quickly distinguish genres of music or different musical instruments from one another." Despite its value to music, she states that "timbre analysis is still lacking" in the music theory discourse including the classroom. Lavengood argues that popular music is an ideal genre for studying timbre because it is "primarily stored and disseminated through recordings, so most individuals will hear essentially the same timbres each time a track is heard" with some variance due to listening equipment and listening environment. Popular music contrasts in this manner to CPP music where the valued

musical parameters are those which are visible on the score such as form and harmony and timbre varies greatly based on the performer(s), the instruments themselves and performance space.[53] Metal, which is included as a popular music genre and is also generally experienced through timbre-stable recordings, offers the opportunity to study timbre and its unique use of it.

Timbre enhancement through distortion is among one of the features giving metal its iconic heavy impact and gives the music-specific valuable acoustic properties to analyze and consider. A 2018 study published in the journal, *Music Perception* studied the effects of guitar distortion on the listener perception of dyad power chords, stating that they have "a special role in heavy metal music due to" their "harmonics that create a major third interval, making it similar to a major chord." The study concluded that the "changes in the level of distortion compared to changes in the harmony of chords evoked earlier and larger brain responses in Western listeners." As concluded, changes in the timbre via distortion can be more obvious to listen, both trained musicians and non-musicians, than changes in harmony.[54]

Metal music creates change and direction in its music through the use of changes in distortion and timbre, sometimes beyond merely switching between a "clean" undistorted guitar and a distorted timbre. Progressive metal band Gorija creates direction in their music through the use of changing distortion in both melody and textural density. The song, "Magma" from their 2016 album of the same name makes use of a heavily-processed distortion in the lead guitar part which acts as a tone-color melody. The verse material, beginning at 0:46 in the song, changes from a distortion that blends with the bass and rhythm guitars to a distortion rich in harmonics which cuts through the mix. The high lead guitar part during this section provides the melodic direction

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53. Lavengood, Megan. "A New Approach to the Analysis of Timbre." Ph.D. diss., The City University of New York. New York, 2017: 1-2, 31-32.

54. Paula Virtala, Minna Huotilainen, Esa Lilja, Juha Ojala, and Mari Tervaniemi, "Distortion and Western Music Chord Processing: An ERP Study of Musicians and Nonmusicians," *Music Perception* 35, no. 3 (June 24, 2017): 315, 324-329.

through exciting a number of differing overtones on often the same note by striking the string at a variety of locations. By 4:14, the pitches of the melody remain the same but now with a slightly less distorted timbre with less bright timbre. This change in color provides direction to the song leading into the eventual pitch-based guitar solo-type section which concludes the song. Gorija, as well as other guitar-focused metal bands of the twenty-first century use the timbres of distortion as a means for providing direction for their music over strictly-pitch or lyric-based melodies.

The heavy distortion used in metal music offers a variety of new means of exploring music through the parameter of timbre. Exploring this repertoire which implements these electronically-processed effects and acoustic properties would enable students to expand their theoretical schema of musical parameters which create direction and development in music.

Synthesis of Aesthetics

Through combining and applying the characteristic aesthetics of metal music to a "non-metal" song, a contrasting musical intention will result. Changes in instrumentation, timbre, mode and texture as per the scary, dark and heavy aesthetics of metal without altering the general melody and lyrics of the song often result in a message that either challenges or becomes the opposite of the original. When a song that is not originally intended to be a part of the metal is covered as a metal song, it retains some of its musical parameters while changing, evolving or manipulating others. For collegiate music students, being able to identify which parameters have changed, how those that have changed have been manipulated and which remain the same unaltered is an imperative skill for analysis of our twenty-first century music environment.

Metal bands that cover non-metal songs offer examples of noticeably altered musical parameters with the specific intention to achieve a different musical goal than the original song. A Perfect Circle achieved the altering of a song's message by changing specific musical parameters

(favoring metal aesthetics) in covering John Lennon's song, "Imagine" (1971). A Perfect Circle's "Imagine" (2004) maintains the same lyrics, tempo, instrumentation, melodic contour (same scale degrees) and form to the original song by John Lennon. The cover, most obviously, changes the mode from the original key of C major to now C minor, the timbre (guitar and bass distortion, brighter bass guitar timbre, darker vocalist), the orchestration (now denser), articulation (from a legato in the original to an often more marcato attack), vocal register (an octave low in the cover), rhythm (more subdivisions in the cover) and the drum work (more and heavy drum writing). Through changing approximately one-half of the musical parameters, the message of the original song changes from one of optimism yearning for a perfect world where one is imaging a world of complete peace to highlighting the failures of society and our governing institutions, presenting criticism of a society where peace cannot exist. These contrasting messages occur when certain musical parameters are changed or modified to convey an inverse meaning or criticism.

Conclusion

The beneficial metal-specific music theory aesthetic enhancements include metal-specific riff motives, modality content and clarity in the perceptions of music patterns, elements and structures which include tonal centers and pitch content, harmonies, rhythm and meter and formal structure. These metal aesthetics benefit the instruction of collegiate in their ability to provide varying difficulties of content for a variety of instructional levels. They enable scaffolding opportunities that instill analytical success for students in preparations for more challenging or obscure CPP and art music repertoire. Metal repertoire presents the CPP music theory topics in great clarity and often in repetition within the same song.

The beneficial metal-specific music theory aesthetic advancements include distorted timbres and synthesized metal musical aesthetics applied to non-metal songs resulting in the change of a

song's message. These music theory advancements encourage deeper analytical reasoning and new means of thinking about music. Exploring such aesthetic principles of metal instills thinking beyond the standard CPP parameters of time/rhythm, melody and harmony.

The music theory enhancements and advancements discussed here are exhaustive; more metal aesthetic elements exist and provide benefits for collegiate music theory instruction.

CHAPTER IV

CONCLUSION

Future Research

The content presenting in this thesis is far from all-encompassing as more research and study can be conducted on each of the subjects presented. More can be explored as to composition aesthetics shared by bands considered within the genre; more can be explored as to which aesthetic characteristics comprise later metal styles beyond classic heavy metal, such as death metal and black metal. Further study on the social impact of metal as it changes through the decades and with specific metal subgenres would be valuable for discussion as to metal's goal of advocacy. More could be explored as to the development of metal musical aesthetics in conjunction with the advocacy goals in comparison to the relevant issues of each decade. As per the gender implications of metal music, since most scholarship studies metal from its inception to approximately the 1990s, more could be studied as to gender implications of metal in the twenty-first century, especially with a greater number of female musicians now active in the scene.

For future research into metal's music theory application, there exist many more metal compositional elements that could act as beneficial instructional content for the music theory curriculum. To name a few, more could be explored to the benefits of rhythm and rhythmic-pattern identification, the practical application of non-CPP-functional harmony that exists in the repertoire and more to be explored as to the function of both CPP and non-CPP form in metal. More can be explored as to what metal has to offer to add to the curriculum Metal-specific performance

concepts, including blast beats performed by the drum set, dead notes on the guitar and bass guitar, vocal growls, pterodactyls and other extended vocal timbres used by metal singers. More can be explored as to metal's use of texture and its density as a means of creating musical contrast and direction.

Concluding Thoughts

The goal of this thesis is two-fold: (1) advocate for the value of metal as a musical genre and (2) advocate for its inclusion in the music theory curriculum. As discussed in *CHAPTER II*, metal offers numerous examples of social advocacy and awareness, which are worth exploring to musically explore how the specific artists musical achieve their desired message and to make students aware of the issues through studying the music. As discussed in *CHAPTER III*, metal music offers a multitude of aesthetic elements that enhance the standard CPP-based theory curriculum and metal-specific characteristics that offer new theoretical content existing in conjunction with twenty-first century art music. My ultimate goal, both in this thesis and in my teaching, is to provide collegiate music students with instructional content that better explains and models the concepts taught in a CPP-based curriculum and to continue to add to/challenge the curriculum to ensure that it teaches relevant theoretical study that benefits professional musicianship in the twenty-first century.

APPENDIX A

Music Theory Syllabus Sample

Basic Music I Syllabus – Marja Kerney, Western Michigan University, Winter 2020[55]

Schedule

This appendix contains the course syllabus of a typical first-semester music theory course with annotations of possible locations to include the educational content discussed in *Chapter III*. Sample lessons and activities from *Appendix B* will also be included in this annotated class schedule. All chapters in the syllabus schedule reflect those present in the eighth edition of *Tonal Harmony, with an Introduction to Post-Tonal Music*.[56]

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55. Marja Kerney, *Basic Music I* (Western Michigan University, Winter 2020).
56. Kostka, Panye and Almen, *Tonal Harmony, with an Introduction to Post-Tonal Music*, 8th ed. (2018).

Class Schedule
(Subject to Change)

Week	Class	Topic	Due by Class
	Mon 1/6	Introduction; Syllabus; Overview	
1	Wed 1/8	Fundamentals and Elements of Rhythm	Skim Chapters 1-2
	Fri 1/10	Intro to Triads and Seventh Chords	Read Chapter 3
2	Mon 1/13	Diatonic Chords in Major and Minor Keys	Read Chapter 4
	Wed 1/15		**Chapter 1-2 Homework**
	Fri 1/17	Principles of Voice Leading	Read Chapter 5
3	Mon 1/20	**MLK Day – No Class**	
	Wed 1/22		
	Fri 1/24		**Chapter 3-4 Homework**
4	Mon 1/27	Root Position Part Writing	Read Chapters 6 & 7
	Wed 1/29	Harmonic Progressions	**Chapter 5 Homework**
	Fri 1/31		
5	Mon 2/3	Triads in First Inversion	Read Chapter 8
	Wed 2/5		**Chapter 6 & 7 Homework**
	Fri 2/7		
6	Mon 2/10	Triads in Second Inversion	Read Chapter 9
	Wed 2/12		**Chapter 8 Homework**
	Fri 2/14		
7	Mon 2/17	Cadences, Phrases	Read Chapter 10
	Wed 2/19		
	Fri 2/21	Review and Filling in the blanks	**Chapter 9 & 10 Homework**
8	Mon 2/24	**Midterm Exam – Day 1**	
	Wed 2/26	**Midterm Exam – Day 2**	
	Fri 2/28	**Spirit Day – No Class**	
9	Mon 3/9	Non-Chord Tones 1	Read Chapter 12
	Wed 3/11		
	Fri 3/13		
10	Mon 3/16	Non-Chord Tones 2	Read Chapter 13
	Wed 3/18		**Chapter 12 Homework**
	Fri 3/20		
11	Mon 3/23	V7 Chord	Read Chapter 14
	Wed 3/25		**Chapter 13 Homework**
	Fri 3/27		
12	Mon 3/30	Diatonic 7th Chords	Read Chapter 15
	Wed 4/1		**Chapter 14 Homework**
	Fri 4/3		
13	Mon 4/6	Secondary Dominants	Read Chapter 16
	Wed 4/8		
	Fri 4/10	Fill in the blanks	**Analysis Projects**
14	Mon 4/13	Fill in the blanks	
	Wed 4/15	Review	**Chapter 15 & 16 Homework**
	Fri 4/17	Review	
		Final Exam TBA	

(*Appendix* B) The Head-Bang Activity: Understanding Pulse and Meter

Avenged Sevenfold, "God Damn" (2016), first-inversion chord functionality

Evanescence, "Lacrymosa" (2006) – authetic cadence; Avenged Sevenfold, "Requiem" (2013) – plagal cadence

(*Appendix* B) Non-chord Tone Aural Activity: Identifying the Location and Impact of a Suspension

APPENDIX B: Lesson Plans and Activities

1. The Head-Bang Activity: Understanding Pulse and Meter

2. Non-chord Tone Aural Activity: Identifying the Location and Impact of a Suspension

Lesson Plan: The Head-Bang Activity – Understanding Pulse and Meter

Possible Curriculum Placement: First Semester Theory Course, early

Supplemental lesson/material in common theory texts: chapter two of *Tonal Harmony*[57], chapter two of *The Musician's Guide to Theory and Analysis*[58]

Concept: Using the heavy pluses of metal music to develop aural identification of meter and pulse

Context: "For Whom the Bell Tolls" (1984) - Metallica (duple), "Cowboys from Hell" (1990) - Pantera (duple, but with lots of off beats), "Saffron's Curse" (2000) – Cradle of Filth (duple), "Toxic Garbage Island" (2008) - Gojira (triple), "Murmaider" (2007) – Dethklok (duple and triple subdivision), "Number of the Beast" (1982) – Iron Maiden (triple and duple), "Question!" (2005) - System of a Down (asymmetric, 3+3+2+2), "Valhalla Awaits Me" (2007) – Amon Amarth (asymmetric, 3+3+3+3+2+2)

Materials: computer, sound equipment (high quality)

Knowns:

- Students are capable performers, who can perform pieces while staying in time and performing correct rhythms
- Students are familiar with time signatures and meters from previous musical experiences
- Students are familiar with intervals, both harmonic and melodic
- Students are familiar with modes, keys, the circle of fifths, triadic harmonies and scale degrees

Objective(s):

Students will be able to aurally identify the macro pulse and subdivisions of a metal song by banging their heads (bobbing their heads) or stomping to the strong beats of a metal song and fist pump to the subdivisions of the song then identify a possible meter based on their actions, with correct timing and movements in-time with the music.

Procedure:

Begin with the song "For Whom the Bell Tolls"
1. Ask students to "bang" their heads or stomp to the main pulse while the song plays
2. Once the whole class has locked onto the tempo, ask them to begin fist-pumping to the micro beats

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57. Stefan Kostka, Dorothy Panye, and Byron Almen, *Tonal Harmony, with an Introduction to Post-Tonal Music*, 8th ed (New York: McGraw-Hill Education, 2018): ch. 2.
58. Jane P. Clendinning, and Elizabeth W. Marvin, *The Musician's Guide to Theory and Analysis* (New York: W. W. Norton & Company, Inc., 2005): ch. 2.

3. Pause track and ask how many fist pumps occurred per headbang - respond by showing on fingers (two)
4. Ask for possible time signatures (in the case of "For Whom the Bell Tolls," 2/4 or 4/4)

***For added challenge and individual consideration, have students close their eyes during steps 1. and 2.

***Repeat previous steps for:
- "Saffron's Curse" - duple: 2/4, 4/4
- "Cowboys from Hell" - duple, but with lots of off beats: 2/4, 4/4
- "Toxic Garbage Island" - triple: 6/8, 12/8
- "Murmaider" - duple in the beginning and triple during the "murmaider" chorus: 2/4, 4/4 and 6/8, 12/8 - macro pulse (headbang) stays the same
- "Number of the Beast" - alternating duple and triple measures: 12/8 and 4/4 - micro pulse (fist pump) stays the same
- "Question" (2005) - asymmetric: (3+3+2+2)/8 or 5/4 notated
- "Valhalla Awaits Me" - asymmetric (3+3+3+3+2+2)/8 or 12/8+2/4 or other variations notated
- Possible Questions to consider for the students: Why is it more difficult to identify the meter in certain songs? Which part or instrument revealed the meter most clearly?

Assessment: Informally assess the class as a whole on their ability to comprehend the macro and micro pulse of each song. Consider allowing this informal assessment to guide future instruction of metric expression with each specific macro and micro pulse.

Instructor Reference:

The procedure order is designed so that the music examples become increasingly more difficult to figure out the pulse as macro subdivision becomes more complex as combinations of duple and triple are introduced through the examples. In place of headbanging, students can also stomp their foot and in place of fist-pumping, patting one's arm or lap will work as well; clapping is not permitted as it will give away the pulse to other students and/or confuse others if a student is incorrect. Be certain that students are aware by the end of the activity that tempo can affect one's interpretation of the macro pulse and meter expression. The goal of the activity is for the students to comprehend meter through hearing and, in the case of metal, literally feeling the pulse.   After students have been trained with these more obvious meter examples, students can then move on to identify meter aurally in CPP works of lesser metric obviousness.

Lesson Plan: Non-chord Tone Aural Activity – Identifying the Location and Impact of a Suspension

Possible Curriculum Placement: First Semester Theory Course, late semester

Supplemental lesson/material in common theory texts: chapter twelve of *Tonal Harmony*, chapter nine of *The Musician's Guide to Theory and Analysis*[59]

Concept: Using a chord suspension as a primary musical device in metal music to create suspense

Context: "Mr. Crowley" (1980)

Materials: computer, sound equipment (high quality)

Knowns:

- Students are capable performers, who can perform pieces while staying in time and performing correct rhythms
- Students are familiar with time signatures and meters from previous musical experiences
- Students are familiar with intervals, both harmonic and melodic
- Students are familiar with modes, keys, the circle of fifths, triadic harmonies and scale degrees
- Students understand chord construction and harmonic function
- Students can identify chords and their scale degree within specific keys
- Students understand tendency tones and their functions in their respective modes
- Students understand seventh chords
- Students have begun learning about non-chord tones and their functions

Objective(s):

Students will be able to aurally identify the suspended chord and its corresponding resolution in a metal song by raising their hands when the suspension occurs and raising both when it resolves, with correct timing and correct identification.

Procedure:

Begin with the song "Mr. Crowley"
1. Play song for class and have them listen to the first 54 seconds of "Mr. Crowley"
2. Ask students to listen for a suspended chord and its resolution – the same suspension occurs twice (0:21 and 0:49) during this time in the synth keyboard
3. On a second playthrough, have the students raise one hand when they hear the suspended chord and raise the second hand when they hear it properly resolve

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59. Kostka, Panye, and Almen, *Tonal Harmony, with an Introduction to Post-Tonal Music*, 8th ed (2018): ch. 12; Clendinning and Marvin, *The Musician's Guide to Theory and Analysis* (2005): 165-169.

4. For an added level of difficulty, have the students close their eyes while doing step #3 to remove the aid of other students' responses
5. Play through the remainder of the song and repeat steps #2 and #3 – the next obvious Asus chord occurs during the first guitar solo beginning at 2:08 with the chord occurring at 2:39
6. Discuss how the suspension is approached – what chord do the students hear before the Asus resolving to the A Major dominant chord (iiø7)? How is the suspension approached and resolved (D – D [same note from the previous chord] – C# – D)? Which note of the previous chord became the suspended note of the dominant (D – the seventh of the E ♭ half-diminished 7th chord)?

Assessment: Informally assess students on their ability to identify and comprehend the placement and function of the suspension. Consider allowing this informal assessment to guide future instruction of this non-chord tone usage.

Instructor Reference:

"Mr. Crowley" and others in the metal genre have the aural benefit of the agogic stress placed on musical elements such as a suspension, making these singular musical devices incredibly clear and obvious to the listener as they serve the purpose of adding intensity or anxiety to the music. This aural obviousness makes such a song an easy first piece for hearing a single musical element, in this case a suspension as part of an authentic cadence figure. Using this scaffolding tool, an instructor can then transition to other more challenging examples with quicker cadences, denser orchestration and less obvious non-chord tone usages. This activity procedure can be applied to additional musical content and the hand-raising portion can be exchanged for the students indicating the time according to the counter when the specific suspension or other non-chord tone type occurrence.

APPENDIX C

Metal Riff Composition Assignment

Possible Curriculum Placement: First Semester Theory Course, early

Supplemental lesson/material in common theory texts: chapter one and twenty-eight of *Tonal Harmony*, chapter one of *The Musician's Guide to Theory and Analysis*[60]

Instructor Notes

This assignment is designed for students to explore the use of the augmented fourth and diminished fifth intervals in manners not accessible in the CPP repertoire. This assignment is to be administered before students begin learning the conventions of Baroque four-voice part writing and melodic tonal tendencies so that students are not limited by such restraints; CPP harmonic tendencies are not a concrete rule in metal composition.[61] Students are permitted to explore the tendencies and specific flavor of each scale without needing to satisfy the hierarchical implications of western classical music. As a result, students will need to find where in each mode/scale where the tritone interval lies between two pitches to complete the assignment properly. With these factors in mind, this assignment would be best used during the first few weeks of the first music theory course in conjunction with learning about intervals, scales and modes.

For an added level of engagement to this assignment, allow students to perform their riffs for the class on their instruments or allow another student to perform their riff. The instructor can then use this opportunity to have the class identify the tritone intervals either employing an

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60. Kostka, Panye, and Almen, *Tonal Harmony, with an Introduction to Post-Tonal Music*, 8th ed (2018): ch. 1, ch. 28; Clendinning and Marvin, *The Musician's Guide to Theory and Analysis* (2005): ch. 1.
61. Lilja, *Theory and Analysis of Classic Heavy Metal Harmony* (2009): 48-92.

examination of the notation or by listening to the riff and having them raise their hand when the interval is heard. If one chooses to have the students listen and signal when the interval is heard, it is recommended that the performer may need to perform the riff slower for the sake of aural processing as necessary.

Student Handout: Metal Riff Composition Assignment

Name: _____   Date:_____   Due:_____

<u>**Instructions**</u>

Now that we have learned about intervals, modes, triadic harmonies, meter, pulse, ranges and clefs, we will now be exploring how these concepts combine to make musical ideas. In this assignment, you will be composing your metal riff motive for your instrument. To make your riff distinctly idiomatic of metal-style music, **your riff must contain a minimum of two tritones (augmented fourth or diminished fifth) leaps. You are required to bracket where the augmented fourth or diminished fifth leaps occur.**

You may choose any mode for your riff, however, metal riffs usually utilize the Dorian, Aeolian, Phrygian, harmonic minor, melodic minor and Hungarian minor modes. **Indicate the mode used somewhere above the first measure of the notation.** Chromaticism is permitted for the sake of voice leading, however, do not stray away from your mode and tonal center; if you are unsure about using non-modal chromaticism, it is best not to use it for this assignment. You may select whichever register, tonic, tempo and time signature works best for your instrument. The riff must be at least four measures in length. If your instrument is capable of producing more than one pitch at once, you are welcome to include chords; triadic harmonic implications are not necessary for your riff composition. Ensure that the tonal center of the riff is reinforced through how we establish a tonal center; metal riffs often include the tonic pitch as the lowest pitch or through repetition of the tonic note.

Please do keep in mind that you will be playing your riff for the class on the due date, thus do not create something outside of your current performance abilities. The goal of this assignment is to explore how the order of diatonic half-steps, whole steps and whole plus half-steps contribute toward the melodic tendencies and flavors of each minor-type mode.

Please refer to the scoring rubric on the back of this sheet for the grading criteria:

Criteria	4 Points	3 Points	2 Points	1 Point
Tritone Inclusion	Riff includes a minimum of two bracketed tritone intervals	Riff includes two tritone intervals, however, one or both of them are not bracketed	Riff includes one tritone interval	Riff includes no tritone intervals
Mode Usage	Riff stays within indicated mode 100% of the time and/or uses chromaticism that favors smooth voice leading	Riff stays within indicated mode most of the time leaving the mode for 1-2 notes and/or uses 1-2 chromatics notes that do not favor smooth voice leading	Riff stays within indicated mode most of the time leaving the mode for 3-5 notes and/or uses 3-5 chromatics notes that do not favor smooth voice leading	Riff mode is unclear as it contains 6 or more notes outside of its diatonic mode and/or 6 or more notes unfavorable to chromatic voice leading
Length	Riff is four or more measures in length	Riff is three measures in length	Riff is two measures in length	Riff is one measure in length
Notation	The notation is clear and void of text overlapping, unclear indications and improper usage of symbols	Notation contains 1-2 instances of text overlapping, unclear indications and improper usage of symbols	Notation contains 3-5 instances of text overlapping, unclear indications and improper usage of symbols	Notation contains 6 or more instances of text overlapping, unclear indications and improper usage of symbols
Tonal Center	Tonal center is obvious; modal tendencies, tonic note repetition/agogic accent/metric accent and other tonic-establishing means were utilized	Tonal center is obvious, however improper use of modal tendencies, tonic note repetition/agogic accent/metric accent and other tonic-establishing means suggest another possible tonal center	Tonal center is not clear as multiple improper uses of modal tendencies, tonic note repetition/agogic accent/metric accent and other tonic-establishing means suggest another possible tonal center or multiple tonal centers	Tonal center is obscure; no modal tendencies, tonic note repetition/agogic accent/metric accent and other tonic-establishing means were utilized

Final Score: _____ / 20

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