

PARTIMENTO PEDAGOGY AND ITS MODERN APPLICATION

BY

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DISSERTATION

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ABSTRACT

The purpose of this doctoral dissertation is to examine and advocate for the use of a historical keyboard improvisation pedagogy in both modern educational settings and individual learning environments as a self-contained, all-encompassing approach that is capable of producing a total musician who can successfully improvise, compose, and perform. My intent is not to discuss or advocate for reviving idiomatic historical improvisation; rather, I wish to examine how the theory of improvisation and interpretive performance support each other, and how learning improvisation can help fill gaps in the current classical training. Recently, there has been a growing awareness of the value of improvisation pedagogy which could compensate for the problems encountered in modern musical education; however, a concrete approach has yet to be established. My focus is on the pedagogical system called “partimento” and its modern application and adaptation. The partimento type of pedagogy was the standard procedure for learning music in the eighteenth century, but has only recently come to light as such. A more thorough investigation of partimento pedagogy reveals that musicians in the past, especially in the eighteenth century, learned music through a time-consuming but linear, logical, and efficient method, and everyone was destined to become the improviser-composer-performer as a reward for a fixed number of years of rigorous training. Currently, research on partimento is underway in a few North American universities and European conservatories that possess advanced music students; however, to date only a few texts targeting ordinary keyboard learners are available. In this project, I intend to create a sample curriculum for an undergraduate keyboard-skills class based on the integration of partimento pedagogy, and create a modern guide to partimento and classical improvisation for independent amateur learners. Then, I will use select organ

compositions by Johann Sebastian Bach as case studies through which to demonstrate the effectiveness of musical analysis based on partimento pedagogy from a performer's perspective.

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TABLE OF CONTENTS

CHAPTER 1: INTRODUCTION.....	1
CHAPTER 2: WHAT IS PARTIMENTO AND HOW DOES IT INSTRUCT?	15
CHAPTER 3: INTEGRATON OF CLASSICAL IMPROVISATION INTO MODERN EDUCATIONAL SETTINGS.....	39
CHAPTER 4: A MODERN GUIDE TO PARTIMENTO AND CLASSICAL IMPROVISATION	61
CHAPTER 5: ANALYZING ORGAN LITERATURE BASED ON PARTIMENTO PEDAGOGY	93
CONCLUSION	114
BIBLIOGRAPHY	115
SCORES.....	121
APPENDIX A: AUTHOR’S PARTIMENTO REALIZATIONS	122
APPENDIX B: AUTHOR’S CHORAL COMPOSITION BASED ON PARTIMENTO	131

CHAPTER 1: INTRODUCTION

In 1722, during the time of the French Enlightenment, Jean-Philippe Rameau (1683-1764), the most important innovator in modern tonal theory, published *Traité de l'harmonie*.¹ Rameau's concept of fundamental bass was further developed during the nineteenth century, especially through the efforts of German theorists such as Georg Joseph Vogler (1749-1814) and Gottfried Weber (1779-1839).² Their use of Roman numerals to describe chord functions and qualities has achieved "tremendous pedagogical success"³ and still maintains its "monopolistic position"⁴ in the world of music theory today. Although the core of Rameau's treatise considers the construction and rationalization of tonal theory, he also presents practical manuals for composition and accompaniment.⁵ As a matter of fact, Rameau's original intent with his scientific approach was to "make a practical aid for learning to realize chords above a thorough bass."⁶ Thus, our modern tonal theory was originally born to be a guide for "practice," namely composition and improvisation above a thoroughbass, the central focus of music education at the time.

In the course of the development of tonal music theory, however, it seems that we have deviated from this original purpose and that our modern theory courses probably can no longer be called practical theory, at least not in the above sense. We can observe a clear separation

¹ Jean-Philippe Rameau, *Treatise on Harmony*, Paris, Ballard, 1722, trans. Philip Gossett (New York: Dover Publications, Inc., 1971).

² Other notable German music theorists who contributed to modern harmonic theory were Johann Philipp Kirnberger and Heinrich Christoph Koch. Among them, Weber was the most responsible for the success of this theory. Brian Hyer, "Tonality." In *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (New York: Cambridge University Press, 2002), 734.

³ *Ibid.*

⁴ Ludwig Holtmeier states that the modern tonal theory is derived from "the bourgeois tradition of *Harmonielehre*" and it has occupied "a nearly monopolistic position" in the study of music theory. Ludwig Holtmeier, "Heinichen, Rameau, and the Italian Thoroughbass Tradition: Concepts of Tonality and Chord in the Rule of the Octave," *Journal of Music Theory* 51, no. 1 (2007): 5-6.

⁵ The core of the treatise is Book II "On the nature and Properties of Chords; and on Everything which may be used to make Music Perfect." Then, Books III and IV, "Principles of Composition" and "Principles of Accompaniment," are practical manuals.

⁶ Thomas Christensen, *Rameau and Musical Thought in the Enlightenment* (New York: Cambridge University Press, 1993), 52.

between theory and practice in Weber's *Versuch einer geordneten Theorie der Tonsetzkunst zum Selbstunterricht*.⁷ In this heavily influential book on music theory in Europe and North America in the nineteenth century, Weber clearly states that his book is not designed for "those who wish to become practical composers, but for those who have the more limited purpose of securing an acquaintance with the principles of the Science."⁸ Indeed, his chief interest is an investigation of individual tones, which he defines as "a musical sound of known pitch,"⁹ and combinations of these tones, namely chords, targeting amateur musicians who do not possess "any intention of being themselves composers."¹⁰ Because of the popularity of Weber's theory since its publication, even serious musicians interested in earlier examples of practical music theory have had few opportunities to access those resources published before Weber's treatises. As the result, a tremendous gap between theory and practice has emerged in music education that remains to this day.

In fact, Heinrich Schenker (1868-1935) had warned that the theory commonly taught in his time was a "false theory" seeking a "shortcut" that, in fact, led people away from the true understanding of the art of music.¹¹ Schenker succeeded in establishing his theory called "Schenkerian theory." It synthesizes harmonic theory, counterpoint, and thoroughbass, and it can sophisticatedly explain tonality by showing that a tonal composition is governed ultimately by its principal chord and that all other harmonic functions are subordinate to the tonic.¹² Schenkerian theory bloomed in the middle of the last century, first in North America and then in Europe;

⁷ Gottfried Weber, *Theory of Musical Composition: Treated With a View to a Naturally Consecutive Arrangement of Topics*, Mainz, B. Schott, 1817–21, trans. James F. Warner (Boston: O. Ditson & co, 1846).

⁸ *Ibid.*, 5.

⁹ *Ibid.*, 10.

¹⁰ *Ibid.*, 3.

¹¹ Heinrich Schenker, *Free Composition*, Vienna, Universal, 1935, trans. Ernst Oster (Hillsdale, N.Y.: Pendragon Press, 1977), xxi.

¹² William Drabkin, "Heinrich Schenker." In *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (New York: Cambridge University Press, 2002), 812, 816.

however, it has not been able to replace the theory that Weber had given a definitive form in his *Versuch*. Also, Schenker was clearly seeing a connection between his theory and practice;¹³ however, it seems that the production of “the graph” has become the chief interest for modern musicians who study Schenkerian analysis.¹⁴

The College Music Society’s Task Force on the Undergraduate Music Major (TFUMM) observes the following, regarding the problems of modern music curricula: “one of the most startling shortcomings in all of arts education is that too many music students graduate with little or no experience or significant grounding in the essential process of improvisation and composition.”¹⁵ This claim is certainly true. Although American collegiate music students typically have to take two to three years of theory courses, many of them are not equipped with the skills to create music. As an example of the depths of this issue, in a keyboard technique class I witnessed even graduate keyboard students with advanced technical skills at a total loss when asked to improvise, compose, and transpose. One of the leading scholars of historical improvisatory pedagogy, Robert Gjerdingen, emphasizes the problem of modern music theory courses:

harmony courses were designed in the nineteenth century for middle-class amateurs who wanted a course “about” music, but who did not want to spend the years of apprenticeship required to become a professional musician. Believe it or not, thousands of fine composers like Bach, Mozart, Beethoven, Schumann, Brahms, Debussy, Ravel, Stravinsky would have failed a modern collegiate examination in Harmony 101.¹⁶

¹³ See “Section 4: The Significance of the Fundamental Structure for Composition, Instruction, and Performance.” Schenker 1977, 6-9.

¹⁴ Robert Snarrenberg, *Schenker’s Interpretive Practice* (New York: Cambridge University Press, 1997), xvii-xviii.

¹⁵ Patricia Shehan Campbell et al., “Transforming Music Study from its Foundations: A Manifesto for Progressive Change in the Undergraduate Preparation of Music Majors.” In *Redefining Music Studies in an Age of Change: Creativity, Diversity, and Integration*, ed. Edward W. Sarath, David E. Myers and Patricia Shehan Campbell (New York: Routledge, 2017), 58.

¹⁶ Robert Gjerdingen, “The Basics of the Figures,” *Traditional Skills in Classical Music*, <https://drive.google.com/file/d/0B1tf9xeI3NRBOVBVdS1UQm4tdkk/view> (accessed December 1, 2017, last modified August 15, 2015).

Recently, there has been a growing awareness of improvisation pedagogy as a tool that can equip students with the tools to enable musical creation, helping to rectify what some scholars and educators have observed as a shortcoming in modern music educational settings. In addition, some scholars and educators claim that improvisation pedagogy also has the potential to give students a deep and comprehensive musical understanding that benefits interpretive performance, a central focus of modern classical performers. In my case, studying the historical improvisatory pedagogy called “partimento” justified these claims. Partimento not only gave me the ability to improvise and compose, but also an ability to analyze music practically. Building on this experience, this thesis explores the integration of partimento pedagogy into modern music educational settings and individual learning environments. It is my hope that in so doing I can help fill the gap between theory and practice in the modern classical world. Practicing partimento has been part of my own journey, and this introduction represents aspects of my growing understanding of the practice and its potential importance to contemporary as well as historical keyboard studies.

It is commonly known that the study of improvisation had played a large role in classical music education in the past, as it was an indispensable skill for being a professional musician. This tradition declined after the rise of the middle class and increase in amateur music making, however, especially during the middle of the eighteenth century. As a result, current classical musicians rarely learn to improvise; instead, our chief interest is interpretation and reproduction of existing literature. While there is nothing inherently wrong with this modern trend, I have always felt that we miss something important when we only play existing pieces. I questioned if we can fully and accurately interpret the music of the past without knowing the process of improvisation; in other words, I suspected that the process of interpretation and reproduction

might become easier when armed with the knowledge of at least a general concept of improvisation.

The idea of historically informed performance has become common since the second half of the twentieth century, and we now have more opportunities to consult early treatises in our efforts to interpret music in a historical manner. However, it seems that we have developed a peculiar habit when we explore the past. Namely, we tend to be satisfied with just picking up technical information and neglecting other topics. For instance, when we examine Carl Philipp Emanuel Bach's (1714-1788) *Versuch über die wahre Art das Clavier zu Spielen*,¹⁷ our chief interest is the fingering section even though, in fact, it constitutes roughly ten percent of his entire essay; indeed, C. P. E. Bach devoted roughly sixty percent of his essay to discussing topics related to thoroughbass¹⁸ (the basics of thoroughbass, thoroughbass accompaniment, and thoroughbass improvisation). At the time, "the term, thoroughbass, came to stand for science of harmony in general",¹⁹ and the knowledge of thoroughbass was considered a foundation of improvisation and composition, the central focal points of music education. I had often questioned whether we really can fully understand discussions of fingering and other technical matters without knowing this fundamental musical practice promoted at the time.

Many keyboard learners have probably posed the same question, and there must be many who are interested in learning the art of classical improvisation. During the paradigm shift in classical music education, however, we lost much information regarding classical improvisation,

¹⁷ Carl Philipp Emanuel Bach, *Essay on the True Art of Playing Keyboard Instruments*, Berlin, 1753 (Part One) and 1762 (Part Two), trans. William J Mitchell (New York: W. W. Norton & Company, Inc., 1949).

¹⁸ "An instrumental bass line which runs throughout a piece, over which the player improvises ('realizes') a chordal accompaniment." Peter Williams and David Ledbetter, "Continuo," in *Grove Music Online. Oxford Music Online*, <http://www.oxfordmusiconline.com.proxy2.library.illinois.edu/subscriber/article/grove/music/06353> (accessed November 1, 2017).

¹⁹ Peter Williams and David Ledbetter, "Thoroughbass," in *Grove Music Online. Oxford Music Online*, <http://www.oxfordmusiconline.com.proxy2.library.illinois.edu/subscriber/article/grove/music/27896> (accessed December 1, 2017).

since an oral teaching method accounted for a substantial portion of improvisation learning. Through learning modern harmonic music theory, we can grasp how composers structured pieces to a certain extent. However, many still feel that the act of improvisation “the practice of making compositional decisions in the moment of performance”²⁰ is seemingly out of reach. We know that musicians in the Baroque and Classical periods used thoroughbass for the study of improvisation, but it is difficult to understand exactly how thoroughbass teaches improvisation, and how it could have made even amateur keyboard players decent improvisers. There must have been some sort of common knowledge among them that has not been transmitted to us, unfortunately. As a result, a majority of modern students still think of improvisation as “the mysterious art”²¹ or “impracticable by all but a select few.”²²

Interestingly, the concept of improvisation has become much clearer and common because of the increased attention given by ethnomusicologists to music outside the European classical tradition, especially since about 1960.²³ In 1974, Bruno Nettl examined the concepts of improvisation in his influential article “Thoughts on Improvisation,”²⁴ in which he engaged in a comparative study of many improvisatory traditions, including jazz, Indian, Indonesian, Middle Eastern, African, and Western music. He proclaimed that “composition and improvisation are part of the same idea”²⁵ because both acts go through fundamentally the same process; both composition and improvisation always have a “model”²⁶ that “one uses as a ground on which one

²⁰ Gabriel Solis, "Introduction." In *Musical Improvisation: Art, Education, and Society*, ed. Gabriel Solis and Bruno Nettl (Champaign: University of Illinois Press, 2009), 1.

²¹ Lawrence Gushee, "Improvisation and Related Terms in Middle-Period Jazz." In *Musical Improvisation: Art, Education, and Society*, ed. Gabriel Solis and Bruno Nettl (Champaign: University of Illinois Press, 2009), 263.

²² Solis 2009, 1.

²³ Bruno Nettl, "Introduction: An Art Neglected in Scholarship." In *In the Course of Performance: Studies in the World of Musical Improvisation*, ed. Bruno Nettl and Melinda Russell (Chicago: The University of Chicago Press, 1998), 1.

²⁴ Bruno Nettl, "Thoughts on Improvisation: A Comparative Approach," *The Musical Quarterly* 60, no. 1 (1974): 1-19.

²⁵ *Ibid.*, 6.

²⁶ There is a wide range of model types: “notes, cadential figures, section types identified by length, melodic phrases, or lines, rhythmic lines or formulas, entire tunes, chord sequences, and modal concepts to which are attached a large group of traits -

builds.”²⁷ Two of the distinctive characters of the model are “points of reference”²⁸ and “building blocks.”²⁹ The points of reference include central tones and opening and closing motifs that must appear or at least be implied, in order for the given style to be recognized or defined. Building blocks are musical components that musicians can choose, combine, recombine, and rearrange to carry out each musical function; this may involve quite small-scale things such as the selection of tones and melodic motifs, or larger-scale ones such as harmonic patterns and whole formal elements. Building blocks are greatly varied in their extent and size, and the accumulated tradition in each style gives stylistic constraints to these building blocks and that particular style’s organization, construction, and expansion. Nettl concludes his article suggesting that “performance” also might exist together in the idea of “improvisation,” since performers often play from models to a certain extent, such as scores and the accumulated tradition of performance practice.³⁰ I agree with this claim because it involves a relatively small amount of freedom compared to improvisation and composition, in which performers always have the freedom to choose tempo, dynamics, touch, interpretation, ornamentation, and other musical matters.

As Nettl suggests, the process of musical creation is always based on a model that is the sum of the many kinds of building blocks not randomly selected and constructed, as they always have to “rest on a series of conventions or implicit rules.”³¹ Thus, knowledge and study of “models of stylistic constraints” are prerequisites to create music in a particular style; conversely,

scales, motifs, and typical sequences of focal points in range and tonality, as well as rhythmic tendencies.” Nettl, “Thoughts on Improvisation,” 15.

²⁷ Ibid., 11.

²⁸ Ibid., 12-13.

²⁹ Ibid., 13-15.

³⁰ Ibid., 19.

³¹ Bruno Nettl et al., “Improvisation,” in Grove Music Online. Oxford Music Online, <http://www.oxfordmusiconline.com.proxy2.library.illinois.edu/subscriber/article/grove/music/13738> (accessed November 1, 2017).

everybody might be able to improvise and compose if they have an opportunity to study based on this concept. Also, this concept not only represents the theory of improvisation and composition, but also the true nature of any musical creation, including performance. Among all of the acts of musical creation, improvisation is, needless to say, the most demanding since it requires huge stocks of models internalized in both the brain and hand that the musician can simultaneously access and utilize in the moment; however, this difficulty accounts for improvisation's infinite potential as an educational device. In any musical culture, models have been taught through active improvisation. Borrowing the words of the instructional theorist M. David Merrill, "concepts and skills are best learned when knowledge is 'situated,' or constructed from active experience."³² We often witness the power of this "situated learning," such as in language acquisition among children living in a foreign country. Thus, even the classical performer who is not at all interested in the act of improvisation can still gain a deep and comprehensive musical understanding that is indispensable for a good interpretation by learning classical improvisation. Therefore, improvisation could be described as a self-contained, all-encompassing approach that is capable of producing a total musician.

Historical musicologists, music theorists, and ethnomusicologists have continued to research improvisation. Recently, there has been interdisciplinary exploration of the topic, especially with regard to language learning; for instance, Aaron Berkowitz compared the cognitive process of music to that of language acquisition and production in *The Improvising Mind*.³³ In the case of American collegiate music education settings, lately there has been a

³² M. David Merrill. "Constructivism and Instructional Design," *Educational Technology* 31, no. 5(1991):45-53, quoted in Patricia Shehan Campbell, "Learning to Improvise Music, Improvise to Learn Music," in *Musical Improvisation: Art, Education, and Society*, ed. Gabriel Solis and Bruno Nettl (Champaign: University of Illinois Press, 2009), 119-142.

³³ Aaron Berkowitz, *The Improvising Mind: Cognition and Creativity in the Musical Moment* (New York: Oxford University Press, 2010).

growing awareness of the value of improvisation pedagogy, which can help rectify problems with the modern music curriculum, mainly the inability to create music, as stated at the beginning of the chapter. For instance, in *Transforming Music Study from its Foundations: A Manifesto for Progressive Change in the Undergraduate Preparation of Music Major*, the College Music Society's Task Force on the Undergraduate Music Major (TFUMM) advocates for creativity, diversity, and integration as the framework of music education in the twenty-first century, and for the use of improvisation in the classroom.³⁴ Although TFUMM keeps clarifying that they have no intention of abandoning the European classical tradition,³⁵ it seems that their focus tends toward African-American-derived music, including jazz.³⁶ I believe that we still have not explored the full potential of classical education through improvisation, and this might be better considered alongside a broadening of focus to include other music. Even if classical music is facing a decline, it remains a significant field of music throughout the world. More importantly, much music around us, including popular music and children's songs, has its roots in the classical tradition. I believe that a classical training, as I will present in this thesis, can help rectify problems with modern music curricula by adding the aspect of improvisation. In addition, through the extensive study of classical improvisation, as much as through any other kind of music, students can gain the ability to grasp the true essence of musical creation, namely the concept of a model, which can be helpful when they need to understand music from other cultures.

³⁴ Patricia Shehan Campbell et al., "Transforming Music Study from its Foundations: A Manifesto for Progressive Change in the Undergraduate Preparation of Music Majors." In *Redefining Music Studies in an Age of Change: Creativity, Diversity, and Integration*, ed. Edward W. Sarath, David E. Myers and Patricia Shehan Campbell (New York: Routledge, 2017), 45-85.

³⁵ Ibid., 52, 72, 74, 76, 77, and 83.

³⁶ Ibid., 52, 71, and, 72.

The biggest question is how we can integrate classical improvisation into modern curricula. The general concept of improvisation has become clearer, as stated above; however, classical improvisation is still difficult to study. The concept of a model is an abstract notion, and it is hard to know what exact kinds of models we have to learn, and how exactly we can learn these models from the classical tradition.

The recently rediscovered tradition of partimento has started revealing a secret of classical improvisation, and gives answers to the question above; namely, it informs learners what kind of models should be learned and how they may be learned in order to improvise, especially in the style of the eighteenth century and early nineteenth century, an important body of work with respect to the entire classical tradition. Therefore, this concept has great potential for integration into our modern musical training. Information on partimento has become widely available because of scholars such as Robert Gjerdingen and Giorgio Sanguinetti. Gjerdingen's research on musical schemata³⁷ and partimento in his *Music in the Galant Style* and Sanguinetti's *The Art of Partimento*,³⁸ the first monograph on the Neapolitan partimento tradition, show that many great classical musicians, especially ones in the eighteenth century, learned music through a logically organized system, such as the practice called partimento, which is akin to thoroughbass and improvisation. As a reward for a fixed number of years of rigorous training on the subject, the learners at the time were destined to become good improvisers, composers, or performers.

Importantly, Nettl's definition of musical improvisation coincides with what partimento pedagogy tries to teach. Aimed at equipping students with the ability to be total musicians, partimento pedagogy, at its core, is the learning of the largest models accounting for the most

³⁷ Musical schemata "musical patterns" or "stock of musical phrases." It will be explained more in Chapter 2. Robert Gjerdingen, *Music in the Galant Style* (New York: Oxford University Press, 2007), 6.

³⁸ Giorgio Sanguinetti, *The Art of Partimento: History, Theory, and Practice* (New York: Oxford University Press, 2012).

features in the classical tradition, namely harmonic patterns and their construction/organization, through improvisation. Harmonic patterns are the models of the highest level in a hierarchy used during the process of classical improvisation and composition. Therefore, harmonic patterns can be described as the most important “ground-model.” In his *Briefe über den Unterricht auf dem Pianoforte*, Carl Czerny (1791-1857) concludes his letter with a chapter on extemporaneous performance stating, “all music may be reduced to simple chords. Just so, simple chords conversely serve as the ground-work on which to invent to play all sorts of melodies, passages, skips, embellishments, etc.”³⁹ The greatest advantage of using partimento collections is that these ground models are clearly organized in progressive difficulty.

As described later at the end of the second chapter, this partimento way of thinking and learning was a common approach among the composers at the time, as seen in J. S. Bach’s (1685-1750) pedagogical pieces. The recent revival of the partimento tradition is expected to change modern classical music training positively. In a personal communication, Giorgio Sanguinetti told me that “partimento, together with schemata theory,⁴⁰ are changing the landscape of music theory in its many facets, including history, analysis, pedagogy, and performance.”⁴¹

Now, the question is how we can integrate partimento pedagogy into modern musical education. Although partimento pedagogy clearly shows important models and learning strategies in the style, it is difficult to adapt to the modern world as the teaching of partimento was set up by advanced professional music teachers in eighteenth-century Italian conservatories,

³⁹ Carl Czerny, *Letters to a Young Lady on the Art of Playing the Pianoforte, from the Earliest Rudiments to the Highest Stage of Cultivation*, Vienna 1839, trans. J. A. Hamilton (New York: Firth, Pond and Co., 1861), 78-82.

⁴⁰ Schemata theory shows how musical schemata are constructed in a cultural context. Schemata will be explained more in Chapter 2.

⁴¹ Giorgio Sanguinetti, e-mail message to author, May 10, 2015.

who had to equip orphans with a marketable skill as effectively as possible; these orphans also had to work rigorously in order to survive by learning the musical skill.⁴² Importantly, we are not living in the past and we cannot immerse ourselves in the culture from which the stylistic models were derived. If we want to use partimento pedagogy in a modern educational setting, we need careful planning and adjustment.

Attempts to integrate partimento into modern educational systems have just begun, and research on partimento is currently underway in a few North American universities and European conservatories that possess advanced music students. However, to date, only a few texts targeting ordinary keyboard learners are available. Given these facts, the focus of this thesis is neither a history of partimento nor an idiomatic revival of classical improvisation, but the investigation of the practical adaptation of partimento pedagogy toward the ordinary level of keyboard study in undergraduate settings and in independent learning environments.

My methodology is primarily based on objective analyses of documents and qualitative investigations of the pedagogical results of learning and teaching partimento. Already, I have had numerous contacts with experts in the field. I discussed partimento with both Sanguinetti and Gjerdingen; Sanguinetti kindly sent me a precious copy of Luigi Picchianti's (1786-1864) orchestral realization of Fedele Fenaroli's (1730-1818) partimenti. Gjerdingen always answers my questions regarding partimento; while traveling from Chicago to Indiana, he even stopped in Champaign, Illinois, where we met, sat in front of a piano, and discussed partimento for a few hours. Also, I conducted a Skype interview with another partimento scholar, Gaetano Stella, who shared his experiences teaching partimento in the Frosinone Conservatory in Italy. In addition, I

⁴² Robert Gjerdingen, "Partimenti and Their Historical Context," *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/Partimenti/aboutParti/histOverview.htm> (accessed December 1, 2017).

have had numerous enlightening discussions with professors at the University of Illinois at Urbana-Champaign who are interested in partimento and practical musicianship.

Lastly, my four years of experience teaching a Japanese course at the University of Illinois as a teaching assistant has truly deepened my understanding of partimento, as language acquisition and improvisation learning pass through a similar process. Through my struggle to learn partimento autodidactically, I was able to discover many things that have not been discussed in scholarly papers. It would help students without lots of experience improvising. As I am an average musician, my view would have been slightly different from those of scholars who are already established musicians. In addition, I created a sample curriculum for an undergraduate keyboard-skills class by adapting partimento pedagogy that I used while teaching at a community college during the fall semester of 2016.

Although most modern players will not be able to learn partimento exactly the same as students did in the past, I believe an adapted approach to partimento pedagogy has the potential to add an important creative dimension to our music training. It would give the joy of musical creation and creative interpretation to all keyboard learners. This thesis explores ways of adapting partimento to our modern keyboard training in both college education and private settings, offering concrete lesson plans and learning strategies; meanwhile, I would also like to discuss how study of improvisation through partimento can positively influence interpretative performance, which is currently the central focus of classical music education. This thesis consists of five chapters. Following this introduction, Chapter 2 provides a brief overview and explanation of partimento using musical examples. Chapter 3 introduces the sample curriculum I set up for an undergraduate keyboard class that I constructed through my teaching at a community college. Chapter 4 includes my modern guide to partimento and classical

improvisation for independent amateur learners. Finally, Chapter 5 consists of a practical musical analysis of select organ pieces based on partimento pedagogy and discusses how this analysis benefits learners' studies of improvisation, composition, and interpretive performance. The Conclusion represents a summary of partimento's benefits and its potential for changing the landscape of our musical training.

CHAPTER 2. WHAT IS PARTIMENTO AND HOW DOES IT INSTRUCT?

Best known for its use in eighteenth-century Italy, especially in Neapolitan conservatories, partimento is a kind of thoroughbass practice containing of a single bass line either with figured or unfigured bass. Whereas thoroughbass had originally been used for accompaniment, partimento bass lines do not accompany anything; instead they look like a part of a keyboard piece, as in Example 1.

EXAMPLE 1. Partimento No. 8 from Fedele Fenaroli's Book IV (or Book III depending on the editions), from Gjerdingen's *Monuments of Partimenti* (GJ1338).

The image displays a musical score for a single bass line in C major, consisting of eight staves. The notation includes various rhythmic values (quarter, eighth, and sixteenth notes), rests, and phrasing slurs. The piece begins with a half rest followed by a quarter note G, then a quarter note A, and a quarter note B. The first staff ends with a quarter note G. The second staff starts with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The third staff begins with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The fourth staff starts with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The fifth staff begins with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The sixth staff starts with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The seventh staff begins with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The eighth staff starts with a quarter note G, followed by quarter notes A, B, and C, then a quarter note B, A, and G. The piece concludes with a double bar line.

Evolving from thoroughbass, partimento became an educational device to teach improvisation and composition. Giorgio Sanguinetti, the author of *The Art of Partimento*, suggests a general definition of partimento as “a sketch, written on a single staff, whose main

purpose is to be a guide for improvisation of a composition [a complete piece] at the keyboard.”⁴³ In short, partimento is a practical guide for improvising what could be heard as a keyboard piece.

A learner can realize partimenti by using the harmonic models that are presented in rules sections of partimento collections. Partimento bass lines contain several patterns, which impart information about their conventional construction and organization, thus creating the ground structure of well-formed music in a stylistic manner. Through intensive and sustained practice of partimento, students internalize these patterns and their construction, organization, and possible expansion. Then, the stock of these patterns will serve as the foundation on which the student may freely improvise, compose, and perform in the classical style. In the second half of this chapter, I will show how exactly the above partimento (Example 1) can be realized using these patterns.

Currently, the most useful and practical source regarding partimento available to the public is Robert Gjerdingen’s website *Monuments of Partimenti*.⁴⁴ Although it is still under construction, Gjerdingen’s website shares a historical overview of partimento tradition, a beginner’s guide, and several collections of partimenti. Gjerdingen calls partimento “Instruction bass,” as it is a bass line written for a pedagogical purpose; this term well describes partimento’s nature. In addition to the website, Gjerdingen published *Music in the Galant Style*, in which he clarifies the basic musical habits of eighteenth-century musicians; the central aim of musical learning at the time was the memorization or internalization of stock musical phrases and passages in a stylistic manner that serve as a model for improvisation and composition. Then,

⁴³ Giorgio Sanguinetti, *The Art of Partimento: History, Theory, and Practice* (New York: Oxford University Press, 2012), 14.

⁴⁴ Robert Gjerdingen, “A Beginner’s Guide,” *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/Partimenti/index.htm> (accessed December 1, 2017).

Gjerdingen explains that partimento was used as a central device to equip students with this ability. Gjerdingen refers to “stock of musical phrases employed in conventional sequences”⁴⁵ as “musical schemata,” and shows many musical patterns that encompass the galant musical culture, namely galant schemata.

Gjerdingen has largely devoted himself to the study of musical schemata. The concept of musical schemata is difficult to define. For instance, it is insufficient to state that it is simply the study of musical patterns; rather, schema is “a mental structure formed on a basis of past experience with objects, scenes, or events and consisting of a set of (usually unconscious) expectations about what things look like and/or the order in which they occur.”⁴⁶ Musical schemata, then, are “musical patterns” or “stock musical phrases” that encompass the style and culture of the given music, governed by a conventional organization in their style and construction. Therefore, musical schemata can define the style and context of the given music.⁴⁷ Interestingly, the idea of musical schemata coincides with Nettl’s theory of improvisation, as they both explore archetypical stylistic patterns and structures in the given style. Both studies point to how we may understand music deeply and comprehensively from cultural and theoretical perspectives.

It has to be mentioned that Gjerdingen also has a website called *Monuments of Solfeggi*. On it, he notes that along with partimento, solfeggio, study of graceful melody, was central to student learning as they are “two sides of the same polyphonic coin.”⁴⁸ The research on Neapolitan solfeggio practice lags behind that on partimento, probably because of the difficulty

⁴⁵ Gjerdingen, *Music in the Galant Style*, 6.

⁴⁶ David E. Rumelhart, “Schemata: The Building Blocks of Cognition,” in *Theoretical Issues in Reading Comprehension*, ed. Rand J. Spiro, Bertram C. Bruce, and William F. Brewer (Hillsdale, N. J.: Lawrence Erlbaum Associates, 1980): 41, quoted in *A Classic Turn of Phrase: Music and the psychology of Convention* (Philadelphia, PA: University of Pennsylvania Press, 1988), 4.

⁴⁷ Robert Gjerdingen, *Music in the Galant Style* (New York: Oxford University Press, 2007), 3-24.

⁴⁸ Robert Gjerdingen, “Solfeggi in Their Historical Context,” *Monuments of Solfeggi*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/solfeggi/aboutSolfe/histOverview.htm> (accessed December 1, 2017).

modern musicians have in applying *par transposition* system (hexachord solmization through transposition). Further discussion about solfeggio can be seen in Peter van Tour's *Counterpoint and Partimento*,⁴⁹ and Nicholas Baragwanath's *The Italian Traditions and Puccini: Compositional Theory and Practice in Nineteenth-Century Opera*⁵⁰ and *How to Solfeggiare the Eighteenth-Century Way: A Summary Guide in Ten Lessons*.⁵¹ This topic will be discussed in Chapter 5. Peter van Tour's book deeply investigates the teaching of counterpoint and composition through partimento and solfeggio in the Neapolitan conservatories through his extensive survey of historical sources such as nineteenth-century publications. He also systematically cataloged the sources of the Neapolitan solfeggio and partimento.⁵²

Partimento is a highly organized system known for its use in Italy, namely in the Neapolitan conservatories. However, it is not too much to say that the partimento approach was standard procedure among first-class musicians throughout Europe at the time. The *Langloz Manuscript*,⁵³ the largest extant collection of partimento fugues, shows its connection with Johann Sebastian Bach and his musical circle. We also can observe partimento fugues in George Frederick Handel's (1685-1759) lesson for Princess Anne.⁵⁴ It is noteworthy that Johann Christian Bach (1735-1782) studied with Padre Martini (1706-1784) in Bologna, and Joseph Haydn (1732-1809) studied with the Neapolitan composer Nicola Porpora (1686-1768) in

⁴⁹ Peter van Tour, *Counterpoint and Partimento: Methods of Teaching Composition in Late Eighteenth-Century Naples* (Uppsala: Uppsala Universitet, 2015).

⁵⁰ Nicholas Baragwanath, *The Italian Traditions and Puccini: Compositional Theory and Practice in Nineteenth-Century Opera* (Bloomington, IN: Indiana University Press, 2011).

⁵¹ Nicholas Baragwanath, "How to Solfeggiare the Eighteenth-Century Way: A Summary Guide in Ten Lessons," <https://www.nottingham.ac.uk/music/documents/2015/nick-baragwanath,-a-summary-guide-to-solfeggiare-the-eighteenth-century-way.pdf> (accessed September 29, 2017).

⁵² Peter van Tour, *UUPART: The UPPSALA PARTIMENTO DATABASE*, <http://www2.musik.uu.se/UUPart/UUPart.php> (accessed September 29, 2017).

⁵³ William Renwick, *The Langloz Manuscript: Fugal Improvisation Through Figured Bass* (Oxford: Oxford University Press, 2001).

⁵⁴ George Frideric Handel, *Continuo Playing According to Handel: His Figured Bass Exercises*, ed. David Ledbetter (Oxford: Oxford University Press, 1990).

Vienna. Partimento even reached Russia as Giovanni Paisiello (1740-1816) was hired by the Russian court. Importantly, the Neapolitan school of teaching greatly influenced the foundation of the Paris Conservatory.⁵⁵ Then, a collection of Italian partimenti was published several times in early nineteenth century Paris. It is hard to believe that Parisian musicians at the time had not been aware of the partimento tradition. These are only a few examples; the social network of partimento teachers, students, and colleagues had reached many important composers in the nineteenth century. Recently, partimento manuscripts were discovered even in South America which were probably brought by composers like Domenico Zipoli (1688-1726).⁵⁶

Now, I will briefly discuss the basics of partimento practice mainly using Fedele Fenaroli's *Regole musicali per i principianti di cembalo*,⁵⁷ one of the most important and well-organized partimento collections. Fedele Fenaroli taught at Santa Maria de Loreto, one of the Neapolitan conservatories. According to Sanguinetti, Fenaroli's partimento collection was "sanctified as the Holy Bible of every musical truth in Italy during 1800s."⁵⁸ This collection had been used as the main textbook in the Neapolitan conservatories for a long time, and new editions had been published in Italy until the 1950s. Although Fenaroli was not successful as a composer, he had a long and distinguished career as a teacher. His famous students include Domenico Cimarosa (1749-1801) and Nicola Antonio Zingarelli (1752-1837). It is worth mentioning that Giuseppe Verdi (1813-1901) praised Fenaroli's partimento after being exposed to it in composition lessons with his teacher Vincenzo Lavigna (1776-1836), who was another of

⁵⁵ Rosa Cafiero, "The Early Reception of Neapolitan Partimento Theory in France: A Survey," *Journal of Music Theory* 51, no. 1 (2007): 137-59.

⁵⁶ Gaetano Stella, in discussion with the author, May 6, 2015.

⁵⁷ Gjerdingen, "Fedele Fenaroli," *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/partimenti/collections/Fenaroli/index.htm> (accessed December 1, 2017).

⁵⁸ Sanguinetti, *The Art of Partimento*, 232.

Fenaroli's pupils.⁵⁹ In Paris, Alexandre-Étienne Choron (1771-1834) published *Principes d'accompagnement des écoles d'Italie*,⁶⁰ an annotated anthology of partimento that contains a large number of Fenaroli's partimenti, in 1808. Then, Emanuele Imbimbo (1756-1839) published the Parisian edition of Fenaroli's partimento collection in 1814. As it proves the awareness of partimento in Paris, François-Joseph Fétis (1784-1871) wrote a description of partimento in his essay *Esquisse de l'Histoire de L'harmonie*,⁶¹ Fétis even realized one of Fenaroli's partimenti in his *Traité complet de la théorie et de la pratique de l'harmonie*,⁶² although his focus is more on the science of harmony than on the practical value of partimento.⁶³

Now, I would like to discuss the general content of partimento collections. Although the content varies slightly among the collections, the first section of a collection usually starts with "rules (*Regole*)."⁶⁴ In the rules section, students are exposed to several harmonic patterns, which can serve as the most important models of the classical tradition, such as "Cadences," "Rule of the Octave," "Suspensions," "Bass motions," and "Scale mutations." Knowledge of these rules is prerequisite for practicing partimento. In other words, students can realize most partimenti with these rules.

"Cadences" are classified in three types: simple, compound, and double (Example 2). The compound and double cadences are created by adding a suspension to the simple cadence. A

⁵⁹ Ibid., 79.

⁶⁰ Alexandre-Étienne Choron and Vincenzo Flocchi, *Principes d'accompagnement des Écoles d'Italie. Extraits des meilleurs Auteurs: Leo, Durante, Fenaroli, Sala, Azopardi, Sabbatini, le père Martini, et autres: Ouvrage classique servant d'introduction à l'étude de la composition* (Paris: Chez Janet et Cotelte, 1804).

⁶¹ François-Joseph Fétis, *Esquisse de l'histoire de l'harmonie considérée comme art et comme science systématique*, Paris, Bourgogne et Martinet, 1840. trans. Mary I. Arlin (Stuyvesant, NY: Pendragon Press, 1994), 48, 49, 53, and 131.

⁶² François-Joseph Fétis, *Traité complet de la théorie et de la pratique de l'harmonie*, Paris, Brandus, 1849, trans. Peter M. Landey (Hillsdale, NY: Pendragon Press, 2008), 140 and 141.

⁶³ Rosa Cafiero, "The Early Reception of Neapolitan Partimento Theory in France: A Survey," *Journal of Music Theory* 51, no. 1 (2007): 137-59.

⁶⁴ In the case of Fenaroli's collection; however, the rules book and the partimento collection (six books) were first published separately in 1775, and then they began to be published together in the later editions.

model often overlaps with other models in this manner. Students are expected to practice these in all three positions (with the root, third, or fifth of the chord in the soprano) in all twenty-four keys until they internalize them. Needless to say, practicing them in all three positions is beneficial since students can understand each voice that comprises cadences. There are two reasons for doing transposition exercises. First, one should be able to use cadences in any key as much classical music involves key changes. Second, it is pedagogically useful as transposition exercises train learners to read music linearly. Strategies for and benefits of practicing transposition will be discussed in greater detail in Chapter 4.

EXAMPLE 2. Fedele Fenaroli's Regole "CONCERNING CADENCES," from Gjerdingen's *Monuments of Partimenti*.

The image displays three musical examples of cadences in G major, each in a different position. Each example consists of a grand staff with a treble and bass clef, a common time signature (C), and a key signature of one sharp (F#).
 - **Simple:** The treble clef contains three chords: G4 (root), B4 (third), and D5 (fifth). The bass clef contains three notes: G2 (root), B2 (third), and D3 (fifth). Fingerings are indicated by circled numbers 1, 5, and 1 below the notes.
 - **Compound:** The treble clef contains three chords: G4 (root), B4 (third), and D5 (fifth). The bass clef contains three notes: G2 (root), B2 (third), and D3 (fifth). Fingerings are indicated by circled numbers 1, 5, and 1 below the notes. Above the notes, there are circled numbers 1 and 2 above the first two notes, and 4 and 3 below the second and third notes.
 - **Double:** The treble clef contains three chords: G4 (root), B4 (third), and D5 (fifth). The bass clef contains three notes: G2 (root), B2 (third), and D3 (fifth). Fingerings are indicated by circled numbers 1, 5, and 1 below the notes. Above the notes, there are circled numbers 6, 5, and 1 above the first three notes, and 4, 4, and 3 below the second, third, and fourth notes.

The next subject to learn, “Rule of the Octave,” basically teaches a way to accompany both major and minor scales. This explanation does not sufficiently describe its true nature, however. “Rule of the Octave” is found in many treatises of the time and has been discussed extensively by modern scholars such as Thomas Christenson. Through studying “Rule of the Octave,” learners are able to gain “a repertory of the most essential harmonies and harmonic progressions;”⁶⁵ I will provide a more detailed discussion of this subject later in Chapter 4. As in “Cadences,” students are expected to practice these in all three positions in all keys. Fenaroli’s version of “Rule of the Octave” is presented below (Example 3 is a major scale, and Example 4 is a minor scale). Interestingly, we already observe an augmented 6th chord in the minor scale,

⁶⁵ Thomas Christenson, “The “Règle de l’Octave” in Thorough-Bass Theory and Practice,” *Acta Musicologica*, 64, no. 2 (1992):92.

which is the last subject usually to be learned in the modern undergraduate tonal music theory sequence. Neapolitan students, however, did not think of music chord by chord; they understood it as good voice leading in the minor scale.

EXAMPLE 3. Fedele Fenaroli's Regole "CONCERNING SCALES," from Gjerdingen's *Monuments of Partimenti*.

EXAMPLE 4. Fedele Fenaroli's Regole "THE MINOR SCALES," from Gjerdingen's *Monuments of Partimenti*.

"Suspensions" is organized in four categories: 2nd, 7th, 4th, 9th. The rule shows all possible notes to be prepared before these suspensions. It is not the case in Fenaroli's collection, but there are simple but efficient exercises in the rules section of other editions, such as in Francesco Durante's exercises of "Suspensions"⁶⁶ (Example 5), in which he prepared the bass lines in many keys for students to practice efficiently. Francesco Durante (1684-1755) taught at Sant'Onofrio a Porta Capuana, one of the Neapolitan conservatories, and Fenaroli was one of his students.

⁶⁶ Gjerdingen, "Francesco Durante" *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/partimenti/collections/Durante/regole/index.htm> (accessed December 1, 2017).

Durante was extraordinarily famous as a teacher, and is considered to be a central figure in the partimento tradition along with Fenaroli.⁶⁷

EXAMPLE 5. Francesco Durante Regole “4ths Prepared by 8vas,” from Gjerdingen’s *Monuments of Partimenti*.



“Bass motions” are an important part in the partimento tradition as well as in eighteenth-century music. It shows several typical bass patterns which are described by the words such as “Stepwise Ascent” (Example 6) and “Down a 4th, Up a 2nd” (Example 7). The latter is simply *Romanesca* formula, as in Pachelbel’s Canon, which had existed at least since the sixteenth century. The partimento tradition organizes these kinds of musical patterns, which had been cultivated by past musicians, in a fundamentally systematic way. As seen below, “Suspensions” can be integrated into the models of “Bass motion.”

⁶⁷ Sanguinetti, *The Art of Partimento*, 232.

EXAMPLE 6. Fedele Fenaroli's Regole "CONCERNING THE MOVE OF PARTIMENTO," from Gjerdingen's *Monuments of Partimenti*.

EXAMPLE 7. Fedele Fenaroli's Regole "CONCERNING A PARTIMENTO THAT FALLS BY A FOURTH AND RISES BY A STEP," from Gjerdingen's *Monuments of Partimenti*.

"Scale mutations" is another important concept as partimento, or classical music, frequently changes keys to recycle patterns. Originally called *uscita di tono*, "scale mutation" is Sanguinetti's translation.⁶⁸ It is similar to our sense of local tonicization rather than modulation; it is better to think of it simply as a patterned bass motion that can change keys. The "Scale mutations" section does not appear in Fenaroli's rules; however, some collections clearly classify it. The following example by Giovanni Furno (1748-1837), in his *METHOD Facile breve e chiaro delle prime ed essenziali regole per accompagnare Partimenti senza numeri*,⁶⁹ shows a key change (C major to G major) through half-step ascending bass motion. (Example 8). Also, the second example teaches a key change (C major to E minor) through whole-step ascending motion. In this example, accidentals cannot be observed from the bass line; rather, it is the student's task to recognize a key change from the bass pattern and add accidentals in the right

⁶⁸ Sanguinetti, *The Art of Partimento*, 158.

⁶⁹ Gjerdingen, "Giovanni Furuno," *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/Partimenti/collections/Furno/regoleP6.htm> (accessed December 1, 2017).

hand. As shown below, F and D are mutated (F-sharp and D-sharp are added in the right hand) in order to bring the music from C major to E minor.

EXAMPLE 8. Sanguinetti's realization of Giovanni Furuno's Regole "THE RULE OF DEPARTURES FROM THE KEY OR, TERMINATIONS," in *The Art of Partimento*, 160.

The image displays two musical examples, labeled 'a)' and 'b)', each consisting of a four-measure passage in common time (C). Both examples start in C major. In measure 1, the right hand plays a C major triad (C-E-G) and the left hand plays a C major triad (C-E-G). In measure 2, the right hand plays a C major triad (C-E-G) and the left hand plays a C major triad (C-E-G). In measure 3, the right hand plays a C major triad (C-E-G) and the left hand plays a C major triad (C-E-G). In measure 4, the right hand plays a C major triad (C-E-G) and the left hand plays a C major triad (C-E-G). The transition to E minor occurs in measure 2. In version 'a)', the right hand mutates F and D to F# and D# in measure 2, while the left hand remains in C major. In version 'b)', the left hand mutates F and D to F# and D# in measure 2, while the right hand remains in C major. The mutations are indicated by circled numbers 7 and 1 in 'a)', and 4 and 5 in 'b)'.

After learning all these rules, or models, students can directly apply their knowledge to hundreds of partimenti. Most importantly, students learn the conventional organization of harmonic patterns in the context of actual music, as partimento is comprised of fragments of complete works.

Example 9 is Fenaroli's partimento No. 8 from Book IV, which I presented at the beginning of this chapter. It clearly shows how partimento is logically constructed to invoke a conventional organization of patterns. Fenaroli shows how he can compose a piece by using limited musical ideas (broadly four patterns in this partimento), how these musical ideas can be lined up, and how musical ideas can be recycled in other keys. Now, I would like to show how this partimento can be realized and improvised step by step.

EXAMPLE 9. Partimento No. 8 (GJ1338) from Fedele Fenaroli’s Book IV (or Book III depending on the editions), from Gjerdingen’s *Monuments of Partimenti*.

The image displays a musical score for Partimento No. 8, consisting of eight staves of bass clef music. The score is divided into measures, with measure numbers 10, 19, 29, 38, 47, 57, and 62 indicated on the left. The music is written in a single system with a common time signature (C). The score is annotated with various patterns labeled in boxes: A (measures 1-10), A' (measures 11-19), B (measures 20-29), C (measures 30-38), A'' (measures 39-47), A' (measures 48-57), B'' (measures 58-62), C' (measures 63-71), B'' (measures 72-80), D (measures 81-89), and D' (measures 90-98). The patterns are connected by horizontal lines above the staves, indicating their structure and repetition.

First of all, there are no figured bass symbols in this partimento because this exercise is from Fenaroli’s “third” book of partimenti; students do not need figured bass symbols by the time they learn this partimento. This partimento begins with the pattern called “Suspension in the Bass.” Fenaroli’s rule shows how to harmonize this pattern (Example 10). In order to realize this partimento, one does not need great finger agility; rather, one just needs to know this rule and be able to transpose it to the key of F major.

EXAMPLE 10. Fedele Fenaroli's Regole "CONCERNING SUSPENSIONS OF THE BASS," from Gjerdingen's *Monuments of Partimenti*.

The interval of the second (between G and A) is resolved to the third (F# and A).

2 - 3
2-3 suspension

"Suspension in the Bass" is the dissonance of 2nd resolving to the third ("2-3 suspension") as the figure "2" is indicated in thoroughbass, and this is the only suspension that occurs in the bass. Sanguinetti states that "this is the most important of all suspensions."⁷⁰ In fact, this bass motion is countlessly observed in music representative of the Baroque and Classical eras, as in the excerpt from J. S. Bach's keyboard pieces below (Example 11). Once a learner gains the ability to identify patterns from existing pieces, that learner can easily absorb how masters embellish a melody, and retain them in a stock of improvisational and compositional formulas.

⁷⁰ Sanguinetti, *The Art of Partimento*, 133.

EXAMPLE 11. Johann Sebastian Bach. *Sonata No. 6 for two Keyboards and Pedal, BWV 530* from *Orgelwerke, Band 1. Bach Gesellschaft Edition, Vol. 15*. Edited by Wilhelm Rust. Leipzig: Breitkopf und Härtel, 1867 (m. 1).
Johann Sebastian Bach. *Invention No. 13 in A minor, BWV 784* from *Clavierwerke. Bach Gesellschaft Edition, Vol. 3*. Edited by Carl Ferdinand Becker. Leipzig: Breitkopf und Härtel, 1853 (m. 1).

The image displays two musical excerpts. On the left, the word "Allegro." is written above a three-staff musical score. The top staff is empty, while the middle and bottom staves contain a melodic line with eighth and sixteenth notes. On the right, the word "Inventio 13." is written above a two-staff musical score. Both staves contain a melodic line with eighth and sixteenth notes, starting with a treble clef and a common time signature.

The answer to the opening “Suspension in the Bass” of Fenaroli’s partimento above (mm. 3-4) can be harmonized using the knowledge acquired from “Cadences” and “Rule of Octave.” Importantly, this partimento reveals the transitional probabilities of harmonic patterns; namely, “Suspension in the Bass” can be used as an opening theme, and they are most likely followed by a cadential pattern (closing gesture).

Students can first realize partimento in three and four voices, simply applying harmonic models presented in the rules section. After that, students can realize the partimento in three voices throughout, reducing the voice from the first attempt while focusing on creating smooth voice leading in each voice. The final goal is realizing it in two voices as shown in the examples of embellished melodies by some of the partimento teachers (Example 12).

EXAMPLE 12. Fedele Fenaroli’s partimento, No.1 (Gj1375) and No.2 (Gj1376) in “Libro quinto (Book five),” and Francesco Durante’s partimento, No.1 (Gj1) and No.5 (Gj5) in “Partimenti diminuiti (Embellished Bases,)” from Gjerdingen’s *monuments of Partimenti*.

The process of making a melody above a partimento bass line is called the art of diminution, because one is technically making an embellished melody from a slow and simple melody of harmonic models presented in the partimento rules. Learning diminutions is problematic for modern learners, since partimento usually does not indicate how to create them. Sanguinetti states that “the masters considered these aspects [diminutions] unsuitable for written instructions and taught them orally.”⁷¹

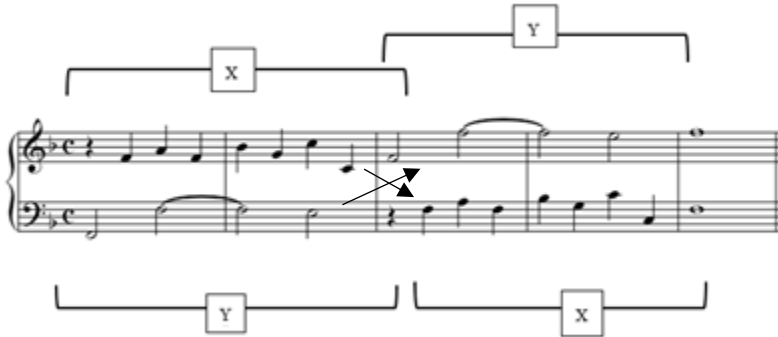
⁷¹ Sanguinetti, *The Art of Partimento*, 184.

Also, eighteenth-century students learned diminutions during solfeggio singing lessons before they even started partimento.⁷² In modern settings, we do not have teachers who can demonstrate their diminution ideas as in the past; also, singing lessons and keyboard lessons are separated. Unfortunately, Fenaroli's and Durante's diminution ideas presented in Example 12 are rare examples that partimento teachers had left. If modern keyboard learners would like to gain more diminution ideas, the best way is probably to sing and analyze numerous existing compositions based on the harmonic patterns, and absorb past masters' diminution ideas on their own. Even though partimento does not clearly teach how one can make a diminution, studying plain harmonic patterns through partimento can equip students with the ability to analyze music based on patterns; with this ability, students can study how to make diminutions through an infinite number of existing pieces individually. This topic will be discussed at greater length in Chapter 5.

Although I have argued that partimento usually does not indicate how to create diminution in the previous paragraph, some partimenti, including Fenaroli's partimento in Example 9, provides clues for making diminutions using invertible counterpoint. In the case of Fenaroli's partimento, one can use the bass response (mm. 3-4) as a diminution over the opening bass motion (mm. 1-2) using invertible counterpoint. Then, the opening bass motion can serve as a diminution above the bass answer part and vice versa (Example 13).

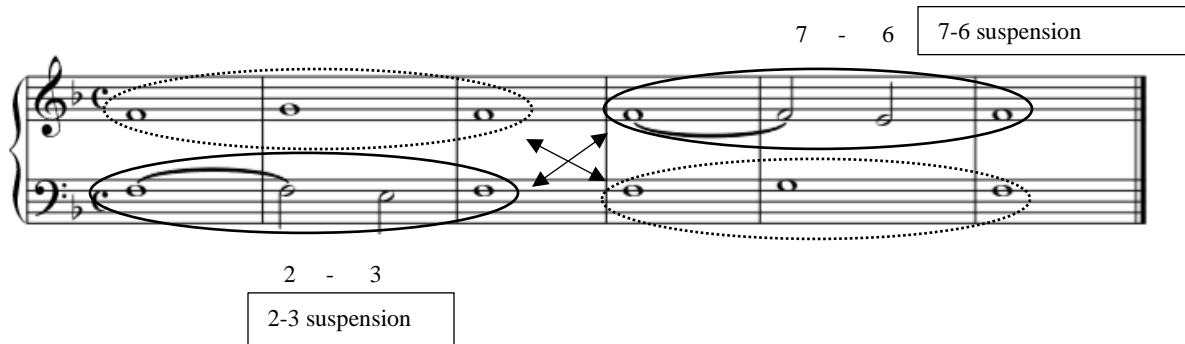
⁷² "At the Neapolitan conservatories, students were only allowed to progress to keyboard playing and figured bass (partimento) once they had mastered singing (solfeggio). They spent a year or more just adding syllables to melodies. This explains why partimento treatises seldom mention the crucial issue of melodic contour. There was no need, because students arrived at their first keyboard lesson having spent years singing the melodies and hearing the basses of every pattern they were about to be taught how to play," Nicholas Baragwanath, "How to Solfeggiare the Eighteenth-Century Way: A Summary Guide in Ten Lessons," 1, <https://www.nottingham.ac.uk/music/documents/2015/nick-baragwanath,-a-summary-guide-to-solfeggiare-the-eighteenth-century-way.pdf> (accessed September 29, 2017).

EXAMPLE 13. Example of diminution using invertible counterpoint.



Interestingly, the “2-3 suspension” in “Suspension in the Bass” becomes the “7-6 suspension” by inversion (Example 14). Thus, one rule is actually teaching two rules at the same time economically. This way of thinking could explain how the musicians in the past were economically trained.

EXAMPLE 14. The “second” suspension in “Suspension in the Bass” becomes the “seventh” suspension by the inversion.



By using this idea of invertible counterpoint, it is possible to make a graceful realization in the Fenaroli’s partimento with relative ease (Example 15). There exists no more practical way to learn invertible counterpoint than by realizing this partimento.

EXAMPLE 15. The author's realization of the same partimento.

The image shows two staves of music. The first staff has a bracket above it labeled 'F major' and contains a melody in F major. The second staff has a bracket above it labeled 'C major' and contains a melody in C major. Below the second staff, a bracket spans the width of the staff and is labeled 'Up a 4th, Down a 3rd', indicating the intervallic relationship between the two phrases.

As shown above, the second phrase (mm. 5-8) is an exact transposition of the opening F major phrase in C major. Later, this pattern appears in A minor (m. 19). This partimento covers a very typical harmonic progression of the Classical period (roughly I -V- minor key -V- I). I already realized it in Example 15, but the bass motion after m. 9 is a pattern called “Up a 4th, Down a 3rd.” Fenaroli, of course, shows several ways to realize this pattern in his rules (Example 16).

EXAMPLE 16. Fedele Fenaroli's Regole “CONCERNING A PARTIMENTO THAT RISES BY A FOURTH AND FALLS BY A THIRD,” from Gjerdingen's *Monuments of Partimenti*.

The image shows three musical examples labeled A.q., A.r., and A.s. Each example shows a bass line in C major with a sequence of six notes: C, F, C, G, F, C. The notes are numbered 1 through 6. A.q. shows the notes as whole notes. A.r. shows the notes as quarter notes with a '9 8' interval marking between the first and second notes, and between the second and third notes. A.s. shows the notes as quarter notes with a '7 4 3' interval marking between the first and second notes, and between the second and third notes.

Another important bass motion in this partimento is the one called “Stepwise descent in Ties” (Example 17).

EXAMPLE 17. Partimento No. 8 (GJ1338) from Fedele Fenaroli’s Book IV, from Gjerdingen’s *Monuments of Partimenti*, m. 22.



Fenaroli’s rule of this pattern is below (Example 18). In fact, “Stepwise descent in Ties” is a chain or series of “Suspensions in the Bass,” which appeared at the beginning of this partimento. “Stepwise descent in Ties” is a practical pattern because “there is no limit to the number of occurrences”⁷³ and one can decide how many times it should be used depending on the situation. In the case of Fenaroli’s rule, Fenaroli shows a typical use of the pattern. After the succession of the four “Suspensions in the Bass” from the tonic, this pattern often merges to the pattern, a variant of the second half of “Rule of the Octave,” and lands gracefully on the tonic. Gjerdingen calls the latter “*Prinner*,” which will be discussed in depth in the next three chapters.

EXAMPLE 18. Fedele Fenaroli’s Regole “CONCERNING A PARTIMENTO THAT DESCENDS IN TIES,” from Gjerdingen’s *Monuments of Partimenti*.

Two staves of music in G major. The top staff is labeled 'A.e.' and shows a sequence of notes with fingerings: 1, 7, 6, 5, 4, 3. The bottom staff shows a sequence of notes with a circled section labeled 'Prinner (a variant of the second half of “Rule of the Octave.”)'. The text 'G major' appears at the beginning and end of the bottom staff. Below the bottom staff, the text 'The succession of the four “Suspensions in the Bass”' is written with an arrow pointing to the first four notes of the bottom staff.

⁷³ Sanguinetti, *The Art of Partimento*, 134.

In this partimento, “Suspension in the Bass” only occurs three times and brings the music from A minor to C major (Example 19). Fenaroli implicitly teaches us a modulation formula using “Stepwise descent in Ties.” By adjusting of the numbers of the succession, this pattern can bring music to several keys. Upon making a diminution of this partimento, I use the melodic idea from the opening as shown below.

EXAMPLE 19. The author’s realization of “Stepwise Descent in Ties” in the same partimento.

A minor

The succession of the three “Suspensions in the Bass”

Prinner

C major

The way of making diminution in “Stepwise Descent in Ties” can be found in many existing works, such as in Example 20, an excerpt from one of J. S. Bach’s Preludes from the *Notebook for Wilhelm Friedemann Bach*. This Bach composition will be compared to Fenaroli’s example more closely later in this chapter. It is interesting to note that Bach lowered B-natural to B-flat (scale mutation) and used the succession of the seven “Suspensions in the Bass” in order to bring the music from C major to D minor. This modulation formula is provided below adjusting Fenaroli’s rule.

EXAMPLE 20. Johann Sebastian Bach. *Prelude in F major, BWV 928* from *Clavierwerke. Band 4. Bach Gesellschaft Edition, Vol. 36*. Edited by Ernst Naumann. Leipzig: Breitkopf und Härtel, 1890, mm.6-7.

The image displays two musical staves. The upper staff is a single melodic line, and the lower staff is a piano accompaniment. Both staves show a modulation from C major to D minor. The modulation is achieved through a series of tied notes that descend stepwise in the bass line, as indicated by the arrows and labels 'C major' and 'D minor'.

The modulation formula bringing music to ii minor key using “Stepwise descent in Ties.”

In sum, Fenaroli’s partimento artistically teaches how to construct a piece using very limited patterns: “Suspension in the Bass” with its inversion “7-6 suspension,” “Up a 4th, Down a 3rd,” and “Stepwise descent in Ties.” Other parts may be harmonized using “Cadences” and the “Rule of Octave.” Fenaroli was aware of the fact that it is better to keep a task as simple as possible in an educational setting, in order not to overwhelm students. Importantly, students can learn conventional organization of patterns, such as the fact that “Suspension in the Bass” is usually followed by a “Cadence,” but can sometimes be followed by “Stepwise descent in Ties” instead when one wants to modulate while expanding the length of phrase as shown in the Fenaroli’s partimento above. In addition, Fenaroli gives a clue for making diminution through invertible counterpoint and how musicians were economically making music. The full realization of this partimento is presented in Appendix A with my realizations of a few other partimenti.

One of J. S. Bach’s Preludes from the *Notebook for Wilhelm Friedemann Bach* (Example 21), which was already mentioned in Example 20, is very similar to Fenaroli’s above partimento;

it shows the fact that composers in the past shared a common approach toward composition. It is easy to assume that Bach was also constructing simple harmonic patterns, all of which he had already known, but his way of constructing patterns and making diminutions is far beyond ordinary. In this piece, Bach’s main musical idea is obviously “Suspension in the Bass” and its inversion “7-6 suspension” as in Fenaroli’s partimento, but it is only implied at the beginning. “Suspension in the Bass” appears in the dominant (m. 5) and in a minor key (m. 8); likewise, we also can observe “Stepwise descent in Ties” in measure 6, as stated in Example 19.

EXAMPLE 21. Johann Sebastian Bach. *Prelude in F major, BWV 928* from *Clavierwerke. Band 4. Bach Gesellschaft Edition, Vol. 36*. Edited by Ernst Naumann. Leipzig: Breitkopf und Härtel, 1890.

The image displays three systems of musical notation for the first six measures of the Prelude in F major, BWV 928. The notation includes treble and bass staves. Annotations are provided in boxes: 'Suspension in the Bass (implied)' points to the first measure; '7-6 suspension' points to the second measure; and 'Stepwise descent in Ties' points to the sixth measure. Circled areas highlight specific chordal and melodic features in the bass line.

We can observe some other patterns in several levels from this piece, as listed in my pattern analysis (Example 22). As I stated, “Suspensions in the Bass” becomes “7-6 suspension” by the inversion. Also, “Stepwise descent in Ties” becomes “7-6 Descending” by the inversion as shown below. From this example, we can understand each pattern’s relationship, transitional possibilities (namely “stock musical phrases employed in conventional sequence,” using Gjerdingen’s term), as well as Bach’s diminution ideas. Through this way of understanding

music, it is obvious that we can grasp music in a broader context rather than thinking about each note or chord vertically. As described later, this way of seeing music is truly beneficial from the performer’s perspective. This topic will be discussed at greater length in Chapter 5.

EXAMPLE 22. Musical patterns and their relationship of *Prelude in F major, BWV 928*.

The image shows a musical score for the Prelude in F major, BWV 928, with several annotations in boxes and arrows pointing to specific musical features:

- Suspension in the Bass (inverted)**: Points to a note in the bass staff that is tied to the previous measure.
- Down a 5th. Up a 4th (inverted)**: Points to a melodic interval in the treble staff.
- Suspension in the Bass (implied)**: Points to a note in the bass staff that is tied to the previous measure.
- Down a 5th, Up a 4th**: Points to a melodic interval in the treble staff.
- Scale mutation**: Points to a change in the scale in the treble staff.
- 7-6 descending**: Points to a descending interval in the bass staff.
- Double Cadence**: Points to a cadence in the bass staff.
- Stepwise descent in Ties**: Points to a descending sequence of notes in the bass staff.
- Scale mutation (F#) foreshadowing G**: Points to a change in the scale in the treble staff.

- The inversion of Suspension in the Bass = 7-6 Suspension
- The inversion of Stepwise descent in Ties = 7-6 Descending

In conclusion, as Fenaroli’s partimento demonstrates, even a single partimento can teach many things. By practicing hundreds of partimenti over and over, learners can learn and internalize all possible harmonic patterns, their conventional organization, and possible ideas for diminution, namely “models” of classical keyboard improvisation. When all of this knowledge

becomes habit and implicit memory,⁷⁴ students will no longer need the help of partimento bass lines;⁷⁵ instead, they will be able to recall and produce all models necessary for improvisation in a moment. This was the secret of classical improvisation. In addition, by practicing many types of partimenti, a learner can apply their knowledge of analyzing pieces constructed in a similar way as I showed in the J. S. Bach piece above.

Here, the question arises: how much work actually needs to be done in order to realize and improvise on Fenaroli's partimento used in this chapter in the case of modern learners? It depends on how efficiently students learn the partimento rules and patterns; that said, ordinary keyboard learners should be able to realize it with simple chords within a few months if they practice patterns using the strategies discussed in Chapter 4 every day for a small amount of time. It is difficult to estimate how much time it will take to master learning diminutions above simple chords; I will discuss this at great length in Chapters 4 and 5. In the next chapter, I will discuss the integration of partimento and classical improvisation pedagogy into modern educational settings. I will present my sample curriculum, which is aimed to supplement undergraduate music theory courses.

⁷⁴ Implicit memory can be defined as "memory that does not depend on conscious recollection." It will be discussed more in the fifth chapter. Michael W. Eysenck and Mark T. Keane, *Cognitive Psychology: A Student's Handbook*, 5th ed. (East Sussex: Psychology Press, 2005), 569, quoted in Aaron Berkowitz, *The Improvising Mind: Cognition and Creativity in the Musical Moment* (New York: Oxford University Press, 2010), 8.

⁷⁵ Gjerdingen describes partimento bassline as "training wheel." Robert Gjerdingen, "Learner's guide," *Traditional Skills in Classical Music*, last modified August 15, 2015, <https://drive.google.com/file/d/0B1tf9xeI3NRBOVBVdS1UQm4tdkk/view> (accessed November 1, 2017).

CHAPTER 3. INTEGRATION OF CLASSICAL IMPROVISATION INTO MODERN EDUCATIONAL SETTINGS

While I was considering making a sample curriculum adapting partimento pedagogy for this project in the summer of 2016, I was invited to teach “Keyboard Skills III” as an adjunct instructor at a community college near Chicago during the fall semester of 2016. The class was mainly for sophomore music students and was co-requisite with “Music Theory III” and “Aural Skills III.” The assigned textbook for the course was *Alfred's Group Piano for Adults*,⁷⁶ which is one of the most common textbooks in group piano classes at American colleges and universities. However, I was told that I could only slightly adjust the curriculum as long as it reinforced the content of theory class in a positive way. Therefore, I decided to add my curriculum based on partimento pedagogy and introduced it to the students, as I believe partimento pedagogy perfectly bridges theory and practice. This sample curriculum specifically targets second-year undergraduate music students who already have taken first-year tonal theory, aural skills, and keyboard skills courses, and it should be considered as a supplement to the modern college music education. In this chapter, I first describe several teachers’ current attempts at using partimento in modern educational settings, and then introduce my adapted partimento pedagogy sample curriculum, which I created through my teaching at the community college.

Partimento in modern educational settings

Partimento is time-consuming but is nevertheless an economical method to gain advanced musicianship. In fact, some renowned conservatories, such as The *Schola Cantorum Basiliensis*

⁷⁶ E.L. Lancaster and Kenon D. Renfrow, *Alfred's Group Piano for Adults: An Innovative Method Enhanced with Audio and MIDI Files for Practice and Performance*, 2nd ed. (Van Nuys, CA: Alfred Publishing Co., Inc., 2008).

in Switzerland, which possess advanced music students actually use partimento in their education.⁷⁷ However, there are many problems using partimento in more ordinary educational settings. We have few teachers who can actually teach it. Also, the average student would not be able to digest the time-consuming partimento in a limited time as fast as advanced music students in conservatories. It probably takes more than a month for average students to fully internalize just *one* rule without adequate guidelines, but most of us would not be patient enough practicing just one rule in twenty-four keys for a month. If we want to use partimento pedagogy in a modern educational setting, we need careful planning and adjustment.

Currently, several scholar/educators are seeking a way to use partimento or adapt partimento pedagogy in a general educational setting. Gaetano Stella, a professor at University of Rome Tor Vergata and the author of the article “Partimenti in the Age of Romanticism,”⁷⁸ recently offered an experimental course teaching partimento to some undergraduate students in music education (such as a flute student) and to some private amateur students.⁷⁹ He mainly used the rules and exercises from Fenaroli and Durante’s partimento collections. In a Skype interview, he pointed out to me that he finds that students learn well when he emphasizes reading each voice linearly.

A recent text that is trying to increase the accessibility of the idea of partimento practice is Lieven Strobbe’s *Tonal Tools*.⁸⁰ Strobbe divides classical music into nine “components” using ideas of musical schemata. His text organizes musical patterns in a unique way and introduces many new concepts. Interestingly, he avoids teaching the “Rule of the Octave” stating “its

⁷⁷ Rudolf Lutz, “The playing of Partimento,” in *Partimento and Continuo Playing in Theory and in Practice: Collected Writings of the Orpheus Institute 9*, ed. Dirk Moelants, (Leuven: Leuven University Press, 2010), 119-27.

⁷⁸ Gaetano Stella, “Partimenti in the Age of Romanticism: Raimondi, Platania, and Boucheron,” *Journal of Music Theory* 51, no. 1 (2007): 161-186.

⁷⁹ Gaetano Stella, in discussion with the author, May 2, 2015.

⁸⁰ Lieven Strobbe, *Tonal Tools* (Antwerp and Apeldoorn: Garant Publishers, 2014).

complexity, playability, and length cause teaching difficulties when working with beginners;”⁸¹ however, I believe “Rule of the Octave” can be still useful for teaching ordinary students. I will describe this matter more in the next chapter.

Currently a private piano instructor in New Zealand, Teresa de Vries wrote a master’s thesis, “To Be or Not to Be: Balancing Process and Product in the Classical Piano Lesson through Improvisation,”⁸² which examines the value of improvisatory pedagogy in piano lessons. She is currently experimenting with incorporating partimento and Gjerdingen’s musical schemata into her piano studio lessons. In an email discussion, she told me that teaching minuets has strong pedagogical potential.⁸³ I was pleased to hear that because I also had been thinking about the powerful pedagogical potential of simplified minuet bass lines in the manner of partimento.

Why does the minuet have pedagogical potential?

In the eighteenth century, several composers valued the minuet as an excellent elementary composition exercise.⁸⁴ The eighteenth-century music theorist Joseph Riepel (1709-1782) stated, “a minuet, with respect to execution, is no different from a concerto, an aria, or a symphony... we want always to begin with something very small and inconsiderable in order later to arrive at something larger and more praiseworthy.”⁸⁵ Thus, the minuet can be called a ground model of musical form. Musicians can simply expand a minuet when they need to make a larger

⁸¹ Ibid., 20.

⁸² Teresa de Vries, “To be or not to be: Balancing Process and Product in the classical piano lesson through improvisation,” (master’s thesis, The University of Auckland, 2014).

⁸³ Teresa de Vries, email message to author, February 8, 2015.

⁸⁴ Meredith Ellis Little, “Minuet,” in *Grove Music Online. Oxford Music Online*, <http://www.oxfordmusiconline.com.proxy2.library.illinois.edu/subscriber/article/grove/music/18751> (accessed November 1, 2017).

⁸⁵ Joseph Riepel, *Joseph Riepel's Theory of Metric and Tonal Order: Phrase and Form*, chapters 1 and 2 (1752/54, 1755), trans. John Walter Hill (Hillsdale, N.Y.: Pendragon Press, 2014), 6.

composition. In *Music in the Galant style*, Gjerdingen states that several educational minuets exist in historical collections; notable examples are Thomas Attwood (1765-1838)⁸⁶ and Barbara Ployer's (1765-1811)⁸⁷ lesson books with Wolfgang Amadeus Mozart (1756-1791). Then, Gjerdingen shows the example of a simple educational minuet by Giovanni Battista Somis (1686-1763).⁸⁸

EXAMPLE 23. Giovanni Battista Somis. *Minuet*, Opus 6, no. 4, mvt. 3, from Gjerdingen's *Music in the Galant Style*.

The musical score is presented in two staves (treble and bass clef) with a 3/4 time signature. It is divided into four systems, each with a specific label above it:

- System 1 (Measures 1-5):** Labeled "ROMANESCA". It features a sequence of notes with fingerings: 1, 5, 1, 5 in the treble clef and 1, 7, 6, 3 in the bass clef.
- System 2 (Measures 6-10):** Labeled "PRINNER". It features a sequence of notes with fingerings: 6, 5, 4, 3 in the treble clef and 4, 3, 2, 5, 1 in the bass clef.
- System 3 (Measures 11-15):** Labeled "PRINNER" and "minor". It features a sequence of notes with fingerings: 5, 4, 2, 3 in the treble clef and 3, 2, 5, 1 in the bass clef. A trill is marked over the final note of the system.
- System 4 (Measures 16-18):** Labeled "PRINNER" and "HEMIOLA CADENCE". It features a sequence of notes with fingerings: 4, 3, 2 in the treble clef and 2, 5, 1 in the bass clef. A trill is marked over the final note of the system.

⁸⁶ Wolfgang Amadeus Mozart, *Barbara Ployers und Franz Jakob Freystadtlers Theorie- und Kompositionsstudien bei Mozart*, ed. Hellmut Federhofer and Alfred Mann (Kassel: Bärenreiter, 1989).

⁸⁷ Wolfgang Amadeus Mozart, *Thomas Attwoods Theorie- und Kompositionsstudien bei Mozart*, ed. Erich Hertzmann, Cecil B. Oldman, Daniel Heartz and Alfred Mann (Kassel: Bärenreiter, 1965).

⁸⁸ Gjerdingen, *Music in the Galant Style*, 76.

A minuet can be composed with a few patterns. In the case of Somis's minuet, it is comprised of four patterns as Gjerdingen shows. He labeled these patterns with specific names, what he calls *galant schemata*. *Romanseca* and *Fonte* as well as *Cadence* were commonly used names describing musical patterns in the past. Gjerdingen named the pattern of descending four notes, *Prinner*, after German organist Johann Jacob Prinner (1624-1692), as he left a note about this pattern in his treatise *Musicalischer Schliessl*.⁸⁹ In fact, this pattern can be observed even in sixteenth-century classical compositions; in the case of the eighteenth century, it often served as a typical answer to the opening themes such as *Romanesca*.⁹⁰ Somis's minuet inspired me to make an even simpler minuet bass line in which the occurring musical events may be more obvious to beginners as in Example 24.

EXAMPLE 24. The author's simple/systematic minuet bass line

The musical notation for Example 24 consists of four measures of bass clef music in 3/4 time with a key signature of one sharp (F#). Each measure is labeled with a letter and a measure number:

- Measure 1 (labeled 'A', measure number 9): Starts with a half note F#4 and a quarter note G4.
- Measure 2 (labeled 'B', measure number 10): Starts with a half note A4 and a quarter note B4.
- Measure 3 (labeled 'C', measure number 17): Starts with a half note C5 and a quarter note B4.
- Measure 4 (labeled 'D', measure number 25): Starts with a half note A4 and a quarter note G4.

Each measure is followed by a double bar line and repeat dots. The patterns A, B, C, and D represent the four galant schemata mentioned in the text.

In my opinion, the newly created simple/systematic minuet bass line as above can teach several musical patterns, its transitional probabilities, and musical forms more easily than by

⁸⁹ Quoted in Gjerdingen, *Music in the Galant Style*, 45 and 46.

⁹⁰ *Ibid.*, 455.

using historical partimento collections, although it is less artistic than the historical exercises.

This is my answer to the question “how can we apply partimento pedagogy to the modern educational settings?” A newly constructed simple minuet bass line in the manner of partimento could constitute a modern application of partimento pedagogy in the classroom setting.

How exactly can a simple and systematic minuet be used?

The minuet bass line above (Example 24) is the main tool in my curriculum sample. Nobody would have difficulty finding patterns used in this minuet; they are comprised of four patterns (A, B, C, and D). This bass line can serve as a total teaching tool; in my class I used it as a composition exercise, a group improvisation exercise, a technical exercise, and a review for a theory course in both harmony and structure. Now, I would like to discuss how exactly a teacher can use this bass line in a second-year keyboard skills class.

Step 1: Recognizing a pattern

First, a teacher can ask students to analyze the following Mozart Piano Sonata. This piece checks if students really understand the concept of “inversion,” which they should have learned in the first-year music theory class.

EXAMPLE 25. Wolfgang Amadeus Mozart. *Piano Sonata No.5 in G major, K.283/189h* from *Sonaten und Phantasien für das Pianoforte, Serie XX*. Edited by Otto Goldschmidt, Joseph Joachim, Carl Reinecke, Ernst Rudorff, and Paul Waldersee. Leipzig: Breitkopf und Härtel, 1878.

The image shows a musical score for the piano part of Mozart's Piano Sonata No. 5 in G major, K. 283/189h. The score is in 3/4 time and G major. The tempo is marked "Allegro." The piano part begins with a piano (*p*) dynamic and features a rhythmic pattern of eighth notes. The first five measures are labeled with Roman numerals: G, I, V₃⁴, V₅⁶, and I. The score ends with a fortissimo (*fp*) dynamic.

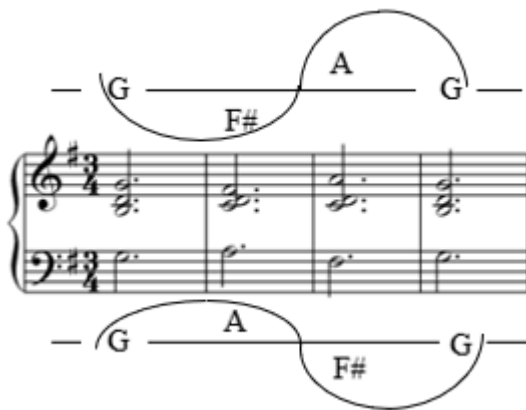
After completing a roman-numeral analysis as above, a teacher can ask students to write its harmonic skeleton (Example 26). At this point, a teacher should announce that this harmonic skeleton will be the focus of the class for the semester.

EXAMPLE 26. The two possible harmonic skeletons for Mozart's piano sonata in G major.



This $I-V_3^4-V_5^6-I$ harmonic pattern in the Mozart example can also be observed in many classical compositions. Several soprano lines upon this bass line are possible. While the first example above is the most common soprano line in the entire classical tradition, the second example above is a particularly popular soprano line among the galant composers as Gjerdingen explores this pattern in his *A Classical Turn of Phrase*.⁹¹ Interestingly, both soprano and bass lines in the above examples have an S-like melodic outline and are symmetrically placed horizontally (Example 27).

EXAMPLE 27. S-like melodic outline in $I-V_3^4-V_5^6-I$ harmonic pattern.



⁹¹ Robert Gjerdingen, *A Classic Turn of Phrase: Music and the Psychology of Convention* (Philadelphia, PA: University of Pennsylvania Press, 1988).

Music theorist Leonard B. Meyer (1918-2007) had first mentioned this S-like melodic line and called it “the changing-note archetype.”⁹² Subsequently, Gjerdingen explored this pattern more deeply in his *A Classical Turn of Phrase and Music in the Galant Style* as one of the most common *Galant schemata*. Gjerdingen calls the first soprano and bass combination in Example 23 “Aprile,” after the great castrato and teacher Giuseppe Aprile (1731-1813), and the second combination “Meyer,” after the music theorist Leonard Meyer. It seems that this I-V⁴₃-V⁶₅-I pattern had also been a very popular organ improvisatory formula in the early nineteenth century. One of the most influential treatises in the German organ world at the time, Johann Christian Rinck’s (1770-1846) *Praktische Orgelschule*⁹³ introduces this pattern in his first prelude (Example 28). It is interesting to see that Felix Mendelssohn (1809-1847), then only eleven years old, used a similar harmonic pattern in his organ piece (Example 29).

EXAMPLE 28. The first prelude of Christian Heinrich Rinck’s “*Thirty Preludes in all the major and minor keys*,” from *Praktische Orgelschule*, Op. 55.



⁹² Leonardo B. Meyer, *Explaining Music: Essay and Exploration* (Chicago: University of Chicago Press, 1973), 72, quoted in Robert Gjerdingen, *A Classic Turn of Phrase: Music and the Psychology of Convention* (Philadelphia, PA: University of Pennsylvania Press, 1988), 53.

⁹³ Christian Heinrich Rinck, *Praktische Orgelschule*, Op. 55. ed. William Thomas Best (London: Novello & Co., n.d. 1858).

EXAMPLE 29. Mendelssohn Bartholdy, Felix, *Präeludium* from *Neue Ausgabe sämtlicher Orgelwerke*, Band 1. Edited by Christoph Albrecht, Kassel: Bärenreiter, 2002.

This I-V₃⁴-V₅⁶-I harmonic pattern also can be used in modern repertoire, such as “Happy Birthday to You.” A teacher can show several possible ways of accompanying “Happy Birthday to You” using this harmonic pattern (Example 30).

EXAMPLE 30. The examples of accompanying “Happy Birthday to You” using the same pattern.

Plain style

Alberti bass

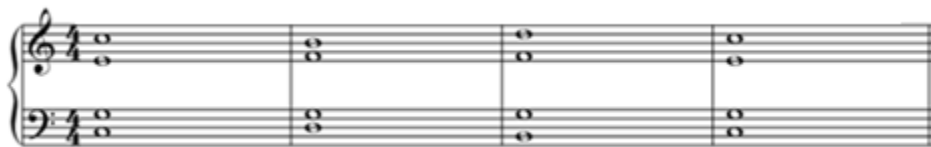
Nocturne Style

At this point, a teacher can point out the fact that composers were not making music randomly; instead, they were simply using and developing the musical patterns that they had already known. In modern music education, the musical patterns are generally only discussed when students are learning the concept of “sequences.” The definition of sequence, “a melodic or polyphonic idea consisting of a short figure or motif stated successively at different pitch levels, so that it moves up or down a scale by equidistant intervals,”⁹⁴ is insufficient to describe the nature of musical patterns as Gjerdingen shows in his research on musical schemata, which was described in Chapter 1.

Step 2: Internalization of the pattern through transposing exercise

After students recognize the existence of this $I-V^4_3-V^6_5-I$ pattern, a teacher can ask them to transpose it to three keys and can test on this a few weeks later. An open-position chord with an *Aprile* soprano line should be used for this transposition exercise as it fits better for the fingers (Example 31).

EXAMPLE 31. The transposition exercises using the pattern.



The benefits of transposition exercises have been widely discussed in books, articles, and treatises; however, such works often fail to describe how exactly we should practice

⁹⁴ William Drabkin, “Sequence,” in *Grove Music Online. Oxford Music Online*, <http://www.oxfordmusiconline.com.proxy2.library.illinois.edu/subscriber/article/grove/music/25439> (accessed December 1, 2017).

transposition.⁹⁵ Just the command “do transposition” is not sufficient since we do not have a habit of transposing in the modern classical world. Christos Tsitsaros, professor of piano pedagogy at the University of Illinois at Urbana-Champaign, offers a unique Advanced Keyboard Skills course, and his unpublished method “linear approach” is probably the best method. Inspired by Tsitsaros’s ideas, I made the following guidelines, which can help students.

EAMPLE 32. The transposing guidelines.

Let’s transpose it to a different key.


It is much easier if you think of music as being linear.

You mainly need to think of three things.

- I. Tenor doesn’t move at all (tenor stays in 5th).
- II. Alto goes up by half step, stays there, and goes back to the first note (*mi-fa-fa-mi*).
- III. Soprano goes down by half steps and Bass goes up by whole step, and then they exchange their notes. After that, they return to the first notes (*do-ti-re-do*, and *do-re-ti-do*).

If want to tie the same notes as below, that’s fine. Please just don’t rely on muscle memory.

You need to “think” a lot



It seems that these guidelines work effectively. Students will find out that the difficult keys such as F-sharp major or C-sharp major are as easy as C major. I observed that even individuals with

⁹⁵ The concrete strategy practicing transposition will be described in the next chapter.

no keyboard experience were able to transpose it to F-sharp major in five minutes. Some students might complain that “there are many things to think about.” This kind of comment is a fascinating reminder of the fact that we often establish a habit of not thinking while we are playing music.

Step 3: Adding diminution

After internalizing the linear movements of the harmonic pattern through transposition, a teacher can ask students to add diminution (embellished melody line) on it. From this point, the students’ creativity will be challenged. As the first step to making diminution, students are asked to pick up a basic soprano line from the chord tones, as below.

EXAMPLE 33. The first step to making diminution.

Then, students can pick up melodies such as:

EXAMPLE 34. The second step to making diminution.

This is a perfect opportunity to teach the treatment of dissonance such as suspension or anticipation.

EXAMPLE 35. Teaching the treatment of dissonance through diminution.

Two musical staves in G major (one sharp) and 3/4 time. The left staff shows a melody with two dissonant intervals circled in red. Arrows point from a box labeled "Suspension" to these two intervals. The right staff shows a similar melody with two dissonant intervals circled in red. An arrow points from a box labeled "Retardation" to the second interval.

Example 36 shows three other diminution ideas that can be expected from students at this level.

These diminutions would reflect each student's instrumental background; for instance, the examples below can be expected from a vocal student, piano student, and jazz student, in order.

As circles indicate, Student B's and C's examples contain a voice leading error, "double leading tones." Students can come to understand the rule of voice leading better if the rule is pointed out during their own compositional process.

EXAMPLE 36. Three diminution ideas

Three musical staves in G major (one sharp) and 3/4 time. The first staff is labeled "Student A" and shows a melody with a slur over the first two notes. The second staff is labeled "Student B" and shows a melody with a red circle around a dissonant interval. The third staff is labeled "Student C" and shows a melody with a red circle around a dissonant interval. A box labeled "Double leading tones" has an arrow pointing to this interval.

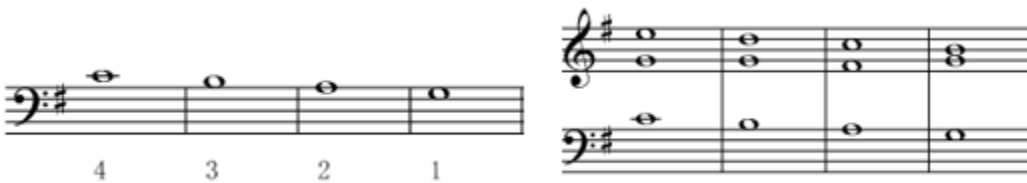
Step 4: Group improvisation exercise

Now, a teacher can ask students to play their own diminution (playing right hand) while the others accompany (playing left hand). This should be done consecutively many times. After a few times, a teacher can challenge each student to improvise the right hand using one rule: “one is permitted to play anything as long as one finishes with the note from tonic chord.” There are many benefits to doing this group exercise. First, students are able to listen to each other’s ideas. Second, they have to count rhythms and are forced to not stop; it encourages them to think ahead. These kinds of group exercises are also beneficial for human development, as students have to cooperate with others.⁹⁶

Step 5: Introducing another pattern

After the exploration of I-V₃⁴-V₅⁶-I pattern above, a teacher can introduce another pattern called *Prinner*. This pattern of descending four notes is probably the most useful and practical pattern for classical improvisation as it can serve as an answer to many types of opening gestures (it will be discussed more at the end of this chapter). In addition to that, *Prinner* has the power to modulate to the dominant key area.

EXAMPLE 37: *Prinner* base line and its typical harmonization



⁹⁶ “I see a direct connection between improvisation and human development. Improvisation is an endlessly enriching interaction, a form of play as most serious work.” Tanya Kalmanovitch, Teaching the “Compleat Musician”: Contemporary Improvisation at New England Conservatory in *Improvisation and Music Education: Beyond the Class room*, ed. Ajay Heble and Mark Laver (New York: Routledge, 2016), 174.

The first two systems from my minuet below (Example 38) show that *Prinner* can serve as a response to the opening $I-V_3^4-V_5^6-I$ pattern. To contextualize, a teacher should add a cadence after *Prinner* as in my exercise. The second system of the same exercise shows that *Prinner* can bring the music to the dominant area (D major) if one changes its point of departure to the tonic note (in that case, one also has to mutate C to C-sharp in the right-hand accompaniment). It is like a common-tone modulation in our sense; however, it involves not just one chord but an entire phrase.

EXAMPLE 38. The example of *Prinner* and modulating *Prinner* in context.

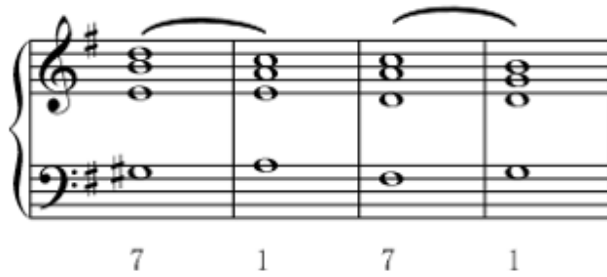
The image shows two systems of musical notation in bass clef, 3/4 time. The first system shows a sequence of notes: G, A, B, C, D, E, F, G, A, B, C, D, E, F, G. The first eight notes are grouped under a bracket labeled 'Prinner'. The last four notes (C, D, E, F) are grouped under a bracket labeled 'Cadence'. Below the notes, there are fingerings: '4' under the first note of the Prinner pattern, and '3 2 1' under the last three notes of the Prinner pattern. A text box below the first system reads: 'Prinner can serve as a response to the opening $I-V_3^4-V_5^6-I$ pattern.' The second system shows the same sequence of notes, but the first note is G-sharp. Below the notes, there are fingerings: '4' under the first note, and '3 2 1' under the last three notes. A text box below the second system reads: 'By starting on the tonic note (G), Prinner brings music to the dominant area. In that case, C has to be mutated in C-sharp in the right hand.'

After introducing *Prinner*, a teacher can assign students the exact same tasks as in the previous exercise; namely, transposition, diminution, and group improvisation exercises. By this point, students have learned half of the entire minuet.

Step 6: The pattern used in a developmental section

In the next step, a teacher can show students how to make a developmental section in minuet. For this, I chose a commonly used pattern for the developmental section called *Fonte*.

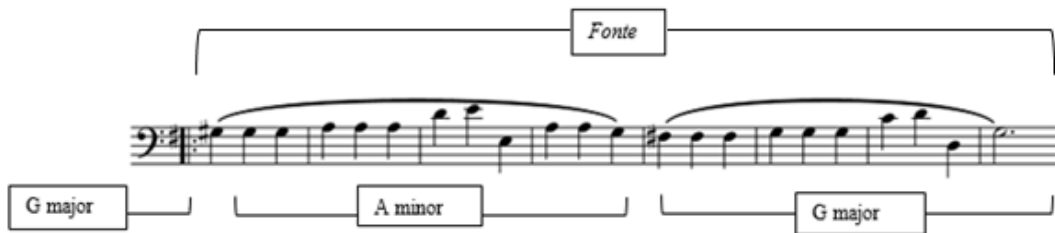
EXAMPLE 39. *Fonte* bass line and its typical harmonization.



In his treatises,⁹⁷ Joseph Riepel teaches *Fonte* (a well to climb down into), along with other patterns *Monte* (a mountain to climb up onto), and *Ponte* (a bridge to cross over). *Fonte* has the power to digress from, and then return to a main key. The figure below is the *Fonte* used in my minuet. In this case, *Fonte* digresses the music to A minor from G major, and then goes back to G major. As in other patterns, students should be asked to transpose, write a diminution, play this pattern together, and then improvise together.

In fact, the harmonic progression of *Fonte* is taught as a part of the circle of fifths progression in the modern harmonic theory course; however, it is rarely taught how this progression is used to build a larger structure of musical compositions as described above.

EXAMPLE 40. *Fonte* bass line in the author's minuet.



⁹⁷ Riepel, 221.

Step 7: Completing composition

The final section of the minuet (recapitulation) is almost the same as the beginning, but it has a stronger cadence, as shown in Example 41. By this point, the students should have no problem making their diminution above this section.

EXAMPLE 41. The last line of the author's minuet.



At this point, students have finished composing their minuet. Some students may be surprised by the fact that they created their own piece because some of them would have never thought they could compose something. Example 42 below is a sample of a completed minuet excerpted from student. As asterisks indicate, it contains several voice leading errors. As I mentioned earlier, students would understand the rule of voice leading better if the rule is pointed out during their own compositional process.

EXAMPLE 42. The sample of a completed minuet.

The image shows a musical score for a minuet in G major, 3/4 time. The score is written for piano and consists of four systems of two staves each (treble and bass clef). The key signature has one sharp (F#) and the time signature is 3/4. The melody is in the treble clef, and the bass line is in the bass clef. There are four annotations marked with asterisks and numbers:

- *1: A circled interval in the first measure of the first system, specifically between the notes G4 and B4 in the treble clef.
- *2: A bracketed interval in the second measure of the second system, spanning from the first to the second measure, covering the notes G4 and A4 in the treble clef.
- *3: A circled interval in the third measure of the second system, specifically between the notes G4 and B4 in the treble clef.
- *4: A bracketed interval in the fourth measure of the third system, spanning from the third to the fourth measure, covering the notes G4 and A4 in the treble clef.

*1: Unresolved fourth

*2: Consecutive fifths

*3: Unresolved triton

*4: It is not an error; however, using “retardation” might be a better option.

After everybody has finished composing their own minuet, students should be assigned to do lots of group improvisation exercises on the same bass line. During the group improvisation exercise, some students might be able to add passing tones or ornament at the moment, or could even make up a new melody.

Step 8: Learning other patterns that can serve as a theme

As the conclusion of the class, a teacher should introduce other patterns that can be used as an opening gesture, a theme of the piece. The four patterns below were introduced as an alternative opening theme (all of the patterns are taken from Gjerdingen's *Music in the Galant Style*). As shown below, all patterns can be answered with the *Prinner* bass line.

EXAMPLE 43. Alternating patterns of the opening theme.

Using *Galant Romanesca* pattern as the opening theme.

Prinner Cadence

The musical notation shows a piano introduction in 3/4 time with a key signature of one sharp (F#). The right hand (treble clef) plays a sequence of half notes: G4, B4, G4, G4, followed by rests for the next three measures. The left hand (bass clef) plays a sequence of quarter notes: G3, A3, B3, C4, D4, E4, F#4, G4, followed by a half note G4 in the final measure. Above the staff, two boxes labeled 'Prinner' and 'Cadence' are connected by a bracket, indicating the corresponding bass line for the first two measures of the right hand.

Using *Romanesca* pattern as the opening theme.

Prinner Cadence

The musical notation is identical to the Galant Romanesca pattern above, showing a piano introduction in 3/4 time with a key signature of one sharp. The right hand plays half notes G4, B4, G4, G4, and rests. The left hand plays quarter notes G3, A3, B3, C4, D4, E4, F#4, G4, and a half note G4. A bracket above the staff labels the first two measures of the right hand as 'Prinner' and the next two as 'Cadence'.

Using *Pastorella* pattern as the opening theme.

Prinner Cadence

The musical notation shows a piano introduction in 3/4 time with a key signature of one sharp. The right hand (treble clef) plays a sequence of half notes: G4, B4, G4, G4, followed by rests for the next three measures. The left hand (bass clef) plays a sequence of quarter notes: G3, A3, B3, C4, D4, E4, F#4, G4, followed by a half note G4 in the final measure. Above the staff, two boxes labeled 'Prinner' and 'Cadence' are connected by a bracket, indicating the corresponding bass line for the first two measures of the right hand.

Using *Jupiter* pattern as the opening theme.

Prinner Cadence

The musical notation shows a piano introduction in 3/4 time with a key signature of one sharp. The right hand (treble clef) plays a sequence of half notes: G4, B4, G4, G4, followed by rests for the next three measures. The left hand (bass clef) plays a sequence of quarter notes: G3, A3, B3, C4, D4, E4, F#4, G4, followed by a half note G4 in the final measure. Above the staff, two boxes labeled 'Prinner' and 'Cadence' are connected by a bracket, indicating the corresponding bass line for the first two measures of the right hand.

Step 9: Beyond the class activity

A teacher should encourage students to keep improvising on the minuet and to focus on finding other patterns when they are learning new pieces. By finding out patterns used in pieces, students can not only gain new harmonic models and diminution ideas, but also gain deep and comprehensive understanding of pieces, which truly helps interpretative performance. It is my hope that students gain richer harmonic vocabularies and create their own music (and play pieces well) in the future based on these ideas. In fact, I made up a simple choral piece by adapting the minuet bass line used in the class (Example 44). This piece was actually used as a Choral Response in services at McKinley Presbyterian Church in Champaign, Illinois, where I serve as a music director/organist. Admittedly, this piece is not particularly artistic, but works well in such a context. Also, most people should be able to create this level of music after studying harmonic patterns in the manner of partimento. Another choral piece that I created from partimento bass line can be shown in Appendix B.

EXAMPLE 44. Author's choral composition based on the minuet bass line.

Love one another

based on John 13:34

Musical score for the first system of "Love one another". It features four vocal parts (Soprano, Alto, Tenor, Bass) and a piano accompaniment. The key signature is one flat (B-flat) and the time signature is 4/4. The tempo is marked *mf*. The lyrics for all parts are: "Love one a-noth-er, love your neigh-bor, as God has lo - ved you." The piano accompaniment consists of a treble and bass clef with chords and moving lines.

Musical score for the second system of "Love one another", starting at measure 5. It features the same four vocal parts and piano accompaniment. The tempo is marked *mp*. The lyrics for all parts are: "Love one a - noth - er, love- your neigh- bor, as God - has lo - ved you. Do - not give-up,". The piano accompaniment continues with chords and moving lines, including a key signature change to two sharps (F# and C#) in the final measure.

EXAMPLE 44, Continued

10

Do - not give-up, God is in us, and streng-thens-us. Love one a-noth-er,
Do - not give-up, God is in us, and streng-thens-us. Love one a-noth-er,
Do - not give-up, God is in us, and streng-thens-us. Love one a-noth-er,
Do - not give-up, God is in us, and streng-thens-us. Love one a-noth-er,

14

Love your neigh-bor, as God has lo - ved you, as God has lo-ved you.
Love your neigh-bor, as God has lo - ved you, as God has lo-ved you.
Love your neigh-bor, as God has lo - ved you, as God has lo-ved you.
Love your neigh-bor, as God has lo - ved you, as God has lo-ved you.

CHAPTER 4: A MODERN GUIDE TO PARTIMENTO AND CLASSICAL IMPROVISATION

This chapter provides a beginner's guide to partimento and classical improvisation targeting modern independent amateur keyboard learners. This guide is not a method book that shows every formula and every step; rather, this guide exclusively focuses on discussing strategies for modern learners to effectively learn the most important models of the classical tradition, namely "harmonic patterns" that are presented in the rules sections of historical partimento collections. Internalization of these harmonic models will lay the foundation not only for practicing historical partimenti, but also for classical improvisation and composition. Furthermore, the knowledge of harmonic patterns will significantly help facilitate practical musical analysis using musical patterns. In addition, the study of harmonic patterns can bridge modern tonal theory and practice.

Historical treatises and several recently published books on the subject of classical improvisation tend to emphasize the importance of learning "harmonic patterns" as a prerequisite for learning improvisation; however, they usually do not address the strategy beyond simply mandating rote rehearsal in all keys. In this guide, targeted at modern amateur beginners, I will present concrete strategies for learning the harmonic patterns efficiently through "Rule of the Octave." Through my strategies, a learner will be able to conduct elementary improvisation and composition upon the construction of simple harmonic patterns. Also, a learner can gain the ability to determine patterns used in existing pieces; with this ability, a learner can understand how classical composers constructed patterns and made diminutions, and store composers' ideas for use in future compositions and improvisations.

Understanding the word “improvisation”

Before discussing methods and techniques for learning harmonic patterns, a learner first has to understand the general concept of improvisation discussed in the introduction of this thesis. The word “improvisation” is often misleading; the etymology of the word improvisation is from Latin *improviso*, meaning “unforeseen” or “not studied or prepared beforehand.”⁹⁸ This definition only grasps half of the nature of improvisation, however. As Nettl discussed, an improviser certainly creates music in the moment, but always builds improvisations using familiar models. A good improviser knows a large number of models and their transitional probabilities and can recall them in the moment of performance. Thus, learning a model is the core of improvisation studies. Another important thing to remember is that studying models is not only key for improvisation, but also for composition and performance as they are parts of the same idea. Finally, we have to understand the fact that learning improvisation is time-consuming and thus requires patience and courage. The following quote from Carl Czerny regarding the matter of improvisation may give us courage:

“At first this will appear difficult to you; what you play will seem unconnected, or even incorrect; you will lose that courage and confidence in yourself which are so necessary to this purpose. But if you do not allow yourself to be frightened by this, and will repeat these attempts day after day, you will perceive that your powers will become more developed from week to week...”⁹⁹

Understanding the concept of improvisation as stated above will greatly help practicing partimenti. The important body of partimento pedagogy is the learning of harmonic patterns (models) and their conventional construction/organization (transitional probabilities). In

⁹⁸ Douglas Harper, “Improvisation,” Online Etymology Dictionary, http://www.etymonline.com/index.php?allowed_in_frame=0&search=improvisation (accessed December 1, 2017).

⁹⁹ Carl Czerny, *Letters to a Young Lady on the Art of Playing the Pianoforte, from the Earliest Rudiments to the Highest Stage of Cultivation*, Vienna 1839, trans. J. A. Hamilton (New York: Firth, Pond and Co., 1861), 79-80.

partimento practice, a learner first learns the harmonic patterns, and then they can directly apply the patterns to realize partimenti, which teaches how these patterns are constructed in actual compositions. This process is easy to describe, but there is a big problem. It is very difficult to truly “internalize” these patterns in the first place; a learner should be able to play them in all twenty-four keys, but modern keyboard training usually does not equip learners with the ability of transposition. My primary aim in this chapter is to propose some strategies for learning these harmonic patterns. My approach is time-consuming, but it equips one with practical musicianship skills that are valuable in the long run.

What materials should be used?

Although a learner should obtain and consult Sanguinetti’s *The Art of Partimento* as a primary reference, many sources regarding partimento are available online. As I discussed in the second chapter, the harmonic patterns are clearly organized in the rules sections of the historical partimento collections. Importantly, these collections are available online for anyone through Robert Gjerdingen’s *Monuments of Partimenti*. Although this website is still under construction, one currently can access the rules of four Neapolitan teachers: Francesco Durante, Giovanni Furno, Giacomo Insanguine, and Fedele Fenaroli. Among these, Durante’s rules were not compiled by the teacher himself as they were collected after his death by other teachers or students.¹⁰⁰ I suggest using Fenaroli’s rules section as a primary guide. Fenaroli clearly explains the rules and presents a full harmonic skeleton of each pattern. Durante’s rules are also useful for supplemental daily exercises as one can glance at the bass lines of fifty harmonic patterns.

¹⁰⁰ Gjerdingen, “Francesco Durante” *monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/partimenti/collections/Durante/index.htm>

The advantage of using Fenaroli's collection as a primary textbook lies in its clear organization. Of the collection's six books, the third book is a rules section. A learner does not need to study all of the harmonic patterns at once; rather, they can try realizing partimenti in the first book right after learning "Cadences" and "Rule of Octave" from the rules section. Then, a learner may move on to realize the second book after learning "Suspensions." After that, a learner can realize the fourth book with "Bass motions." This fourth book is rather important as its bass line often gives a hint to the artistic diminution in the right hand. By the time a learner has finished studying several partimenti in the fourth book, one should have grasped the whole picture of the partimento tradition. After the fourth book, a learner can study the rest of Fenaroli's collection (the fifth and sixth books), which contains advanced partimenti and partimento fugues. Given its tremendous difficulty, mastery of these advanced materials will likely be a lifelong process. Meanwhile, a learner may study other teachers' partimento collections available on Gjerdingen's website. In particular, Durante's *Partimenti dimuniti* is useful as it contains partimenti with a few measures of suggested realization. Either way, the important thing is to keep practicing the musical patterns in the rules section every day. By practicing the patterns for a small amount of time daily following my strategies, a learner should be able to reach the fourth book within a year. In the following section, I will present specific strategies to study the patterns.

A linear approach

The best way to internalize harmonic patterns is by using a linear approach. The linear approach simply means paying attention to a linear connection of all voices. While this definition does not appear unique, ordinary modern keyboard students are usually not equipped with this

ability. Our modern habit of playing a complete piece without knowing its musical structures probably accounts for this phenomenon. The complete pieces, even the ones we consider as elementary, contain artistic diminutions; we tend to focus on each note in these diminutions. Without special talent or adequate education, it is difficult to see the linear connection of chords on a structural level. This tendency of seeing each note vertically and individually is what American piano pedagogue Abby Whiteside called “a note wise procedure.”¹⁰¹ The emphasis in early piano pedagogy on applying excessive focus on the strength of each finger¹⁰² is also considered to be a reason why we have developed this peculiar habit.

I have not conducted large-scale formal research justifying the effectiveness of this linear approach; however, my experiences teaching myself, private students, and students at a community college strongly suggest the pedagogical value of this approach, as everybody became able to transpose by using this method to a certain extent. For instance, I observed that an individual who had hardly any keyboard experience was able to transpose simple patterns such as “Suspension in the Bass” to any key in five minutes.

This linear approach is not totally new; it actually is the outcome that one can gain after rigorous study of historical species counterpoint, as it is the study of linear voice leading. All musicians in the past must have obtained the ability to see the music linearly.¹⁰³ The most important innovator of tonal harmonic theory, Rameau, is no exception. Rameau’s composition lesson in his *Traité de l'harmonie* begins with the memorization of the linear relationships of six perfect chords in a diatonic scale (Example 45).

¹⁰¹ Abby Whiteside, *Indispensables of Piano Playing* (New York: Coleman-Ross Company, Inc., 1955), 3-6.

¹⁰² The development of piano pedagogy is well summarized in *The Art of Piano Playing: a Scientific Approach*. George Kochevitsky, *The Art of Piano Playing: A Scientific Approach*, (Evanston, IL: Summy-Birchard INC., 1967), 1-18.

¹⁰³ The way musicians in the past perceiving music will be discussed later in this chapter. See Example 59.

EXAMPLE 45. "On the succession of Chords" from *Principles of Composition*.¹⁰⁴

Treble
 Alto
 Tenor
 Fundamental bass

Ascend 3
or
descend 6

Asc. 6
or
desc. 3

Asc. 4
or
desc. 5

Asc. 5
or
desc. 4

Asc. 5
or
desc. 4

Asc. 4
or
desc. 5

Asc. 6
or
desc. 3

Asc. 3
or
desc. 6

In his lesson, Rameau shows how voices move to the “nearest” notes on a structural level. Also, he provides a practical tip for memorizing basic chord progressions, stating:

if we do not wish to burden our memory with the exact progression of each upper part with respect to the bass, it is enough to remember that the only three ways in which each of these parts can form one of the three intervals of the perfect chord are: by remaining on the same note or the same degree, by ascending diatonically, or by descending diatonically.¹⁰⁵

Rameau’s view is certainly practical and linear even though he was the one who added a vertical aspect in musical analysis. Rameau clearly suggests that the ability to see music linearly is indispensable for the practical application of his newly formed theory.

¹⁰⁴ Jean-Philippe Rameau, *Treatise on Harmony*, trans. Philip Gossett (New York: Dover Publications, Inc., 1971), 207-209.

¹⁰⁵ *Ibid.*, 206

In contrast, it is difficult to gain this ability through the study of modern harmonic theory since its focus became on the vertical identification of each chord. It is important to remember, as I discussed in Chapter 1, that Gottfried Webber provided what became the definitive form of modern harmonic theory targeting amateur musicians. Since then, this theory has encouraged learners to see music vertically, not linearly. By the beginning of the twentieth century, it must have been rare to see amateur musicians who could see music linearly. As Henrich Schenker warned, “we must first learn to think *contrapuntally*.”¹⁰⁶ By learning modern harmonic theory, it seems that only talented students can implicitly acquire the ability to see music linearly. I am slicing off the complexities of historical counterpoint pedagogy and making it available for all modern amateur beginners just as simply as a “linear approach” which can help grasp the point of view of the past composers.

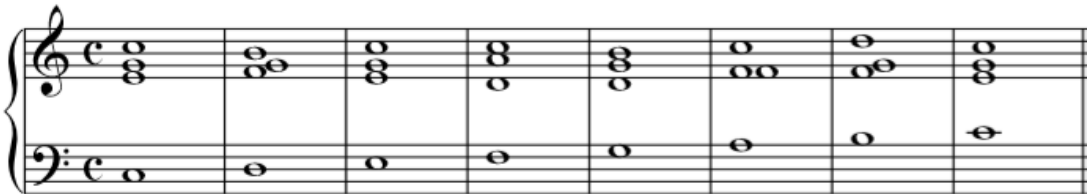
What is a prerequisite for the linear approach?

The first thing a learner has to learn, of course, is how to read clefs and notes (if one has not learned it yet). Right after that, one should understand “types of contrapuntal motion” and “interval numbers and qualities,” as understanding these concepts are the only requirements to learning the linear approach. Upon learning these concepts, the ascending part of Rule of the Octave (RO) should be used (Example 46). RO was used as a total pedagogical tool in the past. It contains essential motions and intervals necessary to understand the linear approach, and playing RO implicitly teaches many aspects of music. RO had been used as a device that taught essential harmony, harmonic progressions, and voice leading among eighteenth-century musicians. The origins of RO are uncertain, but “it must have long existed in oral tradition and was associated in

¹⁰⁶ Heinrich Schenker, *Free Composition*, trans. Ernst Oster (Hillsdale, N.Y.: Pendragon Press, 1977), 9.

the minds of most eighteenth-century musicians.”¹⁰⁷ I believe that RO is still the total pedagogical tool which can be used in modern educational settings. I will discuss how RO bridges modern tonal theory and practice later in this chapter.

EXAMPLE 46. The ascending part of the rule of octave (first position) in the manner of Fedele Fenaroli, from Sanguinetti’s *The Art of Partimento*.

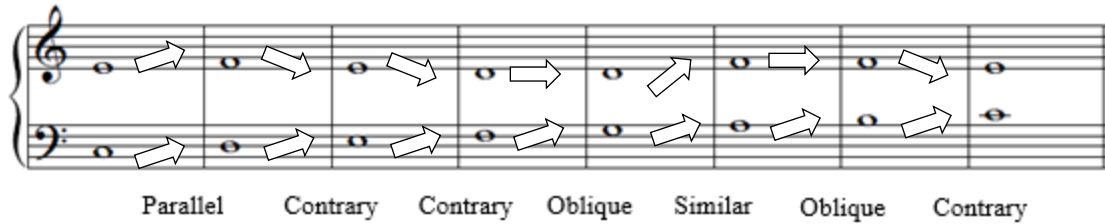


Knowing the contrapuntal motions

At the beginning, it is not recommended to play all four voices of RO on the keyboard, as amateur learners often fall into the trap of just pounding chords; they often focus on seeing how chords are selected vertically, instead of seeing how chords are connected linearly. This constitutes one of the problematic habits in modern music education. Before playing all notes of RO, a learner should first understand the four types of contrapuntal motion, which can be learned effectively by playing all combinations of two voices from RO. For instance, Example 47 below consists of the bass and alto lines taken from RO, and one can observe all four motions. In “parallel motion,” two voices move in exactly the same direction by the same interval. In “contrary motion,” two voices move in the opposite direction. In “similar motion,” two voices move in the same direction but by different intervals. In “oblique motion,” one voice stays on the same note while the other voice moves.

¹⁰⁷ Thomas Christenson, “The “Règle de l’Octave” in Thorough-Bass Theory and Practice,” *Acta Musicologica*, 64, no. 2 (1992):100.

EXAMPLE 47. Learning motions from the Rule of Octave.

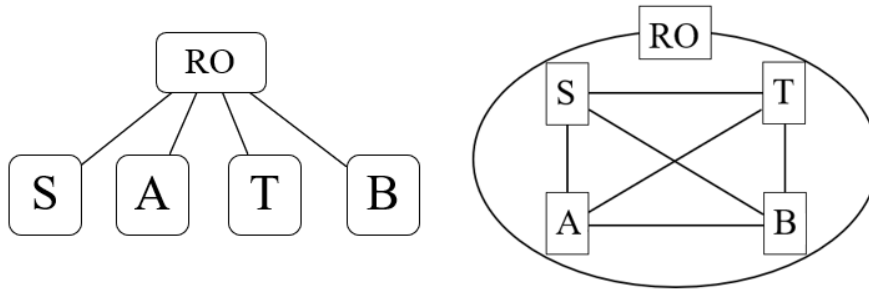


After understanding these motions, a learner should play all possible combinations of two voices from RO (six ways in total) because all voices have the possibility to become a melody line, and, in doing so, develop the habit of being aware of all contrapuntal motions at all times. In particular, contrary motion is very important as it often contains a significant musical event, such as a tritone resolution. Influential piano pedagogue Heinrich Neuhaus observes that the key to listening to a multiple tonal texture is an awareness of the movement of each voice, especially contrary motion, stating that “the fundamental tendency of polyphony (its ‘Protoform’) is the movement of parts in contrary motion.”¹⁰⁸

Example 46 shows why a learner should play each combination of voices. The first chart represents the problem of only playing four voices together; one can see the vertical relationship of each voice but not the linear relationship of each voice. The second graph shows the ideal way to learn; one must be aware of the relationships and network of all voices in order to fully internalize RO. One has to remember the fact that any voice of RO has the potential to become a melody.

¹⁰⁸ Heinrich Neuhaus, *The Art of Piano Playing*, trans. K.A. Leibovitch (London: Kahn & Averill, 1973), 73.

EXAMPLE 48. Difference between learning RO vertically and linearly.

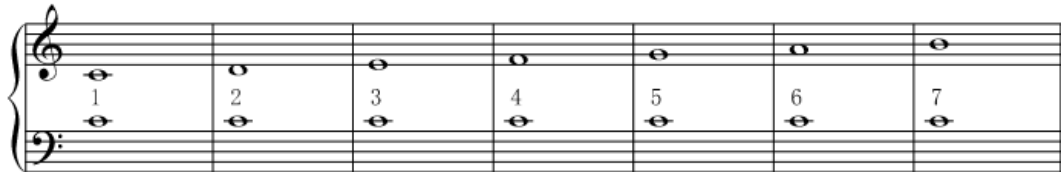


Knowing interval numbers and qualities

The next step is knowing “interval numbers and qualities.” Broadly, there are only two types of intervals: “consonance” and “dissonance.” More specifically, consonance contains both “perfect consonance” and “imperfect consonance,” and each imperfect consonance and dissonance is either “major” or “minor.” The following examples may be useful in helping students memorize these concepts (Examples 49, 50, and 51).

EXAMPLE 49. Interval numbers.

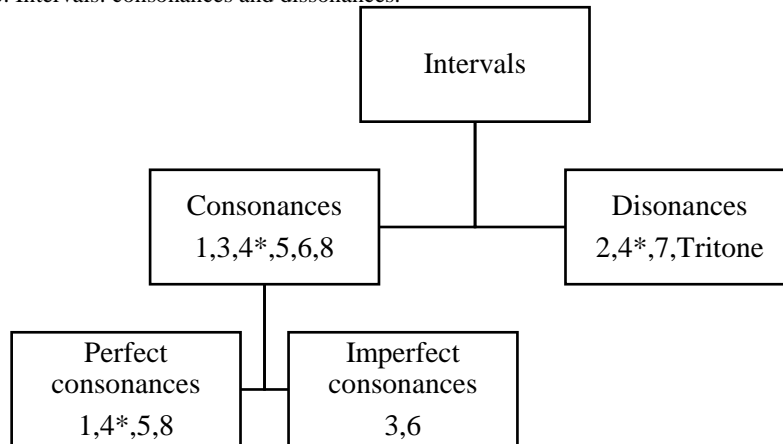
Primary intervals



(Compound intervals)

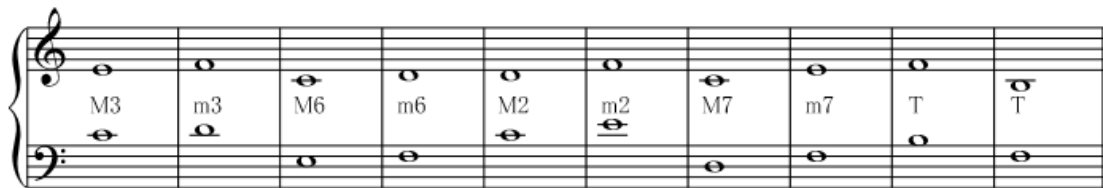


EXAMPLE 50. Intervals: consonances and dissonances.



- 4th can be either consonance or dissonance.¹⁰⁹
- Tritone (T) is a musical interval composed of three adjacent whole tones (like F–B in the key of C major). It is also called as augmented fourth, or diminished fifth.

EXAMPLE 51. Qualities of intervals, major and minor of third, sixth, second, and seventh, and then tritone.



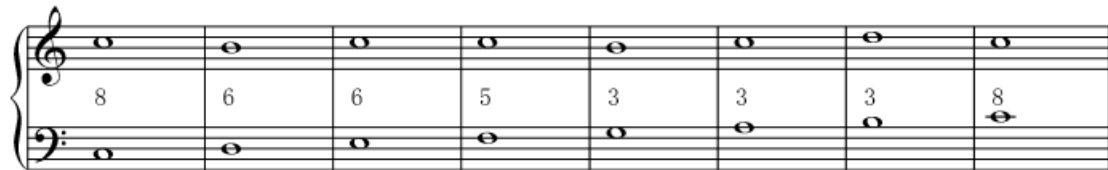
After understanding these concepts, a learner should play all combinations of two voices from RO again while thinking of both contrapuntal motions and interval numbers. Practically, a learner can mentally transpose the intervals larger than 9 to the intervals 1 – 8, as in Example 52. In his *Traité de l'harmonie*, Rameau also states that “the name of the note is sufficient to determine an interval whether this interval is doubled, tripled, etc.”¹¹⁰ In this way, intervals such as 10 or 12 can simply be thought of as 3 or 5. Also, it is not always necessary to think of

¹⁰⁹ For instance, 4th is definitely a dissonance when forming 4-3 suspension. In fact, Girolamo Diruta, a Renaissance organist/theorist, suggests thinking 4th as a dissonance from a practical view. Girolamo Diruta, *The Transylvanian (Il Transilvano)* Vol.II, ed. Murray C. Bradshaw and Edward J. Soehlen (Henryville: Institute of Mediaeval Music, 1984), 33, 43-46.

¹¹⁰ Jean-Philippe Rameau, *Treatise on Harmony*, trans. Philip Gossett (New York: Dover Publications, Inc., 1971), 205.

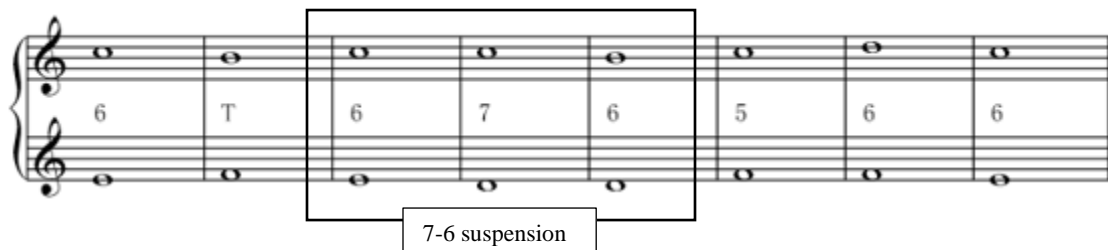
intervals as being major or minor in quality; thinking of the distinction between perfect consonance, imperfect consonance, and dissonance is sufficient in this context.

EXAMPLE 52. Soprano and bass lines from the Rule of Octave; the interval numbers larger than 9 are transposed.



Example 53 below shows the most interesting combination of the two voices from RO (soprano and tenor lines); this combination teaches tritone resolution and use of dissonance (“7-6 suspension prepared by 6th” is happening there). If we do not play all two-voice combinations, we will miss this interesting combination. Developing an awareness of dissonances (e.g., suspensions and tritones) is immensely helpful for imagining specific sonorities in one’s head without the assistance of an actual keyboard.

EXAMPLE 53. Soprano and alto lines from the Rule of Octave.



The idea of “invertible counterpoint” could be taught at this point. In the second system of Example 54, the two voices from Example 53 are swapped, and one can see how “invertible counterpoint at the octave” works; as shown below, the sum of the interval transpositions is always 9.

EXAMPLE 54. The mechanism of Invertible Counterpoint at Octave.



Intervals	6	T(4.5)	6	7	6	5	6	6
Intervals	3	T(4.5)	3	2	3	4	3	3
The sum of intervals	9	9	9	9	9	9	9	9

Playing all voices of Rule of the Octave

Now, a learner is ready to play RO in four parts. A learner should focus on observing contrapuntal motions referring to the linear guidelines below (Example 55). If a learner follows these guidelines, there should be little difficulty playing in more challenging keys such as F-sharp major. In fact, there should be no “challenging keys” because all keys are same if one looks at music linearly. If a learner has difficulty transposing all voices together, they should practice transposing one part at a time.

EXAMPLE 55. The linear guideline playing the first three chords of the Rule of Octave in any key.



Think three things:

1. The soprano goes down a half step, then go back.
2. The alto stays in the same note.
3. The tenor goes up a half steps, then go back.

In addition to this linear guide, a learner could make a chart of contrapuntal motions to visualize all linear motions, as in Example 56. Similar visual charts were employed by an influential piano pedagogue around 1900, Carl Faelten,¹¹¹ and modern jazz pedagogue Phil DeGreg.¹¹² This visual chart is truly helpful for learners conducting transposing exercises since it does not allow a learner to transpose each note vertically. Example 57 shows a typical trap of transposition exercises and explains why the simple command “do transposition” is not sufficient.

EXAMPLE 56. Visualization of the Rule of Octave’s linear motions.

S	8	7	8	8	7	8	9	8
A	5	5	5	6	5	4	5	5
T	3	4	3	2	2	4	4	3
B	1	2	3	4	5	6	7	8

¹¹¹ Carl Faelten and Reinhold Faelten, *Fundamental Training Course For Pianoforte* (Boston: Arthur P. Schmidt, 1894).

¹¹² Phil DeGreg, *Jazz Keyboard Harmony: A Practical Method For All Musicians* (New Albany, IN: Jamey Aebersold Jazz, 1996).

EXAMPLE 57. Transposition exercises in an undesirable and desirable manners

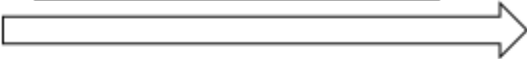


D major			
S	D	C#	D
A	A	A	A
T	F#	G	F#
B	D	E	F#

C major			
S	C	B	C
A	G	G	G
T	E	F	E
B	C	D	E

↑
 Transposition in an undesirable manner
 (transposing each note vertically)

Transposition in a desirable manner using
 the linear approach



D Major					
S	D	<i>m2 down</i>	C#	<i>m2 up</i>	D
A	A	<i>Stay</i>	A	<i>Stay</i>	A
T	F#	<i>m2 up</i>	G	<i>m2 down</i>	F#
B	D	<i>M2 up</i>	E	<i>M2 up</i>	F#

C Major					
S	C	<i>m2 down</i>	B	<i>m2 up</i>	C
A	G	<i>Stay</i>	G	<i>Stay</i>	G
T	E	<i>M2 up</i>	F	<i>m2 down</i>	E
B	C	<i>M2 up</i>	D	<i>M2 up</i>	E

By playing RO in the way described above, a learner will gain the ability to project or hear the sound of RO in his or her head away from the keyboard. Then, a learner can quickly learn how to read figured bass notations using the figured RO bass line, as in the example below (Example 58). It is surprisingly easy to learn these signatures since one already knows their proper placements on the keyboard and sound through the study of RO.

EXAMPLE 58. Giacomo Insanguine's (1728-1795) Regole "POSITIONS OF THE RIGHT HAND," from Gjerdingen's *Monuments of Partimenti*.

Scala in Prima Posizione The Scale in First Position

Understanding the way musicians in the past perceived music

The knowledge of figured bass notations will help a learner understand practical theory in the manner of the eighteenth century. Whenever one sees the figure of “3-5-8” on the chords, they are stable. All other chords with the figure “6” are considered unstable, although the third scale degree was considered a partly stable sonority (Example 59). Further discussion of this concept is available in Gjerdingen’s “An Illustrated Guide to the Rule of the Octave” in his *Monuments of Partimenti*.¹¹³

¹¹³ Robert Gjerdingen, “An Illustrated Guide to the Rule of the Octave,” *Monuments of Partimenti*, <http://faculty-web.at.northwestern.edu/music/gjerdingen/Partimenti/aboutParti/ruleOfTheOctave.htm> (accessed December 1, 2017).

EXAMPLE 59. Giacomo Insanguine’s Regole “POSITIONS OF THE RIGHT HAND,” from Gjerdingen’s *monuments of Partimenti* (enclosing frames added).

The image shows a musical staff with two scales. The first scale is labeled "Scala in Prima Posizione" and the second is "The Scale in First Position". Both scales are in C major. The notes are marked with fingerings (1-5) and are grouped into boxes. Annotations include:

- "Stable" pointing to the first note (C).
- "Unstable" pointing to the second note (D).
- "The third scale degree was considered partly stable." pointing to the third note (E).

It is beneficial for a learner to study or review modern tonal theory at this point, as RO has the power to closely connect modern theory and practice. RO already has taught the learner essential sonorities in the classical tradition (tonic, dominant, and predominant) implicitly, and how they are linearly connected. Example 60 below shows a typical way to introduce the relationship between tonic (I) and dominant (V) in a modern textbook.

EXAMPLE 60. Nancy Rogers and Robert W. Ottman, “Music for Sight Singing,” 9th Edition, 79, Upper Saddle River, NJ, Pearson Education, Inc., 2014.

The image shows a musical staff in G major with two chords: the tonic (I) and the dominant (V). Below the staff, it is labeled "G major: I V".

Whereas the above example only teaches the vertical relationship of each chord, RO can show how tonic and dominant are linearly connected through smooth voice leading of upper voices (Example 61).

EXAMPLE 61. Learning Tonic and Dominant relationship through RO.

The image shows two systems of musical notation. The top system displays two chords: the tonic (I) and the dominant (V). The bottom system shows a sequence of chords: I, IV, V, I, IV, V, I, IV, V. The I and V chords in this sequence are circled, and arrows point from these circles to the corresponding I and V chords in the top system, illustrating the relationship between the two.

Now, one can learn the relationships between tonic, dominant, and predominant through the example below (Example 62). One can see how our modern theory differs from the past in the upper part of the example, which represents how musicians in the past perceived RO.

EXAMPLE 62. Comparison between modern and past perception of RO.


The image compares past and modern perceptions of RO. The top part, labeled 'Past', shows a sequence of chords with 'Stable' labels above the tonic (I), dominant (V), and tonic (I) chords, and 'Unstable' labels above the other chords. The middle part, labeled 'Modern', shows the same sequence of chords with modern chord symbols: I (T), V₂⁴ (D), I⁶ (T), ii₅⁶ (PD), V (T), IV⁶ (PD), V₅⁶ (D), and I (T). The bottom part shows simplified chord symbols: I (Tonic), V⁽⁷⁾ (Dominant), IV (Predominant), and ii⁷.

After the deep exploration of RO, one can study other patterns presented in the rules section. All other harmonic patterns should be practiced using the linear approach, thinking of

both contrapuntal motions and interval numbers. A learner should transpose each pattern to many keys, as transposition tests if one is really reading music linearly. It is beneficial to make visual charts of every pattern, as in Example 63. It requires great concentration and effort to practice this way at the beginning; however, continuous practice eventually makes a learner able to think of everything in the moment.


EXAMPLE 63. Practicing other patterns using linear visual charts.

Compound Cadence



S	3	→ M2 →	2	→ M2 →	1
A	8	→ Stay →	8	→ m2 →	7
T	5	→ Stay →	5	→ m3 →	3
B	1	→ P4 →	5	→ P5 →	1

Suspension in the Bass



S	3	→ m2 →	4	→ M2 →	5	→ m3 →	3
A	1	→ M2 →	2	→ M2 →	1		
B	1	→ Octave up →	8	→ Stay →	8	→ m2 →	7
						→ m2 →	8

Adding closing pattern after the particular harmonic patterns

Usually, particular bass motions such as “Up a 4th, Down a 5th” or “Suspension in the Bass” can be followed by cadential patterns as in Example 64. A learner should experiment with adding cadences to several patterns. In doing so, a learner should pay attention to the positions of

each pattern. For instance, the first example below uses the third position for “Up a 4th, Down a 5th” and the first position for cadence in order to achieve smooth voice leading.

EXAMPLE 64. Adding closing pattern after the particular harmonic patterns.

The first example shows a sequence of chords in G major: G4, A4, B4, C5, B4, A4, G4. The first three chords are labeled "Up a 4th, Down a 5th in G". The final two chords are labeled "Cadence".

The second example shows a sequence of chords in G major: G4, A4, B4, C5, B4, A4, G4. The first three chords are labeled "Suspension in the Bass". The final two chords are labeled "Cadence".

While practicing the harmonic patterns linearly as above, the idea of a key change can be incorporated into the exercise. The key change (scale mutation) can be best taught using the descending part of RO.

EXAMPLE 65. The descending part of the rule of octave (the first position).

The example shows a sequence of chords in C major: C4, F4, G4, C5, B4, A4, G4. The first three chords are labeled "Scale mutation". The final two chords are labeled "Scale mutation cancelled".

Below the chords, two boxes labeled "MD 1" and "MD 2" are shown. MD 1 is positioned under the G4 chord, and MD 2 is positioned under the C5 chord.

- MD 1 brings the key to the dominant.
- MD 2 reestablishes the tonic.

When the accidental is added to F in the third measure, this F-sharp becomes the leading tone to a new key; at this point, the center of the key shifts from C major to G major. In Example 65, the key shifts to G major temporarily in measure 3, but the F-natural in measure 5 cancels this key shift, taking the music back to C major. This approach regarding key shifts is much simpler than in tonal theory, in which one has to know the concepts of inversions and secondary chords (such as “ V^4_3/V ”), which might be too complicated for amateurs. Importantly, a learner should memorize chunks of the first four measures and the last four measures of the descending RO as the modulation devices (MD 1 and MD 2); the first pattern brings the key to the dominant, and the second pattern reestablishes the tonic. The first pattern is what Gjerdingen calls *Prinner*, as I introduced in the previous chapter. Example 66 below shows how the harmonic pattern “Up a 4th, Down a 5th” can be practiced organically in both the tonic and dominant keys glued by these two modulation devices.

EXAMPLE 66. Exercise using “Up a 4th, Down a 5th” in two keys.

The image shows two systems of musical notation for piano accompaniment. The first system is in G major (one sharp) and the second is in D major (two sharps). Both systems feature a descending harmonic pattern of chords: G4, F#4, E4, D4, C4. Labels with brackets identify specific parts: 'Up a 4th, Down a 5th in G' and 'Up a 4th, Down a 5th in D' for the harmonic patterns; 'Cadence' for the final chords; 'MD 1 to D' for the transition from G major to D major; and 'MD 2 to G' for the transition from D major back to G major.

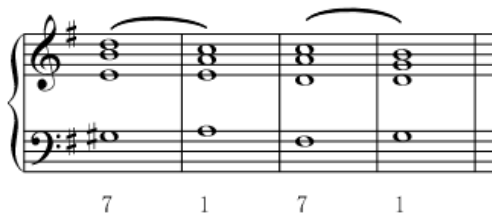
EXAMPLE 67. The same exercise with the more elaborated upper voices.



Construction of musical patterns exercise

Now, exercises can be expanded by adding the same pattern in a minor key. At this point, it is helpful to know another modulation device, *Fonte*, which was discussed in Chapter 3. It has the power to digress to a minor key, and then return to the main key.

EXAMPLE 68. *Fonte* bass line and its typical harmonization.



When constructing patterns in several keys, it is always better to refer to the structure of the existing literature to grasp the conventional transitional probability. The example below is one of Mozart's earliest compositions.

EXAMPLE 69. Wolfgang Amadeus Mozart. *Minuet in F major, K2* from *Kleinere Stücke für das Pianoforte, Serie XXII*. Edited by Otto Goldschmidt, Joseph Joachim, Carl Reinecke, Ernst Rudorff, and Paul Waldersee. Leipzig: Breitkopf und Härtel, 1878.

The image shows two systems of musical notation for a piano piece. The first system consists of a treble and bass clef staff. Below the bass staff, there are three boxes containing the labels 'F:I', 'V', and 'ii'. The second system also consists of a treble and bass clef staff. Below the bass staff, there are two boxes containing the labels 'I' and 'Deceptive Cadence'.

Example 70 below is comprised of five musical patterns, and follows the structure of the above Mozart piece. Its harmonic structure roughly travels through the keys of G major (I) – D major (V), or it could be a half cadence in G major – A minor (ii) – G major (I) with deceptive cadence – G major (I). By constructing patterns referring to the literature, a student will be able to learn the keys that are closely related each other.

EXAMPLE 70. Example of musical pattern's construction exercise.

The image shows three systems of musical notation for a piano exercise. Each system has a treble and bass clef staff. Labels are placed below the bass staffs with brackets indicating their scope. The first system has labels: 'Up a 4th, Down a 5th in G', 'Cadence', and 'MD 1 to D'. The second system has labels: 'D (V)', 'Fonte to a (ii)', 'Up a 4th, Down a 5th in G', 'Cadence', and 'Fonte to G (I)'. The third system has labels: 'Up a 4th, Down a 5th in G', 'Deceptive Cadence', and 'Double Cadence'.

It is very useful to study simple compositions, such as the Mozart example above, and incorporate them into the construction exercises. In general, minuet-type pieces from the Baroque and Classical periods could be good references as they typically have relatively simple structures to understand and clearly show the transitional probabilities of harmonic patterns.

Keep practicing

A learner should keep practicing the harmonic patterns using the linear approach. It is always better to practice every day with much concentration, even if for only a small amount of time. A learner should not practice while tired or fatigued as it discourages using the brain and causes mindless practicing of just pounding notes. After practicing all musical patterns using the linear approach, a learner can proceed to play the historical partimenti collections, such as Fenaroli's partimenti, or experiment more with the construction of simple harmonic patterns as playing with a Rubik's cube.

At this point, a learner should be able to place simple chords on partimenti. As I discussed, the next stage, making a diminution above simple chord progressions, is problematic for modern learners because partimenti usually do not provide hints to the diminution. On Gjerdingen's website, a learner can access Fenaroli's and Durante's suggested diminution ideas. Especially, Durante left fragments of hundreds of diminution ideas, which were already shown in Example 12 in Chapter 2. A learner should also transpose these fragments of diminutions on a daily basis. In addition, a learner can go to Gjerdingen's *Monuments of Solfeggi*, in which numerous Neapolitan solfeggi exercises are stored. Example 71 below is a solfeggio written by Leonardo Leo (1694-1744), another important master in Neapolitan conservatories. Although not well known today, Leo was once considered among Europe's greatest composers of the Bach-Handel-

Scarlatti generation.¹¹⁴ Leo’s solfeggio shows how one can add an artistic diminution upon “Stepwise Ascent” with 7-6 suspension. In this way, solfeggi teach varieties of diminution ideas for each pattern.

EXAMPLE 71. Solfeggio (Gj5010) from Leonardo Leo’s *XII Solfeggi a Voce Sola di Soprano con Basso*, from Gjerdingen’s *Monument of Partimenti*.

The image displays three musical examples of a solfeggio exercise. Each example consists of a treble and bass staff. The first two examples are marked 'Allegro'. The first example shows a stepwise ascent in the treble staff with a 7-6 suspension in the bass staff. The second example is similar but with a different rhythmic pattern. The third example is marked 'V.' and 'etc.' and shows a stepwise ascent in the treble staff with a 7-6 suspension in the bass staff. Each example has a bracketed label 'Stepwise Ascent' below it.

Learning Neapolitan Solfeggio

As a matter of fact, Neapolitan students first practiced singing thousands of solfeggi before they started playing partimento on the keyboard. Peter van Tour’s *Counterpoint and Partimento* provides the possible curriculum at the conservatories around 1790.¹¹⁵ According to his research, conservatory students did not start learning partimento until they completed an elementary class

¹¹⁴ Giorgio Sanguinetti, *The Art of Partimento: History, Theory, and Practice* (New York: Oxford University Press, 2012), 69.

¹¹⁵ Peter van Tour, *Counterpoint and Partimento: Methods of Teaching Composition in Late Eighteenth-Century Naples*. (Uppsala: Uppsala Universitet, 2015), 89.

in which they were possibly just “attaching a syllable to each note and pronouncing these syllables as speech, while keeping a pulse;” this elementary class “lasted as long as the master considered this to be necessary, usually a period of about three years.”¹¹⁶ Ideally, we could follow the same path with the Neapolitan students; however, it is probably impossible for us to adopt everything from the past. Nobody would want to just speak the solfeggio syllables for three years.

The biggest problem of practicing solfeggio is applying the *par transposition* system (hexachord solmization through transposition). Invented by Guido of Arezzo (b 991–2; d after 1033), a theorist of the medieval era, a hexachord consists of six notes (ut, re, mi, fa, sol, la). In this system, “ut”, which later became the more familiar “do,” starts with C, F, or G. The important character of a hexachord is its symmetrical formation; only the middle two notes (mi-fa) are separated by a semitone. Therefore, semitone relationships are always sung with mi and fa. In order to cover the seven notes in a diatonic scale (C-B) with the six syllables given, a hexachord needs to mutate to another hexachord before the six notes run out. Example 72 below shows how hexachord solmization and mutation work. As shown below, the change of a syllable is generally considered to occur at “re” in the ascending scale and at “la” in the descending scale.

¹¹⁶ Ibid., 87.

EXAMPLE 72. Hexachord mutation from Gregory Barnett's *Tonal organization in seventeenth-century music theory* (enclosing frames added).¹¹⁷

NB: black noteheads signal hexachordal mutation

cantus durus

hard hexachord natural hexachord hard hexachord natural hexachord hard hexachord

ut re mi fa sol/re mi fa sol la/re mi fa sol/re mi fa sol la/re mi fa sol la

hard hexachord natural hexachord hard hexachord natural hexachord hard hexachord

la sol fa mi re/la sol fa mi/la sol fa mi re/la sol fa mi/la sol fa mi re ut

cantus mollis

soft hexachord natural hexachord soft hexachord natural hexachord soft hexachord natural hexachord

re mi fa sol la/re mi fa sol/re mi fa sol la/re mi fa sol/re mi fa sol la/re mi

natural hexachord soft hexachord natural hexachord soft hexachord natural hexachord soft hexachord

mi re/la sol fa mi/la sol fa mi re/la sol fa mi/la sol fa mi re/la sol fa mi re

- *Cantus durus* is the scale comprised of G hexachord (G, A, B, C, D, E) and C hexachord (C, D, E, F, G, A). *Cantus mollis* is the scale comprised of F hexachord (F, G, A, B \flat , C, D) and C hexachord.
- G hexachord was called “hard hexachord” since it contains b \natural , then F hexachord was called “soft hexachord” since it contains B \flat .

¹¹⁷ Barnett, Gregory. “Tonal organization in seventeenth-century music theory.” In *The Cambridge History of Western Music Theory*, edited by Thomas Christensen, 407-455. New York: Cambridge University Press, 2002, 410.

Guidonian hexachord solmization had been only used in the three keys (C, F, and G), as shown in the example above, but musicians started employing more keys as time went on. In the case of the *par transposition* system used in the Neapolitan conservatories, one has to transpose a hexachord to all keys; this process is truly overwhelming for modern learners. Although it takes considerable time to become accustomed to this process, one still can sing solfeggi using hexachords by following techniques discussed in Gregory Barnett's *Tonal Organization in Seventeenth-Century Music Theory* or Nicholas Baragwanath's *How to Solfeggiare the Eighteenth-Century Way: A Summary Guide in Ten Lessons*. In Example 73, Leo's solfeggio in Example 71 is solmized in *par transposition* system.

EXAMPLE 73. The author's solmization of Leo's Solfeggio (Gj5010).

The image shows a musical score for Example 73, consisting of three staves of music in G major (one sharp). The music is written in a single melodic line. Below the notes are solfeggi syllables (do, re, mi, fa, so, la) and boxes indicating the hexachord used for each group of notes. The first staff contains the syllables: do, fa, mi, fa, re, re, re, do, re, mi, re, mi, fa, fa, fa, mi, fa, sol, fa, sol, la, fa. The second staff starts at measure 7 and contains: fa, mi, do, re, fa, mi, so, fa, mi, mi, re, do, fa, mi, fa, re, re, re, do, re, mi. The third staff starts at measure 13 and contains: re, mi, fa, fa, fa, la, sol, la, fa, mi, la, so, fa, so, fa, fa, mi, do, re, mi, fa, sol, me, re, do, fa, sol, mi. Below the staves are three boxes labeled 'D hexachord', 'G hexachord', and 'A hexachord', which correspond to the hexachords used in the solmization.

Then, example 74 compares the *par transposition* system with the *movable-do* and *fixed-do* systems, two of the most common solmization methods in modern music education.

EXAMPLE 74. The author’s solmization of Leo’s Solfeggio (Gj5010) in three systems.

par transposition
do fa mi fa sol sol sol

movable-do
sol do ti do re re re

fixed-do
re sol fi sol la la la

If one tries singing the three examples above, it is of course subjective, but one would notice that the *par transposition* system is the easiest and most natural to sing at first glance, probably because it is comprised of the balanced symmetrical hexachord instead of asymmetrical seven-note diatonic scales used in other systems.

Baragwanath states that the reason behind the use of the *par transposition* system in the past was that the “tonic and dominant keys were far more closely associated than modern theories allow.”¹¹⁸ His claim can be justified by comparing J. S. Bach’s fugue from *The Well-Tempered Clavier* in three systems (*fixed-do*, *movable-do*, and *par transposition* systems in order).

EXAMPLE 75. The author’s fixed-do solmization of *Fugue No.1, BWV 846* from *The Well-Tempered Clavier, Book 1*.

sol la ti do re do ti mi la re mi re do

do re mi fa sol fa mi la re sol la sol fa mi fa mi re do re do ti la fi sol fi mi fi re

¹¹⁸ Nicholas Baragwanath, “How to Solfeggiare the Eighteenth-Century Way: A Summary Guide in Ten Lessons,” <https://www.nottingham.ac.uk/music/documents/2015/nick-baragwanath,-a-summary-guide-to-solfeggiare-the-eighteenth-century-way.pdf> (accessed September 29, 2017).

In the *fixed-do* system, one places different syllables on the fugal subject and answer. In the *movable-do* system (Example 76), however, one can place the same syllables on both the fugal subject and answer when a real fugal answer is used. In this respect, the *movable-do* system is more economical, but it is not obvious exactly where the modulation from C to G happens in the bottom line. Another disadvantage is that there is a clear vertical division between tonic and dominant as seen in below.

EXAMPLE 76. The author's *movable-do* solmization of *Fugue No.1* from *The Well-Tempered Clavier, Book 1*.

The image shows a musical score for Example 76, consisting of two staves. The top staff is in G major and the bottom staff is in C major. A vertical line marks the modulation point between the two keys. The solmization syllables are as follows:

Top staff (G major):
 G: do re mi fa sol fa mi la re sol__ la sol fa

Bottom staff (C major):
 C: do re mi fa sol fa mi la re sol__ la sol fa mi
 G: la sol fa sol fa mi re ti do__ ti la ti sol

In the *par transposition* system (Example 77), the same syllables can be placed on both the fugal subject and answer as in the *movable-do* system. The advantage of this system is that the obvious vertical division between the keys does not exist as in the *movable-do* system. The shift of hexachord (hexachord mutation) was considered a more local event, as in the concept of “Scale mutation,” which I discussed in Chapter 2. One can see more unity of tonic and dominant in the *par transposition* system when compared to the other systems (Example 77).

EXAMPLE 77. The author's hexachord solmization of *Fugue No.1* from *The Well-Tempered Clavier, Book 1*.

do re mi fa sol fa mi la re sol la sol fa do re mi fa sol fa mi re mi fa sol fa mi re mi fa mi re mi do

C hexachord

C hexachord

G hexachord

D hexachord

Further discussion regarding hexachord solmization is beyond the scope of this paper as the investigation of the practical use of hexachord has just begun.

Learning diminution from existing pieces

After all, the best way to learn diminution for modern learners is to analyze a vast amount of existing pieces and observe how musicians in the past constructed patterns and made diminution based on them, as Czerny states “intimate acquaintance with the composition of all the great composers; so as to enable to produce music of own invention.”¹¹⁹ The good news is the fact that practicing harmonic patterns through the linear approach, as discussed in this chapter, will train both our brain and ears for locating harmonic patterns in the pieces. It is advisable for learners to play and analyze simple pieces in collections such as *Notebook for Anna Magdalena Bach*,¹²⁰ *Notebook for Wilhelm Friedemann Bach*,¹²¹ *Notebook for Nannerl*¹²² or any other elementary classic keyboard literature. If one had already played these pieces as a child and

¹¹⁹ Carl Czerny, *Letters to a Young Lady on the Art of Playing the Pianoforte, from the Earliest Rudiments to the Highest Stage of Cultivation*, Vienna 1839, trans. J. A. Hamilton (New York: Firth, Pond and Co., 1861), 81.

¹²⁰ Johann Sebastian Bach. *Musikstücke in den Notenbüchern der Anna Magdalena Bach*. Bach Gesellschaft Edition, Vol. 43.2. Edited by Paul Waldersee. Leipzig: Breitkopf und Härtel, 1894.

¹²¹ Johann Sebastian Bach. “*Klavierbüchlein für Wilhelm Friedemann Bach*”. In *Instrumentalwerke. Ergänzungsband*. Bach Gesellschaft Edition, Vol. 45.1. Edited by Alfred Dörffel. Leipzig: Breitkopf & Härtel, 1897.

¹²² Leopold Mozart. *Die Notenbücher der Geschwister Mozart*. Edited by Wolfgang Plath. Kassel: Bärenreiter, 2005.

revisits them, one may be surprised to see how music patterns control the music. Also, it is a good idea to listen to Baroque and Classical orchestral works while just watching continuo parts, as it gives an idea of diminutions. Eventually, learners will be able to develop a favorite way of constructing musical patterns and their diminutions, which can serve as a model for their own improvisation or composition on any occasion. As stated in the beginning of the chapter, my guide only focuses on how efficiently harmonic patterns can be learned; however, this is the most important thing to be learned at the beginning. The rest of improvisation studies could be done individually by analyzing and listening to much music while voluntarily identifying music patterns. In the next chapter, musical analysis based on music patterns will be discussed in depth.

CHAPTER 5: ANALYZING ORGAN LITERATURE BASED ON PARTIMENTO PEDAGOGY

In this chapter, I will discuss the way to analyze existing pieces through the harmonic patterns learned in rules sections of partimento collections. Through this mode of analysis, a learner can understand how composers expanded harmonic patterns using an artistic diminution. A learner can absorb and retain these ideas in their stock of knowledge for improvisation and composition. Also, this way of seeing music significantly helps a learner's interpretive performance; from a performers' perspective, the benefit of using this approach is that one can organize musical events more cleanly compared to other commonly used types of musical analysis. I will explain this in detail using a few excerpts from J. S. Bach's organ compositions. Example 78 is the opening part of Prelude in A minor, BWV 543, which begins with a right hand solo with descending chromatic bass line.

EXAMPLE 78. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543* from *Orgelwerke, Band 1. Bach Gesellschaft Edition, Vol. 15*. Edited by Wilhelm Rust. Leipzig: Breitkopf und Härtel, 1867.

The image displays the musical score for the opening of the Prelude in A minor, BWV 543 by Johann Sebastian Bach. It is presented in two systems. The first system is labeled 'Manuale.' and 'Pedale.' on the left. The 'Manuale' staff (treble clef) begins with a right hand solo, featuring a descending chromatic bass line. The 'Pedale' staff (bass clef) is empty. The second system shows the 'Manuale' staff continuing with a complex, rhythmic pattern, and the 'Pedale' staff beginning with a descending chromatic bass line. The score is in A minor and 4/4 time.

Paired with Fugue, Prelude and Fugue in A minor, BWV 543, is considered to have been written during Bach's Weimar years (1708-1717) and then revised during the Leipzig years

(1723-1750).¹²³ This piece shows the characteristic influence from north German organ preludes, such as the opening right-hand solo, running figures, pedal solo passage, and so on. This opening passage is troublesome for amateur players, as they tend to play note-wisely without noticing implied compound voices inside this single line. This passage can be labelled with roman numerals, but its use of chromaticism and suspensions might overwhelm the amateur musician's brain. Even after one successfully labels the chord symbols, the vertical chord identifications might not be helpful for a player to listen to the compound voices linearly. Conversely, if one has studied the partimento rules, one can simply think of the whole opening passages as the juxtaposition of a musical pattern, "Chromatic descent," and their diminutions.

EXAMPLE 79. Fedele Fenaroli's Regole "Chromatic Descent." from Gjerdingen's *monuments of Partimenti*, and its transposition to A minor by the author.

The image displays two musical staves. The left staff is for the original piece in C major, featuring a treble clef and a bass clef. It includes a key signature of one flat and a common time signature. The right staff is a transposed version in A minor, also with a treble clef and a bass clef, but with a key signature of no sharps or flats and a common time signature. The original piece has a treble clef and a bass clef. The transposed version has a treble clef and a bass clef. The original piece has a key signature of one flat and a common time signature. The transposed version has a key signature of no sharps or flats and a common time signature. The original piece has a treble clef and a bass clef. The transposed version has a treble clef and a bass clef.

"Chromatic descent" has been cultivated by classical composers since the Renaissance period along its counter pattern, "Chromatic ascent." Both patterns span the interval of a perfect fourth and bring the music from the tonic to the dominant and vice versa; therefore, they are called "Chromatic fourth"¹²⁴ all together. By the time Henry Purcell composed the famous aria "When I am laid in earth," in his opera *Dido and Aeneas*, "Chromatic descent" had become as a

¹²³ The earlier version of Prelude in A minor is labeled as BWV 543a. Fugue is not considered to have been revised at a later time. George B. Stauffer, *The Organ Preludes of Johann Sebastian Bach* (Ann Arbor M.I.: UMI Research Press, 1980, 78), 105, 106, and 120.

¹²⁴ It is also called as *passus duriusculus* which means "a somewhat hard or harsh musical phrase" or "passage rather difficult to sing." Peter Williams, *The Chromatic Fourth: During Four Centuries of Music* (New York: Oxford University Press, 1997), 62.

formulaic bass line expressing lamentation, namely *lament bass*. As shown in Purcell’s piece (Example 80), this pattern usually descends by a perfect fourth, which brings the music to the dominant area before proceeding to a cadential response.

EXAMPLE 80. Henry Purcell. “When I am laid in earth” from *Dido and Aeneas*, Z. 626. *The Works of Henry Purcell, Vol.III*. Edited by William Hayman Cummings. London: Novello, Ewer & Co., 1889.

N^o 34. S O N G.

LARGHETTO

Chromatic Descent Cadence Chromatic Descent

Bach’s use of “Chromatic descent” can be observed in many compositions, such as in *Crucifixus* from Mass in B minor BWV 232, and the Prelude in A minor from *The Well-Tempered Clavier* Book 2. In the case of Prelude in A minor, BWV 543, Bach chose to juxtapose two “Chromatic descents” at the beginning. Example 81 shows its harmonic skeleton and how this opening phrase can be organized linearly in four musical patterns, namely “Chromatic descents” in A minor and E minor, “7-6 Suspension”, and “Scale mutation” to D minor. All four patterns are juxtaposed, but the first and last chords of each pattern are adjusted and overlapped to account for tonal considerations, as seen below (Example 81).

EXAMPLE 81. Harmonic skeleton and four contrapuntal patterns of the opening chromatic descent.

The image displays a musical score for Example 81, illustrating the harmonic skeleton and four contrapuntal patterns of the opening chromatic descent. The score is presented in four systems, each with a treble and bass staff. The first system shows a complex contrapuntal pattern. The second system shows a chromatic descent in A minor. The third system shows a chromatic descent in E minor, with a 7-6 suspension on B. The fourth system shows a scale mutation to D minor. Annotations include: 'Chromatic descent in A minor', 'Two Chromatic descents are combined through Scale mutation (G# - G b)', 'Chromatic descent in E minor', '7-6 suspension on B brings music back to A minor', '7-6 suspension', 'Bach's adjustment', and 'Scale mutation to D minor'.

As shown above, the juxtaposition of “Chromatic descent” brings the music to a B major chord, the dominant of the dominant from the tonic. Bach replaced this B major chord to “7-6 suspension” over B in order to bring the music back to the tonic. However, instead of landing on the tonic, Bach chose to go to the D minor area by the “Scale mutation.” By knowing these four patterns, one can understand Bach’s tonal intention clearly. These harmonic patterns lay the foundation of the composition as ground models. Of course, a performer needs to be aware of many other musical ingredients and larger structures besides these harmonic patterns, but they are originally derived from these patterns as I have been discussing throughout this paper. The understanding of the harmonic framework should be the highest in hierarchy. It is advisable to transpose this harmonic skeleton to many keys even before playing the actual composition, in order to fully internalize the patterns.

Interestingly, Durante prepared a partimento based on the juxtaposition of “Chromatic Descent” spanning one octave (Example 82) as Bach did. Durante’s use of them is more straightforward, as it simply goes to dominant of dominant. It is interesting to compare each composer’s diminution ideas. The important thing is the fact that one cannot compare diminution ideas without knowing foundational harmonic patterns.

EXAMPLE 82. Partimento No. 75 from Francesco Durante’s *Partimenti diminuiti*, from Gjerdingen’s *Monuments of Partimenti* (GJ75).



In fact, an alternate version of Prelude in A minor, BWV 543, exists. It is considered an earlier version and labeled as BWV 543a. The crucial difference between these two versions can

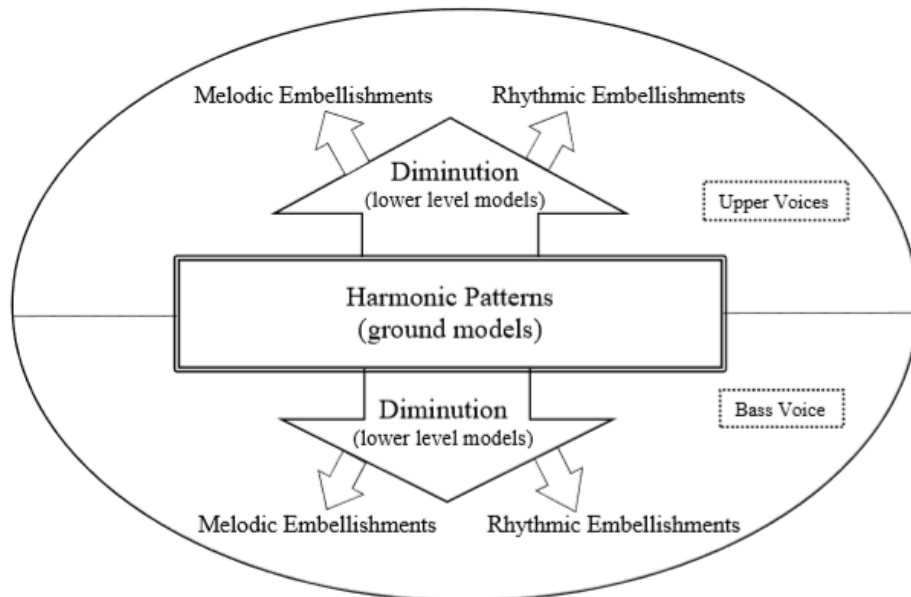
be seen in the opening passages. In BWV 543a, “Chromatic descents” are more contracted and return to the tonic, not to the D minor area as in BWV 543. It is interesting to note that the opening “Chromatic descents” are used in a more unconventional fashion in this earlier version.

EXAMPLE 83. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543a* from *Organ Works. Volume IV. Prelude, Toccatas, Fatasias and Fugues II*. Edited by Dietrich Kilian. Kassel, Germany: Bärenreiter, 1964, 5/2013.



The diagram below represents how musicians in the past likely organized music in their heads. First, they had harmonic patterns as the foundation of everything and then added diminutions upon those patterns. Their diminutions varied significantly depending on how they had cultivated their own musical language over the course of their lives.

EXAMPLE 84. The diagram representing musical organizations of musicians in the past.



When performing the beginning phrase of Bach’s A minor Prelude, a performer can organize all musical events upon the four harmonic patterns which are linearly connected as described above, instead of thinking the names of more than ten vertical chords or being worried about playing all fifty-five notes correctly. Also, it is easy to memorize music this way because one does not need to memorize every single note, but the chunk of notes as an organized set of patterns.

Now, I would like to discuss the next passage in Bach’s A minor Prelude. After the opening long “Chromatic descent,” the improvisatory passage leads the music to another long “Chromatic descent,” which is an octave lower than at the beginning (Example 85). This improvisatory passage can be understood simply by using the idea of “Scale mutation.” One does not need to examine all notes in this passage or guess implied chords, but instead can just focus on accidentals; the C-sharp at the end of the opening “Chromatic descent” becomes the leading tone to D minor, but this scale mutation is cancelled when C-sharp is naturalized. Then, the next G-sharp confirms that the key has now returned to A minor. Using this approach, one can easily grasp the context of this this passage.

EXAMPLE 85. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, mm. 4-6.

The image shows a musical score for Example 85, which is a passage from Bach's A minor Prelude. The score is written in treble and bass clefs. It features a chromatic descent in the bass line, followed by a scale mutation to D minor, a scale mutation canceled, a G# confirming the key is now in A minor, and another chromatic descent. The score is annotated with several boxes and arrows:

- A box labeled "Chromatic descent" points to the first chromatic descent.
- A box labeled "Scale mutation to D minor" points to the C-sharp at the end of the first chromatic descent.
- A box labeled "Scale mutation canceled" points to the C-sharp being naturalized.
- A box labeled "G# confirms the key is now in A minor" points to the G-sharp.
- A box labeled "Chromatic descent" points to the second chromatic descent.

The next excerpt (Example 86) from the same piece shows Bach’s use of other musical patterns. First, one can see a sequence using “Up a 2nd, Down a 3rd.” During the third iteration

of this sequence, one can notice that the upper voices break the pattern. Even though amateurs may not know the term “Neapolitan chord,” one can certainly feel the dramatic harmonic shift in this point by analyzing music in this mode. After this pattern is completed, the chain of “Suspension in the Bass” appears. The music and its constituent musical patterns are provided below.

EXAMPLE 86. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, mm. 40-46, and its musical patterns.

The image displays two systems of musical notation for Johann Sebastian Bach's *Prelude and Fugue in A minor, BWV 543*, measures 40-46. The first system shows the initial part of the piece, with a box labeled "Up a 2nd, Down a 3rd" pointing to a specific interval in the bass line. The second system continues the piece, with a box labeled "Bass suspension in series" pointing to a sequence of notes in the bass line. A third system shows a close-up of the upper voice, with a box labeled "Irregular upper voice (Neapolitan chord)" pointing to a specific chord structure. Another box labeled "Up a 2nd, Down a 3rd" points to an interval in the upper voice, and a box labeled "Bass suspension in series" points to a sequence of notes in the bass line.

The last excerpt from BWV 543 is its fugal subject. This fugal subject is comprised of a short head motif and long sequential tail, and it is four-and-a-half measures long. In the exposition, the fugal subject appears in the soprano, alto, tenor, and bass, in order. After an episode, a complete subject appears again in the tonic while the head motif appears in stretto. Then, subjects without complete head motives appear in the dominant, relative major (C major), G major, and D minor. After this development section, the complete subject appears again in the tonic in stretto. Then, the subject, spanning tenor and alto, appears in the dominant. The final entry appears in the tonic but ends in the dominant. In sum, the subject appears twelve times through out the piece.

EXAMPLE 87. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, Fugue, mm. 1-10.

Fuga.

The image shows two systems of musical notation for the Fugue in A minor, BWV 543. The first system is labeled 'Fuga.' and shows the beginning of the piece. The first staff is in treble clef and the second is in bass clef. The first staff contains a melodic line with a 'Head motif' (measures 1-2) and a 'Sequential tail' (measures 3-6). The second system continues the piece with various musical notations including slurs and ties.

The head motif implies a minor variant of what Gjerdingen calls “Do re mi,” “Re mi fa.” Example 88 shows these patterns and their suggested bass lines. In tonal harmonic theory, the second bass notes in Example 88 (B and G#) might be replaced by the roots of the dominant chords (G and E); however, musicians in the past did not think of music in the way I have discussed in the previous chapters. These soprano and bass lines are invertible, and the bass lines

frequently become a melody. Therefore, it is more practical to avoid a leap in on structural level in order to make a graceful linear melody.

EXAMPLE 88. “Do re mi” and “Re mi fa,” and their suggested bass lines.



The first bass notes under “Do re mi” or “Re mi fa” are often tied and form a “Suspension in the Bass” (Example 89) making “a dissonance highly prized by the school of Corelli”.¹²⁵ Bach’s influence from the Corellian school is widely known through his transcription of Antonio Vivaldi’s six concerti. As I discussed in Chapter 2, this “Suspension in the Bass” becomes “7-6 suspension” by the inversion.

EXAMPLE 89. “Re mi fa” above “Suspension in the Bass” and its inversion (“7-6 suspension” above “Re mi fa”).



By checking all fugal entrances throughout the piece, one can notice that “Suspension in the Bass” or “7-6 suspension” above are almost always used as a countersubject to accompany head motives (Example 90). Therefore, Bach must have intended to use the “Re mi fa” soprano line over “Suspension in the Bass” as a harmonic model of this head motif.

¹²⁵ Gjerdingen, *Music in the Galant Style* (New York: Oxford University Press, 2007), 79.

EXAMPLE 90. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, Fugue, mm.1, 5, 12, 24, 50.

The image displays musical notation for the Fugue in A minor, BWV 543, with several annotations. At the top, three systems of music show the initial entries of the fugal subject in the treble and bass staves. Below these, a central box labeled "Musical pattern/ Model" contains a diagram of the subject's first three notes: a half note G4 (labeled "Re"), a quarter note A4 (labeled "mi"), and a quarter note B4 (labeled "fa"). Below this diagram, a label "Suspension in the Bass" points to a specific bass line. To the right of the central box, another system of music shows the subject's continuation with annotations. At the bottom, a larger system of music shows the subject's entry in the bass staff, with annotations highlighting the "Suspension in the Bass" pattern.

- “Suspension in the Bass” becomes “7-6 suspension” by the inversion, but they are considered to be the same pattern for practical purposes.

After the head motif, the fugal subject proceeds to the passage that contains a compound melody. This compound melody forms the “Bass suspensions in ties (2-3 suspension in series),”

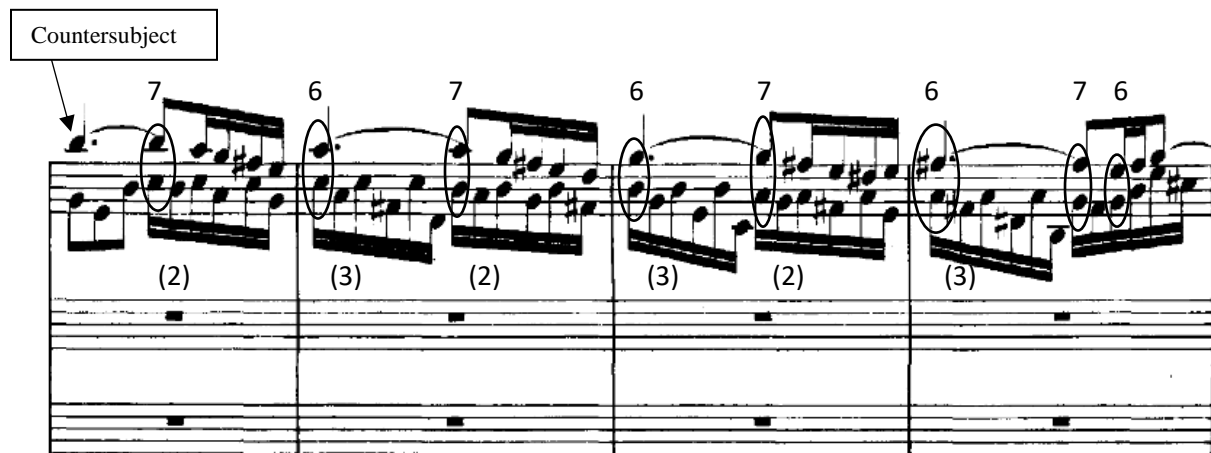
as shown in Example 91. Interestingly, in this passage, the suspension is placed on the upbeat, which “easily confuses the ear about the beat.”¹²⁶

EXAMPLE 91. Long sequential tail after the head motif forms “Bass suspensions in ties.”



The countersubject (Example 92) makes the “7-6 suspension in series” with this fugal passage’s structural line. Interestingly, “7-6 suspension in series” is the inversion of “Bass suspension in ties (2-3 suspension in series)” which builds fugal subject. Thus, these closely related patterns are occurring simultaneously in different dimensions. The “7-6 suspension in series” is always used in the exposition, and another time in the development section to accompany fugal subjects (Example 93).

EXAMPLE 92. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, Fugue, mm.7-10.



¹²⁶ Peter Williams, *The Organ Music of J. S. Bach*. 2nd ed. (New York: Cambridge University Press. 2003). 94.

EXAMPLE 93. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543, Fugue*, mm.7-10, 16-19, 27-30, and 52-55.

Musical pattern/Model

7-6 suspensions in series

The image displays a musical score for Example 93, illustrating a specific harmonic pattern. At the top, a box labeled "Musical pattern/Model" contains a short musical excerpt in treble and bass clefs. This excerpt shows a sequence of notes with a bracket above it labeled "7-6 suspensions in series". Below this model, the score is divided into four systems, each representing a different section of the fugue (mm. 7-10, 16-19, 27-30, and 52-55). Each system consists of two staves (treble and bass clefs) and shows the application of the 7-6 suspension pattern in various voices. The notes are circled in the original image to highlight the suspension points. The first system (mm. 7-10) shows the pattern in the right hand. The second system (mm. 16-19) shows the pattern in the left hand. The third system (mm. 27-30) shows the pattern in the right hand. The fourth system (mm. 52-55) shows the pattern in the left hand.

“Bass suspensions in ties” inside fugal subject was possibly the original pattern Bach had in mind. Then, he creatively used its inversion, “7-6 suspension in series,” for writing a countersubject. During the exposition, fugal subjects are always placed on the lowest voices and form “7-6 suspension in series” as shown above. After the exposition, fugal subject appears in the other voices, and variants of “7-6 suspension in series” can be observed; these variants are often employed above patterned bass motions (Example 94).

EXAMPLE 94. Johann Sebastian Bach. *Prelude and Fugue in A minor, BWV 543*, Fugue, mm.45-48, and 97-101.

The image displays two systems of musical notation from Johann Sebastian Bach's Fugue in A minor, BWV 543. The first system (measures 45-48) shows the fugal subject in the bass staff and the countersubject in the treble staff. Above the bass staff, the numbers 7, 3, 7, 3, 7, 3 are placed over the notes, indicating a 7-6 suspension in series. Above the treble staff, the numbers 7, 6, 7, 6, 7, 6 are placed over the notes, indicating an inverted 7-6 suspension in series. The second system (measures 97-101) shows the fugal subject in the treble staff and the countersubject in the bass staff, with the same annotations 7, 6, 7, 6, 7, 6 above the treble staff.

“7-6 suspension in series” and its inversion “Suspension in bass in ties” (“2-3 suspension in series”) were frequently employed by the composers in the past, as Francesco Durante introduces 14 variants of “7-6 suspension in series” and 7 variants of “Suspension in bass in ties” in his partimento rules (Example 95).

EXAMPLE 95. Francesco Durante Regole “Sequences with 7 and 6” and “Sequences with 4/2 and 6” from Gjerdingen’s *Monuments of Partimenti*.

33

The musical score consists of seven staves, each with a different clef and time signature. The first five staves are in bass clef with common time (C). The last two staves are in bass clef with 3/2 time. Fingerings are indicated by numbers 1-7 above notes. Accidentals (sharps and naturals) are placed above notes. The score concludes with a double bar line and repeat dots.

Staff 1: Bass clef, common time. Fingerings: 5 6 7 6, 7 6 7 6, 7 6, 5 6 7 6, 7 6 7 6, 4 #.

Staff 2: Bass clef, common time. Fingerings: 7 7 7, 7 7 7 7, 7 7, 5 6 7 7, 7 7 7 6, 4 #.

Staff 3: Bass clef, common time. Fingerings: 7 7 7, 7 7 7 7, 7 7, 5 6 7 7, 7 7 7 6, 5 #.

Staff 4: Bass clef, common time. Fingerings: 7 7 7, 7 7 7 7, 7, 7 7 7, 7 7 7 6, 4 #.

Staff 5: Bass clef, common time. Fingerings: 5 6, 7 6, 7 6, 7 6.

Staff 6: Bass clef, 3/2 time. Fingerings: 6, 4/2, 6, 4/2, 6, 4/2, 6, 4/2, 6, 6, 4/2, 6, 4/2, 6, 7 #6.

Staff 7: Bass clef, 3/2 time. Fingerings: 6, #4/2, 6, 4/2, 6, 4/2, 6, 4/2, 6, 4 #, 6, 4/2, 6, 4/2, 6, 7 #6.

Staff 8: Bass clef, 3/2 time. Fingerings: 6, 2, 6, 2, 6, 2, 6, 2, 6, 2, 6, 2, 6, 2, 6, 7 #6.

Given these facts, one can possibly organize this fugal subject as a combination of two musical patterns, “Re mi fa” soprano line over “Suspension the in Bass” and “Bass suspension in ties” or its inversion “7-6 suspension in series” (Example 96).

EXAMPLE 96. Possible music patterns in the fugal subject.

The image displays four musical patterns in 8/8 time. The first pattern, labeled 'Re mi fa', shows a soprano line with three quarter notes: G4, A4, and B4. The second pattern, labeled 'Suspension in the Bass', shows a bass line with three quarter notes: G3, F3, and E3. The third pattern, labeled 'Bass suspension in ties', shows a bass line with a sequence of tied notes: G3, F3, E3, D3, C3, B2, A2, G2. The fourth pattern, labeled '7-6 suspensions in series', shows a bass line with a sequence of tied notes: G3, F3, E3, D3, C3, B2, A2, G2, F2, E2, D2, C2, B1, A1, G1.

Interestingly, the structural soprano lines in Example 96 form the shape of an arch, and its shape coincides with what Henrich Schenker called *Urfinie* (fundamental line).¹²⁷ Therefore, this fugal subject is also summarizing the entire structure of the composition.

EXAMPLE 97. The soprano lines in the two patterns from the previous example.

The image shows a single musical staff with a treble clef. It contains the soprano lines from the first two patterns of Example 96. The notes are G4, A4, B4, A4, G4. A thick horizontal line is drawn above the notes A4, B4, A4, and G4, connecting them. Above the staff, there are five carets (^) with the numbers 5, 4, 3, 2, and 1 below them, corresponding to the notes G4, A4, B4, A4, and G4 respectively.

¹²⁷ *Urfinie* (fundamental line) refers to the descending stepwise upper voice of *Ursatz* (fundamental structure). *Ursatz* comprises of *Urfinie* and *Bassbrechung* (Bass arpeggiation) and it represents the deepest background of a tonal work. Heinrich Schenker, *Free Composition*, trans. Ernst Oster (Hillsdale, N.Y.: Pendragon Press, 1977), 3-11.

The pattern analysis is actually similar to the Schenkerian analysis as both analyses reduce the compositions to the structural levels. Schenkerian analysis, however, is difficult to apply for performance, as its goal is to reduce and summarize the context of music into Background, which is also called *Ursatz* (fundamental structure). Then, seeking musical coherence between Background, Middleground, and Foreground,¹²⁸ Schenker's theory can sophisticatedly explain the true content of tonal music; however, it is overwhelming for ordinary learners to thoroughly understand his concept and apply it to the performance. The pattern analysis is simpler to understand, as its analysis just focuses on the linear organization of important contrapuntal patterns from which other musical features are derived. It is easy to organize and memorize musical events this way during the performance.

The next examples are from J. S. Bach's Sonata No.5 for two Keyboards and Pedal, BWV 529. Bach's six organ sonatas are written in trio sonata style and are widely considered some of the most challenging organ repertoire to play; however, utilizing the approach based on music patterns can help one organize the pieces more simply and avoid being worried about accurately playing continuous eighth and sixteenth notes in both the hands and feet. The three excerpts below comprise the opening few measures of each movement from the C major sonata along with my musical patterns analysis. It becomes much easier to play these pieces after identifying these harmonic patterns and practicing them in many keys.

¹²⁸ Schenker, 3-9.

EXAMPLE 98. Johann Sebastian Bach. *Sonata No.5 for two Keyboards and Pedal, BWV 529, mvt 1* from *Orgelwerke, Band 1*. *Bach Gesellschaft Edition, Vol. 15*. Edited by Wilhelm Rust. Leipzig: Breitkopf und Härtel, 1867. Below are its musical patterns.

Allegro.

a 2 Clav.
e
Pedale.

Upper neighbors

Pedal point

Pedal point

7-6 ascending

Unprepared suspension 6/4 – 5/3

Pedal point

7-6 ascending

EXAMPLE 99. Johann Sebastian Bach. *Sonata No.5 for two Keyboards and Pedal, BWV 529, mvt.2*, and its musical patterns.

Largo.

7-6 suspension 4-3 suspensions, and Up a 2nd, Down a 3rd Cadence Descending RO, (*Prinner*)

7-6 suspension 4-3 suspensions, and Up a 2nd, Down a 3rd Cadence Descending RO, (*Prinner*)

Variant of Descending RO

EXAMPLE 100. Johann Sebastian Bach. *Sonata No.5 for two Keyboards and Pedal, BWV 529, mvt.3*, and its musical patterns.

Allegro.

The image displays two systems of musical notation for the third movement of Bach's Sonata No. 5. The first system shows the beginning of the piece with labels for 'Bass suspension', '7-6 suspension', 'HC', and 'Bass suspension'. The second system continues the notation with labels for '7-6 suspension', 'HC', '4-3 suspension', 'Bass suspension', '7-6 suspension', and 'Cadence'. Below these are two more systems of notation, each with its own set of labels: 'Bass suspension', '7-6 suspension', 'HC', 'Bass suspension', '7-6 suspension' for the third system, and 'HC and 4-3 suspension', 'Bass Suspension', '7-6 suspension', 'Cadence' for the fourth system.

As these examples show, J. S. Bach's music can be analyzed according to the use of musical patterns. Bach was almost certainly familiar with these musical patterns, and his way of organizing and expanding them was extraordinary and unsurpassed. In any case, this way of thinking was most likely a habit for many musicians at the time, which explains why they were

able to improvise, compose, and perform. They considered all musical activities as ripe for the expansion of models; therefore, improvisation, composition, and performance were in the same continuum for them.

It takes much time for modern keyboard players to acquire the ability to improvise on a practical level; however, acquiring the ability of musical pattern analysis is not nearly as difficult, as long as a learner practices musical patterns from partimento pedagogy on a daily basis using the strategies described in previous chapters. It is clear that this type of analysis aids in the performance of certain pieces because it teaches us how music is constructed in a true sense. By understanding the underlying content of musical composition, a musician can cultivate what people call the musical imagination or inner ear. These musical images trigger kinesthetic action in the most natural way; therefore, a musician can perform with ease and enriched musicality.¹²⁹ After continued practice of playing keyboard literature while recognizing patterns, these patterns will be stored in the player's brain. These patterns should eventually become the models for the student's ability to freely improvise in the near future as well as to perform previously composed music.

¹²⁹ Many keyboard pedagogues have pointed out the importance of musical imagination. Among them, George Kochevitsky justified this claim through his research of the relationship between the keyboard playing and the central nervous system. See the Chapter 4, "Structure and Function of the Central Nervous System," in his *The Art of Piano Playing: a Scientific Approach*. George Kochevitsky, *The Art of Piano Playing: A Scientific Approach*, (Evanston, IL: Summy-Birchard INC., 1967), 21-29.

CONCLUSION

As I have discussed throughout this dissertation, partimento pedagogy teaches learners practical music theory through improvisation. The core of partimento pedagogy is learning a stylistically constrained model, especially harmonic patterns, and their construction/expansion. In fact, this approach represents not only partimento pedagogy but also the whole classical tradition in a microcosm. Through the internalization of models, all learners have the potential to become improviser/composer/performers. Long overlooked in Western music curricula, partimento pedagogy has the strong potential to serve as a self-contained, comprehensive method that can produce a musically engaged keyboard player. In the modern world, institutions of classical music are experiencing a continued decline, suggesting that such music cannot survive with the way that it has been taught to students. We really need a method like partimento in which all learners are destined to become more fully engaged musician and can experience the joy of lifelong musical creation. It is not necessary to change all of music education at once; however, educators should learn a method like partimento and gradually incorporate it into their teaching. Because of its incredible potential, all learners should have the opportunity to know partimento pedagogy. I hope that my dissertation becomes a part of a sort of twenty-first-century musical enlightenment, which partimento scholars are currently working so hard to induce.

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APPENDIX A: AUTHOR'S PARTIMENTO REALIZATIONS

Partimento No. 2 from Fedele Fenaroli's Book IV (or Book III depending on the editions), from Gjerdingen's *Monuments of Partimenti* (GJ1332).

6

11

15

Partimento No.7 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1337).

12

23

32

43

Partimento No. 8 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1338).

Musical score for Partimento No. 8, bass clef, common time. The score consists of eight staves of music. The first staff begins with a treble clef and a common time signature. The key signature has one flat. The music is written in a single line with various note values and rests. Measure numbers 10, 19, 29, 38, 47, 57, and 62 are indicated at the start of their respective staves. The piece concludes with a double bar line.

Partimento No. 15 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1345).

Musical score for Partimento No. 15, bass clef, common time. The score consists of eight staves of music. The first staff begins with a treble clef and a common time signature. The key signature has two flats. The music is written in a single line with various note values and rests. Measure numbers 10, 20, 29, 39, 48, and 57 are indicated at the start of their respective staves. The piece concludes with a double bar line.

Partimento No. 2 from Fedele Fenaroli's Book IV (or Book III depending on the editions), from Gjerdingen's *Monuments of Partimenti* (GJ1332).

Measures 1-4 of the piece. The music is in C major and 3/4 time. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a steady bass line with eighth notes.

5

Measures 5-8. The right hand continues the melodic development with some chordal textures, and the left hand maintains its rhythmic pattern.

9

Measures 9-12. The right hand has some rests and longer note values, while the left hand continues with eighth-note patterns.

13

Measures 13-15. The right hand has a more active melodic line, and the left hand continues with eighth-note accompaniment.

16

Measures 16-19. The right hand features a complex melodic passage with many sixteenth notes, and the left hand continues with eighth-note accompaniment. The piece concludes with a final chord in the right hand.

Partimento No.7 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1337).

Measures 1-7 of the Partimento. The music is in G major (one sharp) and 3/4 time. The right hand features a melodic line with eighth and sixteenth notes, often beamed together, and some slurs. The left hand provides a harmonic accompaniment with whole and half notes.

Measures 8-13 of the Partimento. The right hand continues the melodic development with various rhythmic patterns and slurs. The left hand maintains a steady accompaniment.

Measures 14-19 of the Partimento. The right hand shows more complex rhythmic figures and slurs. The left hand accompaniment remains consistent.

Measures 20-25 of the Partimento. The right hand features a prominent slur over several measures. The left hand accompaniment continues with whole and half notes.

Measures 26-31 of the Partimento. The right hand concludes the piece with a final melodic phrase. The left hand accompaniment ends with a whole note.

32

Musical notation for measures 32-38. The system consists of a treble and bass clef. The key signature has one sharp (F#). The melody in the treble clef starts with a quarter note G4, followed by quarter notes A4, B4, and C5. It continues with a half note D5, a quarter note E5, and a quarter note F#5. The bass clef accompaniment features a half note G3, a half note A3, and a half note B3. The system concludes with a double bar line.

39

Musical notation for measures 39-44. The system consists of a treble and bass clef. The key signature has one sharp (F#). The melody in the treble clef begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. It continues with a quarter note C5, a quarter note D5, and a quarter note E5. The bass clef accompaniment features a half note G3, a half note A3, and a half note B3. The system concludes with a double bar line.

45

Musical notation for measures 45-48. The system consists of a treble and bass clef. The key signature has two sharps (F# and C#). The melody in the treble clef starts with a quarter note G4, followed by quarter notes A4, B4, and C5. It continues with a half note D5, a quarter note E5, and a quarter note F#5. The bass clef accompaniment features a half note G3, a half note A3, and a half note B3. The system concludes with a double bar line.

49

Musical notation for measures 49-52. The system consists of a treble and bass clef. The key signature has two sharps (F# and C#). The melody in the treble clef starts with a quarter note G4, followed by quarter notes A4, B4, and C5. It continues with a half note D5, a quarter note E5, and a quarter note F#5. The bass clef accompaniment features a half note G3, a half note A3, and a half note B3. The system concludes with a double bar line.

Partimento No. 8 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1338).

Measures 1-6 of the piece. The music is in a common time signature (C) and a key signature of one flat (B-flat). The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a harmonic accompaniment with quarter and eighth notes.

7

Measures 7-12. The melodic line continues with various rhythmic patterns, including a triplet in measure 10. The bass line maintains a steady accompaniment.

13

Measures 13-18. The piece transitions to a key signature of two flats (B-flat and E-flat). The right hand has a more active melodic line with sixteenth notes.

19

Measures 19-24. The melodic line features a prominent triplet in measure 20. The left hand continues with a consistent accompaniment.

25

Measures 25-30. The right hand has a melodic line with some grace notes. The left hand accompaniment remains steady.

31

Measures 31-36. The final section of the piece, showing the continuation of the melodic and harmonic themes.

37

Musical notation for measures 37-42. The piece is in a key with one flat (B-flat major or D minor). The melody in the treble clef consists of eighth and quarter notes, with some slurs. The bass line provides a steady accompaniment of eighth notes.

43

Musical notation for measures 43-48. The melody continues with quarter and eighth notes. The bass line features a sequence of eighth notes with some rests.

49

Musical notation for measures 49-54. The melody is primarily eighth notes. The bass line has a more active accompaniment with eighth notes and some slurs.

55

Musical notation for measures 55-60. The melody features several whole notes and half notes. The bass line continues with eighth notes.

61

Musical notation for measures 61-66. The melody includes quarter and eighth notes. The bass line has a mix of eighth and quarter notes. The piece concludes with a double bar line.

Partimento No. 15 from Fedele Fenaroli's Book IV, from Gjerdingen's *Monuments of Partimenti* (GJ1345).

Measures 1-6 of the piece. The music is in a minor key with a common time signature. The right hand features a melodic line with a trill in measure 5, while the left hand provides a steady bass accompaniment.

Measures 7-12. The right hand continues with a melodic line, including a trill in measure 10. The left hand maintains a consistent rhythmic pattern.

Measures 13-18. The right hand has a trill in measure 14. The left hand continues with its accompaniment.

Measures 19-23. The right hand features a trill in measure 20. The left hand continues with its accompaniment.

Measures 24-29. The right hand has a trill in measure 25. The left hand continues with its accompaniment.

30

Musical score for measures 30-35. The piece is in a key with three flats (B-flat major or D-flat minor) and a 3/4 time signature. The right hand features a melodic line with eighth and sixteenth notes, while the left hand provides a steady accompaniment of quarter notes.

36

Musical score for measures 36-41. The right hand continues the melodic development with some rests, and the left hand maintains the accompaniment pattern.

42

Musical score for measures 42-47. The right hand has a more active melodic line with slurs, and the left hand accompaniment remains consistent.

48

Musical score for measures 48-53. The right hand features a melodic line with a prominent slur, and the left hand accompaniment continues.

54

Musical score for measures 54-58. The right hand has a more rhythmic melodic line with eighth notes, and the left hand accompaniment continues.

59

Musical score for measures 59-64. The right hand features a melodic line with some rests, and the left hand accompaniment continues. The piece concludes with a double bar line.

APPENDIX B: AUTHOR'S CHORAL COMPOSITION BASED ON PARTIMENTO

Partimento No. 2 from Fedele Fenaroli's Book I, from Gjerdingen's *Monuments of Partimenti* (GJ1302).

The image shows two staves of musical notation. The top staff is in bass clef with a key signature of one flat (B-flat) and a common time signature (C). It contains a sequence of notes with figured bass symbols above them: 8 #, 6 #6, 6 5 #, 8 3, 6 6 6, 6 5 3, and 6. The bottom staff is also in bass clef with the same key signature and time signature. It contains a sequence of notes with figured bass symbols above them: 6 5 #3, 6 5, 6 #6 # 6, 6 5 #, 6 #6 # #4, 6 #6, #3 4 4 #3, and 3 5 #.

Hopeful eyes

Rev. Keith Harris

The image shows a musical score for the piece "Hopeful eyes" by Rev. Keith Harris. It features four vocal parts (Soprano, Alto, Tenor, and Bass) and a piano accompaniment. The music is in 4/4 time and has a key signature of one flat (B-flat). The lyrics for all parts are: "God, help us see the world through hope - ful eyes, a - mid-st the pain and con". The piano accompaniment consists of a right-hand part with chords and a left-hand part with a simple bass line.

6

fu-sion O - fen the gre-test mi-ra-cles are hid-den in the most un - like - ly

fu-sion O - fen the gre-test mi-ra-cles are hid-den in the most un - like - ly

fu-sion O - fen the gre-test mi-ra-cles are hid-den in the most un - like - ly

fu-sion O - fen the gre-test mi-ra-cles are hid-den in the most un - like - ly

11

place God's love can sneak - up be - hind - us and em-

place God's love can sneak - up be - hind - us and em-

place God's love can sneak - up be - hind - us and em-

place God's love can sneak - up be - hind - us and em-

16

brace us with an - e - ver last - ting hug God, help us

brace us with an - e - ver last - ting hug God, help us

brace us with an - e - ver last - ting hug God, help us

brace us with an - e - ver last - ting hug God, help us

brace us with an - e - ver last - ting hug God, help us

21

see the world through hope ful eyes, through hope - ful - eyes

see the world through hope ful eyes, through hope - ful - eyes

see the world through hope ful eyes, through hope - ful - eyes

see the world through hope ful eyes, through hope - ful - eyes

see the world through hope ful eyes, through hope - ful - eyes