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INTEGRATING APPLIED MUSIC THEORY INTO THE VIOLIN LESSON: A PEDAGOGIC APPROACH LINKING ANALYSIS WITH TECHNIQUE AND MUSICALITY

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A DISSERTATION APPROVED FOR THE

SCHOOL OF MUSIC

BY THE COMMITTEE CONSISTING OF

Dr. Jeffrey Swinkin, Chair

Dr. Yena Lee

Dr. Jonathan Ruck

Dr. Kim Marshall

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This document is dedicated to my teachers

Min-Jeong Koh, Matt Schullman, and Jeff Swinkin,

with deepest gratitude.

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Abstract

Violin pedagogy traditionally prioritizes technical development and tone production over instruction in music theory and analysis, typically treating theory as a separate subject from violin study. Neglecting music theory rudiments and separating theory from violin study may contribute to violin students being underprepared for university-level music theory courses and having a limited ability to relate theory concepts to violin technique, repertoire, and expressive potentialities. In this dissertation, I address these issues by presenting a pedagogic approach that integrates music theory with technique and musicality. Using sample lesson scripts and annotated repertoire common to violin students (mostly drawn from the *Suzuki Violin School*), I demonstrate how to fuse knowledge of music theory concepts with kinaesthetic awareness to support technical development in areas such as shifting and double stops while deepening students' musical understanding. I also show how comprehending the function of certain musical elements informs expressivity and how harmonic analysis can generate musical meaning. I include an overview of learning disabilities and cognitive disorders that can affect music theory learning and provide strategies for improved outcomes in violin students with learning disabilities or cognitive disorders. At each level of study, I cross-reference common student repertoire with popular music theory curricula (including the Royal Conservatory of Music's *Celebrate Theory* series) to reveal key areas of divergence, such as when certain keys are introduced, that teachers should be aware of. This dissertation contributes a holistic pedagogical framework fully integrating technical development, music analysis, and interpretation. For violin students, such an approach can lead to greater technical facility, greater musical understanding, enhanced autonomous expression, and increased confidence in performance.

Chapter ONE

Introduction

The ability of musicians to analyze the music they play is an asset to performance recognized by many in the field of music education. Insights gained from engaging with the score beyond the superficial level can increase awareness of composers' intentions, influence technical considerations, and enhance expressive potential. Analysis, Debra Mawer writes, can stimulate the imagination "and promote a broadmindedness that acknowledges performance to be much more than the mechanics of musical execution."[1] Admittedly, technical skill and musical intuition alone can produce noteworthy interpretations of musical works. However, as cellist Daniel Levitov notes, these qualities can only take a performer so far. He writes, "Students who play intuitively in a very expressive way can resist analysis, but it is essential that they learn how to manipulate their sounds in new ways, too."[2] Analysis can elevate an already impressive performance to one exhibiting true artistry, informed by observations gleaned from careful score study.

Within the realm of violin pedagogy, however, I have observed that analysis remains a neglected skill—one rarely employed to significant effect or taught by violin teachers, despite its many benefits. In my experience, violin teachers tend to focus primarily on technical challenges and producing a pleasing tone, with these concerns making up the bulk of private lessons, often

[1] Debra Mawer, "Bridging the Divide: Embedding Voice-Leading Analysis in String Pedagogy and Performance," *British Journal of Music Education* 16, no. 3 (1999): 181.

[2] Daniel Levitov, "It is Important to Practise Proactively Rather Than Reactively," The Strad, 2020, https://www.thestrad.com/playing-hub/it-is-important-to-practise-proactively-rather-than-reactively-daniel-levitov/11431.article.

at the expense of instruction in music theory. Other violinists have experienced a similar approach in the studio. Reflecting on her own lessons, violinist Morganne J. McIntyre recalls:

> As a beginning violin student, I was not at all concerned about music theory concepts such as intervals or key signatures, and I believe this was partly due to my violin instructor not placing any importance on these concepts. Both my instructor and I were focused on learning to play as many beautiful pieces as possible and little thought was given to the . . . music theory behind every piece.[3]

When violin teachers do incorporate analysis into lessons, they often limit their considerations to the melodic line, frequently utilizing a "parroting" approach, relying on traditional interpretations, or leaning too heavily on instinct rather than conscious knowledge of the score's structure to teach musical expressivity.

This approach to teaching music has left many violin students underprepared for the rigours of university-level music theory courses. Brad Wayne Hufft summarizes some revealing interviews with theory professors. He writes:

> The fundamentals of music, being able to read bass and treble clefs, knowing scales and key signatures, understanding basic rhythm patterns, and recognizing intervals, are the keys to success in a music theory program. Although the expectation is that this basic knowledge will have been acquired before entering a university music program, [each

[3] Morganne J. McIntyre, "Music Theory Pedagogy for the Violin: Cognitive Philosophy and Three Model Curricula" (MA thesis, University of Denver, 2022), 46.

person interviewed] lamented that the typical entering freshman was woefully unprepared in these areas.[4]

Simply passing these courses becomes the goal for many undergraduate students who, unless they are lucky enough to chance upon that rare teacher who can help bridge the gap between analysis and performance, will remain ignorant to the potential of analysis to not only deepen their understanding of the score, but enhance their creative and interpretive powers. Recalling exchanges with fellow violin students in university, Paran Amirinazari writes, "many conversations with colleagues revealed a sense of anxiety in relation to music theory, as well as a common lack of understanding between the connection of classroom knowledge and its application to playing the violin."[5] Calling herself a "late bloomer" in regard to comprehending music theory principles Amirinazari divulges, "I first learned about harmony in music theory classes in college." She shares how her delayed exposure to music theory left her at a disadvantage in theory courses and in applied environments like string quartet rehearsals, where she was expected to grasp the implications of harmonic analysis on voicing considerations.

Amirinazari's experiences with music theory education prior to university are similar to my own. Despite beginning private violin lessons at age 7, I received almost no instruction in music theory from any of my teachers before entering university to major in violin performance. When I arrived at university, key signatures meant nothing to me, apart from indicating finger placement on the violin fingerboard, and I had only a handful of the most common key

[4] Brad Wayne Hufft, "Students' preparedness for first-year music theory courses, the perception of that preparedness, and music theory courses in the California State University system" (PhD diss., California State University, Fresno, 2013), 64.

[5] Paran Amirinazari, "Harmony for Violinists: Skills in Listening and Harmonic Awareness through Performance" (DMA proj., University of Wisconsin-Madison, 2020), 1.

signatures memorized. I even associated individual notes on the page with finger numbers and hand positions, rather than their given pitch names. Unsurprisingly, I failed my undergraduate music theory placement exam and had to pass a rudimentary course before I could register for Theory I. What followed were four years of frantically trying to fill holes in my knowledge of music theory, none of which I learned to relate to playing music on the violin. Despite earning a Master of Music degree in Literature and Performance, it was not until my doctoral studies that I encountered a violin teacher (and theory teachers) who awakened me to the potential for analysis to make me a better performer.

Since then, I have noticed that violin students who are exposed to music theory earlier in their education through institutions such as the Royal Conservatory of Music (in Canada) or the American Guild of Music often fare better on university level theory exams but may still graduate without the ability to apply what they have learned in class to their performances. Daphne Leong writes, "Students do not necessarily bring analysis and performance together on their own initiative. They are more likely, without guidance, to construe them as separate activities."[6] This phenomenon can be attributed to several factors. Many theory teachers are so busy filling gaps in basic knowledge, they often lack the time to consider issues of interpretation. Additionally, the literature used in class may be far-removed from a student's own repertoire, or, more generally, from the repertoire for the violin; as a result, it may be difficult for some students to grasp the relevance of the concepts covered in class to making music on their instrument. Further, theory instruction relies heavily on the keyboard, which makes sense, given its intrinsic inclusion of both melody and harmony. Unfortunately, however, this reliance can leave many

[6] Daphne Leong, *Performing Knowledge: Twentieth-Century Music in Analysis and Performance* (Oxford: Oxford University Press, 2019), 198.

violin students without a background in piano at a disadvantage. McIntyre notes, "The violin is played by millions of people, and although so many people share this experience, the violin's capabilities are not often discussed within a music-theoretical framework."[7] She reasons, "It would greatly benefit violin students if they were taught music theory through the lens of their own instrument."[8] Finally, a student's applied teacher may not have a strong background in theory themselves and may not rely on it when teaching, as McIntyre's experience shows.

Both analysts and performers have long been aware of the gap (some might call it a chasm) that exists between the two disciplines and much has been written about how to span it. However, in the pedagogical sphere, there persists a resistance to integrating analysis into the lesson. As previously mentioned, some teachers simply do not have a sufficient background in theory, having been deprived for years by their own applied teachers. Others I have encountered have received a theory education but remain unconvinced of the merits of engaging in a detailed analysis in lessons (beyond loosely marking off some phrase endings and vaguely alluding to some sort of form). Still others can see the potential benefits of integrating theory into their lessons but have admitted to being uncertain about how to do so or worry about time constraints. One professor interviewed by Hufft noted that many private instructors feel pressured by students' parents to quickly progress through pieces of increasing difficulty. These instructors may question "whether there is time [in the lesson] to teach the theory required to make those pieces truly musical."[9]

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[7] McIntyre, *Music Theory Pedagogy*, 23.

[8] McIntyre, *Music Theory Pedagogy*, 25.

[9] Hufft, *Students' preparedness,* 88–89.

Yet most educators and performers acknowledge that an adequate understanding of music theory concepts is essential to interpreting music at the highest levels. The renowned violin pedagogue Ivan Galamian writes:

> Interpretation is the final goal of all instrumental study, its only raison d'être. Technique is merely the means to this end, the tool to be used in the service of artistic interpretation. For successful performance, therefore, the possession of the technical tools alone is not sufficient. In addition, the player must understand the meaning of the music thoroughly, must have creative imagination and a personal emotional approach to the work if [their] rendition is to be lifted above the dry and pedantic.[10]

To help enable their students to reach these heights of artistic interpretation, and to aid in ensuring their preparedness for university-level studies in music theory, it is clear that many private violin teachers, as well as applied university instructors, ought to be doing more to educate their students in music theory principles and to help them bridge the gap between analysis and performance. By giving students a more comprehensive music education, teachers can help them achieve their full potential as well-rounded musicians, able to autonomously craft convincing interpretations of the works they play.

Procedures

This project presents violin teachers with a pedagogic approach integrating music theory and violin instruction in the private lesson, holistically merging theory rudiments, score analysis,

[10] Ivan Galamian, *Principles of Violin Playing and Teaching,* second edition (New Jersey: Prentice Hall, Inc., 1985), 6.

technical considerations, and expressive exploration. Vicky Ward, a researcher in music education, conducted a case study on the effects of integrating music theory instruction into private lessons, a study that also looked at the "general attitudes of performance teachers towards music analysis."[11] In her conclusion, Ward notes some problems with theory integration and proposes solutions to be explored by further research. After instructing teachers participating in the study to include score analysis in their lessons, Ward observed that they "did not adequately integrate theory and practice and seemed to separate music analysis and playing." Ward suggests this can be remedied by "providing teachers with clearer suggestions for approaching music analysis through practical activities." Most tellingly for this project, Ward discovered that, compared to lessons recorded by participants prior to receiving her instructions to include score analysis, "teachers did not appear to increase their focus on aspects of expression, suggesting that they did not make the connection between expression and structure." Ward proposes, "This issue could be addressed by making theories of expressive structure clearer and more applicable for teachers."[12] With this project, I aim to address these two problems by modelling an effective fusion of theory and violin instruction from the first lesson, with a particular focus on showing how an understanding of musical form and function can enhance musical expression.

My project will concentrate on beginner through pre-collegiate-level students, with the aim of helping to ensure readiness to fully benefit from university-level theory courses, as well as applied studies at the pre-professional level. Rather than approaching theory skills acquisition sequentially, as it is usually taught in textbooks, I will demonstrate a broader, layered method for

[11] Vicky Ward, "The Performance Teacher as Music Analyst: A Case Study," *International Journal of Music Education* 22, no. 3 (2004): 248–265, https://doi.org/10.1177/0255761404047406.

[12] Ward, "The Performance Teacher," 262.

introducing rudiments and analytical skills earlier in the learning process than they may otherwise be introduced. For example, it is possible to introduce beginning students to the concepts of form and cadence before they understand the concepts of chord root and quality, voice leading, or the function of tonic and dominant harmonies. By relying on aural skills and pattern recognition and relating form and cadence to other areas of knowledge (such as storytelling or math) the student may already have fluency in, beginning students can easily grasp more complex concepts that are typically only taught after certain other, easier skills. As students continue to demonstrate comprehension of and competency in working with these concepts in the ways they are first introduced, more details related to them can be layered in over time—concepts like cadential motion, rhythmic activity, the V^7 chord, and different cadence types. In my work with my private students over the past decade, I have found that such an approach helps to facilitate greater understanding and knowledge retention of theory facts over time.[13]

Key to this approach is incorporating age/level-appropriate language for teaching complex theory concepts and relating them to both violin technique and the score. Another important aspect of theory instruction related to language is ensuring that the words teachers use to refer to the score or technical considerations are conducive to rudiments comprehension. For instance, because of the kinaesthetic nature of playing the violin, violin teachers often refer to notes on the page by the number of the finger that plays them in a given position on the violin

[13] By comparison, the Royal Conservatory of Music's *Celebrate Theory* Series does not introduce phrases until Level 3. Cadences are not introduced until Level 6. Of note, a piano student in RCM Grade 6 would be expected to play a piece at the level of Mozart's "Viennese Sonatina in C Major: IV." A violin student in RCM Grade 6 would be expected to play a piece at the level of Handel's "Sonata No. 3 in F Major, HWV 370." It is difficult for me to comprehend that a student at this level, who will no doubt be expected to play expressively, will not have learned of cadences before this point.

fingerboard, rather than the note's pitch. So, D-5 becomes "3rd finger on the A string in first position" or "1st finger on the A string in third position." Most violin teachers will encounter students whose former teachers wrote the corresponding fingering above every note in their score, in attempts to aid with note-reading and execution. Indeed, even early editions of *Suzuki Violin School Volume 1* were published with fingerings over all the notes to each piece in the book. The danger of an over-reliance on fingerings, either in print or spoken aloud, is that a student may begin to look at a piece of music and mentally visualize only a complex map of finger numbers and hand positions, as opposed to pitch names and key areas. This is very different from what a keyboardist or theorist would see when looking at the same music. The negative implications for theory comprehension of a student who looks at a D and thinks "3" (and nothing else) are obvious. In my document I will highlight what are, to my mind, common pedagogical errors such as these, unique to the violin world, that I think inhibit theory skills acquisition and comprehension, and substitute more effective language and methodology for teaching skills like note-reading.

Further, I will use annotated examples of popular pedagogical repertoire to convey what I believe are the most pertinent theory concepts to address in the lesson space to promote fluency in theory and enhance musicality. Concurrently, I will discuss relevant theories of expressive structure, as Ward suggests, and offer ideas for using the concepts covered to broaden avenues of musical expression, providing practical activities to aid students in developing interpretational autonomy. I will also suggest supplementary theory materials and show how these can be amended to better relate to the experience of playing the violin. Finally, in the last chapter of this document, I will provide an overview of cognitive disabilities and disorders that can affect music theory learning and provide strategies for improved outcomes in violin and theory students with a

cognitive disability or disorder.

Literature Review

Scholarship relating directly to integrating music theory instruction into the violin lesson is limited. My research revealed four especially relevant sources—dissertations authored in the last six years by Philip Ledgerwood, Nina Kim, Morganne J. McIntyre, and Amirinazari Paran. The minimal results of my search necessitated a comparison of violin pedagogy with the pedagogical tradition of other instruments, so I broadened my search to include integrating music theory instruction into the piano lesson. I will discuss these findings first, followed by an examination of the violin literature.

A Comparison of Theory Integration in Violin and Piano Pedagogies

I chose to compare violin and piano pedagogies for three reasons: firstly, the piano is widely considered to be one of the most popular instruments to learn and has a rich pedagogical tradition for reference. Secondly, it is the violin's opposite in many regards; for example, it is percussive, while the violin is bowed (despite being a bowed instrument, the violin can only sustain a maximum of two sonorities at once, while the piano, which has limited sustainability, can sound numerous sonorities simultaneously). I reasoned the differences between the two instruments would also yield different results than comparing the pedagogies of similar instruments, such as the viola or the flute.[14] Finally, I noticed during my collegiate studies that my piano playing peers seemed to be more proficient at analysis than myself and many of my

[14] Indeed, this proved to be true with a cursory search into the pedagogies of both the viola and the flute.

violinist friends. This disparity leads me to reason that, hypothetically, music theory proficiency in piano students is likely due to a long-established pedagogical approach that more naturally integrates theory into the lesson; an approach which does not separate theory learning from learning to play the piano itself.

This integrated approach is evidenced by the many piano method books directly incorporating rudiments which include the popular methods *Piano Adventures,* developed by Nancy and Randall Faber, *Bastien Piano Basics,* developed by James Bastien, and The Royal Conservatory's *Celebration Series* (in Canada), among others. The development of such an approach may have benefitted from the following factors:

- the intrinsic qualities of the piano (being an instrument capable of producing melody and harmony simultaneously)
- the fact that piano music incorporates both the treble and bass clefs (necessitating the ability to read both)
- the music theory-related physical and cognitive requirements necessary to play the piano (such as reading and physically producing vertically expressed chords and progressions)

Violin pedagogy, in contrast, has largely been able to avoid theory integration, for the opposite reasons:

- The violin is primarily a melody instrument—even when not playing the melody line, it mostly only plays one line at a time (with the exception of chords and double stops).
- Playing the violin only requires fluency in the treble clef.
- Though violinists can and do play vertically expressed harmonies in the form of double, triple, and quadruple stops, sonorities of more than two tones cannot be sounded

> simultaneously (as previously mentioned); further, the physical demands of playing chords on the violin can often overshadow their musical properties. The frequency with which violinists play chords is also less than the frequency with which pianists play them. Due to their technical difficulty, chords are generally found in only the more advanced violin repertoire, necessitating several years of study to reach.

A glimpse into the recent history of the development of piano pedagogy may provide insights to violin teachers wishing to improve theory proficiency in their own students.

Piano Pedagogy and Music Theory in the 1950s

It may be that when it comes to incorporating theory instruction into the lesson space, piano pedagogy is simply *ahead* of violin pedagogy. The state of piano pedagogy today with regard to theory integration is not necessarily indicative of its state in years past. In an article by Frank Friedrich published in 1952, the author describes a pedagogical state which sounds much like the state of violin pedagogy today. Comparing the pedagogy of the 1950s with that fifty years prior, Friedrich lamented not much had changed, writing:

> Almost nothing was told the student about the structure of the music he was learning to play. Teachers at the time concentrated on teaching the reading of music by note names, matching them with key names as the child spelled out his lesson. The printed fingering was used as a guide to performance and much effort was spent in establishing a 'correct' hand-position, often going to the extreme of placing a penny on the back of the hand. It was more or less assumed that if the student repeated an exercise often enough, he would

> eventually master it. He learned to 'play' the piano, but did that skill prepare him for understanding other music or even what he was studying?[15]

Friedrich goes on to explain that in the first half of the twentieth century, the most apparent change to piano pedagogy and piano method books was the addition of cartoon drawings and the inclusion of programmatic tunes written to capture young students' attention. He argues that by not giving students a firm foundation in rudiments, teachers are doing their students a disservice, denying them the skills that will allow them to fully appreciate more advanced music in the future.

Friedrich also asserts that one reason students give up on playing the piano might be because they have not been taught how to appreciate the music they are learning. He asks the question, "Can it be that we are still not giving the child what he needs in order to understand music and like it?" He elaborates, "To understand music we must use our minds, and doing so would seem to require some knowledge of the structure of music and how compositions are built out of simple chords and melodic motives within definite rhythmic patterns—the materials with which Beethoven built entire symphonies." He reasons that since music appreciation classes taught in public schools and in adult extension courses cover these topics, private teachers ought also to be able to cover them in the lesson space.[16]

Some of the concerns voiced to me by violin teachers today regarding theory integration were also a concern for piano teachers of the past. Friederich notes that piano teachers were apt

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[15] Frank Friedrich, "Theory with the First Piano Lesson," *The American Music Teacher* 1, no. 4 (1952): 2–3, 19–20. https://archive.org/details/sim_american-music-teacher_march-april-1952_1_4/mode/1up.

[16] Friedrich, "Theory with the First Piano Lesson," 1.

to balk at his suggestion to include more theory in the lesson, with protestations like, "In a half hour there is seldom time to do much more than correct the student's mistakes in reading, note values and rhythm, his omission of sharps and flats appearing in the key signature, his awkward fingering, his cramped wrists, his faulty pedalling." Friedrich argues that attention to detail and correction of error are ultimately of little good "if the student does not gain some grasp of the musical content of what he is trying to play." He proposes that rather than teaching technique and theory separately, thereby supposedly taking up more lesson time, that the two be integrated—that technique be taught in a way that serves and supports musical content.[17]

To demonstrate how this cohesion might be achieved at the beginning level, Friedrich provides a simple, eight-bar melody composed of only the notes C, D, and B, and the rhythmic durations of quarter, half, and whole notes. He labels each two-bar phraselet "Motive A" through "Motive D." Of this basic exercise, Friedrich writes:

> We can sing this tune. It has a melodic pattern. It has a rhythmic pattern. The melodic pattern is introduced in the first two measures, inverted in the next two, repeated in a different pitch location in exact imitation of the opening motive and finally repeated, in part, to lead to an ending. Motive 'A' has the same rhythm as Motive 'C'. Motive 'B' has the same rhythm as Motive 'D'. The student can grasp the design of this little tune quite easily if the teacher points it out to him.[18]

Thus, a little melody which takes all of eight seconds to play at a quick tempo (yes, I timed it), becomes a pedagogic vehicle for exploring, to paraphrase Friedrich:

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[17] Friedrich, "Theory with the First Piano Lesson," 1.

[18] Friedrich, "Theory with the First Piano Lesson," 3.

- reading in either treble or bass clef; reading intervalically or by note name
- playing hands separate or hands together
- autonomous fingering choices
- pitch relationships
- rhythmic patterns
- note values in relation to meter
- note patterns in relation to the melody as a whole
- note patterns in relation to each other, and the same of rhythmic patterns

Of this exercise, Friedrich concludes, "We may not be able to teach all of this at the first lesson in music reading, and it is too much to expect a child to understand structure in the same terms as an adult, but it seems logical that we should slant our teaching of notation in this direction, right from the start, if we ever hope to teach our students to think in patterns and thereby read notation musically."[19]

Friedrich asserts that one function of a music teacher is to teach music in a way that (hopefully) leads to lifelong appreciation, even if most students will not become professional musicians. The only way to do that, he argues, is to help students gain a deeper understanding of the music they play, instead of merely striving for a technical command of the piano. He writes:

> Music grows out of motives, into phrases, periods and into whole compositions, by repetition, by imitation, by contrast, by inversion, by questions and answers, by ornamentation, by variation, by changes in key feeling, by design and by the development

[19] Friedrich, "Theory with the First Piano Lesson," 3.

> of form. Yet how many of us who began our studies even twenty years ago were taught to analyze even a simple two-line melody in this way as a key to understanding its structure?

Friedrich ends his critique of mid-century piano pedagogy by urging piano teachers to take inspiration from the many available music appreciation courses and to carefully consider the quality and sequence of their chosen pedagogical repertoire.[20]

Piano Pedagogy and Music Theory from the 1980s to Today

In 1982, Donna Roberta Hood recognized the need for a comparative survey of piano methods focusing on each method's inclusion of music theory concepts. She writes, "The optimal method of approach to music teaching is to focus on the whole musician. To teach music as mere technical skill does not necessarily produce a 'good musician'. If, however, training is balanced in the technical, historical, and theoretical aspects of music, a pupil will acquire a firm foundation on which to build future musical development."[21] Similar to my present-day observations of violin students' lack of preparedness for university level music theory courses, Hood noticed a gap in music theory training in young musicians of the 1980s—a gap which became most apparent upon entry to university. She reveals, "Having taught Basic Music and Aural Comprehension classes at the freshmen college level first as a Graduate Assistant and later as a part-time Instructor, the researcher is painfully aware of the lack of theory training received

[20] Friedrich, "Theory with the First Piano Lesson," 3.

[21] Donna Roberta Hood, "The Teaching of Music Theory in the Piano Lesson: A Survey of Methods" (MM thesis, Western Michigan University, 1982), 1.

in early music lessons."[22] Hood attributes this gap in music theory training to the fact that "most instruction books do not contain enough music theory."[23] To support her argument, Hood surveys sixty-six beginning piano methods for beginners of all ages, focusing on each method's inclusion of these theory concepts: rhythm/meter, melody/intervals, harmony, tonality/scales/keys, analysis, ear training, composition, and improvisation. Her survey found weaknesses in the areas of composition, improvisation, ear training, and rhythm.

Still, Hood's survey reveals a marked difference in the piano pedagogy of the 1980s and the violin pedagogy of the present day. One example is *Music Through the Piano*, a method developed by James Bastien and Jane Smisor Bastien, first available in 1963. The method is recommended for students as young as age five, enrolled in private lessons. In their introduction to the method the Bastien's write:

> Many teachers feel that it is desirable to give each student a complete picture of music as soon as possible. Their experiences indicate that all students, gifted or otherwise, are capable of learning these fundamentals in the early stages of piano instruction. Most important is the fact that students who do not become professional musicians will have a practical knowledge for further musical enjoyment.[24]

Even the title of this method, "Music Through the Piano," reveals the developers' goal of using the piano as a means for teaching music, rather than using music as a means for teaching piano-

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[22] Hood, "The Teaching of Music Theory," 4.

[23] Hood, "The Teaching of Music Theory," i.

[24] James Bastien and Jane Smisor Bastien, *Music Through the Piano* (General Words and Music Company, 1963–1971), Introduction, quoted in Hood, "The Teaching of Music Theory," 15.

playing. Evaluating the method from a music theory concepts perspective, Hood notes its inclusion of the following concepts:

- Rhythm/Meter—includes exposure to 3/8 and 5/8 in addition to common meters
- Melody/Intervals—intervals by number; implied chord patterns within a melody discussed
- Harmony—all four triad qualities; block and broken chords; all seventh chord types; chords named with Roman numerals, chord names, and pop/jazz chord nomenclature; some cadence work; keyboard harmonization; accompaniment styles for harmonization
- Tonality/Scales/Keys—major, all three forms of minor, and chromatic scales; extensive drills in all keys and key signatures; transposition
- Composition—provided although not heavily emphasized
- Improvisation—provided but not emphasized[25]

The inclusion of these concepts in a piano method book (published in any year) is in stark contrast to the most popular violin methods of today, such as the Suzuki method (popular internationally) and the Sassmansshaus method published by Bärenreiter (popular in German-speaking countries), which do not include any instruction in theory concepts at all.

Of the sixty-six methods surveyed, Hood recommended five for young beginners (including Bastien), five for adult beginners, and four for preschoolers, as well as a few for use in group lessons. Hood concludes her survey with suggestions for filling theory concept holes detected in most methods such as rhythm and meter and ear training. She also emphasizes that no one method can address every area of concern for each student and recommends combining

[25] Hood, "The Teaching of Music Theory," 16.

methods for best results.

Today, piano pedagogues such as Jeffrey Swinkin utilize methods which seamlessly integrate theory concepts with piano technique. Swinkin's approach to note-reading emphasizes developing a certain level of physical comfort at the piano as well as an intuition for navigating the piano keyboard, prior to reading repertoire which the student's skill level may not support. Swinkin's note-reading curriculum, which can be adapted to suit a variety of age ranges, contains three modules. The first includes playing 5-note scales, improvising a melodic phrase, improvising simple counterpoint, major and minor scales, chordal positions, and improvising melodies with simple triadic accompaniment. The second module includes identifying pitches by intervallic distance, tone rows, and playing by ear/approximating melodies by memory, among other things. Module 3 incorporates the concepts of core contrapuntal values (and improvisation based on those values), two-voice exercises in all five species, improvising/composing mixed counterpoint against previously learned melodies, and chorale and harmony exercises.[26]

I would like to emphasize that all these exercises are done *on* the piano. With the exception of scales and improvisation, a violinist's experience with these concepts is primarily on the *page*, away from the violin, via music theory workbooks. Additionally, violinists generally encounter these concepts much later than piano students. As a reminder, Swinkin's curriculum serves as a primer for note-reading; in other words, these are exercises done at the beginning of a pianist's learning journey. In contrast, Canadian violin students studying music theory will not encounter counterpoint and chorale harmonization until *Celebrate Theory* Level 9 (published by The Royal Conservatory, *Celebrate Theory* is the most popular theory method in Canada and is

[26] Jeffrey Swinkin, *Teaching Performance: A Philosophy of Piano Pedagogy* (Springer, 2015), 163. https://www.academia.edu/40581926/Teaching_Performance_A_Philosophy_of_Piano_Pedagogy.

also available in the US). In my experience, many violin students never reach *Celebrate Theory* Level 9, and those who do are often close to entering university.

Further, I would like to highlight that, while Swinkin's curriculum relies on theory concepts, they are not necessarily presented as such—as if somehow separate from the act of playing the piano. Rather, what a violinist might call "music theory" really just seems to be "learning to play the piano" from a piano pedagogy perspective. Certainly, Swinkin's method, which utilizes theory concepts to facilitate technical mastery and vice versa, embodies the principles of theory integration that Friedrich advocated for in the 1950s. Its heavy emphasis on improvisation also addresses the concerns of Hood in the 1980s.

This review of piano pedagogy literature relating to music theory integration reveals the gradual development of a methodology that naturally interweaves music theory concepts and technical instruction. Of course, I can not say, without further research, that all or even most piano teachers today successfully and holistically combine theory and technique in their lessons (it would be unreasonable to assume so); but at the very least, many are using current method books that support such integration.

Literature Pertaining to Theory Integration in the Violin Lesson

My project expands on the work of four former graduate students: Philip Ledgerwood, Nina Kim, Morganne J. McIntyre, and Amirinazari Paran. Each of these authors identifies the advantage of incorporating music theory into the violin lesson and offer a distinctive solution to the problem. The purpose of Ledgerwood's project is to present a theory learning sequence for violin students that can help bolster their preparation for future careers in music and help them

understand the potential for analysis to produce better performances.[27] He largely succeeds in the first task but falls short in the second. The bulk of his project consists of a template pairing music theory concepts with each volume of the Suzuki books,[28] arranged by ten levels. Ledgerwood's template provides a fairly comprehensive example of beginning music theory pedagogy, but a close examination of the selected repertoire and a comparison with another popular theory method (The Royal Conservatory of Music's *Celebrate Theory* series[29]) reveals some holes. For example, Ledgerwood introduces the concept of tonic and dominant right away in Level One.[30] This is useful for teaching beginning students the phrasing concept of "question and answer." However, the author does not introduce the bass clef concurrently (he delays it until Level Three[31]), thereby making it impossible for students to identify these harmonies in the full score. This is a common oversight in violin-specific theory methods, which tend to focus on the treble clef, as violinists do not need to be able to read the bass clef to play their instrument. Without this knowledge, students will be left at a disadvantage from their piano-playing peers during the early years of study. Ledgerwood also limits his introduction of scales at this level to the five-note scale (scale degrees 1–5), even though beginning students ought to be playing full, one-octave scales on their instruments.[32]

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[27] Philip Ledgerwood, *Musicianship from Day One: A Sequence for Teaching Music Theory to Suzuki Violin Students of All Ages* (DMA proj., Texas Tech University, 2020).

[28] The Suzuki method (previously mentioned) was pioneered by Shinichi Suzuki and is arguably the most popular for teaching violin.

[29] 7. Brenda Braaten et al., *Celebrate Theory Series* (Toronto: The Frederick Harris Music Co., Limited, 2016).

[30] Ledgerwood, *Musicianship,* 4.

[31] Ledgerwood, *Musicianship,* 7.

[32] Canadian students preparing for the Preparatory Level of the Royal Conservatory of Music's violin exams are expected to know both A and D major in one octave, along with their corresponding arpeggios.

In Level Four,[33] Ledgerwood insightfully introduces the concept of harmonic sequences early (compared to other theory methods), noting that these are an important compositional feature of Vivaldi's violin concertos, which students will first encounter in *Suzuki Violin School Volume Four*. However, no mention is made of rhythmic or metric features, such as metric displacement, an important element of J. S. Bach's Concerto in D minor for Two Violins (the last piece in *Suzuki Violin School Volume Four*) that many students find challenging.

Up until Level Six, students applying Ledgerwood's method of skills acquisition have presumably been doing their assignments divorced from the music they are learning (at least, the author does not infer otherwise). Now, Ledgerwood says, students should "also begin analyzing small portions of current or past pieces, looking into the score for complete chord information to analyze cadences or other harmonic functions."[34] While the theory material covered in Ledgerwood's template reflects elements found in the repertoire of the corresponding Suzuki books, this comment leads the reader to believe this is the first time Ledgerwood has made students aware of that fact. In my opinion, this is far too late to relate analysis directly to what the student is learning on their instrument. Ledgerwood asserts that analysis "allows for a deeper understanding of the score, however long or short, and encourages further opportunities for expression, allowing students to create personal and successful artistic interpretations of music at any age."[35] Yet, the author waits six years to teach score analysis (assuming an average learning rate of one year per level/grade). Granted, Ledgerwood might merely be providing a template of level-appropriate theory concepts for teachers to introduce in whatever way they see fit, which

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[33] Ledgerwood, *Musicianship,* 8.

[34] Ledgerwood*, Musicianship,* 11.

[35] Ledgerwood*, Musicianship*, 5–6.

may very well include score analysis; however, his own approach seems to suggest that analysis and performance need not be interrelated, at least until students reach an advanced level. This approach to learning theory, which commonly persists through graduate school, does not teach students "to create personal and successful artistic interpretations of music" as Ledgerwood hopes. Indeed, though I found the author's template a practical pedagogical tool and appreciate many of the topics covered, at the conclusion of the project, no discussion has occurred about *how*, exactly, analysis informs performance.

Nina Kim's premise is that musicality can be taught even to students who do not naturally seem to possess it, and that musical intuition, rather than being inherent, can be developed. Kim states, "Musical intellect affects the quality of musical perception . . . Therefore, the ability to approach a composition intellectually can help students to develop their musical intuition."[36] To that end, she provides teachers and students with an interesting and helpful chart labeled "Three levels of an expressive lens in the melodic line." The order of the chart's contents is as follows: "1. Melodic elements: Intervals, rhythm; 2. Harmony: Harmonic support, accompanying material; 3. Musical Form: Theme's role, theme's function."[37] From this we can see the hierarchical organization of Kim's analytical process. She suggests analyzing pieces in this order when learning them on the violin, writing:

> "My figure highlights three levels of an expressive 'lens' that affect musical choices in regards to melodic expressivity. The first level 'melodic elements' includes elements of

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[36] Nina Kim, *Expressivity in the Melodic Line: Developing Musicality in Violin Students* (DM diss., Florida State University, 2020), 5.

[37] Kim, *Expressivity*, 7.

> the melody itself: intervals, rhythm, dynamics, articulation, and others. The second level expands the vision to the harmonic context of the melody and the nature of its accompaniment, such as instrumentation and texture. The largest scope of the expressive 'lens' is the role of the melody in the context of musical form."[38]

She illustrates her process by leading the reader through an analytical exercise, beginning with the first "expressive lens," progressing through each lens in order.

Providing teachers and students with an organized framework for analysis is helpful, particularly when followed up by detailed pedagogical examples. However, I find the order of Kim's analytical tasks to be very "violinistic" and not very theorist-like. I would suggest reordering the tasks so that form is first, harmony is second (but really in conjunction with form, since at least some of the harmonic structure must be ascertained in order to determine form), and melody is last. Of course, any part of these three elements may elicit the analyst's attention at any stage of the analysis.

As primarily melody-playing instrumentalists, violinists often start by analyzing the melody of a work, and many never consider harmonic elements at all. By including harmony in her analytic process, Kim is already setting her students up for greater success than most. In my experience, however, starting with the melody often leads to interpretational errors that do not support harmonic function or structural development. For example, a melody-forward analysis has resulted in the common, arguably erroneous, practice of rolling four-note chords in J. S. Bach's compositions for solo violin from the top down. This practice, which ignores the primacy of the bass line in Baroque music, persists even among the world's most preeminent performers.

[38] Kim, *Expressivity*, 7.

Such errors can produce a performance that, while technically impressive, lacks support from the score. Kim herself admits that once engaged in the second level of analysis (harmony), "harmonic context can significantly change the impression made on the first level of observation."[39] Why not start there, then, and not "practice in" misinterpretations from the first stage of analysis, as is wont to happen?

Compared to Ledgerwood, Kim offers a more in-depth look at the analytical process and provides at least a few examples of how students can use analysis to play more musically. She uses several scores in her discussion but none of them are annotated, making reading a bit laborious. Overall, her work is a useful resource for teachers and students looking to get more out of their lessons.

Morganne J. McIntyre's thesis offers a unique approach to integrating theory and violin instruction. She presents a method for using the violin's physical attributes and the student's own body to aid in the understanding of music theory concepts. Her focus is embodied cognition and the use of complementary cognitive artifacts – CCAs – and how they can, and should, be used to teach theory concepts based on evidence that bodily experiences are crucial to cognitive processing. She demonstrates how the various fingering patterns used to play the violin can be utilized to instil kinaesthetic awareness of concepts such as major and minor intervals, various three and four-note chord inversions, scales, key signatures, etc.

McIntyre's work also contributes valuable insights regarding the gap between teaching music theory and teaching the instrument. She shares, "In my experience, private violin

[39] Kim, *Expressivity,* 8.

instructors do not deliberately point out how the technical concepts students learn on the violin can also aid in understanding music theory."[40] McIntyre highlights the responsibility of private teachers to draw students' attention to music theory details in their repertoire, as well as scales and technical exercises, asserting that only by doing so, will students come to understand "the significance of music theory in their repertoire."[41] McIntyre's thesis comprehensively enumerates which theoretical concepts ought to be brought to students' attention and how the violin's intrinsic traits can be used to solidify such concepts in students' understanding. However, the scope of McIntyre's project does not cover how *knowing* these concepts can help students to play more expressively, and she does not explain the musical function of these concepts, mainly treating them as bits of music theory trivia.

Amirinazari Paran's project focuses on building harmonic awareness through etudes and specially-designed exercises, with the intention of helping students avoid some of the "struggles" she herself faced as a theory student in university. Prefacing her work, Paran highlights the "sense of anxiety" she and her peers felt in relation to their graduate theory studies. She shares, "It is a common desire among violinists to be more confident and versed in harmonic language. This desire was expressed to me time and again by fellow graduate students, advisors, and professional musicians alike."[42] Paran's project is designed for high school students, but she notes it can be adapted to suit younger students' needs as well.

Paran's experience with theory in university highlights how piano and violin students experience theory differently. Recall my comparison of Swinkin's integrated approach to

[40] McIntyre, *Music Theory Pedagogy,* 27.

[41] McIntyre, *Music Theory Pedagogy,* 81.

[42] Paran, "Harmony for Violinists," 2.

teaching note-reading and technique with the workbook-based approach to theory that violinists are more likely to encounter. Paran's experience supports this comparison. She writes:

> I first learned about harmony in music theory classes in college. During these courses I was taught a comprehensive explanation of music (that included harmony); however, it was difficult to relate these lessons directly to my instrument for several reasons. . . the classroom lessons included figured bass notation [and] the score analysis was not led through the sounds I was imagining while looking at a score, but through calculations. Even though figured bass is useful and informative for understanding music theory, it was foreign to my personal experience of playing the violin. It was a difficult concept to grasp for someone who primarily played a single-line melodic instrument, predominantly in the soprano voice. The exercise of reading and interpreting the notes on a score, as a way of understanding the music, felt like a math problem that I would solve based on the rules I had learned. I learned more about how to understand music on paper, as opposed to music through sound, specifically the sound of my own violin.[43]

Like myself, Paran also feels piano students have a kinaesthetic advantage when it comes to understanding theory, because they can see all the notes on the keyboard at once, play more than one note at a time, and see and feel chords and chord progressions in the hand. Observing this advantage, Paran concluded that it would be best if violin students could also experience harmony through the lens of their own instrument.

Paran's convictions were strengthened when she first took a course in jazz improvisation. She explains, "Every note I chose to play on the violin was determined first and foremost by a

[43] Paran, "Harmony for Violinists," 1–2.

harmonic context. I was creating melody based on harmony, and for the first time in my life I understood that every note I played was guided by harmony."[44] Again, this contrasts with Swinkin's piano method, in which piano students are taught to improvise right from the start. Paran notes that experiencing and hearing theory concepts on her instrument, as opposed to merely "on paper" transformed her theoretical understanding and sharpened her musical intuition. She also experienced renewed confidence as a performer and teacher; hence, Paran's desire for developing an approach to harmony *from* the violin, as opposed to away from it.

Paran's project teaches harmony sequentially in three stages: the first exploring harmonies in only two voices, the second triadic harmonies, and the third an application of knowledge gained in the first two stages to etudes and repertoire. The goal of each stage is to develop listening skills and introduce theory terminology which can help students both understand and verbally express what they are hearing. Paran stresses that the project is designed specifically to address deficiencies in violin students whose theory knowledge is lacking.

The first stage of learning contains three lessons titled "Key-Centric Thinking," "Key Preparation," and "Singing and Playing." Regarding "Key-Centric Thinking," Paran explains, "For many [violin] students, accidentals denote a specific adjustment of a pitch, which is translated in a half-step movement of their finger. This exercise creates a practice of scanning the music prior to playing, to help students associate accidentals with *keys* and functions of harmony, as opposed to simply moving a finger up or down by half-step."[45] The lesson involves scanning an etude to determine the key (by looking at the key signature) and any deviating key areas (by

[44] Paran, "Harmony for Violinists," 4.

[45] Paran, "Harmony for Violinists," 12.

looking for patterns of repeated accidentals). Paran analyzes Fiorillo's "Etude No. 3," comprised of C, G, and F major, to demonstrate the process. She provides a duet part for the teacher to play, so students can more easily hear the implied harmonies and changes to new key areas in the solo violin part.

"Key Preparation" focuses on teaching just intonation in relation to the tonic. Here, Paran uses scales and intervals to alert students to the relationship of each tone of the major scale to the tonic. The exercise relies heavily on audiation, with the teacher supplying a tonic drone under the scale to assist with tuning and hearing intervals in relation to the tonic pitch. This section also focuses on tuning perfect intervals, particularly in G major, making use of the natural resonance of the violin's open G string. While the teacher plays a drone, students practice audiating, then singing, and finally playing perfect fourths and fifths above the drone, carefully adjusting intonation as needed.[46]

The final lesson, "Singing and Playing," involves having students harmonize with themselves by singing a simple harmony while playing an easy melody on the violin. This novel activity develops audiation and the ability to hear two voices at once. Students practice playing and singing separately before combining parts. The harmony part is a simple bass utilizing I, V, and V^7.[47] Paran does not mention it, but obviously, the success of this exercise is dependent on the student being able to sing in tune.

In the second stage of learning, Paran teaches "Triadic Harmonization of the Scale," highlighting audiation of intervallic resolutions, such as the tritone. For example, the teacher

[46] Paran, "Harmony for Violinists," 35.

[47] Paran, "Harmony for Violinists," 41.

plays a dominant harmony under the student's double stop tritone, and a tonic harmony under the tritone's resolution; as the teacher plays the harmony, students practice resolving intervals up or down by ear.[48] I would like to underscore that triadic resolutions are easy to practice on the piano but require the help of a second player when attempted on the violin. Playing together with the teacher allows violin students to experience the aural and physical sensations accompanying the progression of tension to resolution. Paran initiates conversations with students regarding the "feelings"—either emotional, visceral, or physical—elicited by various intervals and their resolutions, both when played or sung, noting that such responses are naturally subjective.[49] Of the literature I surveyed, this is one of the only examples hinting at the relationship between function and expression.

Finally, in the third stage of learning, Paran presents a selection of popular etudes for which she provides both "simple" and "musical" accompaniments. "Simple" accompaniments contain mostly chord roots, while the bass of the "musical" accompaniments is more involved. These duets provide a musical context for the exercises described above, giving students a full experience of harmony through playing the violin. Overall, I found Paran's project highly actionable and distinct in its presentation of unique exercises that provide violinists with theory experiences similar to those of pianists, in terms of being able to experience theory on the instrument, not merely through analytical exercises.

[48] Paran, "Harmony for Violinists," 52.

[49] Paran, "Harmony for Violinists," 62.

Conclusion

These four examples demonstrate that violin teachers in the field of pedagogical research recognize the need for supplementing technical instruction with instruction in music theory, and that important work has begun toward giving private and university teachers an array of tools and approaches to make this process meaningful for students. But, when it comes to explaining to students *how* to use what they have learned to enhance their creativity in interpreting the score, researchers mostly leave the task to teachers. Teachers, though, as Vicky Ward's research reveals, are often at a loss themselves on how to accomplish this task. It can be concluded that researchers could do more to help highlight the expressive significance of various theory concepts, and, as Ward has suggested, promote specific activities and exercises linking theory with musicality, particularly for those teachers whose own backgrounds in theory may not be particularly strong.

A comparison of violin and piano pedagogies supports my assertion that violin pedagogy is behind the times when it comes to integrating theory into the private lesson space. It also shows that the unique qualities of an instrument as well as its technical demands can have an impact on theory training and learning. One might even say of the current state of theory training, "the more notes you have to play, the more theory you should know; the less notes you can play, the less theory you need." To help close the gap between piano and violin pedagogies in relation to theory integration, violin teachers can take inspiration from piano pedagogy toward developing strategies and approaches that more naturally combine theory concepts with the physical demands of playing the violin. However, the specific development of an integrated series of method books, similar to what the piano realm can now boast, may not be necessary. As

the violinists referenced in this review demonstrate, any method or piece already at violin teachers' disposal can be adapted to facilitate theory learning, if considered with theory in mind.

Chapter TWO

Beginning Theory Concepts

This chapter will explore beginning theory concepts related to pitch, intervals, form, sight-reading, scales, tonic and dominant, rhythm and meter, and expressivity. I will discuss the rationale behind introducing each concept the way I do and provide one or more modes for introducing these concepts to students. Where helpful, I will also supply sample teaching scripts showing exactly how I utilize certain modes during the lesson. Many of these modes are recognized violin pedagogy tools; what I hope to convey to readers is a method for integrating these tools with equally recognized methods in theory pedagogy, creating a link in the student's mind between what they learn in their theory workbook and what they learn on the violin. This document is not meant to be a compendium of music theory concepts, but rather a demonstration of how theory concepts important for violin learning can be incorporated into the lesson earlier and more effectively than they might otherwise be. A comprehensive chart pairing each theory concept with its mode of introduction is provided in Appendix A. Readers may wish to consult the chart as a preview or summary of each chapter. At the end of this and subsequent chapters, I will highlight certain aspects of conventional theory pedagogy which may conflict with violin pedagogy, ones of which violin teachers ought to be aware in order to make appropriate amendments to their curriculums.

Chapters Two through Four will reference repertoire from the *Suzuki Violin School* (hereafter termed *SVS*). It is the method I use in my own studio, and many teachers will be familiar with it. However, the principles of my approach can be applied to any method of the reader's choice. When necessary, I will explain certain idiosyncrasies of the Suzuki method for those without a background in it. Since integrating theory into the lesson includes time

management and prioritization, I will also share some of my studio policies and how I communicate my priorities regarding theory instruction to studio families. To provide context for my approach in comparison with established curriculums, for Canadian readers I will refer to the Royal Conservatory of Music's (RCM) graded syllabus of violin repertoire and its corresponding *Celebrate Theory* series, and for American readers, the American String Teacher's Association (ASTA) *String Curriculum* and the ASTA Certificate Advancement Program (ASTACAP) *Handbook*.[50]

Introducing Pitch

One of the first and most important ways to link theory rudiments with violin technique is the method used to introduce pitch. This method is the linchpin connecting theory comprehension, kinaesthetic awareness, and aural skills in the student's mind. Successful integration of these concepts hinges on two things: first, whenever possible, using pitch names instead of fingerings to refer to notes on both the page and the violin fingerboard; second, having students memorize the notes to their earliest pieces by singing them before attempting to play them on the violin. Because violinists cannot see notes on the fingerboard in the way keys can be seen on the piano, but can easily see and feel their fingers, violin teachers tend to default to finger numbers instead of note names to refer to pitches when teaching students to play. But as previously discussed, this practice can have the undesired effect of turning the violin fingerboard, and indeed, the score, into a map of fingerings rather than a series of pitches within the framework of a given key. Additionally, due to the difficulty of learning to hold the violin and

[50] RCM Certificate Program Examinations and RCM publications, including the Celebrate Theory series, are available to students in the US, but American teachers may be more familiar with the American String Teachers Association and their offerings than the Royal Conservatory of Music.

bow properly, note-reading is usually delayed in violin pedagogy—to what extent varies according to philosophy and methodology. In my experience, the practices of unduly relying on fingerings and of delaying reading can interfere with the student's perception of pitch and notation, potentially creating a barrier between the kinaesthetic experience of playing the violin and theory comprehension. To help avoid these pitfalls, I have adapted the common methods for introducing pitch as described below.

Pitch recognition begins immediately with the introduction of the violin strings: E, A, D, and G. Many violin teachers will be familiar with the "Ant Song" used to teach the names of the strings.[51] When teaching this exercise to students, teachers should indicate that the strings are spaced a fifth (or five note names) apart. Upon mastering the "Ant Song," students learn that violinists' fingers create the "invisible" notes between each open string. At this stage, students will not be playing these notes on the violin. Most violin methods advocate refinement of the violin and bow hold for several weeks prior to actually playing the instrument, owing to the physical complexities of mastering these tasks. So, the mechanics of creating a given pitch on the violin fingerboard and its location are not important now. Still, I have found that linking pitch with specific fingers at this early stage makes learning the notes of first pieces easier for students than relying on ear training alone, as some Suzuki teachers do. To help link note names with the fingers used to play them, I use the "Note Name Finger Game."[52] This game teaches students which fingers create which notes on the A and E strings in first position and creates an important

[51] See Appendix B, Item 1.

[52] See Appendix B, Item 2.

link between kinaesthetic awareness and pitch recognition. It also develops fine motor skills and promotes dexterity.

When it comes to note-reading, there are two schools of thought in the Suzuki echelons. Some practitioners are proponents of delayed note-reading, others are against it. I myself do not delay note-reading, but, in the beginning, I do separate the tasks of reading notes on the staff and playing the violin. A comparison of various approaches to teaching note-reading is beyond the scope of this document, but, as I inferred earlier, delaying note-reading until technical proficiency has been gained while relying strictly on playing by ear often presents a serious hurdle to advancement and can result in a persistent lag in note-reading skills. For this reason, while they are still learning to hold the violin and bow, I teach my students to visually recognize A^4 through A^5 on the treble clef staff using flash cards, a white board, and/or other note-reading devices. When using flash cards, it is important to ask students not only the name of the given pitch, but which finger is used to make that note on which string.

Depending on their age, my students will also begin working through the Royal Conservatory of Music's *Celebrate Theory* series at this time. Most students will be ready for the Preparatory volume by age 5 or 6, with a practice supervisor's assistance. Even younger students may begin with a simpler note-reading primer such as *Beginner Violin Theory for Children* by Melanie Smith. When I have presented on this topic at pedagogy workshops, some teachers have asked how I find time during the lesson to cover theory assignments. I have found it most effective to set aside the first 5–10 minutes of the lesson to teach both the student and the practice supervisor the material covered in that week's assignment.[53] To ensure students

[53] I ask the practice supervisor (parent, guardian, babysitter, etc.) to attend the lesson of students under age 12.

understand the importance of completing their assignments, I tell them I must see the completed assignments at the beginning of the next week's lesson, otherwise we will spend as much of the lesson time as it takes to complete the assignment together before working on the student's pieces. I have only had to enforce this policy occasionally, as students adjust to the routine. To save time during the lesson, I have parents purchase the answer key together with the theory workbook and grade students' work at home themselves, ensuring the lesson time can be used to answer questions and teach new concepts. Most parents in my studio have been amenable to this approach, seeming to understand the importance of the workbook to aid in teaching students to read and understand music. I have found that even parents without a background in music can grasp theory rudiments when taught together with their child and can assist the child in internalizing the concepts at home as they work through the assignments together. Teachers can adjust how much material to assign each week according to each student's abilities. I usually suggest one chapter a week, which works out to about one worksheet per day. Students should aim to finish the requisite workbook at about the same time they finish their instrumental studies for that level. Thus, a Canadian student finishing RCM Grade 2 should also be finishing *Celebrate Theory* Level 2. An American student in ASTACAP Level 1 should be working to master the learning targets in the Baseline Level of the ASTA *String Curriculum*.

As students progress through their lessons, the next essential step to integrating pitch recognition with violin technique and aural skills is learning to sing their first piece using note names. The first piece Suzuki students learn to play is "Twinkle, Twinkle Little Star." Indeed, the newest edition of *SVS Volume 1* states in the score, "At this point, it is important for the children to sing the 'Twinkle Theme' using the names of the notes in their own language."[54] Teachers

[54] *Suzuki Violin School Volume 1*, 26.

easily miss this note, particularly if they have not had training in the Suzuki method through the Suzuki Association of the Americas. Teachers who have been teaching for a long time may be comfortable with older *SVS* editions and methods of teaching "Twinkle," and, even if they read the note, may be uncertain about how to incorporate singing into the process of teaching the piece. I, myself, never sang in my lessons with a trained Suzuki teacher as a child. But I have found singing to be the most effective method for teaching beginners the notes to new pieces.

Most students will already recognize the melody of "Twinkle" and know the words to the song. I teach them to sing it using the names of each pitch, so, "AAEEFFE-, DDCCBBA-," and so on. To aid in this process, I write the letter names of the pitches in the score above their first appearance in a phrase, but not over repeated pitches, as this can discourage looking at the notes themselves, while students merely read the letters above the notes. I have found it unnecessary to use accidentals when singing at this point; it is easier to ascribe one syllable to each pitch when singing, and, more importantly, students do not seem to be confused later when accidentals are introduced. However, I can understand why some educators might insist on singing "F-sharp" instead of "F" when in the key of A major. Some may point out that the issues of syllables and specified accidentals could be solved by using solfége. I choose to use note letter names instead of solfége because my goal is to link pitch recognition, kinaesthetic awareness, and theory concepts by terms commonly used and interchangeable between playing the violin and analysis. For example, "A" can refer to an audible pitch, a note on the staff, a fingering, a location on the violin, a key, a chord, etc. In English-speaking parts of North America, when referring to a location on the violin, we would not say to a student, "Your 'la' is out of tune." Likewise, during analysis we would not say, "We are in the key of 'la' major." So, as a primarily English-speaking person teaching in Western Canada, I find solfége a superfluous bit of knowledge when it comes

to playing the violin. To strong proponents of solfége, I can acknowledge its usefulness in other areas and settings, but for my purposes, it is not the right tool.[55]

Some students may struggle with singing in tune. For these students, it can be helpful to apply pedagogical techniques from vocal training, such as mapping the direction of the melody in the air using our index finger while we sing, travelling higher or lower by steps or leaps as the melody dictates. This exercise handily links aural skills, note-reading, and kinaesthetic awareness of pitch intervals. Teachers can point out that some notes are close together (stepwise motion) and some are farther apart (skips or leaps). Young students may benefit from an exercise in which they take a small step forward with their feet when they sing the interval of a 2nd, and a bigger step forward when they sing a larger interval, such as a perfect 5th. It is not necessary at this stage to label specific intervals. The goal is to simply convey concepts such as melodic direction and "higher-" or "lower"-sounding notes. Additionally, students can form a circle with their left thumb and the finger that plays the corresponding pitch as they sing, using the actions of the "Note Name Finger Game."

Once students have mastered the "Note Name Finger Game," can hold their violin comfortably, have achieved an acceptable bow hold and can bow on the open strings, they are ready to progress to playing notes on the fingerboard—this is the next step to learning to play "Twinkle."

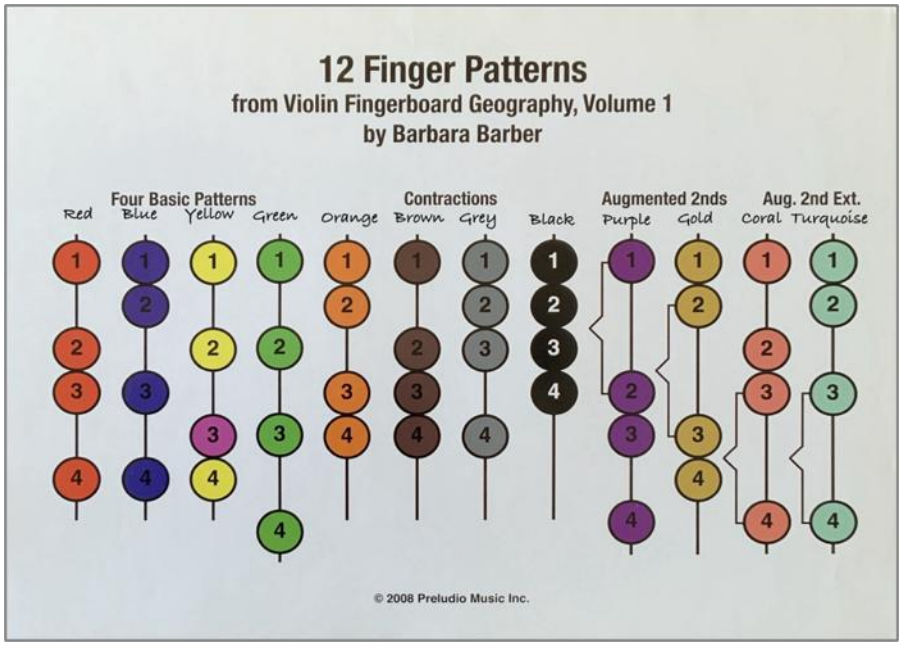
[55] The ASTA *String Curriculum* does use solfége to teach aural skills but uses note letter names in a theory context. RCM uses scale degrees and note letter names in all contexts.

Introducing Intervals: Major and Minor 2nds

Intervals, aural skills, and kinaesthetic awareness are intrinsically linked when it comes to playing the violin. This is because, on the violin, unlike on the piano or guitar, notes are not delineated by keys or frets—they must be created by memorizing where to depress the string on the violin fingerboard using the fingers of the left hand. The distance between two notes, the interval, must be felt in the hand and measured by ear. Mastering this process is an amazing feat that takes years of repetition. Even seasoned professionals sometimes misjudge the distance between two notes and play out of tune. Due to the difficulty of playing in tune, teachers over the years have developed numerous signs, symbols, and metaphors for helping their students find the right pitch. One of the most ingenious of these methods was created by Barbara Barber, who devised a color code, assigning a different color to each of the twelve interval patterns of the left hand used to play the violin in any given position.[56] The colors Barber has chosen to represent each pattern reflect, in her view, the tonality of the pattern. She has chosen warm colors for patterns that are more major-sounding, cooler colors for more minor-sounding patterns. For example, the first finger pattern, which lays out the first five notes of the major scale in first position, is red. The most chromatic finger pattern is black.[57]

[56] Barbara Barber, *Violin Fingerboard Geography,* Volume 1 (Preludio Music Inc., 2014).

[57] Barber's method, which relies on color codes, may not be appropriate for colorblind students or students with synesthesia. However, the principles of establishing hand shapes can be adapted in consultation with the student, in a way that makes sense to them — perhaps by re-designating hand shapes using classifications other than colors. For example, the orange pattern, in which fingers 1 and 2 and 3 and 4 are touching, with a space between 2 and 3, could be termed the "Vulcan" pattern, in reference to the Vulcan salute.

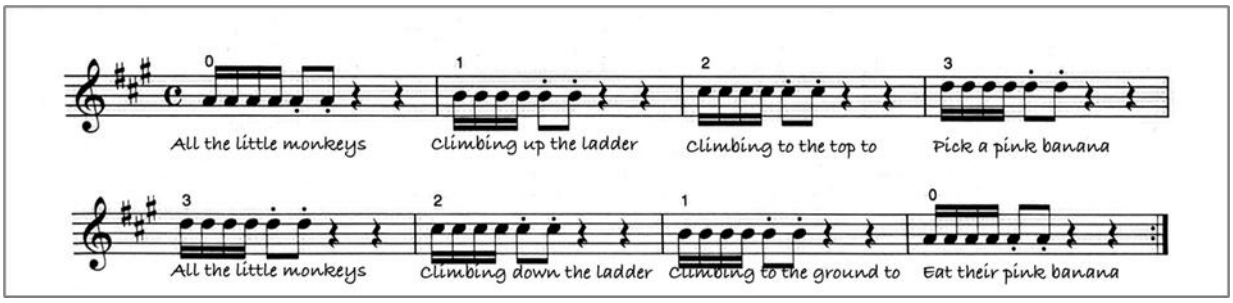


Example 2.1 Barbara Barber, *Violin Fingerboard Geography*, Volume 1, centrefold. Annotations mine.

The first interval pattern students learn to play is the red pattern, used to play in A major on the A and E strings in first position. This pattern of whole-step/whole-step/half-step/whole-step is formed between the notes A and E on the A string, and E and B on the E string. Suzuki students first encounter this pattern in *SVS Volume 1*, "Exercises for Fingers 1, 2, and 3 on the A String," commonly termed "All the Little Monkeys" by Suzuki teachers.[58] This title uses mnemonic syllables to reflect the rhythmic pattern of the durations used to play this exercise (four sixteenth notes followed by two eighth notes; students will have been practicing bowing this and other rhythmic patterns on the open strings before now). In this exercise, students are taught to play the first five notes of the A major scale beginning on the open A string, using the rhythm from "Twinkle Variation A." As they introduce the words to "All the Little Monkeys,"

[58] *Suzuki Violin School Volume 1*, 23.

teachers should also mention that several notes in a row create a "scale pattern," and should make students aware of the kinaesthetic difference between a half and a whole step. Students can feel the wider space between the B (first finger) and C-sharp (second finger), and the closed space between the C-sharp and D (third finger). Below is a sample script showing the order in which I teach these concepts to my students.



Example 2.2 *SVS Volume 1*, "Exercises for Fingers 1, 2 and 3 on the A String," 23. Annotations mine.

Sample Script for Teaching All the Little Monkeys

[teacher] "Now that you have mastered the 'Note Name Finger Game' and can hold your violin and bow properly, you're ready to learn your first song! This song is called 'All the Little Monkeys.' Let me show you how it goes."

[demonstrate the exercise while singing the words to the tune of the scale]

"Okay, now it's your turn. I'll show you how to place your fingers on the string."

[maneuver the student's hand into the correct position and help them place their fingers on the string in the right order]

"The song starts on the open A string—no fingers. Okay, the next note is B. Let's make a 'B' with your first finger. Next comes C. Let's make C with your second finger. The last note is D, now make a D with your third finger, right next to your second finger on C.

Now we go backward and lift each of the fingers off the string as we go. D, C, B, A. Good. Let's try that again."

[repeat]

"Next, you place the fingers on the tapes by yourself while I bow the rhythm and sing the song for you. Ready? A, no fingers… *'All the little monkeys…,'* make a B, *'climbing up the ladder…,'* make a C, *'climbing to the top to…,'* make a D, *'pick a pink banana.'* Okay, now let's go backward. Leave your 'D' down."

[continue in the same way]

"*'All the little monkeys…,'* Lift your 'D' and keep your 'C,' *'climbing down the ladder…,'* lift your 'C' and keep your 'B,' *'climbing to the ground to…,'* now lift your 'B,' *'eat their pink banana!'*"

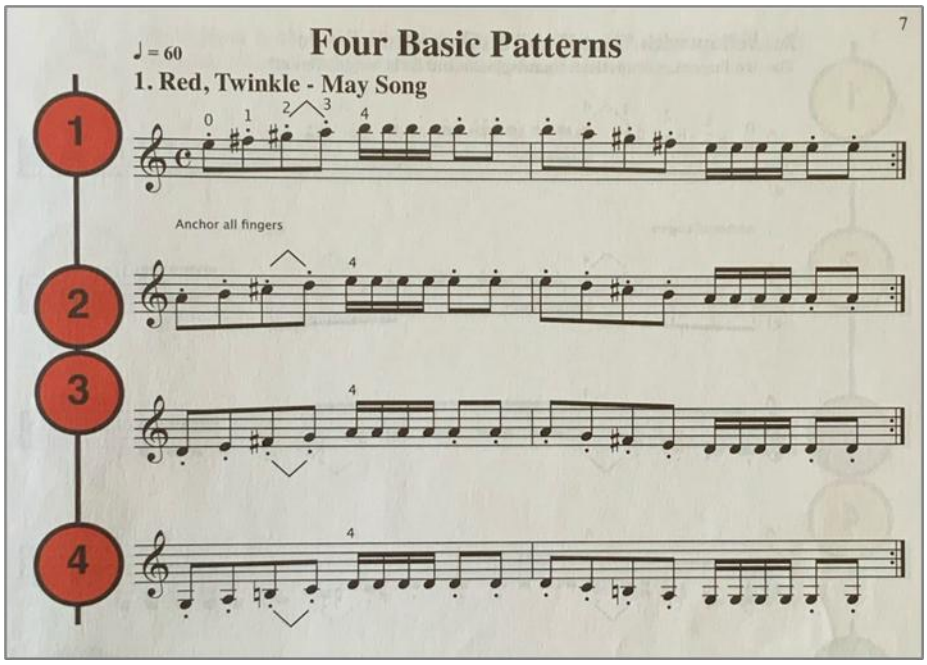
"Yay! Now you know your first 'song!' At home, Dad can help you bow while you place your fingers on the tapes, and once you can do that comfortably, you can try bowing and placing your fingers down at the same time by yourself."

I repeat this process on the E string. Some students will be able to handle playing the exercise on both strings in one lesson, while others will need to wait a week before trying it on a new string.

Many violin teachers will recognize this exercise, with or without the added mnemonic syllables. The difference between how I have observed it being taught and how I teach it myself is that I reference the pitch the students are playing just as often, if not more so, than I reference the finger number used to create that pitch; sometimes I even refer to a specific finger by the name of the note it plays. In this way, I treat finger numbers similarly to scale degrees or moveable Do, which change position relative to the tonic. In my teaching, I have found this

difference to be an important one because it links pitch with the hand, the fingerboard, the ear, and melodic direction. Simply referring to the fingers by number does not seem to create these same associations in the student's mind, sometimes leading to a separation between the visual (note on the staff) and the tactile (finger on the fingerboard).

Since the rhythms of the colored finger pattern exercises in Barber's book necessitate quicker finger placement, assigning one pitch per bow change, I usually wait a week or two after learning "All the Little Monkeys" before introducing this new way of playing the same pattern. I use the red pattern exercise to expand on the physical skill of playing "All the Little Monkeys" by using it to introduce the concept of intervals. Here is a sample script showing how I teach the first pattern.



Example 2.3 Barbara Barber, *Violin Fingerboard Geography*, Volume 1, 7.

Sample Script for Introducing the Red Pattern

[teacher] "Let's look at this figure. Each of these circles represents one of your fingers.

Two of the circles are touching. Which two are they?"

[student] "Two and three."

[teacher] "That's right! On the A string, which two notes do those fingers make?"

[student] "C and D."

[teacher] "Right! Now, I want to tell you something about the note C. We can actually make three different kinds of Cs—C-natural, C-flat, and C-sharp. You already know how to play C-sharp: that's the one we use when we play 'All the Little Monkeys.' When your second finger touches your third finger on the A string, the C you are making is the sharp one. We call the distance between C-sharp and D a half step or a minor second. Any time two of your fingers are touching on the fingerboard, they create this distance. Now, look at the figure again. Tell me which fingers are separated by a space."

[student] "One and two, and three and four."

[teacher] "Right. Which notes do fingers one and two make on the A string again?"

[student] "B and C."

[teacher] "Yes, and in this case, the C is the C-sharp we just learned about. We call the distance between B and C-sharp, or fingers one and two, a whole step, or a major second. Now, let's listen to the difference between a major second and a minor second on the violin. Here's a major second, or whole step."

[teacher plays a B and C-sharp consecutively]

"Now I'll play a minor second, or half step."

[teacher plays a B and C-natural consecutively]

"I'll show you one more time. See if you can hear a difference between them. How does

each of them sound?"

[repeat demonstration]

Some students will be able to hear a difference and describe it in their own words, while others will need help to hear the "closed/crunchy/sneaky" qualities of the minor second compared to the major second. My intention is not to purposefully ascribe certain qualities to specific intervals but to let the student's own imagination guide the learning process.

Following this discussion, I teach the student how to play the red pattern as notated by Barber. Here are some things to note about this exercise. This is first time I differentiate between C and C-sharp. Even though I did not use it earlier when singing the notes to "Twinkle," now that I have introduced the term minor second, I want students to start to become aware of the specific pitches that create given intervals within the context of certain scales. I introduce the terms "major and minor second" together with "whole and half step." When referring to intervallic distances, violin teachers often default to "whole" and "half step," as opposed to "major" and "minor second." McIntyre notes:

> Although the beginning violinist inherently learns about intervals through being taught the difference between half and whole steps, the labeling of these intervals usually is not introduced until much later, if at all. The concept of major [versus] minor intervals was foreign to me as a freshman in college, although it would not have been difficult to grasp this concept if it had been introduced earlier in my education.[59]

The reason behind this choice is easy to understand: students can feel the distance of a "whole" or "half" space between their fingers on the fingerboard. The term "step" is also congruous with

[59] McIntire, *Music Theory Pedagogy,* 31.

the physical motion of placing the fingers on the fingerboard. However, it is important to use "major second/whole step" and "minor second/half step" interchangeably with students, as we will be expanding upon intervallic knowledge later when we introduce double stops, arpeggios, and dominant and diminished arpeggiations. Using these terms interchangeably is another example of how teachers can easily integrate theory concepts into their teaching without necessarily taking up more time in the lesson or referring to a theory text separate from the score they are working from.

Finally, note that Barber's red pattern requires students to use their fourth finger on the fingerboard. If teachers choose to introduce this exercise right before or after students learn to play "Twinkle," as I do, it may be the first time the student uses their fourth finger. So, teachers should naturally take care to demonstrate proper fourth-finger technique when introducing this pattern. As with "All the Little Monkeys," I teach this pattern on both the A and E strings to start, gradually moving to the lower strings depending on the student's progress.

Playing Twinkle, Introducing Form, and Learning to Sight-Read

When students can play "All the Little Monkeys" and Barber's red pattern on the A and E strings, and have memorized singing the notes to "Twinkle," they are ready to learn to play the whole piece on their instrument. Eager learners may have already attempted to play the piece at home or may only need a simple prompt at the lesson such as, "Now you know all the notes to 'Twinkle!' See if you can figure out how to play it. I'll sing the notes while you play." I have had several students who by this point have formed such strong associations between their fingers, strings, and the notes that make up the melody that they can figure out how to play the song on their own, with very few instructions. Other students need a more thorough breakdown of the

steps involved in playing the piece. For those students, I deconstruct the process in this way: first, I sing the notes to "Twinkle" and manipulate the bow, while the student places their fingers on the corresponding tapes. Then, we play the song again while I, still singing, hold the screw of the bow, helping guide the student's arm as they maneuver the bow themselves, while continuing to finger the notes. Finally, on a third play-through, the student operates both hands independently to perform the song on their own.

Once the student has played through "Twinkle" a few times, we can look at the form of the piece together. For this exercise, I play the first line/phrase of the music and ask the student to listen to how it goes. Next, I play the second line/phrase and ask the student whether it sounds the same or different (it sounds different). Finally, I play the last line/phrase and ask the student if it sounds different or the same as any other part of the piece (it sounds the same as the first phrase). Then we compare the notes on the score, noticing where the phrases match. Students do not need to be able to read music to do this. We are simply comparing whether the notes are the same shape, whether they are on the line or the staff, and whether they are moving in the same direction (up or down). So, we establish that there are three parts to this song, and that two of them are the same. We then label the phrases ABA and write "three-part form" above the score. For very young students, this form is commonly referred to as a "sandwich," with the outer A phrases constituting the "bread" and the inner B phrase the "filling." Since the B section consists of two identical melodic patterns (EEDDC#C#B—, EEDDC#C#B—), it can be helpful to label them B1 and B2 or "1st slice of cheese" and "2nd slice of cheese" (or whatever "food" item students want as their "sandwich filling") as students often forget to play the segment twice. Highlighting the form of a piece helps students to memorize it and to start conceptualizing musical structure. Since most Suzuki students are not playing and reading congruently at this

point, it is helpful to be able to guide them with a simple phrase like “second slice of cheese” and sing “EEDD…” when they inevitably lose their place in the music.

I use the method of singing and memorizing the notes to each song before playing them on the violin to teach all the songs in *SVS Volume 1* from “Twinkle” through “Allegro” (the eighth piece in the book). These pieces are all at the RCM Preparatory and ASTACAP Foundation Levels. Once the student has progressed through the first few songs in the book, I find that their posture is usually secure enough to begin reading notes from the staff while they play. At this stage, I continue to develop this skill (which I first started with flash cards) using Joanne Martin’s *I Can Read Music* series. Some teachers have told me they do not like this series, because they find the exercises to not be very “melodious” (thus, to be boring). I find the series useful for this same reason—the exercises help “force” the student to actually read the pitch before putting down the required finger, instead of instinctually following a known or predictable melody by ear (something many students are already quite good at by this stage). By the time students reach Perpetual Motion, the ninth song in *SVS Volume 1*, they have learned to read all the notes covered in first position using a combination of flash cards, their theory workbook, and *I Can Read Music Volume 1*. At this point, my students learn to play each consecutive piece by sight reading it (having previously listened to reference recordings, as is the habit of Suzuki students). I have found that many students are ready to read from the staff as they play at an earlier point in their studies and as long as their posture is secure, I do not discourage their attempts at reading.

Introducing Scales, Tonic, and Dominant: A Major

I teach the one-octave A major scale and arpeggio (beginning on the A string) after "Twinkle" and before "Lightly Row" in *SVS Vol 1*, where students will encounter scale and arpeggio patterns within the context of a melody for the first time. By learning the scale first, students will be able to analyze patterns in the new song and come to realize that they already "know" the notes to part of the song, aiding in their understanding and embodiment of the piece as they learn it. First, I explain to the student that a scale is like a musical alphabet which contains all the "letters" (notes) used to write a given piece or section of music. Playing scales helps us to read and play music more easily than if we do not practice scales. Just like we learn to spell, read, and pronounce the words of a story, scales help teach our fingers the patterns needed to "sound out" the notes to a piece of music on our instruments. I then tell the student that "Twinkle" uses all the notes from the A major scale, so we say that "Twinkle" is in the key of A major.

[teacher] "A major has three sharps. Sharps look like this…"

[point out or draw a sharp symbol].

"You already know how to play a few of them. Later, you will learn more about sharps; for now, let's just learn what their names are.[60] The names of the sharps are the same as the names of the notes that 'live' in the same spot on the staff."

[point to the first sharp in the key signature]

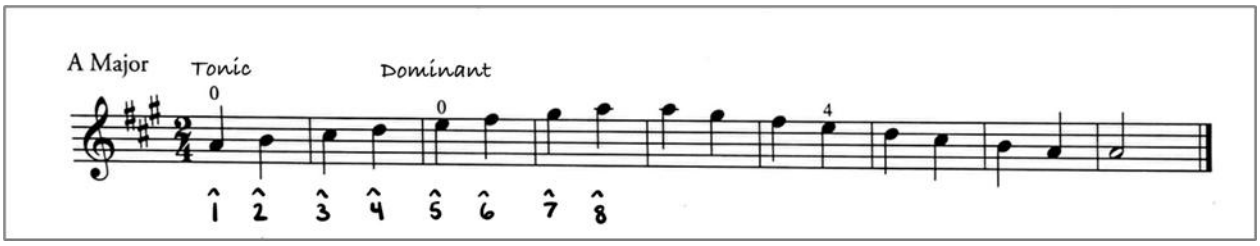
"So, what is the name of the note that lives on the top line of the staff?"

[student] "F."

[60] Students first learn about the function of accidentals in RCM *Celebrate Theory Level 1*.

[teacher] "Right, so this is F-sharp. This is the note that your first finger plays on the E string when you place it on the tape in 'Twinkle.' Let's figure out the other two sharps..."

I want to stress that before teaching any scale, it is important to discuss and label the key signature. This seems obvious, yet some violin teachers ignore this step, perhaps assuming that the student is taking in that information themselves. I have had advanced, teenage students tell me they never consult the key signature when practicing scales but simply use a combination of playing by ear and relying on the printed fingerings to play in the correct key. Discussing the key signature of the scale the student is learning helps to establish a mental link between key signatures, scale degrees, finger patterns, and interval and key-area awareness. For this reason, I teach scales as one might learn them in an aural skills class. We first sing the scale through using the note names. For this exercise, I point to the notes on the staff so the student can follow along, whether they can read music or not. I then explain the concept of scale degrees, writing them beneath the notes. This explanation usually sounds something like:



Example 2.4 RCM *Technique and Etudes, Violin Levels Preparatory–4*, 4.

Sample Script for Introducing Scale Degrees

[teacher] "How many notes are in the scale? Let's count them."

[teacher and student count together, stopping at the highest note]

"Right, there are eight! We only counted the ones going up, because they are the same on the way down, just backward. So, we call this a one-octave scale. Can you think of an

animal that has something to do with the number 8, whose name also begins with the sound ‘oct?’”

[student] “An octopus.”

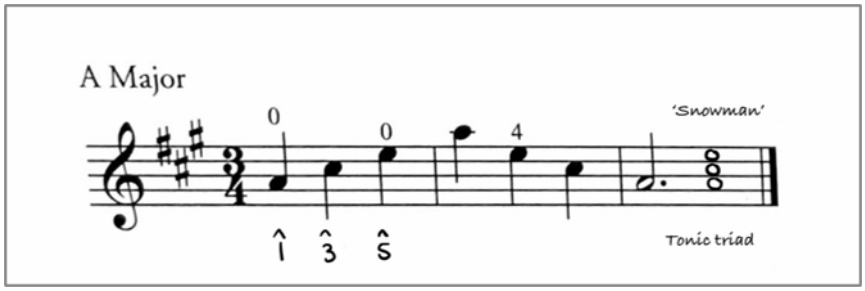
[teacher] “Correct! ‘Oct’ is part of a fancy word that means 8. So, the octopus can help us remember how many notes are in the one-octave scale. Let’s number each of the notes in the scale. These numbers are called ‘scale degrees.’ Do you know what the word ‘degree’ means?”

[student, depending on their age, usually shakes their head ‘no’]

[teacher] “If I ask you what the temperature is outside today you might say ‘It’s 20 degrees,’ right? Another way to say that is ‘20 degrees above 0.’ So, degrees are a way of talking about the position of things in relation to a starting point. Scale degrees refer to each note’s place in the scale. So, in A major, our starting point is A, or scale degree 1. For example, C-sharp is three places away from scale degree 1, so we call it scale degree 3. When we write scale degrees, we put this marking called a caret on top of each one. Carets look like party hats. When you see party hats, you know the number is referring to a scale degree, not a fingering.”

This script can be tailored to the age of the student, perhaps omitting the definition of “degrees” for a student under age 7 or using more mature discourse for an older student.

Using scale degrees, we sing through the scale again. Then, I demonstrate how to play the scale on my violin, while singing the note names. Finally, I assist the student as needed in playing the scale themselves.



Example 2.5 RCM *Technique and Etudes*, *Violin Levels Preparatory–4*, 4. Annotations mine.

When teaching the arpeggio, I ask the student to compare the notes of the arpeggio to the notes of the scale and see if they can find which scale degrees comprise an arpeggio. To encourage active engagement and facilitate learning, I try to phrase my teaching in the form of questions as much as possible. For example, pointing to the two notes that begin the A major scale and arpeggio, I would ask:

[teacher] "Are these two notes the same or are they different?"

[student] "The same."

[teacher] "Right, they are both As, scale degree 1 in this case. Now, let's look at the next note in the arpeggio. What is the name of this note?"

[student] "C."

[teacher] "Correct. And because we are in the key of A, it's a C-sharp. Now, looking at the scale, can you find the scale degree that matches the note C-sharp?"

[student] "3."

[teacher] "Yes. Now, the arpeggio uses one more note from the scale. What is the name of this note?"

[student] "D."

[teacher] "Super. By the way, remind me which finger you use to make a D on the A

string?"

[student] "Third finger."

[teacher] "Good memory! Okay, let's look at the scale again and see if you can find the scale degree that matches the D."

[student] "5."

[teacher] "That's right. So, we can see that the arpeggio only uses a few notes from the scale. Scale degrees 1, 3, and 5, right? Let's sing the arpeggio through using note names, and then we'll sing it again using scale degrees. After that, we'll try playing it."

Once the student has learned to play the scale and arpeggio, I inform them that scale degrees 1 and 5 are "the most important." We call scale degree one the "tonic" scale degree, and scale degree 5 the "dominant" scale degree. Then, I circle and label these pitches in the score, telling the student we will learn more about why tonic and dominant are important later. For now, we will just try to remember these special names for scale degrees 1 and 5. Next, using a whiteboard, staff paper, or the extra space on the staff right beside the arpeggio, I show them how the three pitches that make up the arpeggio can be stacked "like a snowman." We call this stack the tonic triad. I explain that the word "triad" has the prefix *tri* in it, which is "a fancy word for 3, three things together, in this case, three notes." I also connect the word triad to other *tri* words the student may know, such as triangle, tricycle, and triceratops, helping to reinforce this new word in their memory. Again, teachers can tailor any of these explanations to the age of the student, adding or subtracting detail. For example, when teaching a three-to-five-year-old, I might avoid the terms "tonic" and "dominant," simply referring to those scale degrees by their numbers. I may also avoid the term "triad," but still introduce the concept of the "snowman." For an older student, I might introduce the interval of a 3rd at this time, pointing out how the notes of

the triad are stacked a 3rd apart on the staff—perhaps also demonstrating the physical and aural differences between a M3 and a m3. But with a young student, I might simply refer to intervals of a 3rd as skips for now.

At the next lesson, before listening to the student play through the assigned scale, I ask them to identify a few random scale degrees and remind me which are the most important and what their special names are. In summary, the steps I follow each time I teach a new scale are: 1) Identify the key, 2) write in the scale degrees, 3) label tonic and dominant, 4) sing the scale using note names, 5) sing the scale using scale degrees, 6) play the scale on the violin.

Rhythm and Meter

Since rhythm and pulse are non-negotiable aspects of learning to play music (unlike scale degrees, for example), these rudiments have a long-established pedagogical pedigree. The ASTA *String Curriculum Handbook* highlights the most popular of these, including systems that (a) emphasize beat or pattern junction (Gordon and Takadimi); (b) emphasize arithmetic or note (time) values or counting systems (e.g. "1 e and a"); (c) combine time values and counting systems (Kodaly); and (d) use a linguistic or mnemonic device to learn rhythm patterns (e.g. "all the little mon-keys").[61] Each of these systems has certain strengths and weaknesses, the discussion of which is beyond the scope of this document. From the perspective of fusing theory concepts and violin playing, the most advantageous systems are those that emphasize counting, combined with instruction in pulse and meter. This is the system that RCM *Celebrate Theory*

[61] Steven J. Benham et al., *ASTA String Curriculum: Standards, Goals, and Learning Sequences for Essential Skills and Knowledge in K-12 String Programs and Teaching Studios (American String Teachers Association, 2021),* 139–140.

promotes and that I primarily use in my studio. However, it is important to note that rhythmic and metric perception is highly individual, particularly in students with a learning disability such as dyscalculia (which I will discuss in Chapter Six); hence, a counting method that works well for one student may not work as well for another. To help develop rhythmic intuition and pulse sense in three and four-year-old students, who may still be learning to count to ten, I rely mostly on mnemonic devices and mimicry as is common in Suzuki pedagogy.

Expressive Considerations

At this stage, expressive potential in playing is limited by obvious age-related factors such as comprehension and fine motor skills. At most, beginning violin students will be able to produce basic long and short strokes, and a narrow range of dynamic levels and tone colors. Still, young students can intuitively understand the evocative emotional effects of music. Research by Marianna Pinchot Kastner and Robert G. Crowder found that children as young as 3 years associate positive emotions with music in the major mode and negative emotions with music in the minor mode.[62] So, even if the technical skills needed to shape the music are still beyond reach, teachers can begin to attune students' awareness to expressive potential by demonstrating their pieces for them in different ways—perhaps by altering bow strokes, tempi, or dynamics, and asking questions like, "What mood do you hear? Does this sound happy or sad? Boring or exciting? I can play these fast notes with 'energy' and without 'energy;' which version sounds more 'energetic' to you?" Students can pick one or more adjectives to label each piece or section of a piece and when rehearsing that piece, the teacher can refer to each section as labeled:

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[62] Marianna Pinchot Kastner and Robert G. Crowder, "Perception of Major/Minor Distinction: IV. Emotional Connotations in Young Children," *Music Perception: An Interdisciplinary Journal*, 8, no. 2 (1990): 1, https://doi.org/10.2307/40285496.

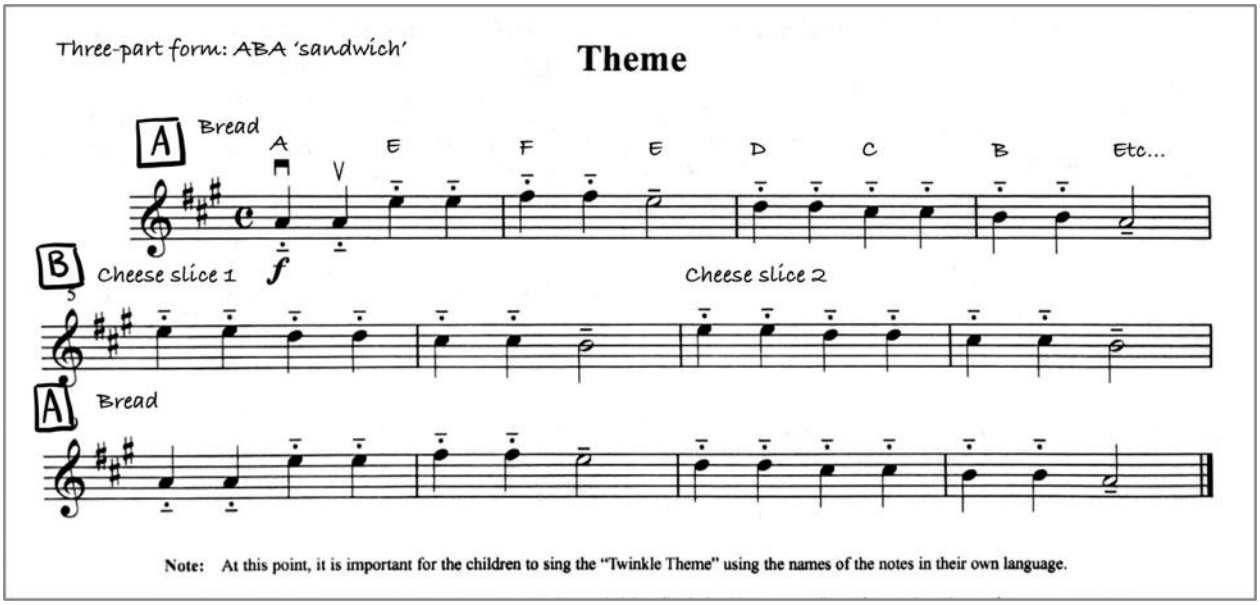
"Here's the 'bouncy' section! 'Kay, now play the 'mouse scurrying' section!" This type of analysis is perhaps the most accessible to young students with active imaginations and limited musical vocabulary. Later, students can move to the next step of this type of analysis which is being able to explain *why* they hear a passage a certain way, or what about the music makes it sound that way to them. For now, simply being able to characterize music in their own words is enough, even if they do not yet have the ability to fully convey their ideas on the instrument.

Relating Theory Concepts to Beginning Repertoire

Here I offer some examples from the early violin repertoire featuring theory concepts covered in this chapter, showing how I might annotate students' music. Sometimes, too many annotations can create a distraction to reading. If that is a concern, I advise teachers to make a copy of the score to write on, keeping the sheet music clean. I have not highlighted every single instance of each concept in these examples. Teachers can choose to find and mark as many instances of a concept as they and the student find useful. The moods I have ascribed to each of these examples are samples of how students might choose to describe them.

“Twinkle, Twinkle, Little Star”

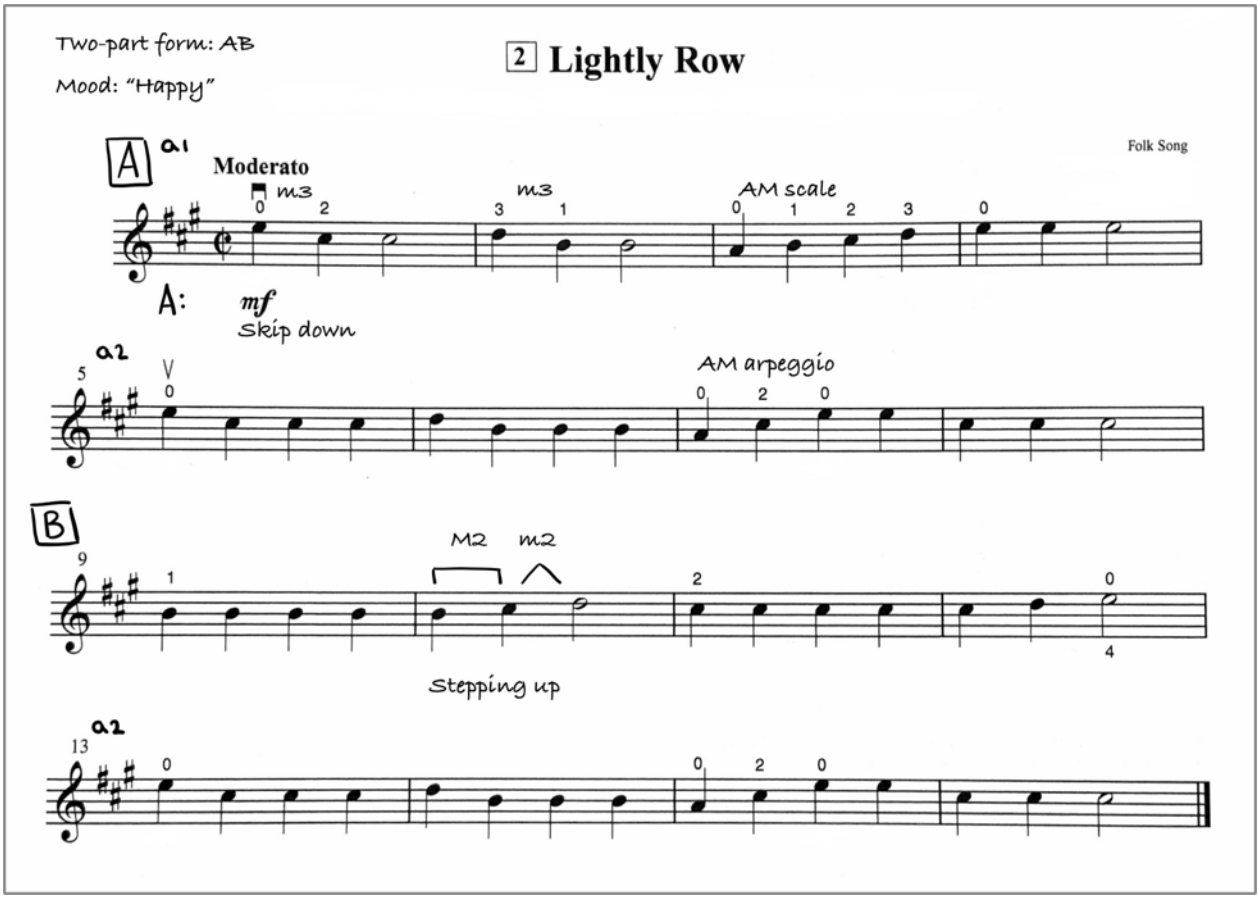
- Form: ABA (“sandwich”)



Example 2.6 *SVS Volume 1*, “Twinkle, Twinkle, Little Star Variations: Theme,” 26.

Lightly Row:

- Key: A major
- Form: AB. I have further broken down the A section into a1 (b. 1) and a2 (b. 5) so students can see that a1 returns in the B section (b. 9).
- Mood: “Happy.” Contributing factors: major key, moderate tempo
- Intervals: Skip down of a m3 in bars 1 and 2, M2 and m2 in b. 10
- Scale patterns: ascending A major scale pattern in bb. 3–4, ascending A major arpeggio pattern in b. 7.



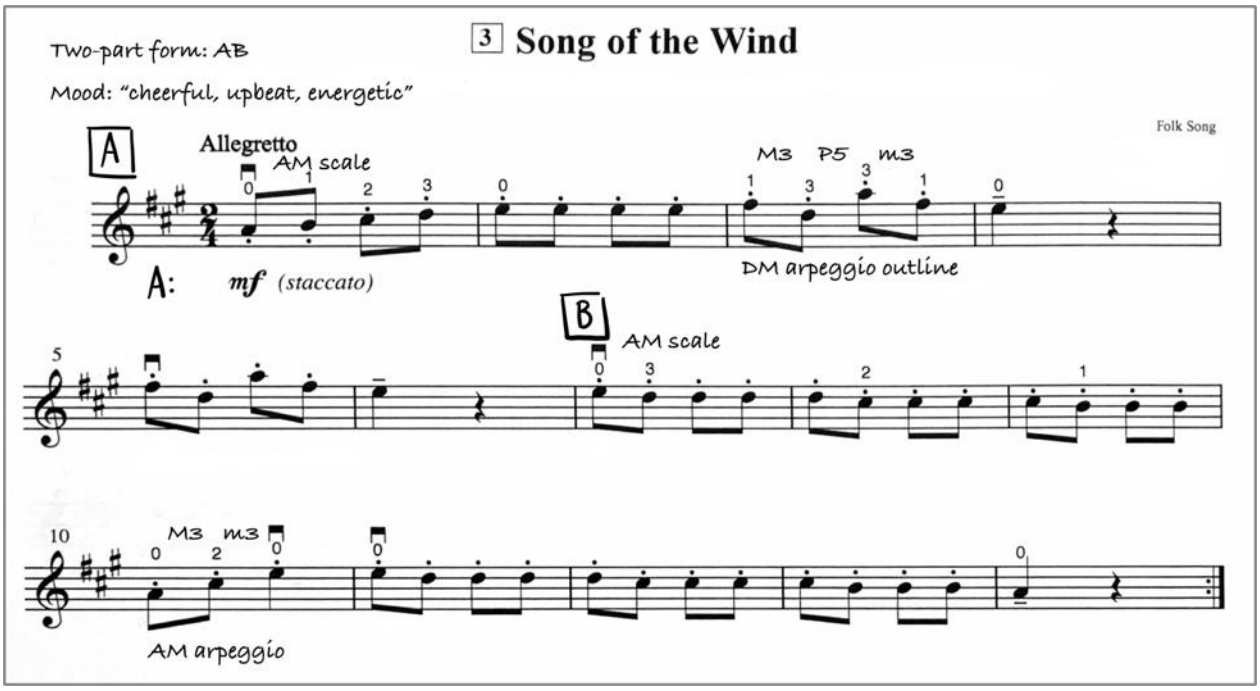
Example 2.7 *SVS Volume 1*, "Lightly Row," 27.

Song of the Wind:

- Key: A major
- Form: AB
- Mood: "Cheerful, upbeat, energetic." Contributing factors: major key, allegretto tempo marking, staccato articulation, leaping melody
- Scale patterns: ascending A major scale pattern in bb. 1–2, D major arpeggio outline in b. 3, descending pattern in bars 7–9, and A major arpeggio pattern in b. 10

Additional notes: At this point in their studies, students have yet to learn the D major scale and arpeggio. But the D major arpeggio outlined in bar 3 provides a good opportunity for students to

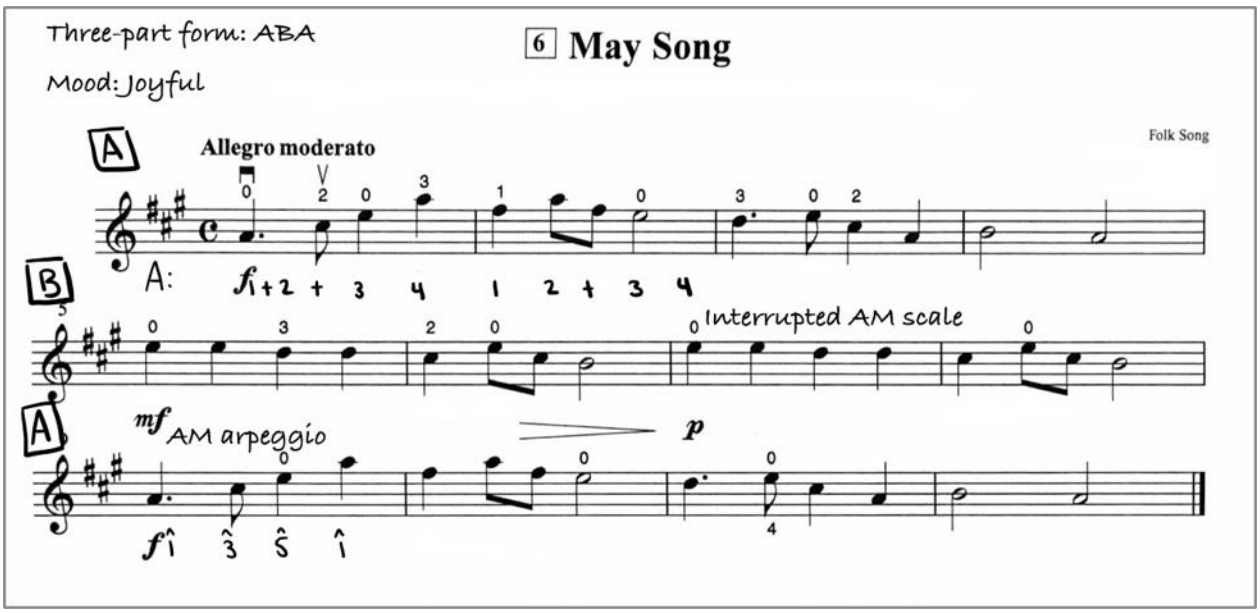
learn to spot “hidden” triads (triads outlined in a position other than root position). Teachers can help students find the “hidden” or “broken snowman” by locating all the pitches of the D major triad in bar 3. Bar 3 also provides an apt opportunity to introduce the interval of a perfect 5th. On the second and third eighth notes of the bar, most students struggle, at first, to coordinate the string crossing in the right hand while accurately moving their 3rd finger from the D on the A string to the A on the E string. Pointing out the distance between the pitches and listening carefully for the intonation of the P5 can help students slow down enough to play the passage cleanly. Aural skills can be incorporated by having students sing the intervals of a M3, P5, and m3 at pitch (or an octave lower, depending on their vocal range).



Example 2.8 *SVS Volume 1*, “Song of the Wind,” 28.

May Song:

- Key: A major
- Form: ABA
- Mood: "Joyful." Contributing factors: major key, allegro moderato tempo marking, dotted rhythms
- Scale patterns: AM arpeggio in bars 1 and 9, interrupted descending scale in bars 5–6 and 7–8.



Example 2.9 *SVS Volume 1*, "May Song," 31.

Additional notes: This is the first piece featuring dotted rhythms that Suzuki students encounter. Most students can play the rhythms by ear, but it may be helpful to write the beat placements beneath the notes and remind students of the duration of a dotted quarter note. To help convey the expressive nature of dotted rhythms, teachers can straighten the dotted rhythms in bars 1 and 3, playing the first two pitches as quarter notes, and ask students to compare the two versions.

These four folk songs reveal to students how scales and arpeggios are the building blocks of composition. Teachers can point out that by moving up or down by a skip or leap, altering the rhythm, and repeating certain pitches, composers can turn a scale into a song. In my teaching, I like to use these pieces to remind students of (one reason) why practicing scales and arpeggios is important (even if the student finds it boring)—being familiar with them helps us to learn our pieces faster because our fingers will remember the patterns we have practiced previously.

Theory Concept Considerations

A few aspects of theory instruction at this level are especially important for teachers to consider. First is the decision to use a keyboard-based music theory workbook such as the RCM's *Celebrate Theory* series or a violin-specific workbook. There are advantages and disadvantages to both. I opt not to solely rely on violin-specific workbooks, as they prohibit familiarity with the bass clef and the piano keyboard. This leaves students who will go on to major in music at a disadvantage. As I have already discussed, the ability to read notes in the bass clef is necessary for full score analysis. Additionally, music students of all concentrations will be required to take a keyboard proficiency exam when they enter university. Gaining a basic understanding of the geography of the keyboard ahead of time is a boon to violin students with no other exposure to the piano, such as through private lessons. Violin students do not need to know how to play the piano to do keyboard theory, though owning a piano or an electric keyboard (even a toy one) or access to a keyboard app on their computer or phone is an asset. An advantage of violin-specific theory workbooks is their common inclusion of graphics showing finger placement and note names on the violin fingerboard. Personally, I do not use these often,

as I usually find the fingerboard itself sufficient. But they can be helpful, particularly for students' parents or practice partners without a musical background.

One disadvantage of keyboard theory workbooks (for violin students) is their near exclusive reliance on musical examples from the piano repertoire. In my own experience as a student, this may cause a dissociation between the assignment as presented in the workbook and the repertoire the student is learning on their instrument. For this reason, it may be helpful to supplement a different piece from the student's own repertoire which features the same lesson objectives. For example, in *Celebrate Theory* Prep, Unit 2 features the Russian folk song "Caterpillar! Caterpillar!," a preparatory-level piano piece. The piece is chosen for its melody illustrating stepwise motion and skips of a third, one of the concepts covered in Unit 2. However, the piece is in C major, a key which beginning violin students can not play in, due to the more advanced finger pattern it utilizes (low second finger). So, when students arrive at this point in the workbook, teachers could supplement a piece like "Song of the Wind," which also features a melody consisting of stepwise motion and leaps of a third. Still, exploring the piano repertoire is not without merit for violin students. Students could try playing "Caterpillar! Caterpillar!" on a piano keyboard (if they have one), phone app, or even a xylophone. This gives the added advantage of being able to see the skips and steps visually, which they can only feel and hear on the violin.

Another consideration to be aware of is the discrepancy between which keys are introduced when in theory workbooks versus in the sequence of violin repertoire. For instance, C major is the first scale students encounter in their workbook, but A major is the first scale they learn to play on the violin. This is due, of course, to the physical characteristics of the violin and piano, respectively, and, from a theory pedagogy perspective, because C major has no flats or

sharps. So, when students are learning how to write out a C major scale on the staff in their workbook, it may be appropriate to also teach them how to write the A major scale using blank staff paper. Also, note that because A is the first key violin students learn to play in, they necessarily are made aware of F-sharp, C-sharp, and G-sharp before their theory workbook introduces sharp signs (first introduced in RCM *Celebrate Theory* Level 1).

A third consideration is the introduction of minor scales. Keyboard theory introduces the natural A minor scale at the preparatory level, whereas students working through a violin technique book usually will not encounter the A minor scale before RCM Level 1. When teaching the minor scale in their theory workbook, I usually teach it at the piano or play it on my violin so students can hear it and know how to complete the assignment at home but tell them we will learn minor scales on the violin later.

Finally, pertinent to this chapter, I would like to highlight a few places where my timeline for introducing certain concepts diverges from established methods and compare when these concepts first appear in the repertoire.

Intervals: Beginning violin students as young as three play intervals of a 2nd through a 5th, with a particular focus on 2nds and 3rds. So, I expand on the concept of intervals earlier than RCM *Celebrate Theory* and the ASTA *String Curriculum*. RCM introduces the concept of steps and skips in the Prep Level and intervals of a second and third at Level 1, but it does not begin to differentiate quality until Level 3. ASTA introduces half and whole steps at the Baseline Level (first two years of study) and intervals at the Developing Level (which ASTA defines as approximately middle school level).

Form: The first few pieces most violin students learn to play are composed of small binary or ternary forms. I introduce two-part and three-part forms (AB and ABA) in the first few months of study. ASTA also introduces these forms at the Baseline Level. RCM, however, introduces the melodic phrase in Level 3 and periods in Level 5, but it does not introduce binary form (AB) until Level 6.

Scales, Tonic, and Dominant: Beginning violin students learn to play a one-octave A major scale within the first few months of study. Given their nature as the foundation of melody and an important early pedagogical tool, scales are introduced as might be expected at the earliest levels of both RCM and ASTA. At the Prep Level, RCM also introduces the term tonic but waits until Level 4 to introduce scale degrees and the term dominant. The ASTA Curriculum relies on solfége and eschews the term "scale degrees." The Baseline level introduces tonic and dominant in the context of aural skills, singing and identifying by ear patterns based on tonic and dominant chords. Within a theory context, however, the first mention of tonic and dominant in the curriculum is at the Proficient Level (defined by ASTA as high school level and above), in relation to the I and V chords. Here, it does refer to scale degrees 1 and 5, but terms them the "first and fifth tones of the scale."

Triads: As previously noted, beginning violin students encounter the one-octave A major scale and arpeggio in RCM Preparatory/ASTA Foundation Levels and their earliest pieces are built on simple scale and arpeggio patterns. Both my approach and RCM introduce triads at this same level, in the context of the tonic chord, while ASTA introduces them at the Developing Level in an intervallic context (as an exercise in stacking and identifying intervals of a 3rd).

The discrepancies between when students first encounter certain theory concepts in established theory curriculums and when they first encounter them in the repertoire reveal the

importance of allowing the repertoire to guide the introduction of these concepts and helping students connect what they are learning in their theory workbook with what they are learning on the violin. While there are valid pedagogical reasons for sequencing concepts as they appear in theory curriculums, violin teachers should note that the prescribed sequence may not make the most sense for violin students and amend their teaching materials as necessary. Otherwise, teachers and students alike are apt to miss important links between concepts and techniques that violin students need to understand to play their pieces well.

Chapter Summary

The pedagogical approach I presented in this chapter outlines several learning targets, achievable for students who have worked their way through the first eight pieces in *SVS Volume 1* (RCM Preparatory Level or ASTACAP Foundation Level). Ideally, students at this level can expect to:

- recognize A^4 through A^5 on the treble clef staff and know which fingers play those notes in first position and where they are located on the fingerboard
- sing pieces using note names
- be familiar with intervals of a second, third, and fifth
- know AB and ABA form
- know scale degrees 1 and 5 (tonic and dominant)
- know the A major key signature
- play a one-octave scale and arpeggio in A major
- recognize a tonic triad

- sight-read simple exercises
- count basic rhythmic patterns using half, quarter, eighth, and sixteenth notes and rests
- be close to completing *Celebrate Theory* Prep Level (or equivalent workbook)

As students progress through their repertoire, I recommend that teachers continue to reinforce learned concepts by marking the key signature and form of each new piece in the score and drawing the student's attention to melodic details such as scale and arpeggio patterns. Intervals, particularly those that pose a significant technical challenge, should also be highlighted. Teachers can discuss with students how elements such as key, tempo, dynamics, rhythm, and articulation can evoke certain moods or imagery and experiment with playing these elements in different ways to varying effect. Whenever possible, teachers should use vocabulary that links knowledge of theory concepts with the physical and musical aspects of playing the violin. Finally, I suggest that teachers compare their preferred violin method books and theory workbooks to identify key areas of overlap or diversion and make necessary amendments to their curriculum.

Chapter THREE

Expanding the Foundation: Cadences, Phrases, Key-Areas, and Minor Scales

In this chapter I will discuss how I introduce cadences, major key signatures and scales, the concepts of key areas and modulation to the dominant and relative minor, and minor key signatures and scales. I will examine repertoire useful for conveying these concepts, as well as a cardinal piece of repertoire for enforcing interval knowledge and finger patterns attained at the previous level. Students ready for this material will be about to learn Allegretto, the tenth piece in *SVS Volume 1*, an RCM Grade 1/ASTACAP Level 1 piece. They will have just begun work in *Celebrate Theory Level 1* or its equivalent.

Introducing Cadences

The tonic and dominant triads, along with their functional chord symbols, are first introduced in RCM *Celebrate Theory* Level 3, but cadences are not introduced until Level 6. Presumably, this delay has to do with the traditional sequencing of theory concepts. In theory pedagogy, it makes sense for students to spend time identifying scale degrees, the functional chord symbols I, IV, and V, root/quality chord symbols, and tonic and dominant triads in most or all keys before introducing cadences. Sometimes, basic T–S–D–T motion and simple phrase structures, like the parallel period, are also introduced prior to cadences. However, as I mentioned in the Introduction, students at Level 6 are already playing the most accessible professional level works. I find it difficult to imagine that educators would expect students to play these pieces expressively without knowing what a cadence is. Yet, I myself reached this level as a student without being taught about cadences, and many other students do, as well.

Once, when I was substitute teaching for my professor during my doctoral studies, I taught an undergraduate student who was studying Bartok's "Romanian Folk Dances" (an RCM Grade 10 piece). Wanting her to demarcate phrase endings in some way instead of rushing into subsequent themes, I remarked, "Notice where the cadences are. Perhaps it would be appropriate to alter the tempo or dynamics at important structural points in the music, so it doesn't sound so rushed." She looked at me blankly. So, I asked, "Do you know what a cadence is?" She responded questioningly, "No?" Further discussion revealed that, even after over a decade of music lessons, she really did not know what a cadence was. In the absence of musical knowledge, students are left with no choice but to parrot the teacher's playing or rely on intuitions shaped by having heard many others play. This type of interpretation can come across as rote, dry, or performative (as in showy, lacking in genuine conviction) to listeners; it is a different type of musical expression than making autonomous interpretive choices based on a personal understanding of the score.

Piano pedagogue Tobias Matthay discusses why such parroted performances are unsuccessful, even resulting in "sheer musical perversion:"

> A high degree of nice judgement is needed to perceive *what* it is that renders a musical performance good, or the reverse—to perceive what is essential and what is unessential. How can such nicety of judgement be expected from a mere School-student, seeing that it is the very thing you have to teach him? Indeed, he would require no teacher, did he already possess such power of judgement and of analysis.[63]

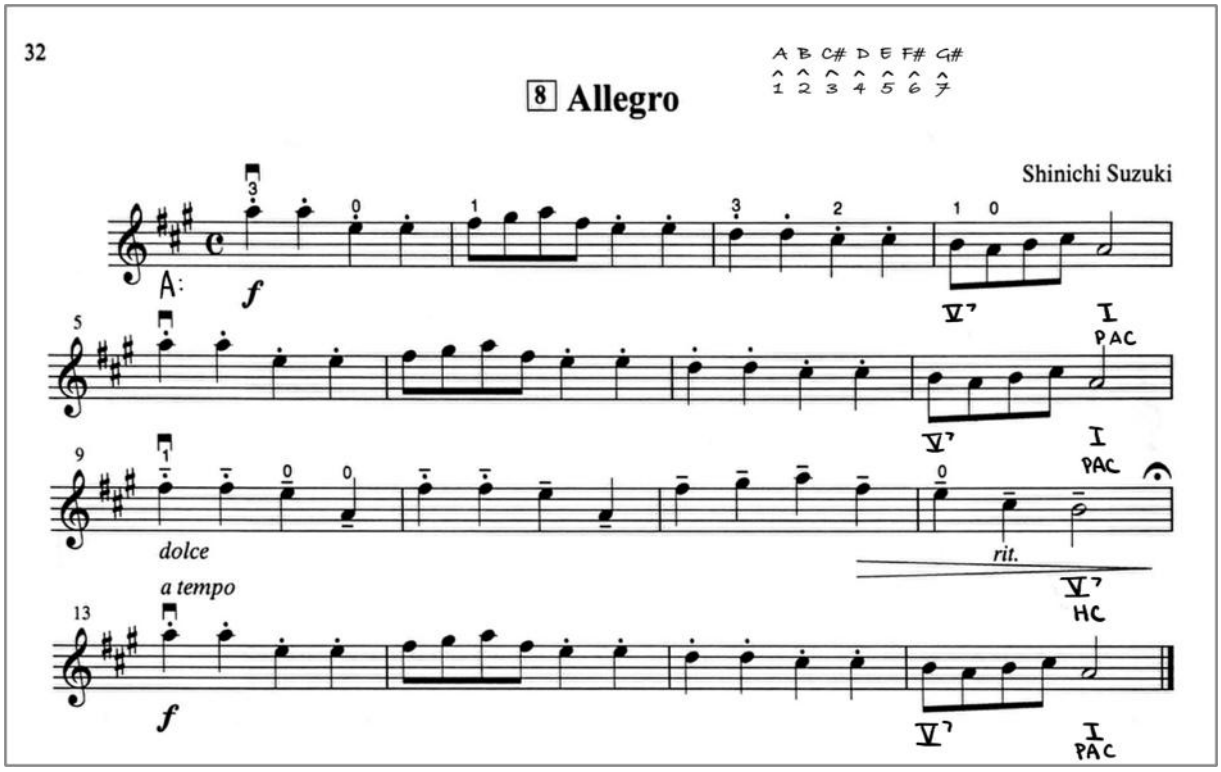
[63] Tobias Matthay, *Musical Interpretation: Its Laws and Principles, and Their Application in Teaching and Performing* (The Boston Music Co., 1913), 14.

Yet, teachers commonly demonstrate their musical ideas without much explanation, merely the instruction to "play it more like this." When a student lacking in mature judgement hears a demonstration of this kind, Matthay explains that "the pupil will try to imitate the 'means'—the expression-effects—he thinks he has heard [the teacher] employ, and the result will probably be a frightful parody, with blind and futile changes of time and tone, such as the amateur who wishes to appear 'musical' loves to make."[64] However, demonstration coupled with explanation can both inform and stimulate the student's imagination, more often resulting in a considered performance unique to the student's own perspective. While the outcome of any performance is subjective, listeners usually agree that a compelling interpretation evokes a sense of ownership and improvisation—which, perhaps ironically, is often the product of achieving a close familiarity with the score. It is up to the private teacher to not only *demonstrate*, but to *explain* the factors involved in the interpretive process; factors which include an understanding of compositional devices like cadences.

In my experience, teaching young students about cadences is quite doable if the foundation of scale degrees 1 and 5, the I and V triads, and basic form has been laid. Students under the age of seven may not yet be intellectually astute enough to grasp the concept, but I have found that most students seven and above have no trouble understanding cadences. To introduce half and perfect authentic cadences, I reference a recent piece in the student's repertoire featuring one of each. Expressive markings leading into a cadence, such as ritardandos or dynamic indications are especially useful at this stage. "Allegro," by Shinichi Suzuki, fits

[64] Matthay, *Musical Interpretation*, 16.

these requirements. Below are two sample scripts for using this piece to introduce half and perfect authentic cadences.



Example 3. 1 *SVS Volume 1*, "Allegro," 32. Annotations mine.

Sample Script for Introducing Half Cadences

[teacher] "Today we're going to talk a little more about musical form and structure. I'm going to tell you about something that will help us to play more expressively, to make the music more interesting to listen to. Do you know what a comma is in a sentence? It's kind of like a pause, right? It comes after we have said something, and means we still have something to add. For example, can you hear the comma in this sentence? 'When you finish your homework, you can play video games.' There is something in music that functions sort of like that comma. It tells us that a pause in the music is happening. That thing is called a half cadence. Let me play one and see if you can hear it."

[play "Allegro" beginning at bar 9 and pause after the half cadence in bar 12]

"What do you think—can we end the piece there? No, right? It would sound weird! We have to keep going. But it does sound like the music is pausing temporarily, yeah? That's because there's a half cadence here! We need a special chord for making a half cadence. It's the dominant triad. You've written tonic triads before, built on the first scale degree. Now, let's figure out how to write a dominant triad, built on scale degree 5. First, we'll write the letter names of the scale above the music and put all the corresponding scale degrees under them. Okay, so, in A major, which note is scale degree 5?"

[student] "E."

[teacher] "That's right. Now, if we were to write an E and stack a snowman on top, which notes would we need?"

[student] "G and B."

[teacher] "Yes, and because we're in the key of A, it's a G-sharp, right? Okay, so the notes E, G-sharp, and B make up the dominant triad or V chord in A major. In the violin melody, one of these three notes will need to appear in order to make a half cadence (the missing notes will be in the piano part). Let's look at the melody of Allegro in bar 12 and see if we can spot one of the notes from the V chord. Which one do you see?"

[student] "There's a B."

[teacher] "Good! That's the third note in the triad. Let's look at the piano part to see if we can find the missing E and G-sharp, to make sure this is really a V chord."

[consult bar 8 in the score]

"Can you spot any Es or G-sharps? There they are! Oh, and there's a D, too. That note is

also part of the chord, but we'll learn about it later.[65] So, we can see that there is indeed a half cadence on the last two beats of bar 8 in this piece."

"Sometimes, the composer adds expressive markings to a cadence that tell us how they want it to be played—we get to decide how much of a pause to take or whether we want to emphasize the pause in some way. Do you see any extra markings that might tell us how the composer, Suzuki, wants us to emphasize this pause? Hint – there are two that you might not have seen before."

[student] "I see a decrescendo…"

[teacher] "Yes, and this marking here, *rit*., is short for *ritardando*, which means to slow down in Italian. And here is another marking that is new to you—it's called a *fermata*. Whenever you see a fermata over a note or rest in your music, it means to hold that note or rest longer than its assigned duration, or for more beats than it normally gets. In this case, the fermata is over the space at the end of the bar. To me, that means we can either draw out the end of the half note, or take a break before playing the next measure, or both! Let me try it for you a few different ways and see which way you like best. Then you can practice it that way. When we get to the ritardando, let's sing "slow down *heeere*."

[proceed with demonstration]

"Okay, last thing, we're going to mark the half cadence in your music with a big Roman numeral V. We use this symbol whenever we want to mark a dominant triad in the music."

[65] I usually wait until students learn to play dominant 7th arpeggios before teaching the V7 chord, but depending on the student's age, the concept could be introduced at this point, using this chord.

Sample Script for Introducing Perfect Authentic Cadences.

[teacher] "Next, we'll learn about another type of cadence, one that functions sort of like a period in a phrase. Do you know what a period is? Let's review how it works.[66] In written and spoken language, a period comes at the end of a sentence, punctuating a complete thought. A perfect authentic cadence works the same way in music. It comes at the end of a phrase, or complete musical idea. I'll play one for you—see if you can tell where it happens."

[play "Allegro" beginning in bar 9 until the end]

"What did you think, can we end the piece there?"

[student] "Yes! It sounds done."

[teacher] "It does, doesn't it? We need two special chords to create that final sound: V and I, a dominant triad followed by a tonic triad. Let's look at the last bar of the piano score to see if we can find all the notes to these triads. Then we'll mark them in your music and talk about different ways we can play them."

Later, at the intermediate stage, we will discuss what it is about these chords that gives them certain qualities of punctuation.

Introducing D and G Major and Specifying Form and Phrase Types

Following A major, the next key that violin students learn is D major. The exact timing of when students are exposed to the new key varies between methods. RCM *Violin Technique and*

[66] Students learn about periods in first grade, so most 6- and 7-year-olds should be comfortable with this comparison.

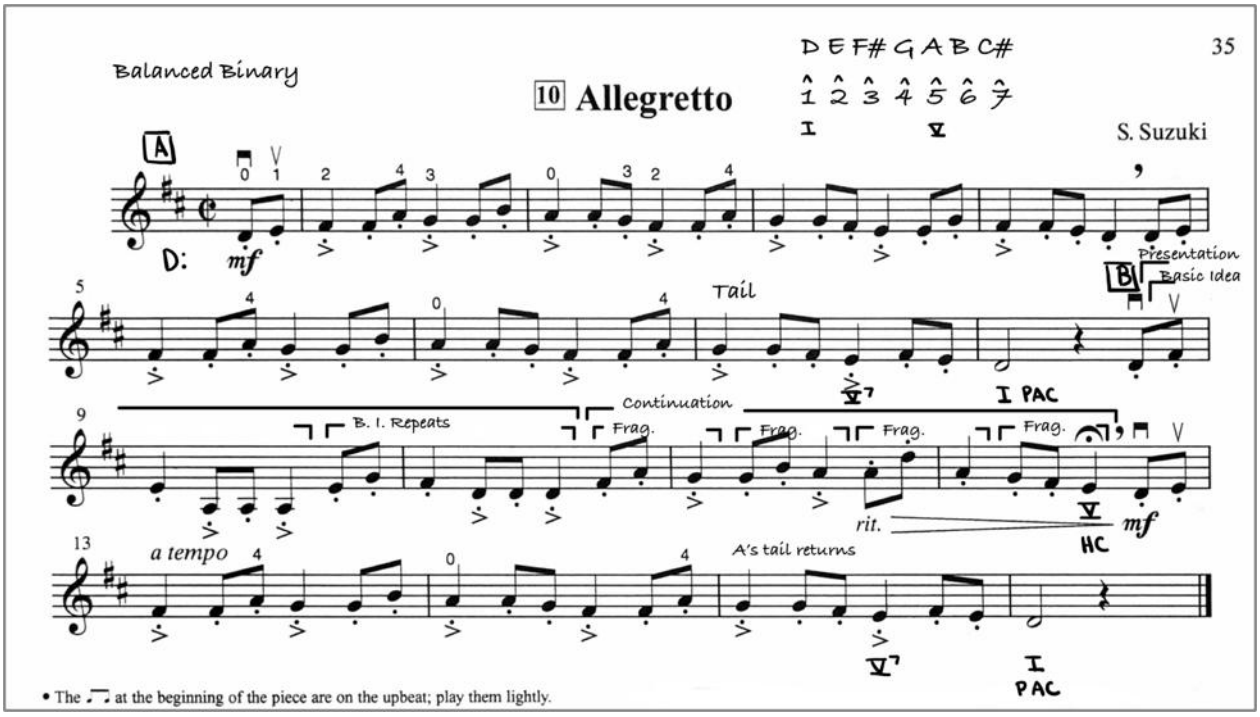
Etudes includes scales, arpeggios, and studies in both A and D major at the Preparatory Level, while *SVS Volume 1* places the D major scale prior to "Allegretto," the first piece in D major in the book, and an RCM Grade 1 level piece. Regardless of exactly when, D major is a simple scale to introduce, as the one-octave version uses the same finger pattern as A major.

After D major, G is the next most accessible key for violinists and is usually the first two-octave scale violin students learn to play. The second octave of the G major scale uses a new finger pattern: WHWW between A and E on the A string and E and B on the E string. Barber calls this the blue pattern. About a week before teaching the G major scale, I teach Barber's blue pattern exercise, being sure to alert students to the fact that the half step or minor second in the pattern now lies between their first and second fingers, or B and C and F-sharp and G. Since the G major two-octave scale uses both the red and blue patterns, it can be helpful to circle the "high" second fingers in the lower octave with a red pencil and the "low" second fingers of the upper octave with a blue pencil. I have found that some young students struggle with their working memory and have difficulty remembering which notes in the scale are affected by the key signature. Sometimes, teachers will use half-step markings or arrows to indicate correct finger placement. I prefer using colors at this stage because the colors denote the entire frame, or pattern, of the hand in the given key and position, whereas a half step marking only denotes the relationship between two pitches. Worse, the up or down arrow only references a single finger and pitch in a pattern, isolating it from its relationship to the given key.

The first piece most Suzuki students play in D major is "Allegretto" by Shinichi Suzuki. It is an RCM Grade 1/ASTACAP Level 1 piece. This piece features frequent eighth notes and intervals of a 3rd, 4th, and 5th, making it a difficult piece to introduce reading in the key of D for many students, even after studying the D major scale. Because of this, I find it helpful for

students to learn to read in D major using easier materials prior to playing "Allegretto." These can include the note-reading exercises in *I Can Read Music* by Joanne Martin and etudes at the Preparatory/Foundation level, such as "Blast Off!" by Mary Cohen and "D Scale Waltz" by Gerald E. Anderson and Robert Frost. These two etudes utilize slower left-hand rhythmic values and primarily stepwise motion.

When students are ready to play it, "Allegretto" presents an excellent opportunity to expand on students' structural knowledge. Until now, we have been labeling sections of pieces "A," "B," etc., and referring to how many parts each form has—is it a two-part form or a three-part form? To determine the form of a piece, we have largely been relying on guided listening; listening and looking for melodies that sound the same or different. We have located and marked cadences but have not yet discussed their role in demarcating structural elements. Now, before students are faced with memorizing the much longer pieces in the last third of *SVS Volume 1*, is an ideal time to introduce the more specific terms "binary" and "ternary" and their variations and to begin learning types of phrases. This is, of course, provided students are old enough to comprehend these terms. Here is an example of how one might use "Allegretto" to teach balanced binary form.



Example 3.2 *SVS Volume 1*, "Allegretto," 35. Annotations mine.

Sample Script for Teaching Balanced Binary in "Allegretto"

[teacher] "Today we're going to talk more about form and musical phrases. There are a few steps we need to take to figure out the form of a piece. First, let's figure out the key. Look at the key signature and tell me which key has only two sharps."

[student] "D major."

[teacher] "That's right. For reference, let's write the note names of the scale above the music and put the scale degrees below them, together with chords I and V. Now, listen to me play the piece and tell me if you can hear where there might be a cadence. Remember, we're listening for chords that sound like a 'comma' or a 'period'."

[demonstrate piece, emphasizing cadences]

"Okay, what did you think about the first cadence that you heard? Did it sound more like a pause or a stop?"

[student] “A stop, I think.”

[teacher] “You’re right! There’s a perfect authentic cadence in bar 8. How about after that, did you hear another one?”

[student] “A pause… so, a half cadence?”

[teacher] “Yes, good. There’s one more, did you hear it?”

[student] “A PAC at the end.”

[teacher] “Very good. Let’s mark these cadences in the music. Let’s also mark the first phrase as ‘A.’ Now, you probably noticed that A has two parts. They both start the same. Do they end the same as well? I’ll give you a hint: check bars 3–4 and 7–8.”

[student] “Mmm… the notes are different at the ends.”

[teacher] “Good eye. The beginning of the A section repeats but the ends of each section are different starting on beat four of bars 3 and 7. So, we’ll call the first part of A the ‘head’ and the second part the ‘tail.’ The PAC in bar 8 marks the end of the A section. What do we call the next section, then?”

[student] “B.”

[teacher] “Mm-hmm. Where do you think ‘B’ ends?”

[student] “At the half cadence?”

[teacher] “It does seem like the half cadence might mark the end of the section. It marks the end of a phrase, but let’s look and see what comes after it on beat four of bar 8. Do you see a melody you recognize?”

[student] “It’s ‘A’!”

[teacher] “It is! But is it all of ‘A,’ or just one part?

[student] “Just the tail.”

[teacher] Exactly right. Because A comes back, we might be tempted to label this section A as well and say that the piece is in ABA form. But, because only A's tail comes back, it serves as the last part of the B section, making this a two-part, or binary, form. Whenever A's tail returns in the B section of a two-part piece, we call the form 'balanced binary.' The other binary form you already know, where the melodies of A and B are different from each other all the way through, is just called 'binary form'."

As always, the degree of instructional rigor can be tailored to different age levels. I have used the script above with students as young as seven years, but for younger students, I might simply refer to half cadences as "pauses" and authentic cadences as "stops." Simpler still, I might just mark the phrases in the score for the student, guiding their comprehension of the form with comments like, "Can you hear this melody coming to an end? Raise your hand when you think you hear a new melody starting. Raise your other hand when you hear a melody you've already heard before." Conversely, more detail can be added when working with older students or students particularly adept at grasping new concepts.

"Allegretto" and "Andantino," the tenth and eleventh pieces in *SVS Volume 1*, are ideal pieces for introducing the period and sentence phrase structures. Teachers can introduce these phrase types now or return to these familiar pieces at a later point when the student is older or ready to absorb more detail. However, the sooner, the better, as both phrase types are present in the later, more challenging pieces of *SVS Volume 1* and being able to analyse phrases is helpful for learning and memorizing these pieces.



Example 3.3 *SVS Volume 1*, "Andantino," 35. Annotations mine.

Sample Script for Introducing the Parallel Period in "Andantino"

[teacher] "You may have noticed your pieces getting a little longer as we progress through the book. In 'Twinkle', the 'A' section was only four bars long. Now, in 'Andantino', it is eight bars long! Longer sections of music often contain different types of musical structures. The first type we are going to learn about is the parallel period. You have played music with parallel periods before, but now we are going to learn how to find and label them. A parallel period has two parts: a question and an answer. We call the question part the 'antecedent' and the answer part the 'consequent'. The word antecedent refers to a part that comes before another part, and the word consequent refers to the part that results from it, coming after. If that sounds confusing, just remember the question and the answer for now. I will play the first two lines of 'Andantino' for you. See if you can hear where the question and answer happen."

[play the first eight bars of "Andantino," demarcating the phrase structure]

“Okay, did you hear a ‘question’? See if you can point to it on the music.”

[student, points to bar 4] “Here?”

[teacher] “Exactly right! How about the ‘answer’?”

[student, points to bar 8] “Here.”

[teacher] “Correct! Good ear. Okay, let’s talk about what creates the effect of the question and answer—the antecedent and consequent. In a short section, there is usually only room for one cadence. But in a longer section, like the ‘A’ section we have here, there is room for two cadences. The first one, on the last beat of bar four, is a half cadence. We know that half cadences often have the effect of pausing, right? So far, we’ve been comparing them to commas in a sentence. Well, depending on where they are in the music, the key they are in, and other factors, half cadences can be compared to other types of punctuation that have a pausing effect as well—like, for example, questions or semicolons. Most people compare the half cadences in parallel periods to question–marks. Anyway, it is the incomplete, pausing quality of the half cadence that creates the question mark effect. Now, can you guess what type of cadence creates the effect of an answer?”

[student] “A PAC?”

[teacher] “Right again. Now, we’re in the key of D major, which means we need a dominant triad followed by a tonic triad to form a PAC. Let’s check bar eight in the piano score to see if we can find all the notes to those chords where you heard the ‘answer’ before.”

[consult the score and mark the cadences in the music]

“So, with the perfect authentic cadence being the strongest type of cadence, comparable

to a period or an exclamation mark in writing, it clearly creates the effect of an 'answer' to the 'question' posed by the antecedent phrase in bar four. Together, the antecedent phrase and the consequent phrase make up a parallel period. Now, I'll show you how to mark this structure in your music."

Sample Score for Introducing the Sentence in "Allegretto" (refer to Figure 3.2 above)

[teacher] Recently, you learned about the parallel period. Today, we are going to learn about a new type of phrase structure called the 'sentence.' The 'B' section of 'Allegretto' has a sentence in it, so we'll use that piece to learn about them. A sentence is a phrase with two parts: a presentation and a continuation. Within each of those parts are smaller parts. The first part of the presentation *presents* a motive, which we call the 'basic idea'; the second part of the presentation repeats the basic idea. When the basic idea is repeated, it can be exactly the same as the first time, or slightly different but still recognizable as the same basic idea. Let me show you what I mean. Look at the last quarter note beat of bar eight in 'Allegretto' through the third quarter note beat in bar nine. That's the basic idea. Let's hum it together. Okay, what comes next? Look at the following four beats. Similar, right? What is the same about these two mini melodies?"

[student] "The rhythm is the same."

[teacher] "Yeah, it is. And the basic shape of the melody is the same, too, right? Can you spot a difference between the two melodies?"

[student] "The second one is higher."

[teacher] "That's right—the melody repeats one step higher, until we get to the last two notes, which are only a third lower than the previous pitch; whereas, the A in bar nine

was a fifth lower than the previous pitch. But the identical rhythm and basic shape of the melody make it similar enough to call it a repeat of the basic idea. So, we label the first occurrence of the mini melody the basic idea, and the second occurrence 'basic idea (or b. i.) repeats'."

"Okay, now for the continuation. The continuation features several fragments of melody leading to a cadence. The word 'fragments' can be confusing—it doesn't mean little sections of the basic idea. It refers to melodic units, or groups of notes, that are shorter in duration than the basic idea. So, if the basic idea lasts for four beats, a fragment might last for two. That's exactly what happens in this continuation. The basic idea lasts for four beats, and if we look at the last quarter note beat of bar ten, we see the first of four fragments made up of two eighth notes followed by a quarter note. Fragments serve a special purpose: they create momentum into a cadence, making the music sound exciting and the cadence sound extra satisfying. See how these fragments end right where we marked a half cadence in bar twelve? The first two fragments build energy, while the *ritardando* and *diminuendo* dissolve some of that energy at the cadence, kind of like a ball rolling down a hill and coming to a stop. Let's mark the continuation and the fragments in the music now."

The concepts of the period and the sentence are not more complex than what eight- or nine-year-olds are learning in math, such as calculating the perimeter of a basic shape. Yet, most violin students are not taught these concepts until high school or university. RCM *Celebrate Theory* introduces the parallel period at Level 6 and the contrasting period at Level 7, but it does not cover sentences, even in the final volume of the series (Level 9). The ASTA *String Curriculum* teaches large forms but not phrases of any kind. I had to scan the curriculum three

times before I was forced to conclude that forms including rondo, theme and variations, and even sonata form are indeed all presented without ever introducing phrase structures. These small structures seem simple enough, and in fact they are. However, waiting until university to introduce them, often via the keyboard score of an unknown (to violinists) piece, can make it difficult for some students to quickly spot these compositional features when first confronted with analyzing a complete movement of a Mozart sonata. To me, it makes much more sense to introduce these phrase types early, using short, simple pieces from violinists' own repertoire.

A final note on form: many Suzuki teachers (including Ledgerwood) label these pieces and others in the Suzuki repertoire rounded binary or ABA′. However, as I alluded to in my script, we see that only the second half of the A section—that is, the tail portion—returns. Since the antecedent and consequent phrases both begin with the same melody, it is tempting to hear a recapitulation at b. 13 (or the pickup to b. 13 in "Allegretto"). But in the case of both these pieces, the antecedent never returns; it is actually the consequent that returns. Additionally, calling the return of the consequent "A prime" is misleading, since neither the melodies nor harmonies are altered in any way on their return. It makes sense to me to perceive the antecedent as the A section's head and the consequent as its tail and refer to this form as balanced binary. Alternatively, I would be comfortable simply labeling it A^1–A^2–B–A^2.

Introducing Key Areas: Modulations from Tonic to Dominant

Once students are familiar with scale degrees, tonic and dominant chords, and the major keys of A, D, and G, they are ready to learn about key areas and modulation. Following my approach, students have yet to learn the qualities of chords other than I and V, so we will not be identifying pivot chords or specifying other types of modulation in this process. My goal at this

stage is to alert students to changing keys and key relationships and their respective effects on the mood or character of the music, as perceived by the student, as well as the role of key changes in the overall scope (or journey) of the composition.



Example 3.4 *SVS Volume 1,* "Minuet No.1," 38. Annotations mine.

"Minuet No. 1" by J. S. Bach (from "Suite in G Minor for Klavier," BWV 822, No. 5) in *SVS Volume 1* is the first piece Suzuki students play that modulates to the dominant (or any key, for that matter). Here are the steps I take when using this piece to introduce modulation to students:

1) as with every analysis I do, write the letter names to the scale of the home key (G major), as well as any other significant key areas (D major), above the score, with the scale degrees and I and V below their respective note names
2) briefly explain the concept of changing keys and why composers do it
3) demonstrate the piece asking students if they can hear a change in key (this is difficult for most students at first, but we always start with listening to provide aural context)
4) have student look at the score to see if they can find any accidentals not belonging to the key signature
5) ask student: if they were to add the accidental in question (C-sharp) to the key signature (G major), what key signature would they get (D)
6) ask student: looking at the scale degrees above the music, what is the relationship of D major to G major (it is the dominant)
7) explain that composers often modulate to the dominant because of its close relation in key
8) indicate D major on the score at approximately the B section
9) ask student: where do the accidentals disappear (b. 17)
10) explain that b. 17 is where the composer returns to the tonic (or "home") key and mark G major on the score
11) look for and mark a cadence in the dominant key, explaining that modulation requires a cadence in the new, temporary key

"Minuet No. 1" is also a good piece to review the recently learned balanced binary form and G and D major scale/finger patterns.

Introducing Minor Keys and Scale Patterns

Violin and piano pedagogies introduce minor keys at different times and in different ways, according to each discipline's pedagogical priorities. Since keyboard theory closely reflects piano pedagogy, the order in which violin students encounter minor scales in their theory workbook may not align with their own needs at the time. Violin teachers need to be aware of these differences to ensure students are adequately prepared for their first piece that ventures into the minor mode. As previously mentioned, RCM *Celebrate Theory* introduces A minor (in its natural form) at the Preparatory Level. Violinists also learn the A minor scale (in its harmonic form), but not until RCM Grade 1. ASTACAP first requires students to play a minor scale in Level 2, but it is the D melodic minor scale. The chart below compares when students encounter which keys in their theory workbook (RCM *Celebrate Theory*) with when they are expected to play them on the violin (RCM *Violin Technique and Etudes)*, versus when various keys first appear in the early Suzuki repertoire over the first four levels of development.

Level	Theory Workbook	Technique Book	Repertoire
Preparatory	C, Am	A, D	A
Grade 1	G, F	G, C, Am, Dm	D, G
Grade 2	Cm, Em, Dm	Gm	Em
Grade 3	B-flat	B-flat, Cm, F, Fm	Dm, B-flat, Am

Chart 1 Comparison of Key Introduction

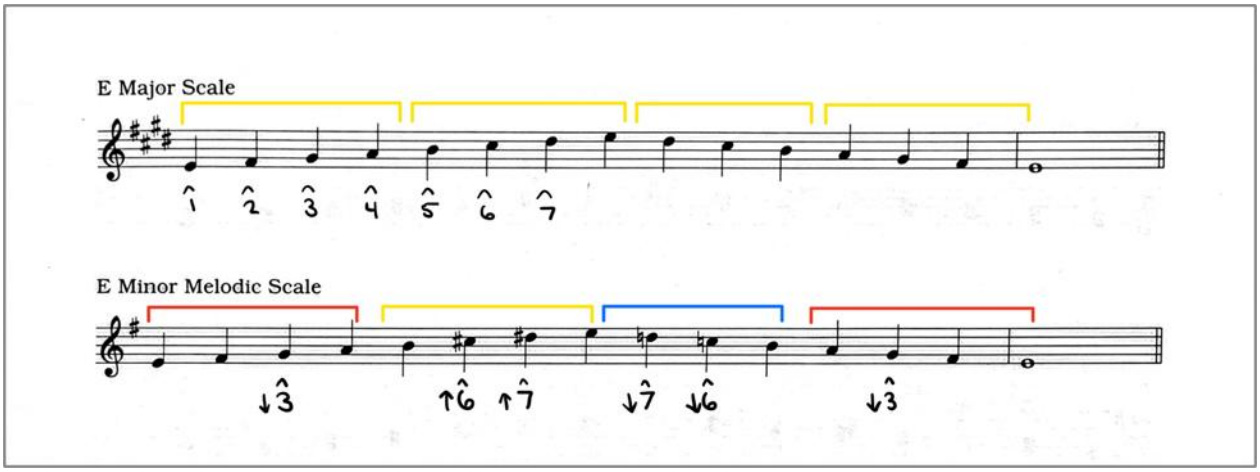
At the Preparatory Level, we see that the theory workbook does not coordinate with the violin technique book, so, without amendments by the violin teacher, students will have no theory foundation for learning to play in A or D major. Looking at Grade 2, we see that while the theory workbook includes E minor, the violin technique book does not, thus giving no technical foundation for E minor's appearance in the Grade 2 repertoire. As more keys are learned, these discrepancies naturally become less of an issue. But in the beginning, special care should be

taken to make sure students have both the theory knowledge and technical foundation necessary to perform repertoire in various keys.

Another difference to note between keyboard theory and violin technique is that keyboard theory prioritizes key signatures when introducing new keys or pairing major and minor keys, while violin technique prioritizes finger patterns/hand shapes. The editors of RCM *Violin Technique and Etudes, Levels Preparatory–4* specify, "Scales and arpeggios are ordered pedagogically, based on hand shapes rather than key signatures. With hand shapes as the guiding principle, some major scales appear with their relative minors, and others with their tonic minor…New hand shapes are introduced progressively."[67] Most often, minor scales are taught alongside their parallel major keys; to me this makes the most sense from a theory perspective as well, even though most theory books begin their introduction to the minor scale with the relative minor. This is because converting a major scale into a minor one by lowering the 3rd scale degree gives students a clearer understanding of the interval patterns that make a scale sound minor than telling them that, for example, if you start on A and play all the same notes as the C major scale, but also finish on an A, you end up with the A natural minor scale. By teaching students which intervals are altered in the minor scale, they can turn any major scale into a minor one, even without music. It is harder for beginning students to arrive at the solution of the relative minor from a major key, as they must first determine the minor tonic. Fortunately, the first scale violin students learn is A major, making the conversion to A minor an easy one. Next in the sequence is D major to D minor, G major to G minor, and so on.

[67] Christine Gale Harrison and Kelly Parkins-Lindstrom, *Violin Technique and Etudes, Levels Preparatory–4*, (RCM Publishing, 2013), 2.

Of course, at some point students also need to understand the concept of the relative minor—and that point is soon after learning the parallel minor, as the first modulation to the relative minor in their repertoire is imminent. Alas, the modulation in question is not to any of the minor keys students have so far learned to play. Bach's "Minuet No. 2" (BWV Anhang 116, No. 7 for Klavier), an RCM Grade 2/ASTACAP Level 2 piece, is in G major, and briefly modulates to its relative E minor, at the beginning of the B section. This key change necessitates a new finger pattern—the high third finger needed to play a D-sharp on the A string in first position. I have observed that most Suzuki teachers use this piece to teach that pattern—indeed, such was the case when I learned it at seven years old. But without prior knowledge of the E minor scale and its relation to G major, many students struggle to master the new figuration, requiring numerous repetitions to play it in tune. Students at this level, however, can easily learn the E minor scale prior to learning "Minuet No. 2." As I have done with A major/A minor and D major/D minor, I recommend teaching E major first, then altering the requisite scale degrees to create E melodic minor. In violin pedagogy, E major is usually not taught until Grade 4, due to its key signature of four sharps. But from a fingering perspective, it is actually fairly simple to play. Students following Barber's sequence of finger pattern exercises will have already learned the yellow pattern, the only pattern required for playing the E major scale in first position. Red and blue, patterns long familiar to students at this point, are also used in the melodic minor scale.



Example 3.5 *The Complete Violin Technique Book*, 67. Annotations mine.

When teaching minor scales, particularly the melodic minor, I like to highlight the finger patterns using Barber's associated colors. As previously mentioned, visually grouping notes into tetrachords helps students who are easily overwhelmed by new key signatures or who struggle with working memory to keep the key in mind as they play. Note that the arrows in the annotated example above refer to the scale degrees, not the fingering, though they also reflect the directions the fingers playing those notes will move when altering the scale from major to minor. As always, when teaching any scale, it is important to engage the student's awareness from as many different angles as possible—aural, visual, tactile—by looking at the key signature, reviewing the scale degrees and note names, discussing which scale degrees are altered to create the melodic minor scale, singing the scale, and finally, learning to play it on the violin. Only when this process is complete are students fully ready to engage with this new key in their repertoire.

Like most Suzuki students, I was taught "Minuet No. 2" without any reference to the minor mode. Only the dynamic change in b. 17 (where the piece modulates, see below) was pointed out to me. In b. 23, where ^7 is raised, requiring the high placement of the third finger, I was merely told that when a sharp appears in front of a D, it needs to be played with a high 3.

Close to two decades would pass before I learned that D-sharp is the leading tone in the E minor scale and that E minor is the relative of G major. The editors of the *Suzuki Violin School* often include scales of the keys required for upcoming pieces shortly before those pieces appear in the books. In the case of "Minuet No. 2," they do not. And as previously discussed, E minor is not usually taught until two grade levels later. Yet, "Minuet No. 2" is classified as a Grade 2/Level 2 piece by both RCM and ASTA. This is another example of why teachers should not (and cannot) rely on any single method or technique book to cover every pedagogical base required to learn a piece of music well. As Barber herself notes, "The *teacher* should anticipate new Finger Patterns in the student's repertoire, introducing the exercises as needed to prepare the student for new skills and ensure good intonation."[68] Of course, no beginning student has the capacity to understand every single element of a composition or to independently craft an interpretation based on those elements. But someday they will. If that process is delayed until university, students may struggle to catch up.

In addition to being the first piece in the repertoire that modulates to the relative minor, "Minuet No. 2" is also the first piece that has a compound period and the first piece with triplets. It contains arpeggio and scale patterns, and the cadences are easy to identify, making it the perfect piece to introduce new concepts and review those recently learned. Here is an annotated copy of the score, showing which elements I would bring to a student's attention. In the A section, I used bracketing common in music theory analysis, as I might in a working copy of the piece. In the performing copy, I might only use phrase titles or abbreviations to keep the page cleaner. I highlighted finger patterns where students frequently need reminders of what

[68] Barber, *Fingerbaord Geography*, 4. emphasis mine.

patterns/colors to use. As in previous examples, I have not annotated every single phrase or area of interest, only what I think is most pertinent to the example.



Example 3.6 *SVS Volume 1*, "Minuet No. 2," 39. Annotations mine.

Rhythm and Meter

Triple meter appears for the first time in *SVS Volume 1* pieces graded at levels 2–3. Dotted rhythms also feature more prominently than in earlier grade levels. Suzuki teachers tend to be adept at teaching dance meters and conveying the concept of strong and weak beats, as well as teaching rhythms in general. At this level, one thing to be mindful of is that issues with counting dotted rhythms are oftentimes issues not with rhythm itself but rather with pulse. For example, students struggling to play dotted rhythms in time are not usually struggling with counting; rather, they are having difficulty playing on the offbeat. As the editors of the ASTACAP *Handbook* state, "It is possible for students to [count] complicated rhythm patterns but still not perform those rhythm patterns with a steady pulse or clear metrical direction."[69] This is because rhythm and pulse are two different things. Yet, when students struggle with rhythm, teachers often default to counting. If the student does, in fact, understand note values, exercises emphasizing clapping, singing, or playing on and between beats may be more helpful in navigating dotted rhythms than just counting "1+2+3+" etc.

Expressive Considerations

According to the RCM *Violin Syllabus*, students in Grade 2 "should be able to play in all parts of the bow with good control and should be able to execute slurs, *legato*, and *staccato* strokes. Tone should be clear and some variety in dynamic levels should also be present."[70] These skills, together with the ability to effect some changes in tempo, will enable students to

[69] Stephen J. Benham, etc., *ASTA String Curriculum*, 136.

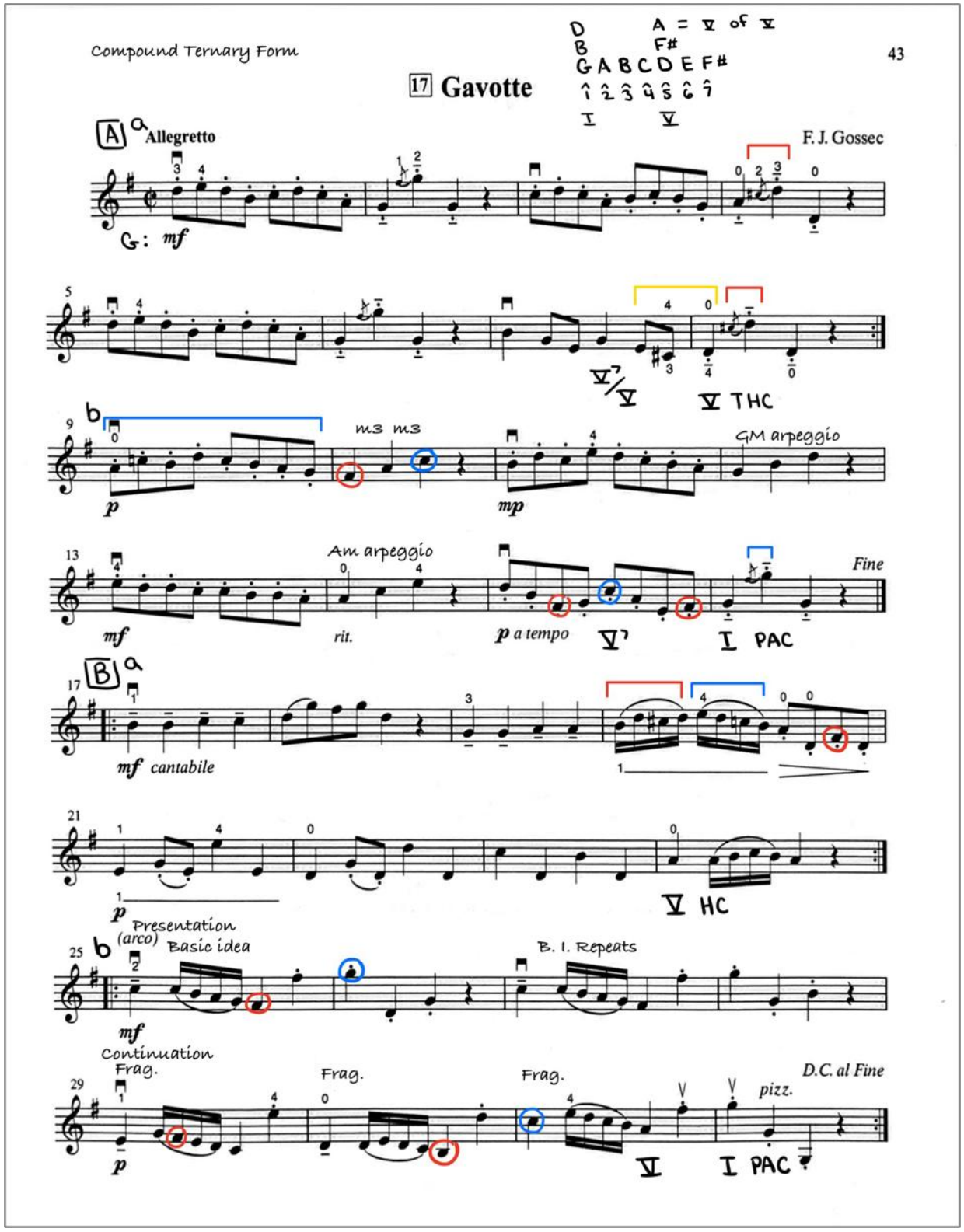
[70] Christine Gale Harrison and Kelly Parkins-Lindstrom, *Violin Syllabus*, 20.

bring greater expressive variety to their performances. In addition to teaching melodic expression, which most violin teachers excel at, making students aware of how form and other structural elements can enhance expression is also desirable at this stage. Teachers and students together can decide the impact of each cadence, assigning each a distinct role in the story of the piece. Is one a comma, another a period? How about a question mark or an exclamation point? How would each be played in the context of the piece to convey the desired punctuation? Variations in dynamic, tempo, and tone can all be considered. Students should also learn to differentiate key changes, even if the only method at their disposal is to alter the dynamics somewhat. Teachers can rewrite melodies, demonstrating minor themes in the major mode and vice versa, to help students begin to really appreciate changes in character. Determining the role or effect of certain compositional elements and asking how those effects can be conveyed to listeners—these questions are not new. What is less common, especially at this stage in the student's development, is allowing analysis to guide this discovery, rather than instinct or mimicry alone.

Introducing New Concepts and Reviewing Old Ones in Grade 3 Repertoire

The last piece in *SVS Volume 1*, "Gavotte" by F. J. Gossec, is an RCM Grade 3 level piece. It features a number of interesting new elements: the first applied chord, the first tonicized half cadence, and the first compound ternary form in Suzuki students' repertoire. Since this piece is in G major, it often switches between the red and blue finger patterns. For students who need it, I circle the red (high) and blue (low) second finger positions that most often need reminding in the score. In the annotated version below, I have illustrated another way of writing the home key scale/scale degrees/T/D above the score, showing students how to find the applied chord on beats

3 and 4 of bar 7. I have also avoided phrase brackets. This is how the piece often appears in my students' music books. Even without changing keys, its varying articulation, dynamic contrasts, and diverse rhythmic patterns make "Gavotte" a piece ripe for interpretation. It truly is the pinnacle of many *SVS Volume 1* recitals.



Example 3.7 *SVS Volume 1*, "Gavotte," 43.

Theory Concept Considerations

I would like to draw readers' attention to the practice check-up questions listed below "Allegro" in *SVS Volume 1*; the piece I often use to teach cadences.[71] The questions are:

1. Are you practicing with a beautiful sound?
2. Is the tip of your bow steady?
3. Is your bow in good contact with the string?
4. Is your bow moving parallel to the bridge?
5. Is the scroll of your violin parallel to the floor?
6. Are you avoiding tension in the left hand?
7. Are your fingers curved correctly when placed on the string?
8. Are you listening carefully for accurate intonation?

Notice that all these questions relate exclusively to violin technique. There are no questions pertaining to musical understanding, such as, "Do you know what key this piece is in? Can you locate scale degrees 1 and 5? Can you determine the form of this piece? Do you know what the title of this piece is alluding to?" In highlighting this example from *SVS Volume 1*, I am not denying the importance of correct technique; it is certainly necessary for producing a good sound and preventing physical strain and injury. I simply want to point out how these questions emphasize the heavy importance violin teachers place on technique, often to the exclusion of corequisite skills in music theory. To help correct this imbalance, teachers can remind students to also consider questions pertaining to their understanding of the score when they practice, making sure that students' technical and theory-based skills are keeping pace.

[71] *Suzuki Violin School Volume 1*, 32.

As I did in Chapter Two, I will once again highlight some educational discrepancies relevant to this stage of learning that teachers should be aware of.

Cadences: Obviously, beginning students encounter cadences in their very first piece, but do not comprehend them. However, with the right foundation, students can comprehend cadences earlier than they are traditionally introduced. I introduce them as early as possible, with a simple piece like "Allegro," no later than RCM Grade 1. As I noted prior, RCM *Celebrate Theory* waits until Level 6 to introduce cadences. Though the ASTA *String Curriculum* teaches form and T-S-D-T motion, it is unclear whether and when cadences specifically are covered.

Keys: See the chart on page 71, in the earlier discussion on minor scales, for a comparison of when certain keys are introduced.

Form: More complex forms begin appearing in student repertoire in RCM Grade 1. Now, instead of basic binary form, a piece may be in balanced binary form or rounded binary. It may also be in a ternary form. I like to explain these forms when they first appear. I also prefer to teach the parallel period and sentence in Grade 1. RCM *Celebrate Theory*, as I mentioned, does not introduce parallel periods or label AB form as "binary form" until Level 6. The ASTA *String Curriculum* introduces various forms progressively but does not distinguish phrase types.

Modulation: Modulation to the dominant first occurs in Grade 1 repertoire, and modulation to the relative minor in Grade 2. Key area awareness is such a vital component of analysis and of comprehending music in general, influencing everything from memory to expression to technique, that I teach it from the moment it occurs in the student's repertoire. Perhaps astonishingly, RCM *Celebrate Theory* does not teach tonicization or modulation until Level 9, the penultimate level containing material equivalent to a university-level Theory II-type course.

It is not clear when or whether modulation is covered in the ASTA *String Curriculum.* The only reference I could find to changing keys was in the module on sonata form, where the editors write, "Discuss the characteristics of the development section of the sonata form: Usually starts in the same key in which the exposition ended but can move through several key signatures… Variations of the exposition can include different keys… At the end, it returns to the dominant key in preparation for the recapitulation."[72] I am unsure how sonata form can be imparted to students without a specific reference to cadences, but perhaps the editors assume teachers will infer the necessity of introducing cadences on their own.

Minor Keys and Scales: To reiterate, theory workbooks, technique books, and method books all seem to introduce minor keys and scales at different times and in different orders depending on certain pedagogical priorities. I recommend, whenever possible, introducing new keys through scales, prior to teaching pieces in those keys. Or, conversely, choosing pieces composed of keys in the order teachers wish to teach them.

Chapter Summary

This chapter addressed theory concepts I usually teach in Grades 1–2. At the end of this period, students will have completed or be close to completing *SVS Volume 1*, *I Can Read Music Volume 1* and *Celebrate Theory* Level 2 or its equivalent. Students can expect to:

- Identify, with help, half and authentic cadences
- Know the D, G, and E major scales and key signatures, and their parallel minor keys and scales

[72] Stephen J. Benham, etc., *ASTA String Curriculum*, 201.

- Identify, with help, balanced binary form
- Identify, with help, parallel periods and sentences
- Recognize a modulation from tonic to dominant
- Recognize a modulation to the relative minor
- Play triplets and dotted rhythms accurately within a steady pulse

Teachers may find that by the time the conversations presented in the sample scripts are finished, a significant amount of lesson time has passed. Some teachers may have difficulty coming to terms with spending so much of the lesson on theory. It may be useful for me to further clarify how I allocate the lesson time in my own studio. To make the most of our time together, I do not teach the notes to new pieces in the lesson, unless the student needs help with a challenging technical passage. At this level, I expect the students' sight-reading ability, together with access to the reference recording and the practice partner's help, to be sufficient for learning new notes at home. I also recommend that my students consult any number of excellent practice videos by highly qualified teachers available on YouTube, should they need a reminder of how a piece goes. Further, I work to ensure that a student's technical foundation remains secure, so that except for introducing new techniques like spiccato or vibrato, I can spend most of the lesson on score study and evaluating the piece they are currently working on. The balance of time spent in the lesson can always be tipped toward the student's most pressing need in any given week. Naturally, once a concept has been introduced, less time will need to be spent on it in consecutive lessons. Even though it may seem tedious to some, this type of early analytical work actually puts expressivity at the forefront of the lesson and strengthens students' autonomous musicianship over time.

Chapter FOUR

Finger Patterns, Key Area Awareness, and Function at the Intermediate Level

This chapter focuses on integrating theory into the violin lesson at the intermediate level, approximately RCM Grades 4–7/ASTACAP Levels 4–7. I will discuss how intervals and hand shapes inform arpeggios, double stop scales, shifting, and new positions. I will also explore pieces in the Suzuki repertoire useful for enforcing key area awareness and finger patterns. In the section on expressive considerations, I will talk in more detail about the function of certain theory concepts and how understanding these functions can help enhance musical expression.

Dominant and Diminished 7th Arpeggios

In addition to scales and arpeggios, intermediate students learn and begin practicing dominant and diminished seventh arpeggios and double stop scales in 3rds, 6ths, and octaves. These scales present new challenges that are more easily surmounted by incorporating students' prior knowledge of Barber's colored finger patterns (which, remember, visually represent intervallic relationships) and fostering a clear understanding of the interval qualities that comprise each scale pattern.

Dominant and diminished arpeggios require special attention because of how they are often presented in violin technique books. For example, the dominant 7th of G major often appears alongside the D major scale set, because it shares the same starting note and position on the violin, even though the key is different. There is no explanation of key signatures in violin technique books, so teachers need to clarify that the dominant 7th arpeggio starting on D is *not* D major's dominant 7th chord, but G major's. To theory teachers this may seem like an obvious

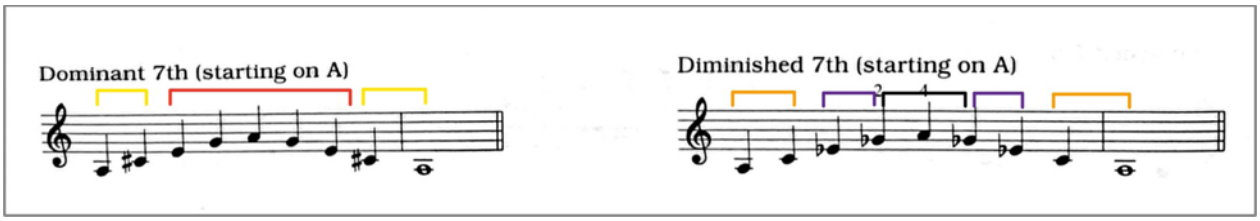
fact, yet, in my experience, violin teachers rarely clarify the definition of dominant and diminished 7th arpeggios when teaching them—teachers usually focus on the best fingering solution for the given arpeggio and the technique required to play it in tune. However, teaching the theory behind dominant 7th chords is particularly important because violin technique books introduce them earlier than theory workbooks (for specific levels, see the section on Theory Considerations near the end of the chapter).

To teach dominant 7th arpeggios, I review the concept of the dominant triad. I then explain the addition of a seventh, borrowing the wording from RCM *Celebrate Theory* Level 4: "The dominant triad can be intensified by adding a seventh above the root to create a four-note chord."[73] I also discuss the intervals between each note of the chord. It is very helpful to do this at the piano, where students can more easily perceive the distance between each note. The piano keyboard also provides a top-down look at the whole chord at once, which is not possible to achieve on the violin fingerboard. Finally, we sing through the scale degrees of the chord before playing it.

It is even more beneficial to teach diminished 7th arpeggios at the piano, where students can visually observe the collapsing of the 3rd, 5th, and 7th notes above the bass to create a minor third between each pitch in the chord—a much more difficult process to visualize on the violin. When playing the arpeggio on the violin, teachers should encourage students to feel the distance between each minor third—specifically, one and a half steps or three semi-tones. Feeling and audiating this distance is especially important when playing diminished 7th arpeggios. This is because, unlike the fingerings for arpeggios outlining a triad, the fingerings for diminished 7th

[73] RCM *Celebrate Theory Level 4*, 79.

arpeggios are inconsistent and can be difficult to remember. Again, finger color patterns are quite useful for enforcing the specified intervals. Because of the augmented fingerings sometimes required to play diminished 7ths, it may be necessary to combine finger patterns within the same hand frame. For example, in Figure 4.1 below, in the diminished 7th arpeggio starting on A, the interval between E-flat and G-flat uses Barber's purple pattern, while the interval between G-flat and A uses the black pattern (assuming all the missing pitches were to be filled in).



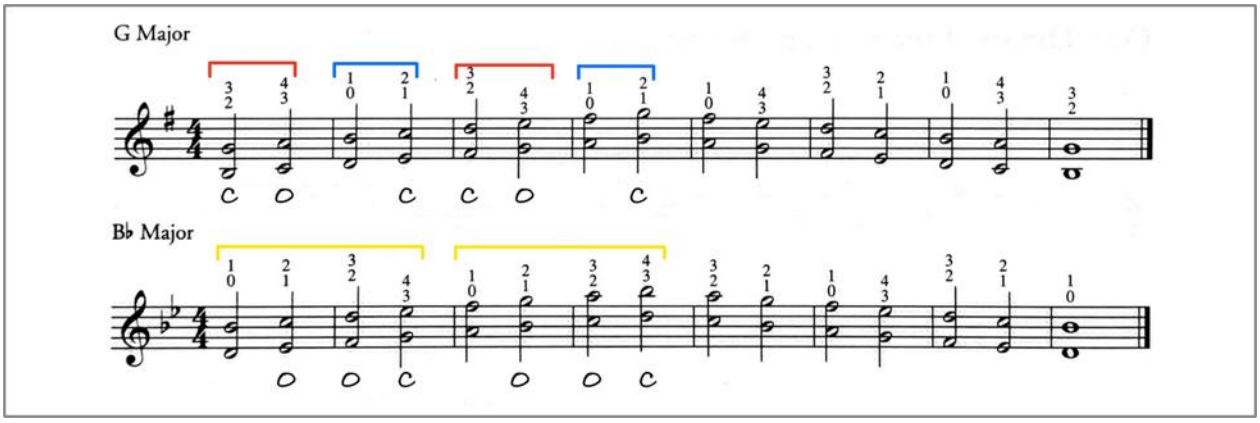
Example 4.1 *The Complete Violin Technique Book*, Dominant 7th (A) and Diminished 7th (A), 18. Annotations mine.

Double Stop Scales in 6ths and 3rds

Double stop scales present a new technical challenge for violin students, one that also comes with a conceptual conundrum. This conundrum is the result of having to think about two different types of spacing in the hand at once: horizontal and vertical. Horizontal spacing refers to the intervals between each pitch of the ascending scale. Vertical spacing refers to both the interval between the upper and lower notes comprising the chord, as well as the interval between the two fingers that form the double stop, sitting on adjacent strings. The conundrum is that the interval felt in the hand is not the same as the one being sounded. I discovered this conundrum when working on double stop scales in thirds with a student who was struggling to play in tune and remember the correct finger pattern for each double stop. I was about to write "m3" to

indicate the finger pattern above a double stop comprised of a G in the lower voice and a B in the upper voice when I suddenly thought, “Wait, this interval isn’t a minor third—it only *feels* like one!” I will expound on this conundrum in the context of scales in thirds presently; before that, I will discuss it in the context of scales in sixths, which violinists typically learn first.

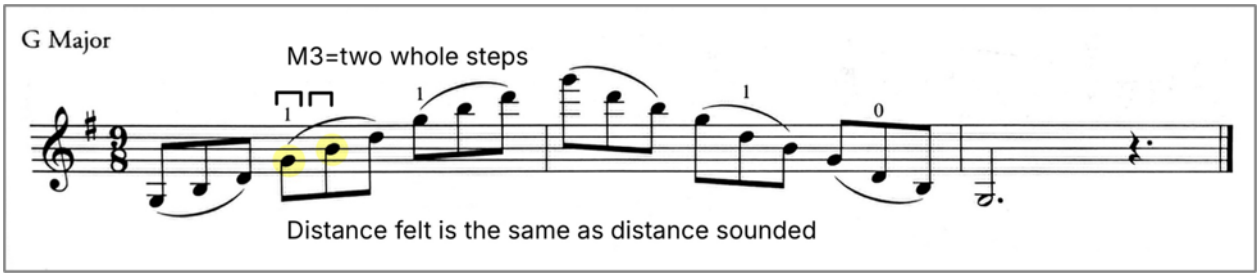
In the figure below, the first double stop of the G major scale in sixths is a minor 6th; but the interval formed (felt) by the second finger on the G string, sitting diagonally and just behind the third finger on the D string, is a minor 2nd. Likewise, the second chord in the scale is a major 6th, but the interval felt between the third finger on the lower string and the fourth finger on the upper string is a major 2nd.



Example 4.2 RCM *Violin Technique and Etudes* Levels 5–8, One-Octave Double Stop Scale in 6ths, 26. Annotations mine.

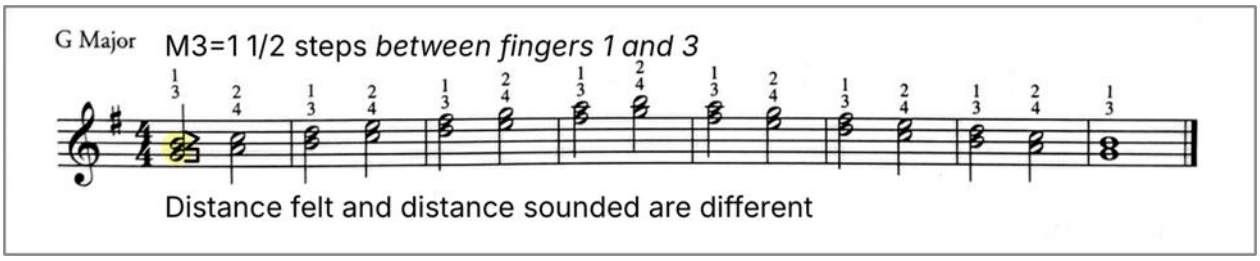
Double stop scales in thirds present even more of a conundrum, because the number of the interval sounded is the same as that of the interval felt in the hand, but the quality is different. The fact that violinists regularly practice arpeggios, where the number and quality of both the interval sounded and the one felt is the same, further compounds the problem. For instance, when playing a G major arpeggio in third position on the D string, the distance between G and B (the

first and third finger, respectively) is two whole steps (or a major 3rd), and violinists generally feel the distance as such.



Example 4.3 RCM *Violin Technique and Etudes* Levels 5–8, Three-Octave Arpeggio, 23. Annotations mine.

However, when played vertically on two strings as a double stop in first position, the distance felt between the first and third fingers is one and a half steps; a pattern which, when played on one string, violinists associate with a minor 3rd. This dissonance in perception occurs because, while G_4 is lower than B_4 in pitch, finger 1 sits behind/lower than finger 3 in the hand frame, and violinists tend to measure distances from the lower finger, rather than the lower note.

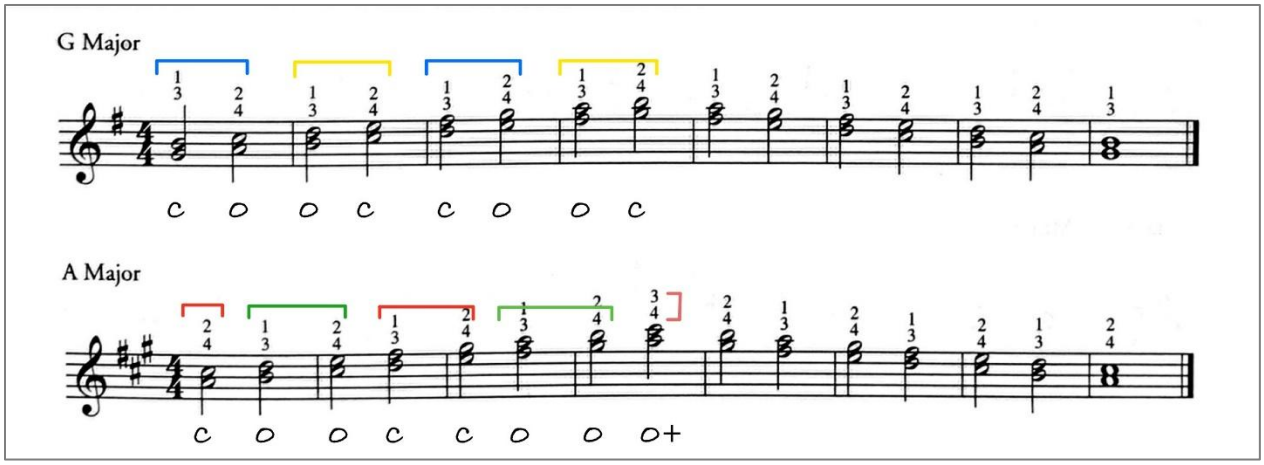


Example 4.4 RCM *Violin Technique and Etudes* Levels 5–8, One-Octave Double Stop Scale in 3rds, 25. Annotations mine.

So, for violinists, while this chord *sounds* major to the ear, it *feels* "minor" in the hand. Not everyone will be disturbed by this phenomenon, or even notice it, but for many students, I have found it to be a serious impediment to comprehending scales in thirds and playing them in tune.

The average student will not intuit the dissonance between fingering and sonority; it should be clearly explained to them. Because of this perceptual dissonance, it is often more helpful to rely on violin-specific terminology when teaching double stops by referring to the hand shapes as being more “open” or “closed,” instead of specifying the interval as I frequently like to do. Where I would indicate M3 and m3 in the score over a major arpeggio, I would instead use O (more open) and C (more closed) for double stop scales.

In Figures 4.2 above and 4.5 below, colored finger patterns serve a new purpose, now indicating spacing across two strings (whereas before, they indicated spacing along a single string). For the reasons just explained, when used to illumine double stops, the finger patterns mainly represent the hand frame itself and are not necessarily indicative of pitch or interval quality, excepting horizontal motion on each individual string (where felt intervals always reflect sounded intervals). The “O+” indicates an augmented fingering, where the hand frame is fully open, and there is an even wider space between fingers 3 and 4: vertically, it is felt as an augmented 2nd, represented by Barber’s coral pattern.



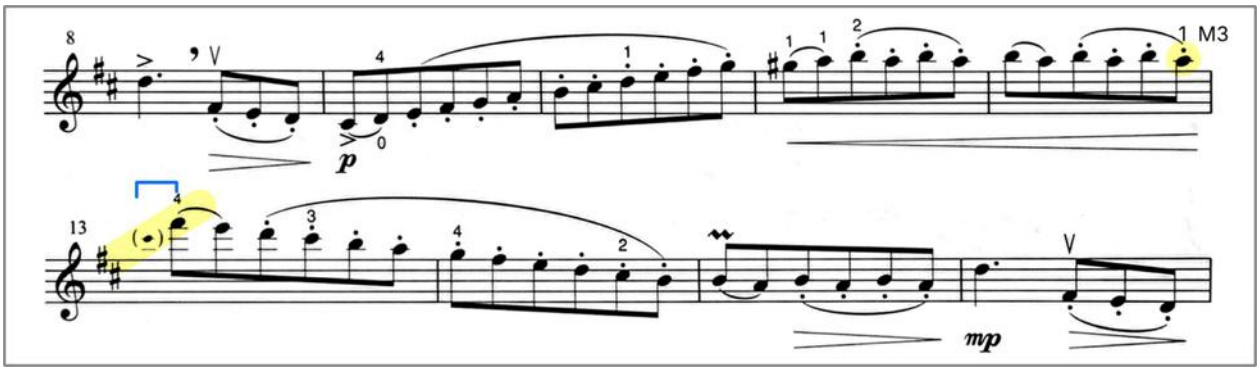
Example 4.5 RCM *Violin Technique and Etudes* Levels 5–8, One-Octave Double Stop Scales in 3rds, 25. Annotations mine.

Shifting

In shifting, too, there is sometimes a difference between intervals expressed on the page and intervals felt in the hand. When executing a same-finger shift, the distance traveled is the same as the interval between the starting pitch and the goal pitch. For example, when shifting on the E string from F-sharp$_5$ to A$_5$, an interval of three semi tones, the first finger also moves up the fingerboard by three semitones. But when shifting from the first finger to the fourth finger, say, from A$_5$ to F-sharp$_6$, an interval of 9 semitones, the first finger only moves 4 semitones, stopping on C-sharp$_6$. Once in the new position, the remaining 5 semitones are measured between the first and fourth fingers. Students often overshoot large shifts and end up playing sharp, because, looking at the wide interval between the pitches in question, they overestimate the distance they need to travel to reach the new note. Teachers correct this by having students shift to a "ghost tone" (so called because the bow ghosts over it on the way to the target note; its presence is felt

but not sounded). The ghost tone is the note that the old finger would play in the new position, thus ideally setting the hand frame to reach the higher note with a "higher" finger.

In the example below, from Weber's "Country Dance," the editors of *SVS Volume 5*, have printed the ghost tone in parentheses to show students where their first finger, which was just playing A_5, moves to before their fourth finger plays F-sharp$_6$.



Example 4.6 *SVS Volume 5*, "Country Dance" by Weber, 26. Annotations mine.

When teaching this technique, teachers tend to say, "Your first finger is moving from third position (A) to fifth position (C-sharp)." Sometimes, they will have the student fill in the missing notes between C-sharp and F-sharp to feel the distance between the two pitches and more accurately place the fourth finger. Alongside referencing the positions involved in the shifting process, teachers can also remind students that, in this case, the distance between third and fifth position is a major third. Students can practice shifting to and sounding the ghost tone, to audibly measure the interval. Then, to set up the hand frame in the new position, teachers can point out that the finger pattern between the C-sharp and the F-sharp is the blue pattern (HWW), and the distance spanned is a perfect fourth. Students can practice shifting the distance of a major third, then filling in the perfect fourth. The last step would be to eliminate the ghost tone in the right hand while still feeling it in the left hand and listening for the major sixth between the A and F-

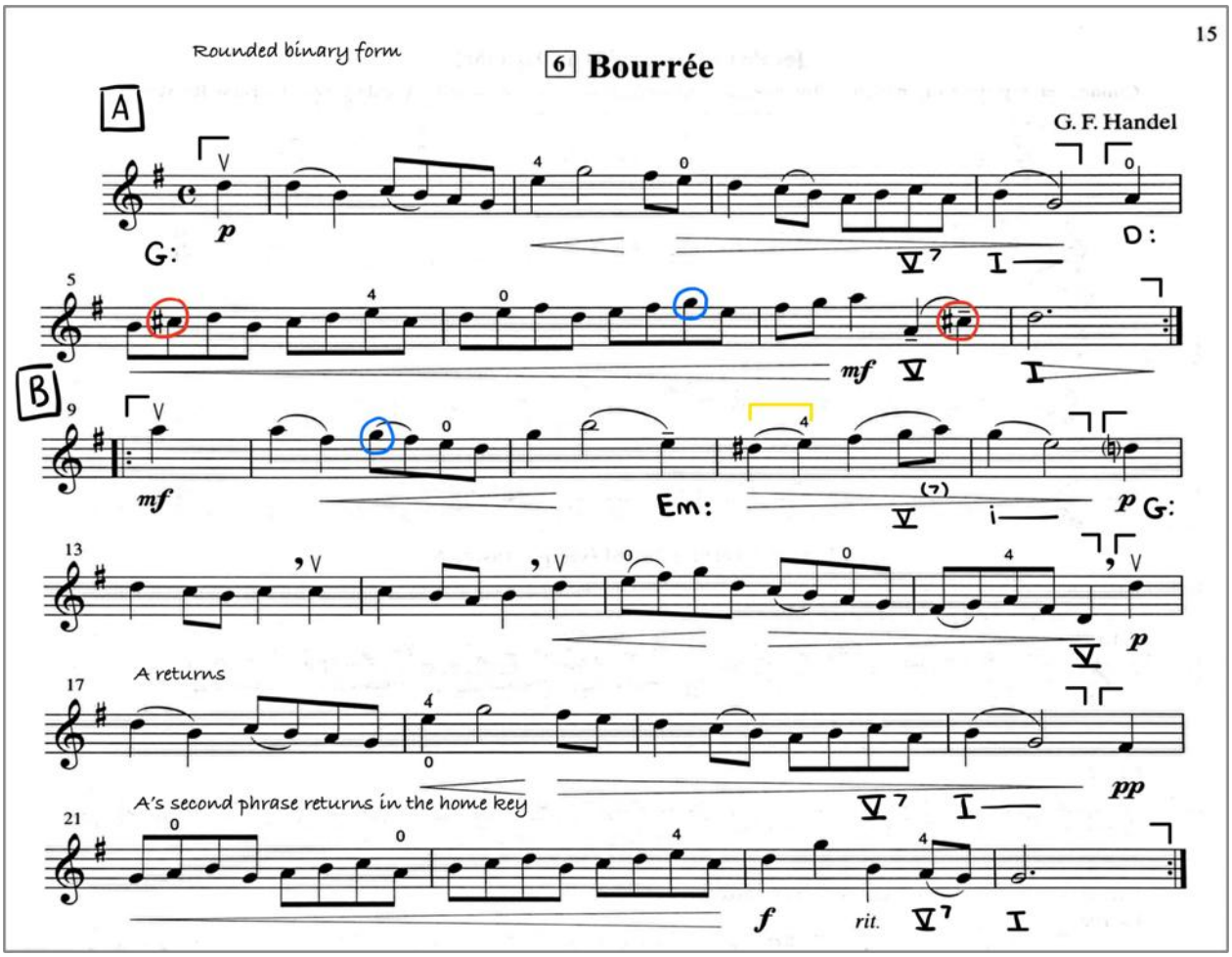
sharp. Whether referencing positions or intervals, the actions of shifting are the same. But, by referring to both the new position and the interval traveled, teachers engage both kinaesthetic and auditory awareness, further cementing theory knowledge in the student's awareness and increasing the chances of playing in tune.

Enforcing Key Area Awareness at the Intermediate Level

Key area awareness becomes increasingly important at the intermediate level. Intermediate repertoire is lengthier and involves more complex compositional devices than beginning repertoire, requiring the student to navigate more frequent key changes. To master longer pieces, particularly if memory is a goal, students must learn to shape longer phrases while keeping the whole scope of a piece in mind as they play. Learning to play a piece without first determining its structure is a lot like trying to build a Lego model by just looking at the picture on the box. Without the instruction manual showing how all the pieces fit together, it will take a lot longer to build. Similarly, without analyzing the structure of a piece prior to learning it, each note on the page can seem like a single Lego block in a sea of other blocks, with no path forward other than to start stacking. The result of this type of learning is that students often seem to have no idea where they are in a piece at any given moment, or how that area relates to the ones before and after. This becomes obvious when you stop them during a performance to give feedback and then ask them to start again—young students will sometimes say, "I don't know how it goes," or "What does this part sound like again?" Older students sometimes need to hum several phrases or return to the last obvious theme before being able to start in the middle of a piece.

These behaviors reveal a poor understanding of the music's structure. A deeper look at the situation may reveal the student also does not know what key they are in or what the accompaniment sounds like at various points in the composition. When a student's mind map of a piece relies on every single preceding note or melody to track their place in the music, they can subconsciously develop a fear of performing by memory. Additionally, they may take longer to learn the music and struggle to develop a logical plan for interpreting the score. As alluded to in prior chapters, structural knowledge can help students learn music more efficiently, play more expressively, and instill confidence in performing. Once, as a youngster, I watched an older piano student being coached by their professional collaborative pianist. The collaborator asked the student, who was playing from memory, to start at the D major section. When the student immediately began to play the indicated passage correctly, I remember thinking, "How does he know where the D major section is? His coach didn't even tell him the measure number." At the time, I thought such lofty and mysterious skills were beyond the reaches of elementary students like me. The reality is, even intermediate students can be taught key area awareness.

Intermediate level pieces present students with both technical and cognitive challenges. I have selected an example from the Suzuki repertoire that students sometimes struggle with, to show how these challenges can be overcome, in part, with an understanding of key area awareness, form, and finger patterns. The piece I will discuss is "Bourrée" by Handel (from his "Sonata for Flute," op. 1–5).



Example 4.7 *SVS Volume 2*, "Bourrée" by Handel, 15. Annotations mine.

There are two challenges in this piece: one technical and one cognitive. Where technique is concerned, beginning and intermediate students can sometimes find it difficult to change keys because they need to switch finger patterns to accommodate accidentals. Intonation can also be a challenge when the accidentals required do not sit comfortably in the hand (such as a D-sharp played by a raised third finger). Colored finger patterns can help with this. Cognitively, students sometimes struggle to play pieces in rounded binary form from memory; if they are not paying attention when the second A phrase returns in the home key, they will play the original second phrase in the dominant key. In my early years teaching, before I had any education in music

theory, I used to correct this error by saying, “No, you played the first ending of A, not the second ending.” That is true, but the term “ending” is vague and does not help to differentiate between the two endings. I might have added, “The first ending starts on an A, the second ending starts on an F-sharp, remember?” That is also true, and a bit more helpful, but still does not provide students with enough information to help them recall which ending is which. Here is a sample script showing how I would teach “Bourrée” in my studio today. Note that I mark all keys, cadences, and phrases in the score as I am teaching, but do not always indicate this in the script. This script is a little longer than prior examples; I want to show exactly how I walk the student through noticing and determining new key areas, form, and other interesting compositional details, as well as the progression in dialogue from the earlier levels.

Sample Script to Teach Form and Key Area Awareness in “Bourrée”

[teacher] “We’re going to learn ‘Bourrée’ today. Let’s start by going through our usual routine—checking the key signature, determining the form, and looking to see if there are any other key areas we need to know about, okay? Have a look at the key signature; what key are we in?”

[student] “One sharp, so, G major.”

[teacher] “Right. What should we do next?”

[student] “Listen for cadences?”

[teacher] “Let’s do it! I’ll play the first two lines. See if you can tell where the cadences are…Did you hear any? Where? Were they half or authentic cadences?”

[student, points to bars 4 and 8] “Here and here. I think they were authentic cadences.”

[teacher] “Good! Let’s mark the first one in bar four. This is the end of the first phrase of the A section. Okay, I see an issue in bar 8. You heard two authentic cadences, but the

second one doesn't end on the tonic. What note does it end on?"

[student] "D."

[teacher] "Okay, let's assume for a moment this is an authentic cadence in D major. We need a V–I chord progression, so let's look for the V chord. If D is now scale degree one, what note is scale degree five?

[student, counting] "D, E, F, G…A!"

[teacher] "It is A! And which notes do we need to make an A major triad?"

[student] "A, C-sharp, and E."

[teacher] "Uh-huh. Now, looking at bar seven, do you see any notes belonging to the A major triad?"

[student] "Yes, C-sharp."

[teacher] "Right. We can check the piano part to be sure, but I think we can safely say this is an authentic cadence in D major. Let's mark it in. This is the end of A's second phrase. So, if we are in the key of G, but this authentic cadence ends in D, what do you think has happened?"

[student] "We changed keys?"

[teacher] "We sure did. Let's figure out what key we changed to. In the key of G, what scale degree is D?"

[student] "Five."

[teacher] "The fifth scale degree, yes. So, this cadence is telling us that somewhere prior to this we modulated, or switched, to the dominant key. D major has two sharps, right? Which sharp do we need to add to G major to get D major?"

[student] "C-sharp?"

[teacher] “Yes. C-sharp is the first clue that the music is changing keys. You already found one; are there any before that?”

[student] “In bar five.”

[teacher] “Good work. So, we actually modulated from G major to D major all the way back here (specifically on the pickup to the second phrase in bar four). It’s important to know this for two reasons: first, you need to know what key you are in to know which finger pattern to use, and second, knowing where the key changes will help you to remember how the piece goes. Remember, C-sharps on the A string use the red pattern; so, when the piece changes from G major to D major, you will need to switch from blue to red. I will highlight the change if you need a reminder. Let’s read through the A section together now.”

[play along with the student as they sight read bars 1–8]

“Good sight reading. Alright, as I play through the next phrase, I want you to listen for two things: anything that sounds the same or similar to the A section, and anything that sounds different.”

[play from the pickup to bar 9 through the cadence at bar 12]

“What did you hear?”

[student] “It sounds minor.”

[teacher] “It does, doesn’t it? That’s one difference. Did you hear anything that sounds similar?”

[student, points to bars 9 and 10] “This part sounds the same as the beginning.”

[teacher] “How is it the same?”

[student] “The notes are the same, like, the same length.”

[teacher] "Yeah, the rhythm of the first eight beats of the A section and the first eight beats of this section is the same. The shape of the melody is also the same, but the pitches are different. So, this phrase starts out similarly to 'A', but the second half, you said, sounds minor, right? Let me play it again; this time, put your finger on the music where you think you hear the key change…Okay, what do you see in that area that might indicate a key change?"

[student] "An accidental. It's a D-sharp."

[teacher] "Yes, there's the first clue! The next step is determining the minor tonic; there are two things we can look at to figure out what it is. First, we can check the cadence to see what note it ends on—if it's an authentic cadence, that note will almost always be the tonic, or one of the notes from the tonic triad. Second, since we think this area is in a minor key, we can look to see if there are any raised sixth or seventh scale degrees. Let's check the cadence first. What note does it end on?

[student] "An E."

[teacher] "Okay, so let's assume E is the new tonic. In E minor, what note is scale degree seven?"

[student] "D."

[teacher] "Right. But remember the melody is probably going to use either the harmonic or melodic version of the scale, so the D would need to be raised—D-sharp. Do you remember the clue you just found?"

[student, points to bar 11] "Yes, there."

[teacher] "There it is. That D-sharp is the raised seventh scale degree in E minor, part of the V chord. If we look in the piano score we will probably find even more of them—

we'll need another one for the cadence. So, three things are telling us that the key has modulated from G major to E minor: the sound, the new tonic (E), and the presence of D-sharps (raised scale degree seven in E minor). What is the relationship of E minor to G major; is E minor G's relative or parallel key? Tell me which one and why (you learned this when you played 'Minuet 2').

[student] "They are relatives because they share the same key signature."

[teacher] "Right, just like you share the same last name with your relatives. In this piece, we leave the home key of G major and travel a short distance to visit G's relative, E minor, just like the drive you take to visit your cousins in the next town over."

"So far, we've determined that this phrase shares some similarities with the first phrase of section 'A', but it is different enough to warrant calling it section 'B'. The first phrase of section 'B' ends with the E minor cadence. Before we try playing this phrase, let me remind you that D-sharp is played with a high third finger. To form the minor second between the D-sharp and the E in bar eleven, we'll need to use the yellow pattern."

[play bars 9-12 together]

"Good, you played the D-sharp in tune. Let's continue with our analysis. I'll play the next phrase. Tell me if the cadence at the end sounds like a period or a comma…What do you think?"

[student] "A comma."

[teacher] "You're right; it's a half cadence. Did the phrase sound like it was in E minor, or have we changed back to the major mode?"

[student] "It sounds major again."

[teacher] "It does; and if we look at the music, we'll see that all of the accidentals have

disappeared, which tells us that we have switched back to G major. We're almost at the end now! Let me play the last two phrases for you. Tell me if you recognize the melody…"

[student] "It's the same as 'A'!"

[teacher] "Almost! The first phrase is exactly the same as the first phrase of 'A', but the second phrase is a little different. At bar 21, do you see the repeating pattern of eighth notes? In bars twenty-one and twenty-two, there are four repetitions of the same intervallic pattern: three notes stepping up, followed by a skip down. We call that repeating pattern a melodic sequence. Look at the melodic sequence beginning in bar five. Tell me, how is the sequence in bar twenty-one different from the one in bar five?"

[student] "It's lower, and there are no sharps."

[teacher] "That's right; instead of stepping up to an A to modulate to the dominant like on the last beat of bar four, the melody steps down to F-sharp to repeat the last phrase in the home key. Whenever A returns at the end of the B section, and A's second phrase is repeated in the home key, we call the form 'rounded binary'. Okay, let's play through the last half of the B section, and then we'll go back to the beginning and try playing the whole piece through."

It is important to involve students in the analytical process by asking questions that guide them to the solution, instead of merely lecturing. Otherwise, they are apt to lose focus and find the process boring. Unless they are involved in the process, students may also not remember enough to analyze independently when tasked with home assignments. The above scenario takes approximately 7–10 minutes to work through; a worthwhile fraction of a 30–45-minute lesson.

On its surface, “Bourrée” seems like a short, simple piece. But there are several interesting compositional features that can be explored in subsequent lessons. For example, the repeating melodic contour of the sequences beginning in b. 5 and 21 is taken from beats 3 and 4 of b. 3. Also, the second phrase of B (pickup to b. 13 through beat 3 of b. 16) is a short sentence phrase structure. A basic idea is presented and repeated in bb. 13–14, while bb. 15–16 contain fragments. The first and last fragment (first two beats of bb. 15 and 16, respectively) share the same melodic contour as the last two beats of b. 3, while the second fragment’s melody (b. 15, beats 3 and 4) is taken from the descending eighth notes on beats 3 and 4 of b. 1.

Looking at the piano score reveals even more detail.



Example 4.8 *SVS Volume 2 Piano Accompaniment*, “Bourrée” by Handel, 11.

Of note is the contrary motion in the piano and violin on beat 2 of bb. 13 and 14. And, in the bass, there is a motive comprised of two eighth notes followed by a quarter note, with a step-down-step-up contour marking the end of all but the final cadence (shown in the example above on beats 2 and 3 of b. 16). The missing motive at the end of the piece contributes to the strength and finality of the last cadence. Listening for the conclusion of this motive in the piano at each cadence prior can help students pace the cadences sensitively, waiting for the piano to finish its melody before moving to the next phrase. It is easy to forget the piano score when teaching violin, but it is important to remember that in a piece for violin and piano, the piano part contains most of the notes. Even if students are not explicitly coached on what to do with the information, any knowledge of the full score will have a subconscious effect on a student's playing when they put their part together with a pianist and make learning the piece that much more fulfilling.

Expressive Considerations

This section will benefit from an explanation of what I mean when I use terms like *expression* and *musicality*. Though not exactly synonymous, I use them somewhat interchangeably in this document. I define musicality as a sensitivity to style (including genre and time period), articulation, dynamics, ensemble (if applicable), and to structural, motivic, and harmonic material, as well as a certain *je ne sais quoi*—that special something in a performer's playing that critics struggle to describe but listeners can hear and feel. "Sensitivity," in this instance, is not used to imply a prescriptive approach to analysis, in the structuralist sense. Rather, it is meant to suggest engagement with the score in any way that enhances performance. In other words, sensitivity to the score does not necessarily imply a "right" or "wrong" way to interpret a musical work, simply that the score has been considered in some way, and insights

gained that then elevate an interpretation. In the words of Nicholas Cook, "Analysis should be seen as a means of posing articulate questions, [not] as a source of answers….what matters about analysis is not so much what it represents but what it does, or more precisely, what it leads *you* to do."[74] What you *do*, then, is musical expression. Hence, this section is not meant to suggest normative solutions to problems of interpretation. Expression is, after all, subjective. Even if a performer's interpretation is, in their estimation, as close as possible to what the composer (may have) intended, each audience member will hear it in a different way, according to their own experiences and tastes. To even begin to make sense of music, however, an interpreter must have at least a cursory understanding of form and function. Then, they can make informed interpretive decisions, either planned or spur-of-the-moment, joining in the creative process together with the composer.

As students' technical capabilities grow, their capacity for expression also increases. To unlock the potential for analysis to influence interpretation, simply identifying certain theory concepts is not enough; understanding and embodying a concept's function is required to express the score to listeners. Textbook authors do, in fact, define function. But, unless frequently reviewed in the context of students' own playing and repertoire, these functions can quickly be lost and forgotten in the monotony of resolving endless cadences on paper—a necessary exercise, but one devoid of musical context, thus lacking in meaning. In this section, I will use the aforementioned "Country Dance" by Weber, an RCM Grade 7 level piece, to review the function of certain theory elements including cadences, meter, and harmonic motion to explore how knowledge of function can inform interpretation.

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[74] Nicholas Cook, "Analysing Performance and Performing Analysis," in Rethinking Music, ed. Nicholas Cook and Mark Everist (Oxford University Press, 1999), 249–250.

Since I often begin the analytical process by listening for cadences with my students, I will begin this discussion with cadential function. As students progress, it is appropriate (and desirable) to add more detail to concepts they are already familiar with. In my approach thus far, I have explained to students that half cadences have an unfinished effect, and authentic cadences have a finished effect. But I have not explained exactly what it is about those chords that makes them sound that way. In the half cadence, it is the unresolved leading tone, specifically, that causes a phrase to sound incomplete. Likewise, in the authentic cadence, the resolution of the leading tone in the V chord to the tonic in the I chord causes the phrase to sound complete. With this knowledge, players can experiment with different approaches to the leading tone, producing varying effects in the music. Violin students are not always attuned to notes they themselves are not playing. So, if the leading tone is in the piano part, it may not have any effect on how they approach a cadence. Indeed, even piano students who have not been taught to pay attention are prone to miss such details. Piano pedagogue Tobias Matthay writes:

> The average pupil does not in the least realise that he must bring his aural consciousness on the work at hand; neither will he take the trouble to judge what he should do, nor how he should do it, nor will he deign to listen to the *actual sounds* he is making. And even with the best intention to listen and attend properly, the student is apt to fail. You must explain to him therefore, that listening does not mean merely hearing what the automatic centres may manage to do, but that effective listening implies *pre*-listening all the time as to what *should be*.[75]

[75] Tobias Matthay, *Musical Interpretation: Its Laws and Principles, and Their Application in Teaching and Performing* (The Boston Music Co., 1913), 14.

In the case of the leading tone, it is not necessarily the tone itself that wants to resolve—rather, it is the *ear* that wants to hear it resolve. The more a performer plays with this tension, through the use of rubato, for example, the more the ear longs for resolution, because (in Western art music from certain time periods, at least), that is what our ears have been taught to expect—an example of something that, in Matthay's words, should be.

To help students learn to hear and manipulate cadences themselves, it can be useful to find an example in which the leading tone is present in the violin part, as it is in "Country Dance" by Weber. "Country Dance" is in ternary form, with a time signature of 3/4. The example below shows the identical return of the A section in the piano score.



Example 4.9 *SVS Volume 5 Piano Accompaniment*, "Country Dance" by Weber, 27. Annotations mine.

The final cadence in bb. 71–72 is a prime teaching example, featuring some expressive indications that hint at Weber's wishes and are useful for exploring expressivity. Prior to the final cadence, beginning in b. 65, the rising scale in the violin, coupled with the harmonic motion in the piano and a crescendo in bb. 67–68, contributes to a sense of forward momentum. The ritardando and decrescendo in b. 71 serve to relax this built-up energy, bringing the phrase to a gentle close. To enhance students' awareness of the cadential resolution and help guide the creative process, teachers can rewrite the ending, demonstrating it in different ways. For example, to show how fluctuations in tempo can effect changes in how a cadence is felt or perceived, teachers can play the last four bars without slowing down. They can also:

- Maintain the dynamic but keep the ritardando
- Eliminate both the ritardando and the decrescendo
- Play the passage with opposite markings, crescendoing and accelerating into the cadence
- Substitute an A (scale degree 5) on the last eighth note of b. 71 in place of the C-sharp to highlight the dissonance of the C-sharp when played as written

Playing various passages in diverse ways can help students learn to appreciate and translate compositional details. Such exercises also help students develop a perpetual attitude of exploration and experimentation when facing a score. Even when technical hurdles have been overcome, interpretation is a process that is never truly complete. Again, the point of these exercises is not to dictate to students *how* a passage should be played, but to activate their imagination and stimulate the creative process.

Knowledge of harmonic progression also informs expression. The simplest harmonic progression is, of course, V–I or I–V, which students using my approach have so far learned in a

cadential context. In addition to constituting an ending, the V–I progression can also serve as the foundation of a melody in the middle of a phrase. Beginning with the pickup to b. 57–b. 60, the chord progression is I–V–I–V^7–I, with one harmonic change per bar. One benefit of this knowledge is discovering how harmonic rhythm, as well as texture, work together with other compositional elements like melody and articulation to influence metric interpretation. For example, "Country Dance" is in 3/4 time, the most basic interpretation of which is a meter with three individually felt pulses, the strongest falling on beat 1. Indeed, this is how most students tend to interpret the pulse (especially in the early stages of mastering the up-bow staccato technique). However, four things, including the two factors just mentioned, suggest feeling the meter in one:

- First, is the harmonic progression's rate of change. The harmony changes once every bar, propelling the phrase forward. This contrasts with a slower piece like Brahms's "Waltz" in *SVS Volume 2*, in which the harmony frequently changes twice per bar, resulting in a more relaxed tempo and a true 3/4 feel.[76]
- Second, is the simple waltz texture of the harmony, consisting of three basic quarter-note chords per bar, which allows the accompaniment to be played at a quicker tempo. Again, this can be contrasted with the more complex harmonic texture of "Waltz;" while the "oom-pah-pah" is still present in the bass, Brahms indicates that many of chords should be rolled, and there is a thicker, more rhythmically varied texture in the piano's right hand—both of which suggest a slower tempo.

[76] Depending on various factors, a faster harmonic rate of change can create the illusion of forward momentum, as before a cadence. In the Brahms, however, one feels compelled to take time to "fit" the harmonic changes in. Conversely, in "Country Dance," too much time taken between harmonic changes would result in a feeling of stagnancy.

- Third, the violin melody is grouped into two-bar phraselets by the articulation markings (e.g. bb. 57–58) and two-bar repeating rhythmic patterns (bb. 59–60). Two-bar phraselets can be expressed at a slower tempo, of course, but in this case, it would be difficult for a student to manage, as it requires greater finesse of the bow.
- Fourth, the up-bow staccato articulation in the violin part necessitates a quicker tempo to keep from running out of bow, particularly if the student is playing a fractional size instrument.

Whether the meter is felt and expressed in three or one has important implications for technique; it will also affect how the piece is perceived by listeners—its mood and character. Considering the subjective nature of interpretation, it is important to be able to explain or defend one's interpretative choices. Too often, especially regarding tempo, teachers (and conductors and adjudicators) issue vague instructions to "go faster" or adhere to some arbitrary metronome marking without any explanation. Such instruction locks the student out of the creative process and leaves them with no guidebook for exercising autonomous creativity in the future. As Matthay writes, "The bad teacher simply tries to make the pupil *do things*— 'things', points, effects which the teacher feels are necessary; whereas the good teacher tries to make the pupil see and *think things*, so that, seeing their purpose, he can apply them by his own choice."[77]

"Country Dance" is also useful for expanding knowledge of chord progressions from the tonic and dominant to the supertonic. Chord progressions utilizing tonic and dominant are conveniently covered in RCM *Celebrate Theory* Level 7, the theory co-requisite of RCM Grade 7 level repertoire. Though functional chord symbols for chords other than I, IV, and V are not

[77] Matthay, *Musical Interpretation*, 19.

covered until *Celebrate Theory* Level 8, basic T–S–D–T motion is easy to teach using an excerpt like bb. 61–64 of "Country Dance." Inversions of V^7 are also covered in Level 7 so, with some explanation, students should be able to comprehend the $ii^{6/5}$ in b. 62.

This sample analysis of "Country Dance," though just scratching the analytical surface, shows that there is a real difference between being able to understand music theory concepts in a workbook and understanding how that knowledge can impact performance. The first steps in learning to make theory knowledge actionable in performance include cultivating an understanding of function and learning how various theory elements, such as harmony, meter, and form intermingle, giving rise to musical meaning. It is up to each performer to effectively translate their understanding of the score into sounds which can, if subjectively, express meaning.

Theory Concept Considerations

As students progress, discrepancies between when they encounter various concepts in the repertoire and when they encounter them in their theory workbook naturally decrease. Here are two concepts where discrepancies still exist at the intermediate level.

Dominant and Diminished 7th Chords: RCM *Violin Technique and Etudes* first includes dominant and diminished 7th arpeggios at Level 4. ASTACAP does not require students to play dominant and diminished 7th arpeggios, but they are included in the scale books recommended by the ASTACAP *Handbook*. However, RCM *Celebrate Theory* does not introduce dominant and diminished 7th chords until Level 7. The ASTA *String Curriculum* introduces I, IV, and V chords at the Proficient Level, but 7th chords are not specifically mentioned in the curriculum. I

teach dominant and diminished 7th chords from a theory perspective when students first encounter them in their technique book (these chords do not typically appear in the violin part of the repertoire until the late intermediate-advanced levels).

Functional Chord Symbols: I and V are introduced in RCM *Celebrate Theory* Level 3. Level 4 introduces IV, and i, iv, and v. Inversions of triads and 7th chords are covered in Level 7. The ASTA *String Curriculum* addresses I, IV, and V and progressions using these chords at the Proficient Level (middle to high school), but awareness of "harmonic tonal patterns" is taught at the Developing Level in the Musicianship Skills section. I introduce I and V when I first introduce cadences at the RCM Grade 1 level. I wait to introduce the supertonic and subdominant chord symbols until shortly before, or congruently with when they appear in the student's workbook.

Chapter Summary

Ideally, intermediate-level students following my approach will have built a solid foundation in basic rudiments, ready to use the theory concepts they know to make mastering new techniques easier and to make music their own. These students will benefit from:

- Using well-established finger patterns to master new left-hand techniques, like arpeggios and double stops
- Identifying key areas to enrich their experience of form and make learning new pieces easier
- Regularly consulting the piano score to deepen their understanding of a piece
- Exploring how analysis can inform expression

All too often, violin and theory teachers alike treat theory concepts as bits of trivia or collector items in some music theory franchise, without conveying how these concepts are relevant to performance. While theory workbooks explain function, they do not expound on expression. In their introduction to harmonic progression the editors of *Celebrate Theory* write, "Most musical compositions demonstrate a logical structure, both in terms of overall design and harmonic plan. As you have already discovered, individual chords are linked together to create harmonic progressions and cadences, serving as building blocks for the expression of musical ideas."[78] The editors, like most textbook authors, stop short of explaining how to use harmonic analysis to convey those musical ideas through one's chosen instrument. However, this task is probably not up to textbook authors. In the early years of violin study and beyond, the task of linking function and expression falls to violin teachers.

[78] RCM *Celebrate Theory Level 7*, 99.

Chapter FIVE

An Approach to Bach for the Advanced Student: Extracting and Interpreting the Implied Harmonies in the Sonatas and Partitas for Solo Violin

In this chapter I will propose a theory-led approach to Bach's Sonatas and Partitas for Solo Violin (hereafter termed S&Ps), focusing on how harmonic analysis generates musical meaning, and its implications for performance. The discussion that follows depends upon a clear understanding of how I use the term *meaning* in the context of this project. Musical meaning exists on multiple interconnected levels, ranging from the superficial to the profound. At its most basic, meaning concerns the significance of one musical element in relation to another. Before we can explore the philosophical or emotional significance of a work—to ask, "What does it *mean*?"—we must first understand how it came to exist and the significance of the musical processes that shaped it. When interacting with a piece of music, performers may explore multiple levels of meaning, progressively moving through broader levels of inquiry—from "What does this marking mean?" to "What does this movement mean in the context of the larger work?" to "What does this work mean in the context of music history, the composer's life, or the violin's literature?" to "What is this work trying to *say* (if anything)?" When a performer asks, "What does this mean?" what they are really asking is, "What is the significance of *this thing* in relation to *that other thing*?" Whatever answer the performer arrives at will inform the next layer of meaning. In harmonic analysis, we are mostly dealing with a level of meaning just beyond the superficial, but which interacts with and may be influenced by superficial musical features such as the time signature, key signature, dynamics, articulation, surface rhythms, and perhaps even the melody. We are looking beyond what is immediately visible to ascertain a deeper level of meaning or significance.

The nature of harmonic function itself implies meaning. For example, we know that standing on the dominant *means* that a return to the home key is imminent because of the relationship between V and I. Recurrence also denotes meaning. A motif by itself may be just a single note or melody, but each recurrence of that motif attaches greater significance to itself, imbuing it with meaning. Key relationships denote meaning as well. We can ask, what does this key mean in relation to the home key? What does it mean for a piece to be written in a certain key? Each answer to the question "What does it mean?" reveals another layer of significance within the work. In short, musical meaning is generated through relationships. It emerges through things like context, comparison, function, expectation, and recurrence. Harmonic analysis is a way of revealing these networks of relationships through which musical meaning emerges.

The analysis I am about to embark on deals mainly with the middle levels of meaning. To touch on the higher levels is outside my current purview—besides, violinists are quite adept at jumping from the superficial straight to the profound. What they need help with is explaining how they got there—this journey is what the middle levels of meaning are concerned with.

Approaching Bach from the Bottom: How "Stacking Snowmen" Generates Musical Meaning

The S&Ps are some of the most frequently played pieces in the violinist's repertoire, yet they are also some of the most difficult to interpret. For mature musicians, the process of analysing and performing these works can be richly gratifying. Gill Shaham shares, "There's nothing more satisfying, nothing more rewarding. There's no greater joy, there's nothing more

fulfilling than playing Bach and studying Bach, being around Bach."[79] For students, though, how best to approach and even appreciate Bach's music can prove something of a mystery. A student consulting the netizens on the popular website violinist.com writes:

> Though Bach isn't my favorite composer, I love many of his works. Yet when it comes to Bach's Sonatas and Partitas for Solo Violin, I feel lost. The counterpoint is skeleton-like (there's only so much you can do on a single violin), and I feel the music as being uncomfortably restrained. Crucify me if you wish, but I find some of the movements to be downright boring. I recently performed the last two movements of the 2nd solo sonata at a competition, and while my teacher was pleased with my musical thinking in Tartini's 'Devil's Trill Sonata,' Kreisler's 'Praeludium and Allegro,' and Lalo's 'Symphonie Espagnole,' he had to guide me every step of the way in Bach, as if I were blind. What are your feelings on this? How do you approach these works? What do you find special in them?[80]

I can relate to this student, having experienced a similar sense of dissatisfaction and confusion regarding the S&Ps during my undergrad years. At that time, I remember thinking I would rather play any other composer than J. S. Bach. In my experience, confusion about how to interpret Bach's works arises from an over-reliance on intuition and a romantic understanding of the genesis of melody—as if melody were a byproduct of harmony, and not the other way around (or at least in a symbiotic relationship with harmony). Both issues are the result of an education

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[79] Gil Shaham, quoted in Laurie Niles, "Violinist.com Interview with Gil Shaham: Bach Sonatas and Partitas for Solo Violin," published March 25, 2015, https://www.violinist.com/blog/laurie/20153/16682/.

[80] Thomás Costa, "Understanding Bach," violinist.com, April 11, 2009, https://www.violinist.com/discussion/archive/15686/.

lacking in music theory instruction. As I said in Chapter Four, when it comes to theory and expression, it is not enough to know that something is; students must also be taught *why* it is and what it means for performance. As it turns out, the answer to this student's questions of what makes the S&Ps special and how to approach these works is one and the same.

Steven Isserlis, known for his interpretations of Bach's Six Suites for Solo Cello, is often approached by audience members wanting to know what *he* thinks makes the suites so special. Isserlis tells them it's the invisible bass, adding "The music is guided, propelled by this extraordinary foundation, sometimes sounded, sometimes implied—but hardly less present for that—and always so full of life and interest."[81] It is the same for the S&Ps. To violin students without a strong background in music theory, however, the bass, whether implied or sounded, is literally invisible. Even *with* a background in theory, intuiting Bach's implied harmonies can be a challenge. When auditioning at schools for my master's degree, I had several trial lessons with various professors. After playing a movement of solo Bach for one professor, he told me, "That was nice, but you weren't listening to the bass at all." He then proceeded to improvise a bass under the melody while I played through the piece again. Immediately, the music seemed to make more sense to me, but I did not know why, and the professor did not explain. I also could not have reproduced the effect on my own later (except to somewhat recall how I had played it when listening to the bass).

The bass voice in a polyphonic texture is not always self-evident and requires skill to determine. Problems can arise when players, lacking a solid foundation in theory, regularly emphasize the *lowest* note in a melody, mistakenly believing that because it is the lowest, it must

[81] Steven Isserlis, *The Bach Cello Suites: A Companion* (Faber & Faber Ltd, 2021), 126.

be the "bass." This is a common misconception among musicians, not unique to violinists; it comes from confusing the *bass voice* in a polyphonic texture with the *root* of a given harmony—the two may be but are not always synonymous. The concept of "emphasizing the bass"—an approach to phrasing desirable for indicating meter, harmonic progressions, form, etc.—can be particularly confusing in movements of Bach with a single melody line, where the bass is mostly only implied. Sometimes, the lowest note in a melody *is* the root of the implied harmony; other times it is not, particularly when the chord is inverted. Even if the lowest note of a melody is the root of the implied harmony at that moment, if it occurs on a weak beat, it is preferable to emphasize the stronger beat, where the implied harmony is likely to have first occurred. Additionally, when it comes to phrasing, sometimes it is enough that the bass voice simply exists; other times, it is desirable to bring it out of the texture. Mistakenly emphasizing random low notes in a melody results in lumpy, illogical phrasing.

So, how does one extract the implied harmonies informing the bass and what effect might that knowledge have on performance? The answer to the first question is also the answer to the question "how do you approach these works?"; it is our trusty activity "stacking snowmen"—determining the triadic harmonies within and/or underlying each melodic figure. Unearthing these harmonies is an essential skill for violinists to develop; a skill with important implications for both understanding and interpreting the S&Ps, because, as Joel Lester notes, "Bach, like many of his contemporaries, believed that thoroughbass was the basis of composition."[82] Lester reminds readers that Bach's students (among them his own children) began their studies by learning to compose a decent bass, before learning how to decorate the bassline with melodic

[82] Joel Lester, *Bach's Works for Solo Violin: Style, Structure, Performance*, (Oxford University Press, 2020), 278.

figurations. This compositional process, so vital to comprehending Baroque music, is crucial for violinists to remember; because, when looking at any of the movements or sections of the S&Ps without chords or double stops, all a less experienced player is likely to see is the melody. Teaching students the skills they need to discover the harmonic foundation underlying the melody will help them unlock interpretative possibilities most appropriate to music of the Baroque Period.

Looking at a group of notes that constitutes one beat, I ask the student, "Can you find a triad hidden in these notes; if you were to stack them like a snowman, which note would be on the bottom?" Of course, one of the notes of the triad might be missing. Additionally, there might be two triads within a given group of notes; in which case, the triad beginning on the beat is the implied harmony (the other notes are non-chord tones). It is best to do this exercise at the piano. In analysis, sometimes the ear is more honest than the eye. Isserlis suggests, "If you have access to a keyboard instrument, and can play it to an even elementary level, play the [S&Ps] through, adding the bassline wherever necessary. This will solve a lot of problems—and I think you'll find it easier than it may sound on paper, because it's so obvious when a bass note is wrong."[83] Note that the "bass note" a player instinctively hears and plays on the piano may not be the root of the implied harmony—they may be intuitively (or with intention, depending on their skill level) inverting implied harmonies to craft a bass. Remember that, as discussed above, the lowest note is not always the root of the implied harmony. This exercise can be done before, after, or while looking for cadences that delineate the form of the specified movement.

[83] Isserlis, *The Bach Cello* Suites, 179.

After revealing the hidden harmonies and/or bass, teachers can play it underneath the student's melody. Even a simple drone will do. Before attempting to explain to the student what they should be listening for or suggesting interpretive strategies, teachers can ask questions like:

- Does hearing the bass change the way you experience the melody?
- Does hearing the bass conjure any imagery for you? Perhaps a mood or a character?
- Does hearing the bass influence your technique?
- Does hearing the bass influence your phrasing?
- Does the bass seem to affect the meter or the rhythm?
- Which sections do you like the most?
- Which sections do you like the least?

These types of questions serve three purposes. First, they help activate students' aural awareness. Second, they can affirm students' intuition. Third, they are a way to approach analysis from a performance perspective, taking into account the performer's insights and letting their interests lead the analysis. Cook writes, "If analysis and performance are to be seen as interlocking modes of musical knowledge, then they should be pursued simultaneously and interactively, not in succession."[84] After analysis and intuitive exploration, may come a discussion of function. Undoubtedly, hearing the bass will affect students' playing for the better. But unless they know how the harmony functions, and how to extract musical meaning from those functions, the experience may have little significant impact on further performances.

[84] Cook, "Analysing Performance and Performing Analysis," 248.

Analyzing the Gigue from Partita No. III in E Major

To demonstrate how to ascertain function and derive meaning from implied harmony, I will examine the Gigue from Partita III (BWV 1006) in E major. This short movement is not oft considered. It is usually lumped in with larger discussions concerning the dance movements in general. Lester does not discuss it specifically and Ritchie only touches on metrical considerations. Walter Reiter, whom I will reference shortly, gives the most attention to the Gigue, which he points out is the shortest Gigue Bach ever wrote.[85] The Gigue is one of the first movements of the S&Ps that violin students learn, owing to its technical accessibility (it is an RCM Grade 8 level piece). Though none of the movements of the S&Ps can be considered "easy," some are certainly easier than others, and this is one of them—making it a good choice for introducing students to these works. In this regard, it deserves more consideration.

This movement evokes a feeling of perpetual motion. At first glance, it seems as if the endless patterns of sixteenth note runs are the main impetus behind this feeling—a violin student looking at this piece for the first time would certainly think so. However, a closer look at the implied harmonies reveals it is the hidden bass which propels the melody forward.

[85] Walter S. Reiter, *The Baroque Violin and Viola: A Fifty Lesson Course, Volume II* (Oxford University Press 2020), 815.



Figure 5.1 Bärenreiter, Gigue from Partita No. 3 (BWV 1006) by J. S. Bach. Annotations mine.

The “Gigue” is in simple, continuous, balanced binary form. Simple, because the opening theme of the A section does not return in the B section; continuous, because the ending of the A section modulates to a different key; and balanced, because A’s tail returns in the B section. Three metric levels are apparent. The first level is the eighth note (which I refer to as the little beat), the second level is the dotted quarter note (which I refer to as the big beat), and the third level is the multi-bar or hypermetric level, the groupings of which vary depending on rate of harmonic change and harmonic function (among other things). The first four bars of the A section confirm E major as the tonic. Bar 1 outlines the tonic harmony, in the form of an inverted arpeggio followed by a scale. The comparatively slow rhythmic values of the opening four eighth notes emphasize the tonic triad. Forward momentum is initiated in the melody by ^5 falling to ^1 from the pickup to b. 2, beat 2. Bar 3 outlines the dominant harmony, leading to an imperfect authentic cadence on beat 1 of b. 4; the dotted eighth note E on beat 2 is the second-longest durational pitch in the piece, contributing to the momentary sense of rest achieved by the resolution from V to I, marking the end of the first phrase.

The melody takes off again on the pickup to b. 5 with a rising sixteenth note scale figure. In b. 5 and 6, V^7/IV and IV bounce back and forth; a change in dynamic to *piano* provides contrast when the pattern repeats. A descending fifths sequence is initiated in b. 8, continuing until beat 1 of b. 11. Bars 8–10 create a feeling of undulation by the bass’s falling fifths, the rising and falling of the melodic contour, the slower surface rhythms of the eighth notes on the second half of big beat 1, and the slurred articulation of little beats 1 and 2. This sequence carries us to B major (the dominant key) in b. 11, where the ii on beat 2 provides a moment of tension leading to V on beat 2 of b. 12. A long standing on the dominant intensifies the ear’s longing for the new tonic, finally occurring on beat 2 of b. 15. The implied perfect authentic cadence in b. 16

marks the end of the second phrase and closes the A section. The quarter note B on big beat 2 of b. 16 is the longest rhythmic duration in the piece (together with E at the very end), contributing to the strength of this cadence.

The B section begins in the dominant key but quickly moves to F-sharp minor (the relative of IV, A major, to which we are headed) on big beat 2 of b. 17. Bars 17–19 are closely modelled on bb. 1–2. To my ear, the downbeat of b. 21 is the climax of this short movement, as F-sharp minor is the tonality furthest from the home key. This peak in energy is achieved by:

- the dissonance of the ascending F-sharp minor scale, created by NCTs clashing above V in bar 19
- the unique two-note slurring of little beats 1–3 on big beat 1 of b. 20; these are the only two-sixteenth note slurs in the piece, and to me, the hurried, back and forth motion of the bow arm makes them feel frantic and a bit desperate compared to the two-beat (and longer) slurs repeated elsewhere in the piece
- the separately-articulated eighth notes outlining V on big beat 2 of b. 20; this is the only other three-eighth note figure apart from the one on the first big beat of b. 1—their separateness seems to evoke a quality of insistence (the last eighth note can be read as a pickup to b. 21)
- G-sharp moving to A in the melody on the last little beat of b. 20–the downbeat of b. 21

The downbeat of b. 21 begins the journey away from F-sharp minor toward A major (IV of I) with a descending fifths sequence. The sequence progresses under another undulating melody of arpeggiated sixteenth notes in bb. 21–22. A cadence nearly identical in rhythmic pattern and melodic contour to that in bb. 15–16 very briefly confirms A in bb. 23–24. A third and final

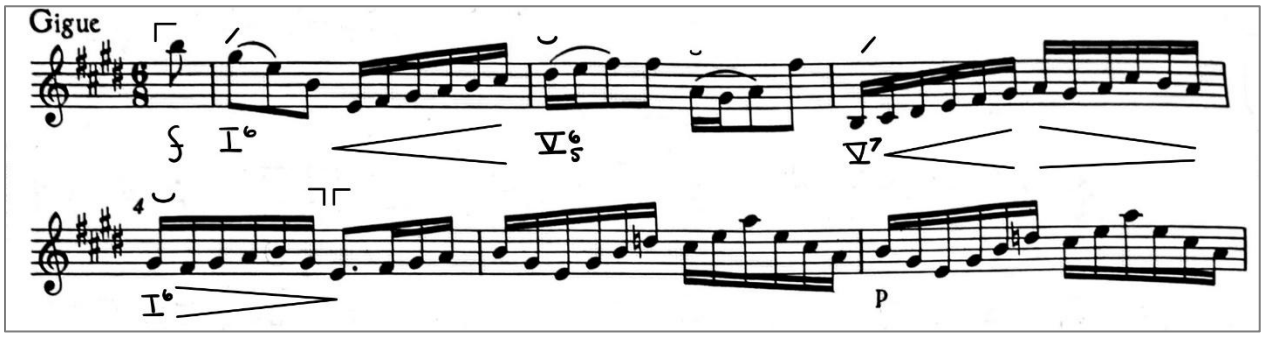
descending fifths sequence begins in b. 25, transitioning back to the dominant of the home key in b. 27. Bars 27–the downbeat of b. 31 stand on the dominant, finally cadencing in E major in b. 32; the rhythmic pattern and melodic contour of bb. 28–32 maps onto bb. 12–16, bringing back A's tail (thus, making this movement "balanced").

The harmonic journey of the Gigue can be summarized thus: E major (I) – B major (V) – F-sharp minor (ii) – A major (IV) – B major (V) – E major (I). This analysis reveals the Gigue to be a triumph of economy—it employs a limited melodic range (the entire piece can be played in first position, spanning only an octave), features little rhythmic variation, has few articulation indications, and relies mostly on arpeggiation and scale patterns to craft a melody. Yet, the implied harmonies indicate a considerable journey through tonalities over a short span of time. These harmonies functionally propel the melody forward; each unstable harmony evoking a desire for movement, each sequence a sense of forward momentum—the melody in search of a resting place. Like a helicopter pilot practicing landings on a runway, the motion of the music rises with every (harmonically unstable) liftoff and finds respite, even if only temporary, with every (harmonically stable) landing.

Expressive Implications

So, what are the consequences for expression of an analysis like this? What does it *mean* for interpretation? To begin with, as in "Country Dance" from Chapter Four, the harmonic analysis has important implications concerning metric interpretation—including hypermetric groupings. As Ritchie explains, "Awareness of the function of each chord—whether consonant or dissonant—and the nature of the harmonic progression is essential to determining the dynamic

shape of gestures and phrases, and consequently the organization of the music."[86] Students will benefit from a thorough explanation of causes and effects regarding meter. In the Gigue, strong big beats are primarily indicated by I and V; where resolution occurs (or a similar effect, as in a descending fifths sequence), V, being the more unstable of the two harmonies, is stronger than I. The rate of harmonic change and function of each harmony dictate phrase direction. Players can express beat groupings and phrase direction by emphasizing melody notes which align with changes in harmony and metric impulse. Notes that fall in between harmonic changes/metric impulses can receive a lighter treatment from the bow—appropriate dynamic fluctuations can be enacted to shape the phrase, always within the context of the metric pulse. As an example, let us look at the first phrase of the Gigue.



Example 5.2 Bärenreiter, Gigue from Partita No. 3 (BWV 1006) by J. S. Bach. Annotations mine.

On beat 1 of b. 1, the metric impulse is marked by the stress of the down-bow slur and the underlying tonic harmony (indicated by a tic mark). The three-note figure comprising big beat 1 will have a natural decay owing to the weight of the slur and the release of the up bow on

[86] Stanley Ritchie, *The Accompaniment in Unaccompanied Bach: Interpreting the Sonatas and Partitas for Violin* (Indiana University Press, 2016), 26.

the B at the end. Even though the lowest note of the bar is also the root of the chord and a new pattern of rising sixteenth notes is initiated, big beat two is not accentuated because the harmony has not changed. A slight *crescendo* back to *forte* is appropriate to shape the melodic line. Another, lesser hypermetric impulse (indicated by a large crescent) is initiated by the change in harmony on the down beat of b. 2, aided by the stress of another down-bow slur. An even smaller pulse at the second metric level may be felt on big beat 2 of b. 2, also initiated by the articulation. A change to the dominant harmony initiates another strong hypermetric pulse, where a crescendo follows the rise of the melodic line. A decrescendo from the height of tension relaxes the phrase toward a cadence. A weaker metric impulse, executed within the appropriate dynamic range, is felt with a change to the tonic harmony on the downbeat of bar 4.

In this analysis, the rate of harmonic change and function of the implied harmonies indicates hypermetric groupings of two bars, with the first bar receiving the strong beat, and the second bar the weak beat. Students commonly make the mistake of accentuating every downbeat or even big beat within a 6/8 bar; perhaps influenced by the surface rhythms and the way the notes are grouped. This results in a "beaty" feeling that disrupts the direction of the phrase. Isserlis cautions players to "avoid too many equal beats. They can kill the music; nothing makes a performance sound more static (and therefore boring) than a series of identical stresses."[87] Emphasizing the hypermeter rather than the bar-level meter results in more fluid phrasing with a clear direction.

The hypermeter will, of course, influence tempo as well. Too often, in my opinion, violinists see a page full of sixteenth notes and fall into the trap of playing as fast as possible; the

[87] Isserlis, *The Bach Cello Suites*, 178.

result of which is a showy display of virtuosity that may blur harmonic nuance and structural points of interest. Playing too slowly, however, will cause the hypermeter to be lost, replaced with metric divisions dictated by the time signature. Slower still, and the phrasing may be held back, trapped by a "notey" execution of surface rhythms. Regarding the Gigue in particular, Reiter notes that the presence of large leaps and arpeggio figures suggests "a more modest tempo."[88] The ideal tempo will be one that allows the hypermeter to influence the phrase, allows the listener time to digest structural points of interest, and allows for good command of technical challenges. Just like the tempo ranges on a metronome, the ideal tempo for each player will be slightly different, according to their technical abilities, innate experience of the meter, and expressive priorities.

Furthermore, teachers and students can explore other means of crafting an interpretation, such as:

- Paying attention to the intervals of the melodic line that express the underlying harmonies. For example, Reiter suggests taking a bit of time between the last A of b. 6 and the D-sharp of b. 7, "highlighting the dramatic augmented fourth," signalling the move from IV to V.[89]
- Using textural variety to shape a phrase by employing differing approaches to the string (e.g., brush stroke, spiccato, legato, etc.); for example, the melody in b. 5 is commonly played legato, while the *piano* in b. 6 is complemented with a more brush- or spiccato-like stroke.

[88] Reiter, *The Baroque Violin*, 816.

[89] Reiter, *The Baroque Violin*, 817.

- Slight fluctuations in pace to demarcate structural points of interest like cadences.
- Using tone color to assign different characteristics to different key areas; for instance, a focused, intense tone could be used to emphasize the comparatively "darker" quality of F-sharp minor (in contrast to E major) in b. 17–20.
- Composing a *basso continuo* part based on the implied harmonies and recruiting a cellist, violist, or keyboardist to play along.

These are just some of the ways that analysis can inform performance.

Tying it All Together: How My Analysis Generates Musical Meaning

I return now to my opening discussion of musical meaning. Consider the above analysis in light of that discussion. Note that before I even began my analysis, I had already ascribed meaning to the Gigue—meaning generated by relationships. I implied that it is meaningful because "it is not oft considered" (in relation to other movements of the S&Ps); it is "the shortest Gigue Bach ever wrote" (in relation to the other Gigues he wrote); and it is "one of the first movements of the S&Ps that violin students learn" (in relation to more technically challenging movements of the S&Ps). Therefore, it deserves more attention. In fact, even before *you*, the reader, read my analysis, the analysis had meaning for you generated by your investment in it; in other words, your relationship with *me*, the writer—be it one of curiosity, respect, necessity, or friendship—automatically makes my analysis meaningful for you. Whether that meaning has positive implications for you ("I learned something") or negative ones ("that was a waste of time"), will naturally depend on your perceptions of my work. But I digress.

Beginning my analysis, I continued to ascribe meaning to the Gigue. I said that it "evokes a feeling of perpetual motion." I then stated that it is the superficial musical elements—the running sixteenth notes—which at first seem to be responsible for this feeling. This perception is not wrong, but it is incomplete. To claim that the Gigue evokes a feeling of perpetual motion, I need to show how the relationships of the implied harmonies to each other and to superficial musical elements *generate* a feeling of perpetual motion. Then, if I desire, I can address the significance of that feeling in relation to other things. Hence, I then went about uncovering relationships between various musical elements, each one generating a new level of musical meaning. For example, I showed how the relationship of the rate of harmonic change to surface rhythms, note groupings, and articulation *generates* metrical perception. That perception has significant implications, or *meaning*, for interpretation. That is where my analysis stops. But if one wished to continue, they could show that metrical perception informs the classification of this work as a Gigue. They could then ascertain whether this is an Italian Gigue or a French one (it is an Italian one, according to Lester) and whether this difference has any significance to Bach. They could explore the place or significance of the dance in the S&Ps as a whole and the place or significance of the S&Ps in the violin repertoire. They could ask, what do these works *mean* in the context of the development of violin technique? Or, even more profound, what do these works say about Bach as a composer, as a person? What do they *mean* to us? The options for exploration are endless. Indeed, these are the types of questions that master Bach interpreters such as Isserlis, Lester, and Reiter seek to answer in their respective tomes on Bach's work for solo violin and cello. But it is clear that one can not answer these questions of profound musical meaning until they have unearthed the middle layers of musical meaning, illuminating the processes that make the music work—that *give it* meaning.

This analytical journey demonstrates that, as Isserlis writes, "you really *have* to work out a (very basic, at least) harmonic analysis of each movement you play. . . Any knowledge you acquire—again, it's a question of educating your instincts—will help to reveal the shape, the flow and ultimately the meaning of the music."[90] In my view, the "best" way to approach the S&Ps is from the bottom—that is, the implied bass harmonies. Whether one's stylistic approach to Bach's music is period, contemporary, or some sort of hybrid of the two (my personal preference), it is essential to understand the harmonic function of the implied bass and its expressive implications. In analysis for performance, we can say that harmony gives rise to function, function gives rise to form, form gives rise to meaning, and meaning gives rise to expression. Expression, in turn, can reflect function, form, and meaning in varying regards.

Theory Concept Considerations

Determining the implied harmonies of a movement of the S&Ps can be done with most high school students, provided they have the prerequisite skills laid out in previous chapters—in addition to skills not discussed which are covered in students' theory workbooks. Theory concepts as I teach them, compared to their occurrence in the repertoire and their inclusion in the students' theory workbook, coincide at this level (RCM Grade 8–10/ASTACAP Levels 8–10). Concepts covered in this chapter that are also covered in RCM *Celebrate Theory* Level 9 include:

- Balanced binary form
- Harmonic analysis

[90] Isserlis, *The Bach Cello Suites*, 179–180.

- Harmonic rhythm
- T–S–D–T phrase models
- The descending fifths sequence
- Modulation
- The cadential 6/4

An important exception is hypermeter, which is not covered in RCM Level 9. Of these concepts, only T–S–D–T phrase models are covered in the Advanced Level of the ASTA *String Curriculum*. For additional context, note that RCM *Celebrate Theory* Level 9 includes exercises like composing a sixteen-measure melody in the style of a Baroque dance as well as chorale harmonization. In Canada, according to my observations, it is much more likely for advanced piano students to reach this level of analysis prior to university than it is for advanced violin students. This is likely due, in part, to violin teachers' comfort level with teaching advanced theory concepts. It is not unusual for Canadian music students pursuing RCM exams to seek out a separate theory teacher for private lessons in advanced theory concepts. It would be wonderful if more violin students were encouraged to pursue their pre-collegiate theory studies to this level.

Conclusion

The S&Ps are lifelong musical companions of nearly all violinists. Theory knowledge and a trained instinct, in Isserlis's words, are essential to interacting with and appreciating these monumental works. To that end, advanced students should work toward achieving a certain level of comfort and familiarity with the theory concepts listed above. Interpreting Bach is a career-spanning journey. Learning how to explore layers of musical meaning through analysis can in

turn be a source of generating meaning in one's own life. Artists such as Christian Tetzlaff, Thomas Zehetmair, Nathan Milstein, and Yehudi Menuhin have produced two separate and complete recordings of the S&Ps, separated by a decade or more. To my ear, later recordings seem to convey a deeper, more intimate understanding of Bach's music than earlier recordings. This perception is owing, of course, to accumulated life and musical experience, as well as knowledge. Hypothetically, the difference can also be attributed to a younger performer's priorities versus an older performer's; for example, a younger performer may prioritize virtuosity, "perfect" intonation, and "flawless" technique, while an older performer may prioritize maturity and musical understanding. Either way, the differences in recordings spanning decades, as well as the dedication to this music needed to make even one complete recording of it, let alone two, demonstrate the abiding and personal relationship a violin player can have with works that are deeply meaningful to them.

Chapter SIX

Disabilities and Disorders Affecting Music Theory Learning: Insights and Strategies

TW: mentions disorders at risk for self-harm and suicide

Disclaimer

In this chapter I discuss five cognitive disabilities and mental disorders. I am not an expert in learning disabilities; the information I provide in this chapter is based on my own personal experience with neurodivergence, my experience working with neurodivergent students, and the research I have done for this chapter. My advice should not be substituted for an expert's.

Definition of Terms

Neurotypical: The Cleveland Clinic defines "neurotypical" as "a nonmedical term that describes people whose brains develop and work like most peoples' brains do. Neurotypical people make up most of the world's population—about 80% to 85%."[91]

Neurodivergent: The Cleveland Clinic defines "neurodivergent" as "a nonmedical term that describes people whose brains develop or work differently for some reason. This means the person has different strengths and struggles from people whose brains develop or work more typically. While some people who are neurodivergent have medical conditions, it also happens to people where a medical condition or diagnosis hasn't been identified."[92]

[91] "Neurotypical," Clevland Clinic, last updated June 5, 2025, https://my.clevelandclinic.org/health/articles/neurotypical.

[92] "Neurotypical," Clevland Clinic.

The Cleveland Clinic explains that the terms "neurotypical" and "neurodivergent" are used as "a way to describe people using words other than 'normal' and 'abnormal.'" They emphasize, "That's important because there's no single definition of 'normal' for how the human brain works."[93] In this chapter I use the term "neurotypical" to refer to students whose ability to study music is average; unhindered by cognitive disabilities or disorders. I use the term "neurodivergent" to refer to students whose ability to study music may be hindered by certain cognitive disabilities or disorders. Being neurotypical does not mean that a student will not struggle with some aspect of music study/theory, and being neurodivergent does not mean that a student will struggle more than average. Some of the aspects of music study that neurodivergent students struggle with, neurotypical students also struggle with. Therefore, we cannot say that neurodivergence *causes* struggles with music study. However, based on observable patterns, we can say that certain neurodivergent conditions put students at greater risk for struggles with music study. Hence, many of the teaching strategies discussed in this chapter should be considered as useful for *all* music students.

Introduction

Music theory is a complex subject combining elements of both science and art. Like any other complex subject, it takes time and dedication to master. Even the most theory-adept students need to invest significant energy to succeed in the subject. For students with a learning disability or mental disorder, that energy is compounded several times over. There are many different disabilities and disorders that can affect learning. In this chapter I discuss five cognitive

[93] "Neurotypical," Clevland Clinic.

disabilities and mental disorders that can significantly impact music learning, including studies in music theory—these include dyslexia, dyscalculia, attention deficit/hyperactivity disorder, obsessive-compulsive disorder, and obsessive-compulsive personality disorder. I share definitions of each condition and discuss how they may affect music learning, specifically music theory learning. I also provide an overview of strategies for achieving improved outcomes in violin and music theory students with one of these conditions.

Dyslexia

What Dyslexia Is

According to Dyslexia Canada (DC), "Dyslexia is a learning disability that makes it harder to read words accurately and fluently. Students with dyslexia may also face challenges in spelling and writing in addition to reading difficulties."[94] The British Dyslexia Association (BDA) explains that dyslexics also have a slower processing speed than average and struggle with working memory and short-term memory.[95] DC reports that dyslexia impacts 5–20% of the population, affecting 750,000 children in Canada. This amounts to 1 in 4 children in Canadian classrooms.

How Dyslexia Affects Music Learning

Dyslexia can affect students' ability to read music accurately. Professional violinists such as Lindsey Stirling have acknowledged struggling to read music. In an interview with Judy

[94] "About Dyslexia," Dyslexia Canada, accessed June 29, 2026, dyslexiacanada.org.

[95] "Music and Dyslexia," British Dyslexia Association, accessed June 29, 2026, bdadyslexia.org.uk.

Harper, Stirling states, "I'm a terrible sight-reader. I have dyslexia, so it's hard for me to read words, let alone dots."[96] While learning to read music is the most obvious challenge facing dyslexic music students, the BDA notes that dyslexics can also experience difficulty sight reading, remembering instructions in lessons, exams, and/or aural work, de-coding information (like noticing the direction of note stems), organization, and learning new pieces in a timely manner. Additionally, some dyslexic people may also experience visual difficulties.[97]

How Dyslexia Might Affect Music Theory Studies

I was unable to find any research on dyslexia and music theory specifically; but using research on dyslexic musicians, coupled with anecdotal evidence, we can hypothesize some of the ways dyslexia might affect analysis. In my studio, students with dyslexia have substituted line notes for other line notes and space notes for other space notes, had difficulty interpreting pitch and rhythm at the same time, and struggled to remember the function of accidentals—especially the function of natural signs, which changes depending on context. Another common struggle is remembering key signatures and using the correlating finger patterns. These observations are consistent with research by Atalia H. Weiss, Roni Y. Granot, and Merav Ahissar, who found that "verbal, melodic and rhythmic working memory skills of dyslexic musicians were all significantly poorer than those of their musician peers."[98] The International Dyslexia Association defines working memory as "the ability to hold and manipulate information mentally

[96] Lindsey Stirling, quoted in Judy Harper, "Spotlight: Lindsey Stirling," Phoenix Magazine, published December 20, 2019, https://www.phoenixmag.com/2019/12/20/spotlight-lindsey-stirling/.

[97] "Music and Dyslexia," British Dyslexia Association.

[98] Atalia H. Weiss et al., "The Enigma of Dyslexic Musicians," *Neuropsychologia* 54, (February 2014): 30, https://doi.org/10.1016/j.neuropsychologia.2013.12.009.

over short periods of time. Working memory is a process and is different than rote memory, which involves passively memorizing static information."[99] The BDA explains that struggles with short-term and working memory can make it difficult to learn and remember music theory.[100] Further, Weiss and colleagues found that dyslexic musicians' auditory working memory skills are "substantially and consistently lower than those of their peer musicians for syllables, for melodic patterns and for rhythmic patterns"[101] also making aural analysis a challenge. Kimberly McCord reveals that analyzing text and music together, as when analyzing *lieder*, is particularly difficult for dyslexics.[102]

I do not have dyslexia, but I do have poor working memory function, particularly a limited ability to mentally manipulate information. This trait was identified as part of my cognitive profile when undergoing diagnostic testing for OCPD; it is one of my biggest hurdles when it comes to analysis. As an analyst, poor working memory affects me in the following ways:

- When analyzing thick, multi-voice textures, I often forget the inversion or quality of a chord by the time I have finished identifying all the pitches. This means I must analyze most chords two or three times before I have extracted all the information within a given chord, take careful notes, and check my work multiple times.

[99] "Working Memory: The Engine for Learning," International Dyslexia Association, accessed June 29, 2026, dyslexiaida.org.

[100] "Music and Dyslexia," British Dyslexia Association.

[101] Weiss et al., "The Enigma of Dyslexic Musicians," 30.

[102] Kimberly McCord, "9 Specified Learning Disabilities and Music Education," in *Exceptional Music Pedagogy for Children with Exceptionalities: International* Perspectives, ed. Deborah VanderLinde Blair and Kimberly A. McCord (Oxford University Press, 2015), 182.

- I easily forget which inversions are which or switch the numbers around.
- I often forget to account for 7ths in a 7th chord.
- When listening to a lecture or participating in a discussion on harmonic analysis, I quickly forget whatever has been said without a visual reference.

As a result, I take significantly longer to comprehend new theory concepts and analyze music than neurotypical people. My experience corroborates Weiss and colleagues' findings that problems with working memory pose a "bottleneck" to performance.[103]

Strategies for Improved Outcomes in Music Theory Students with Dyslexia

It is important to remember that, just like neurotypical people, no two dyslexics are alike. Individual dyslexics will not present with every dyslexic characteristic, and strategies that work for some may not work for others. Additionally, it is important not to stereotype people with dyslexia; for example, the BDA reminds educators that despite challenges with reading and writing, some dyslexics like working with written text.[104] There are many useful strategies for improving outcomes in dyslexic musicians. Following is a list of strategies that I think are particularly helpful for teaching music theory; they include suggestions by the BDA as well as strategies I have learned and collected over my years of teaching.

- Utilize a multi-sensory approach incorporating audio, visual, and kinaesthetic awareness.
- Enlarge the score and/or white-out extraneous markings.

[103] Weiss et al., "The Enigma of Dyslexic Musicians," 30.

[104] "Music and Dyslexia," British Dyslexia Association.

- Emphasize ear training; but note Weiss and colleagues' findings that "dyslexics' [working memory] difficulties were observed on series that exceed four items (i.e. more than four digits, more than four syllables and more than four tones in a melodic or a rhythmic pattern), successful performance was contingent upon successful chunking."[105] Keep listening tasks (such as identifying harmonic progressions) short, or chunk and repeat smaller sections of longer tasks.
- Utilize "cheats" such as charts showing key relationships or linking note names with scale degrees, like the ones I often write above my students' music; especially when asking questions like "If A is scale degree 1, what note is scale degree five?" which dyslexic students may have difficulty answering without a visual cue.
- Use color-coding such as Barber's colored finger patterns or Margaret Hubicki's Colour-Staff system, a note-reading system developed specifically for dyslexic music students.
- For dyslexics who struggle to read on white paper, use colored plastic overlays or print music on colored paper to make reading music easier; experiment to determine which colors make it easier for them to read the music. For example, my spouse, who is dyslexic, printed all his theory assignments and sheet music on orange paper in university.
- Reduce the information covered in one session, as well as time spent on one topic.
- Advocate for students taking music theory exams in school or through organizations like RCM and ASTA; make sure students with a diagnosis receive appropriate accommodations. Information regarding exams and accommodations can be found on the RCM and ASTA websites.

[105] Weiss et al., "The Enigma of Dyslexic Musicians," 36.

Though dyslexia is a permanent condition and aspects of the disability are persistent, the BDA explains that studying music can help dyslexics "develop areas that they may find challenging, such as sequencing, organization, motor-coordination, memory and concentration."[106] The right interventions and accommodations can help dyslexic musicians learn the skills necessary to analyze and play music well.

Dyscalculia

What Dyscalculia Is

The Learning Disabilities Association of America (LDA) defines dyscalculia as: "a specific learning disability with an impairment in mathematics, which can affect calculations, problem solving, or both. It impacts all sorts of numerical tasks and it is inborn, meaning you are born with it." The LDA states that "although there is not yet a generally accepted definition of dyscalculia, the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders) mentions difficulties with number sense, memorization of basic math facts, and accurate and fluent calculation."[107] The LDA estimates that 4–7% of students have dyscalculia, amounting to 1–2 students per classroom. According to the LDA, students with dyscalculia will struggle with some or all of the following things:

- Counting: starting to count later and less accurately than their peers
- Mentally connecting a number with a size or quantity (number sense)

[106] "Music and Dyslexia," British Dyslexia Association.

[107] Anneke Schreuder, "What is Dyscalculia?" Learning Disabilities Association of America, accessed July 1, 2026, ldaamerica.org/what-is-dyscalculia.

- Effortlessly knowing how many dots are on a dice or domino without counting
- Estimating and comparing larger quantities
- Memorizing sequences such as the order of daily activities or days of the week
- Doing basic math: memorizing and applying math facts for addition or subtraction
- Learning multiplication tables: learning it one day and completely forgetting it the next
- Difficulty choosing the calculation for the numbers in a word problem
- Needing more time for math work and making significant mistakes
- Learning to tell time using an analog clock
- Math anxiety

Looking at the above list, readers can begin to imagine how dyscalculia might affect a music theory student.

How Dyscalculia Affects Music Learning

Music and math are closely related. The California Learning Resource Network states, "The relationship between music and mathematics is profound and multifaceted, extending far beyond simple counting of beats or measuring note durations."[108] Sheerin Hosseini identifies the following relationships between six mathematical domains and music:

1. Counting and cardinality is associated with rhythmic values and counting notes and rests.
2. Operations and algebraic thinking are associated with solving math problems using note values, performing rhythm and tonal patterns, and understanding musical form.

[108] "How Does Music Relate to Math?" California Learning Resource Network, accessed July 1, 2026, www.clrn.org/how-does-music-relate-to-math.

3. Number and operations-fractions is associated with rhythmic values, duple and triple meter, measures, subdivision, and the rhythm pyramid.
4. Measurement and data are associated with time signatures, rhythm and meter, intervals, and the science of sound.
5. Geometry is associated with form, melodic contour, timbre, pitch, string length, the overtone series, and acoustics.
6. Ratio and proportional relationships are associated with pitch, tuning, and rhythm.[109]

The cognitive processes governing mathematic operations are similar to those governing music analysis. Students who struggle with certain math domains can experience difficulties understanding and working with associated music concepts. Students with dyscalculia may also find it difficult to interpret fingerings or translate visual information (such as on a chart or in a picture) into physical actions, mirroring a teacher, and interpreting or performing conducting patterns.

How Dyscalculia Might Affect Music Theory Studies

Laura M. Jackson notes that musicians with dyscalculia may face challenges related to rhythm and counting, tracking (reading notes from left to right), reading notes on more than one line, space, or staff at a time, subitizing (recognizing the root and quality of a triad without having to count all the pitches individually), decoding musical symbols, and comprehending terms such as "double-time."[110] This is consistent with Hosseini's research, which considers the

[109] Sheerin Hosseini, "The Lived Experiences of Adult Musicians with Dyscalculia: A Heuristic Inquiry," (PhD Dissertation, University of Miami, 2020), 4–5.

[110] Laura M. Jackson, "How Dyscalculia Impacts Music," Discovering Dyscalculia, accessed July 1, 2026, https://discoveringdyscalculia.com/blog/how-dyscalculia-impacts-music.

lived experiences of musicians with dyscalculia. Participants in Hosseini's research mostly identify struggles with sight-reading and learning to play an instrument. Regarding music theory specifically, participants mention issues with theory concepts including less common chord types (such as Neapolitans), serialism, modulation, syncopation, triplets, and figured bass. Notably, participants also reported that their negative experiences with math and music theory contributed to poor mental health, anxiety (including testing anxiety), feelings of shame, and poor self esteem. Many were misunderstood by their teachers and some even experienced bullying by classmates.[111]

Strategies for Improved Outcomes in Music Theory Students with Dyscalculia

As with dyslexics, the experiences of musicians with dyscalculia vary greatly. Strategies that work for one person may not work as well for another. For example, while some people with dyscalculia prefer solfége to scale degrees, others find solfége more confusing. Here is a list of strategies that participants in Hosseini's research identified as being particularly helpful in coping with dyscalculia:

- Developing aural skills
- Utilizing aural skills for harmonic and metric analysis
- Utilizing kinaesthetic counting methods such as *chisenbop*, a Korean finger-counting method, to count beats and rests
- Using syllabic counting methods, such as the Takadimi method, in place of numeric counting methods
- Using solfége instead of scale degrees

[111] Hosseini, "The Lived Experiences of Adult Musicians with Dyscalculia," 61–172.

- Highlighting and color-coding changes (like new time signatures or changes in key) and other information in the score
- Playing from a full score to avoid counting rests
- Taking extra time as needed to analyze music or take tests

Hosseini's research reveals the need for teachers to be understanding and supportive of students with dyscalculia. All of Hosseini's research participants reported falling short of teachers' expectations. Participants reported consequences for poor performance such as having to stay in from recess, being told to give up on certain subjects, even being threatened with a wooden paddle (reported by a participant who was last in school several decades ago). Still, participants credited specific types of teachers—teachers who took an interest in them and helped them find workarounds—with their eventual success in music.[112] It is important for teachers to be curious about why a student may be struggling, assist the student in finding adaptations that help them learn and not penalize students for things like using "cheats" (counting on fingers or writing in note names) as these do not indicate poor understanding of the material or lack of effort.

Attention Deficit/Hyperactivity Disorder

What ADHD Is

The Canadian Psychological Association (CPA) states that "ADHD is characterized by developmentally inappropriate levels of inattention, hyperactivity, and impulsivity, that impair a

[112] Hosseini, "The Lived Experiences of Adult Musicians with Dyscalculia," 61–172.

person's functioning. Some individuals have problems with all three types of symptoms, whereas others have problems primarily with inattention, or primarily with hyperactivity/impulsivity." According to the CPA, people with ADHD can "have difficulty following instructions, keeping things organized, and following through on tasks." They may also "tend to act without thinking, interrupt others, talk excessively, or feel fidgety or restless." ADHD is a condition that begins in childhood and can persist into adulthood. It affects approximately 5–8% of children and adolescents.[113]

How ADHD Affects Music Learning

ADHD has three sub-types. These include predominantly inattentive, predominantly hyperactive/impulsive, or a combination of each. According to the American Psychiatric Association (APA), individuals with an inattentive sub-type will present with six of the following symptoms:

- Does not pay close attention to details and makes careless mistakes
- Has problems staying focused on tasks or activities
- Does not seem to listen when spoken to
- Does not follow through on instructions or complete assignments, chores, or tasks
- Has problems organizing tasks and work
- Avoids or dislikes tasks that require sustained mental effort
- Often loses things needed for tasks or daily life
- Is easily distracted by unrelated things or thoughts

[113] "What is Attention-Deficit/Hyperactivity Disorder (ADHD)?" Canadian Psychological Association, posted on January 21, 2021, https://cpa.ca/psychology-works-fact-sheet-attention-deficit-hyperactivity-disorder/.

- Forgets daily tasks

Individuals with a hyperactive/impulsive subtype will present with at least six of these symptoms:

- Fidgets with or taps hands or feet, or squirms in seat
- Unable to stay seated when remaining seated is expected
- Runs about or climbs where it is inappropriate (or, in adults, feeling restless)
- Unable to play or do leisure activities quietly
- Always "on the go"
- Talks too much
- Blurts out an answer before a question has been finished
- Has difficulty awaiting their turn
- Interrupts or intrudes on others
- Older teens and adults may take over what others are doing[114]

Research by Phoebe Saville and colleagues found that people with ADHD experience "difficulties in tasks involving timing, rhythm, and beat synchronisation." They also experience "performance difficulties in complex musical perception tasks." However, people with ADHD were also shown to have "strengths in musical improvisation and expression." Involvement with music was shown to be especially beneficial to people with ADHD. In these people, listening to music produced enhanced arithmetic performance, improved upright balance performance,

[114] "What is ADHD?" American Psychiatric Association, reviewed October 2025, https://www.psychiatry.org/patients-families/adhd/what-is-adhd.

enhanced reading comprehension performance, reduced motor activity, and decreased negative mood.[115]

How ADHD Might Affect Music Theory Studies

I was unable to find any research on ADHD and music theory specifically; however, there are obvious correlations for people with ADHD between music theory learning and any other learning related task. In my studio, students with ADHD have not shown any particular difficulty with learning music theory related concepts, other than exhibiting typical hyperactive or impulsive symptoms that make any learning a challenge. What does seem difficult for them is completing weekly assignments and following directions. Consequently, they struggle to keep up with their theory studies and finish the workbook for their level.

Strategies for Improved Outcomes in Music Theory Students with ADHD

The Center for ADHD Awareness, Canada provides a comprehensive list of teaching strategies for typical ADHD impairments. Some that I think are particularly useful for teaching music theory include:

- Asking students to repeat instructions to confirm comprehension
- Attempting to actively involve students in lessons
- Giving frequent, specific, and immediate feedback
- Dramatizing information
- Breaking activities and lessons into small units
- Changing teaching style frequently to capture students' attention

[115] Saville, Phoebe, et al., "Exploring the Intersection of ADHD and Music: A Systematic Review," *Behavioral Sciences* 15, no. 1 (2025): 30. https://doi.org/10.3390/bs15010065.

- Using physical proximity and agreed upon touch to redirect attention
- Allowing reasonable excess movement
- Use a multi-sensory approach with both visual and oral instructions
- Modeling chunking tasks into workable and obtainable steps (doing it for them and then with them)
- Offering frequent breaks
- Using visual checklists[116]

I have been working with students with ADHD regularly for two decades. One thing I have noticed about these students is that they are listening and learning even if they are moving around. Parents and more traditional teachers sometimes have a hard time with this, thinking that because the student is not standing at attention, they are not absorbing the lesson. I have to remind them that excess movement is not only okay, sometimes it is even necessary for students with ADHD to focus on what I am saying. Providing the student is holding their instrument properly, I have no problem with them standing on one foot while they play, rocking to the pulse, etc. For students with ADHD, movement is not a distraction, but a symptom of, or a coping mechanism for, cognitive processes.

[116] "Teaching Strategies for Typical ADHD & Executive Functioning Impairments," The Center for ADHD Awareness, Canada, accessed July 1, 2026, https://caddac.ca/wp-content/uploads/EF-and-ADHD-Teaching-Strategies-Accommodations-FINAL2018-2.pdf.

Obsessive-Compulsive and Obsessive-Compulsive Personality Disorder

What OCD Is

Obsessive-Compulsive Disorder (OCD) and Obsessive-Compulsive Personality Disorder (OCPD) are two distinct, but overlapping, mental disorders. OCD is the more familiar of the two. According to The National Institute of Mental Health (NIMH), OCD is an anxiety disorder "in which a person experiences uncontrollable and recurring thoughts (obsessions), engages in repetitive behaviors (compulsions), or both. People with OCD have time-consuming symptoms that can cause significant distress or interfere with daily life."[117] The Children's Health Policy Centre estimates that in Canada, 0.3% of children present with OCD, amounting to approximately 18,500 students nationwide.[118] The NIMH specifies that common obsessive symptoms of OCD include:

- Fear of germs or contamination
- Fear of forgetting, losing, or misplacing something
- Fear of losing control over one's behavior
- Aggressive thoughts toward others or oneself
- Unwanted, forbidden, or taboo thoughts
- Desire to have things symmetrical or in perfect order

Common compulsive symptoms of OCD include:

[117] "Obsessive-Compulsive Disorder: When Unwanted Thoughts or Repetitive Behaviors Take Over," National Institute of Mental Health, accessed July 2, 2026, https://www.nimh.nih.gov/health/publications/obsessive-compulsive-disorder-when-unwanted-thoughts-or-repetitive-behaviors-take-over.

[118] "What is the prevalence of obsessive-compulsive disorder?" Children's Health Policy Centre, posted January 22, 2024, https://childhealthpolicy.ca/prevalence-of-ocd/.

- Excessive cleaning or handwashing
- Ordering or arranging items in a particular and precise way
- Repeatedly checking things, such as whether the door is locked or the oven is off
- Compulsive counting
- Praying or repeating words silently[119]

People with OCD can not control their obsessions or compulsions, which causes anxiety.

What OCPD Is

The National Library of Medicine (NLM) states that OCPD "is marked by intense focus on perfection, a strong sense of order, and a rigid need for control." Further, "individuals with OCPD often find themselves engrossed in these fixations to such an extent that they face significant functional impairments in various facets of their lives." Globally, OCPD affects 2–8% of the general population. According to the NLM, People who have OCPD are often:

- Inflexible
- Resistant to change
- Overwhelmed by minute details, rules, and schedules, hindering their productivity

People with OCPD also:

- Repeatedly check for mistakes and pay extraordinary attention to detail
- Do not make good use of their time, often leaving the most important tasks until the end

[119] "Obsessive-Compulsive Disorder," National Institute of Mental Health.

- Are preoccupied with details and making sure everything is perfect[120]

The main difference between OCD and OCPD is that people with OCD do not want to obsess over things in a way that is beyond their control or engage in compulsive behaviors, while people with OCPD believe their obsessions and behaviors are justified and are unwilling to consider other ways of thinking or deviate from their behaviors. As OCD and OCPD are anxiety and personality disorders, respectively, which develop over time and are not inborn like dyslexia or dyscalculia, OCD and OCPD are not typically diagnosed in students until their teens and early twenties or into adulthood.

How Obsession and Perfectionism Affect Music Learning

Obsession and perfectionism are two traits that overlap between OCD and OCPD and are most relevant when it comes to studying music. Laurie Niles shares that perfectionism in music students can present as "extreme people-pleasing, a preoccupation with past mistakes, and an excessive fear of failure." Perfectionism can spur diligent practice and careful study, but excessive perfectionism can become detrimental to success. Niles explains that when perfectionism becomes excessive, it can lead to "an intense frustration with learning, a low tolerance for taking baby steps toward a goal, an obsession with comparison or rankings, fear of failure, [and] a constant need for reassurance. Perfectionists may also try to avoid feedback, so they don't have to hear about shortcomings. They may even self-sabotage. They also may use self-criticism for motivation."[121]

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[120] Abid Rizvi and Tyler J. Torrico, "Obsessive-Compulsive Personality Disorder," The National Library of Medicine, last updated October 28, 2023, https://www.ncbi.nlm.nih.gov/books/NBK597372/.

[121] Laurie Niles, "Music Education: Supporting Perfectionists in their Violin Learning," Violinist.com, posted April 23, 2025, https://www.violinist.com/blog/laurie/20254/30362/.

Playing the violin is an exacting pursuit requiring high levels of diligence and attention to detail. This is due in large part to the violin's intrinsic difficulties regarding tone production and intonation—reflected in the honesty with which the string responds to the bow and fingers. One might argue that playing the violin at a high level *requires* a certain amount of perfectionism. But the violinist's inner critic, constantly at work during every practice session and performance, coupled with regular constructive (hopefully) criticism from teachers and coaches, can cause their perfectionist tendencies to become truly debilitating. In my studio, students with perfectionistic tendencies have shown high levels of enthusiasm and dedication and produced higher-than-average results on both the violin and in music theory. However, these students also tend to struggle emotionally; obsessing over small errors in performance and being particularly sensitive to feedback, especially from strangers or adjudicators.

How Obsession and Perfectionism Might Affect Music Theory Studies

Again, I was unable to find much literature on how OC/PD might affect music theorists with these disorders. But as a musician with a diagnosis of OCPD myself, I can share my own experiences with obsession, compulsive behaviors, and perfectionism, and how they affect my analytical work. Music theory has always been a challenge for me. I attribute this to a lack of theory education growing up, poor working memory, a suspected diagnosis of dyscalculia, and perfectionistic tendencies associated with OCPD. In addition to the aforementioned effects that poor working memory has on my analytical work, obsession and compulsion affect me in the following ways:

- When analyzing, I become obsessed with finding the "right" answer. I can spend an hour or more analyzing one or two measures of a piece, unable to move on to easier sections before solving the problem.

- I am also obsessed with neatness and producing an analysis that is not only "right," but looks pleasing to the eye. I feel compelled to erase and re-write almost every symbol I draw two to three times before I am satisfied with the way it looks. This compulsion is exaggerated in stressful situations like test-taking, where it is truly a detriment due to the extra time it takes to erase and re-write certain symbols until they look "right."
- Perfectionism keeps me from asking for help, advice, or second opinions because I am afraid of appearing incapable or unintelligent—in other words, imperfect.
- During my graduate studies, I regularly postponed looking at feedback such as grades or comments from professors, afraid that the results would not be "good." To a perfectionist, even receiving a mark of 91% can feel like failing. It is easy to start obsessing over the missing 9%.
- Constructive criticism can cause me to feel anxious and poorly delivered criticism can cause me to experience a complete emotional breakdown. Positive feedback has the opposite effect, eliciting feelings of euphoria and accomplishment.
- Knowing that the above thoughts, feelings, and actions are often unreasonable and not based in reality does not keep me from experiencing them.

These feelings and behaviors accompanied me through high school and two music degrees before I received a diagnosis during my doctoral studies and was able to learn coping mechanisms for these maladaptive traits. It was actually one of my doctoral music theory professors who suggested I undergo testing for neurodivergence. He noticed my unique approach to music analysis and wondered if I would benefit from receiving testing accommodations. I credit this professor with helping me turn a discipline I thought I was "bad" at into one I now enjoy and confidently feel I can contribute to.

Jared Hoeft is a musician diagnosed with OCD. He describes experiences with music that are similar to mine, writing:

> I feel an overwhelming and often debilitating need for certain things in my life, not everything but just certain things, to feel perfect, complete, or under control.
>
> When something doesn't feel "just right," it dominates my thoughts like a dark, heavy cloud of despair. I have a difficult time focusing on anything else until I can find some way to resolve the imperfection. In order to avoid that unbearable feeling, I am compelled to engage in repetitive rituals that involve checking, adjusting, or arranging things until they feel "just right." Things can often feel wrong even if there is no logical reason for me to feel that way.
>
> In my life, OCD has always targeted the things that are the most meaningful and important to me. This has included hobbies and relationships, and for most of my adult life, it has included my music, especially my work as a composer.
>
> Every aspect of the music I write feels like it must be perfect. I have spent days in agonizing internal deliberation over how to conclude a melody or structure the harmony, for example. But the need for perfection goes beyond just my creative choices. I use computer software to notate the music I write as sheet music, and my OCD wants these documents to feel "just right" as well. I often fall into repetitive rituals such as moving text back and forth, moving the cursor along an arbitrary path, or undoing and redoing various actions until they feel "just right."[122]

[122] Jared Hoeft, "Grumpy Brain: A Musician's Journey with OCD," International OCD Foundation, posted January 31, 2025, https://iocdf.org/blog/2025/01/31/grumpy-brain-a-musicians-journey-with-ocd/.

To help Jared cope with his obsessive symptoms and compulsive behaviors, he relies on a variety of therapeutic approaches including exposure and response prevention (ERP) and medication. He has also named his condition "Grumpy Brain," referring to Grumpy Brain as a "monster," to help create distance between himself and his disorder and help him to recognize when Grumpy Brain is taking over.

Strategies for Improved Outcomes in Music Theory Students with OC/PD

While anyone with a learning disability may benefit from working with a psychologist, it is particularly important for people with mental disorders such as OCD and OCPD to seek appropriate mental supports from professionals when needed. Rudy Bowen and colleagues found that "OCD symptoms were associated with suicidal thoughts and suicide attempts" and "OCPD traits were associated with suicidal thoughts, non-suicidal self-injury, and suicide attempts."[123] Some people with OCD and OCPD will benefit from ongoing support, while others may only require short-term interventions. Treatment for these disorders may include cognitive behavioral therapy, exposure and response prevention, and mindfulness techniques, among others.

Through my experiences working with students with perfectionist tendencies, as well as my own experiences with OCPD (including receiving treatment from several psychologists and psychiatrists), I have identified the following strategies for improved outcomes regarding music theory and obsessive/compulsive and perfectionist traits:

[123] Rudy Bowen et al., "Suicidality in People with Obsessive-Compulsive Symptoms or Personality Traits," *Frontiers in Psychiatry* vol. 9 747. 14 Jan. 2019, doi:10.3389/fpsyt.2018.00747.

Help is available. Suicide Crisis Helpline: **Dial 9–8–8 in Canada and the US**.

- Set a timer when working on difficult problems. When the timer goes off, move on to another task and return to the problem later.
- Limit attempts to solve problems to a specific number of sessions. If a solution has not been reached after the number of sessions has passed, ask for help/advice/a second opinion.
- Set (self-imposed) rules around compulsive behaviors such as, “I will allow myself to erase and re-write this symbol two times. After that, I will move on.”

The following are strategies for improved outcomes regarding music theory and perfectionist traits:

- Limit attempts to solve problems. After a set number of attempts, choose the best answer or ask for help/advice/a second opinion (if circumstances allow; obviously this is not possible in a test setting).
- Engage in therapeutic sessions and activities where imperfection is inevitable, unavoidable, and “unfixable,” such as analyzing music with a pen instead of a pencil or improvising in performance.

Teachers can help students with perfectionist traits by:

- De-personalizing feedback. Instead of saying, “Your tone was scratchy,” say, “The tone was scratchy,” and instead of saying “Your solution is wrong,” ask “What led you to this solution... What if you were to think about it this way?”
- Encourage the student to name their inner critic to create separation between the critic and the self. For example, I once had an elementary-aged student who experienced debilitating self-criticism. Together, we named the student’s inner critic “Bob.” When the

student said things like, “That was horrible!” in response to their performance, I would ask, “Is that ‘Bob’s’ opinion or your opinion?” And “What evidence does ‘Bob’ have for his opinion... How can you argue with ‘Bob’?” These conversations would often elicit giggles from the student and visibly reduce his anxiety, as we worked through the evidence proving his performance was not as bad as “Bob” thought it was.

- Anticipate triggers and develop a response plan. For instance, if a student is sensitive to constructive feedback, we discuss how to keep feedback in perspective prior to events where they will play for someone other than me, like at a competitive music festival. I usually say something like, “Remember, the adjudicator’s feedback is based on five short minutes of your playing; it does not represent a complete picture of your growth this year. If you find something they say helpful, you can put it in your ‘toolbox’ for later. If you don’t like what they have to say, you can think to yourself, ‘Thanks for your opinion, but I disagree.’ You can even say that out loud if you feel comfortable saying it!” If a student makes a mistake in their theory homework, I will usually say, “Take another look at this; is this what you meant to write?” If the answer is “No,” I say “Great, tell me what you meant to write.” If the answer is “Yes,” I ask, “What led you to this conclusion?” Then, “Ah, I can see how you arrived at that answer. Let’s try this instead; tell me if it makes sense...”
- Craft an End Point Vision (EPV). Developed by George McMaster (a professor at one of my former alma maters, Brandon University), an EPV is a visualization tool that helps performers and athletes anticipate and prepare for realistic outcomes. As adapted by a therapist I worked with during my time at BU, working backward from a goal (such as a performance or test), performers list key events leading up to and after the performance,

describing in detail how each event is likely to make them feel and naming coping strategies for dealing with intrusive thoughts or emotions. The point of the EPV is not to fabricate idealized positive outcomes, but to prepare the psyche for navigating *likely* outcomes. So, when thoughts and feelings typically perceived to be negative arise, performers can keep them in perspective and measure their response appropriately. For example, a performer may begin to feel sick before a performance or test. Instead of thinking, "Oh, no, I feel nervous again," and trying to battle anxious thoughts and feelings, the performer can tap into the rehearsed scenario from the EPV, e.g. "I feel nervous, but I am not surprised; I anticipated feeling like this. Past experiences have shown that I can successfully perform even when I am nervous. Thinking about the sensation of my feet on the floor can help me redirect my attention from my nerves to something else."

Conclusion

Cognitive disabilities and mental disorders can significantly impact musicians' learning and experiences with performing and analysis. Students can go years without a diagnosis or getting the help they need to succeed. "High achievers" in particular, as many music students are, can easily and unintentionally mask symptoms and behaviors of detrimental conditions. Good grades in most subjects and a high aptitude for playing an instrument can make it difficult for teachers and parents to spot weaknesses in other areas and subjects. Neurodivergent people are often particularly creative—they must be because it is the only way they can survive in an academic system created for neurotypical people. Creativity and "musical talent" can make it seem to observers like everything about a student's learning experience is "normal." In addition,

struggles in a specific area are often misinterpreted by teachers and parents as disinterest or lack of preparedness. In actuality, a student's ability to learn may simply be impaired. It is important for teachers to ask new students if there are any diagnoses they should be aware of that may impact music learning.

If teachers suspect that a student may have a learning disability or disorder, Larry B. Silver and Ruth B. Spodak instruct that teachers should avoid making a diagnosis themselves. Instead, they should first "try additional approaches to help the student master the expected material."[124] If there are still concerns after a period of time, teachers should sensitively approach parents or adult students with their concerns. Again, teachers should avoid making a diagnosis themselves. For example, instead of saying "I think your child might have ADHD," teachers can say, "I have noticed some things about the way X approaches learning that I think deserve a closer look. Have you noticed any of these? What are your thoughts? I wonder if X would benefit from a more expert opinion." In my studio, some parents I have approached in this way have been receptive to my opinions and sought appropriate help for their child. Others have been dismissive or contradicted my observations, perhaps unwilling to believe their child may be neurodivergent or that their symptoms or behavior is not "normal." In both cases, I do my best to implement appropriate strategies that I think will help the student to succeed.

With the right interventions and supports, music students with learning disabilities and disorders can learn strategies to cope with their symptoms, fully benefit from their studies, and achieve their full potential in music performance and analysis. Students with certain disabilities and disorders will especially benefit from their involvement with music, which can boost their

[124] Larry B. Silver and Ruth B. Spodak, "What Do You Do If You Suspect That Your Child Has a Learning Disability?" *LD OnLine*, accessed July 28, 2026, https://www.ldonline.org/ld-topics/working-families/what-do-you-do-if-you-suspect-your-child-has-learning-disability?utm_source=chatgpt.com.

performance in other areas of life and learning. Finally, as the BDA reminds, "remember that good 'dyslexia[etc.]-friendly' strategies are good strategies for all musicians."[125]

[125] "Music and Dyslexia," British Dyslexia Association.

Conclusion

In this document, I explored the implications of integrating music theory study into the private lesson space, asserting that a knowledge of music theory concepts can significantly impact technical mastery, musical understanding, autonomous expression, and readiness for university-level music theory courses. Among violinists, the sources I synthesized revealed a general discomfort with music theory concepts prior to university and a disconnect between music theory concepts and violin performance, particularly regarding expressive considerations. With the exception of Ledgerwood, representative pedagogy is largely geared toward the advanced student, with few examples showing how theory can be integrated at the earliest stages of learning—despite the fact that each researcher's work was motivated by delayed music theory exposure. The propensity toward theory integration at the advanced level may merely indicate personal interest on the part of the researcher; but it may also speak to the larger issue of a pedagogical approach that prioritizes technical development in the early years, at the expense of a more holistic approach to music education. A comparison with the pedagogical history of the piano reveals a lag in developing violin pedagogy concerning theory integration.

Implications for Students

The pedagogical approach I present in this document is in the spirit of pedagogues like Friedrich and Swinkin, whose approaches to teaching are not about teaching the instrument, per se, but about teaching *music.* Likewise, I aim to teach music (theory) with the violin serving as a medium. For students, this approach can potentially (and in my experience does) lead to

- greater technical facility (through a deeper understanding of how music theory concepts inform techniques such as shifting and double stops)
- greater musical understanding (through score analysis and continually drawing parallels between what a student is learning on the violin with what they are learning in their music theory workbook)
- enhanced potential for autonomous expression (through discussions on how form, function, and other theory concepts can inform expression)
- increased confidence in performance (through a detailed learning process supporting cognitive functions involved with music learning, such as knowledge of form supporting memorization; through knowledge of theory concepts that support technical mastery; and through autonomous interpretive choices fostering a sense of ownership of one's playing)

My approach demonstrates how music theory learning can be integrated into the lesson from the beginning through the advanced years of study, and how concepts learned in the early years, such as finger color patterns, scale degrees, key area awareness, and cadential analysis continuously inform technical development and musical comprehension. Of particular significance for violin students, my work identifies a perceptual dissonance between fingering and sonority when playing double stops. It may be that this dissonance has occurred to others as well, but I have yet to encounter another violinist who conceives of double stops in this way.

Implications for Teachers

For teachers wanting to integrate theory studies into their violin lessons, my approach provides an example of how such integration can be achieved. Through sample lesson scripts and

annotated scores, I show how music theory concepts can be introduced and reinforced at each level of pre-university learning. Cross-referencing common student repertoire with popular music theory curricula reveals key areas of divergence, such as when certain keys are introduced, that teachers should be aware of. These comparisons reveal the importance of carefully crafting a curriculum from multiple sources, based on students' particular needs as expressed by their repertoire.

Personal experience with learning differences and cognitive disorders—both via my own diagnosis and working with students living with a learning disability or cognitive disorder—spurred me to include a chapter on how some of these conditions can affect music theory learning. Research regarding music theory learning and disabilities and disorders is very limited. However, the research that does exist reveals that such conditions can have a serious impact on learning. I hope this chapter can contribute to greater awareness of this topic and even generate an interest in further research. At the very least, it may alert readers to students in their own studios who may benefit from interventions and strategies aimed at improving outcomes in music theory learning for students with neurodivergence.

Boundaries and Recommendations

Boundaries that exist around my project include but are not limited to the following:

- My project presupposes a certain comfort level with theory concepts and analysis on the part of private teachers. For teachers wishing to supplement their own theory studies or review previously learned concepts, I recommend working through the advanced levels of the RCM *Celebrate Theory* series or equivalent, and consulting theory texts such as

Concise Introduction to Tonal Harmony by L. Poundie Burstein and Joseph N. Straus and *Analyzing Classical Form: An Approach for the Classroom* by William E. Caplin (both of which have proven useful in my own teaching).

- My document centers on instruction in classical violin. I did not consult the jazz violin or fiddle traditions in my research. It may be that certain elements of music theory, such as chord progressions and modulation, are more naturally integrated with violin learning in these traditions. Research comparing the classical and jazz violin/fiddle traditions could reveal pedagogical approaches both useful and inspirational to classical teachers.
- I focus primarily on the pre-collegiate years of violin study in my research, though many concepts I address, such as double stops, shifting, and harmonic analysis are also skills many university-level students are still working to polish. Most research in this area currently focuses on the advanced student, but more work is needed in the area of analysis and performance as it relates to advanced students. Much scholarship exists around performative analysis, some of which I have referenced. However, it cannot be assumed that the average college freshman will access scholarly articles beyond what is required for their degree at the time. Future projects in this area could be designed with the goal of better supporting teachers in synthesizing scholarship on performative analysis for advanced students in a way that directly relates to students' experience on the violin. Topics could include metric analysis as it relates to advanced violin repertoire, such as Brahms and more contemporary composers, and analytical approaches to performative analysis as it relates to twentieth-century and contemporary repertoire.

Final Thoughts

I return to a quotation from Ivan Galamian introduced at the beginning of this document:

> Interpretation is the final goal of all instrumental study, its only raison d'être. Technique is merely the means to this end, the tool to be used in the service of artistic interpretation. For successful performance, therefore, the possession of the technical tools alone is not sufficient. In addition, the player must understand the meaning of the music thoroughly, must have creative imagination and a personal emotional approach to the work if [their] rendition is to be lifted above the dry and pedantic.[126]

Galamian proposes a pedagogy in which technique + musical understanding = artistic interpretation. Expanding on Galamian's idea, I envision a pedagogy in which technique, analysis, and interpretation are three equilateral points on the same dial, each continually informing the others. Guided by the needs of individual students, teachers can rotate the dial toward whichever concept best serves the moment—continuously adjusting the emphasis while maintaining the interconnectedness of all three concepts. I believe this pedagogical approach is not only a productive way of developing technical and analytical skills, but also the one most likely to cultivate the "creative imagination" and "personal emotional approach" that Galamian regards as essential to interpretation. I hope this document contributes to a pedagogical tradition that recognizes technical development, music analysis, and interpretation not as separate pursuits, but as mutually dependent elements of a comprehensive music education.

[126] Galamian, *Principles of Violin Playing*, 6.

Appendix A

Chapter TWO Theory Concepts Chart

Repertoire Level	Concept	Mode of Introduction
RCM Preparatory Level / ASTACAP Foundation Level	Pitch	• Open strings – Ant Song • Fingered notes – Note name finger game • Note-reading – Flashcards A4–A5 • Theory workbook – RCM or M. Smith • Aural skills – Singing Twinkle w/note names
	Intervals: M2/m2, M3/m3, & P5	• WWHW finger pattern (M2/m2) – All the Little Monkeys – Fingerboard Geography red pattern • AM arpeggio (M3/m3) • Song of the Wind (P5)
	Form & Sight-reading	• ABA form – Twinkle "sandwich" • Sight-reading – I Can Read Music
	Scales, Tonic & Dominant	• AM scale & arpeggio • Scale degrees 1 & 5 • Tonic triad – "Snowman"
	Rhythm & Meter	• Mnemonic devices and mimicry • Theory workbook & sight-reading book
	Expression	• Basic articulation and dynamic markings • Teacher demonstrates expressive variety • Simple hermeneutic analysis

Chapter THREE Theory Concepts Chart

Repertoire Level	Concept	Mode of Introduction
RCM Grades 1–3 / ASTACAP Levels 1–3	Harmony: I, V, & V/V	• Half cadences & authentic cadences – Allegro • Tonicized half cadence: Gavotte
	Major keys: D & G	• Red & blue finger patterns • D & G major scales and arpeggios • I Can Read Music • Selected etudes in D & G major • Allegretto • Andantino • Minuet No. 1
	Form	• Period: Allegretto • Sentence: Andantino • Balanced binary form: Allegretto, Andantino, Minuet No. 1, Minuet No. 2 • Compound period: Minuet No. 2 • Compound ternary form: Gavotte
	Modulation	• T – D: Minuet No. 1 • T – Relative minor: Minuet No. 2
	Minor Scales	• Theory workbook • Am, Dm, Gm, & Em scales and arpeggios • Yellow pattern • Minuet No. 2
	Rhythm & Meter	• Theory workbook & sight-reading book • Triplets: Minuet No. 2 • Sixteenth notes: Gavotte • Dotted rhythms: exercises for understanding/feeling meter vs. rhythm
	Expression	• Advancing technique • Form • Cadences • Changes in key and mode, e.g., major to minor • Teacher demonstrates expressive variety

Chapter FOUR Theory Concepts Chart

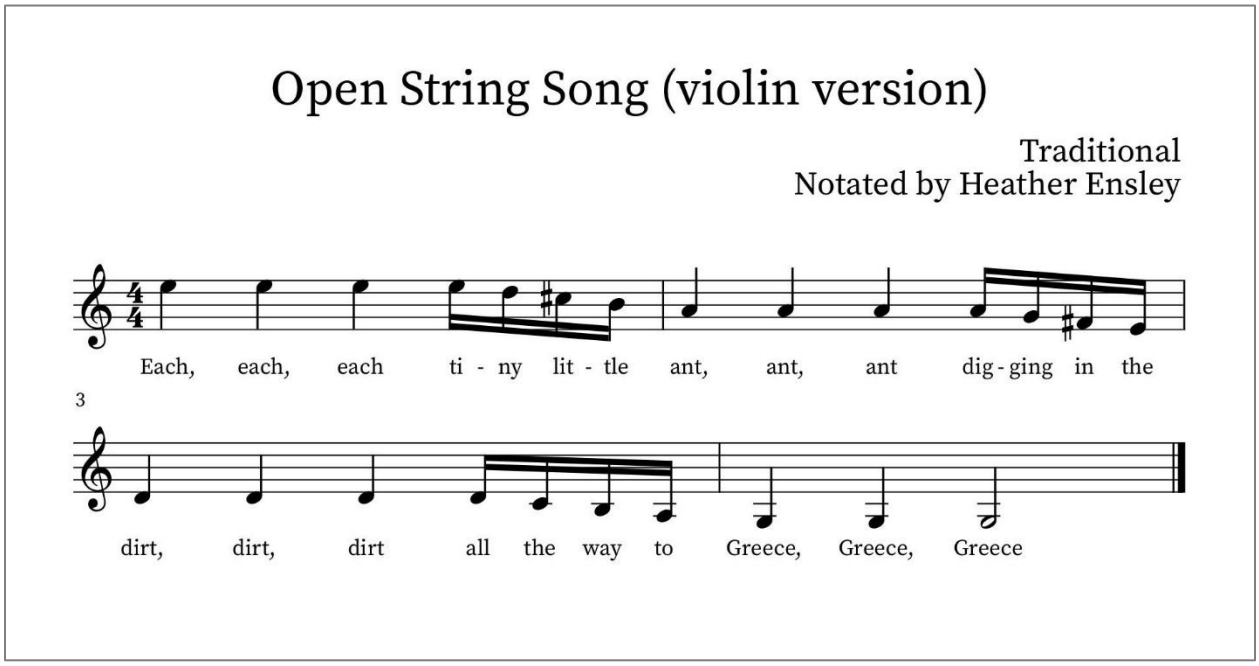
Repertoire Level	Concept	Mode of Introduction
RCM Grades 4–7 / ASTACAP Levels 4–7	Harmony: Dominant and diminished 7th chords, T–S–D–T motion	• Theory workbook • Piano • Finger color patterns • Dominant and diminished 7th arpeggios • Country Dance (T–S–D–T motion)
	All intervals	• Theory workbook • Finger color patterns • Double stop scales in 6ths and 3rds • Shifting
	Form	• Period: Allegretto • Sentence: Andantino • Compound period: Minuet No. 2
	Modulation	• T – D: Minuet No. 1 • T – Relative minor: Minuet No. 2
	Leading tone	• Country Dance
	Rhythm & Meter	• Hypermeter vs. time signature: Country Dance
	Expression (emphasis on function)	• Advancing technique • Form • Cadences • Changes in key and mode, e.g. major to minor • Teacher demonstrates expressive variety • Student experiments with expressive variety

Chapter FIVE Theory Concepts Chart

Repertoire Level	Concept	Mode of Introduction
RCM Grades 8–10 / ASTACAP Levels 8–10	Harmony: harmonic analysis, harmonic rhythm, T–S–D–T phrase models, descending fifths sequence, cadential 6/4	• Theory workbook • Piano • Finger color patterns • Gigue from Partita No. 3
	Form	• Simple, continuous, balanced binary – Gigue from Partita No. 3
	Modulation	• I–V–ii–IV–V–I: Gigue from Partita No. 3
	Rhythm & Meter	• Hypermeter vs. time signature: Gigue from Partita No. 3
	Expression (emphasis on function)	• Advancing technique • Form • Cadences • Changes in key and mode, e.g. major to minor • Teacher demonstrates expressive variety • Student experiments with expressive variety

Appendix B

Item 1: Ant Song, a. k. a. Open String Song (violin version)



Item 2: Note Name Finger Game

With the student's permission, write the note names B, C, D, and E on the finger pads of the corresponding fingers. Tell students that "no fingers" are needed to make an A (we will use the open A string to play "Twinkle" and the prerequisite exercises), first finger on the A string makes a B, second finger makes a C, and so on. The teacher then calls out a specific note name while the student, using their left hand, forms a circle between the specified finger and their thumb. When an A is called, students can show their open palm. When an E is called, students can show either an open hand and/or make a circle with their fourth finger and thumb. Once the student has memorized all of the notes in first position on the A string, repeat the game for the notes on the E string (open E, F, G, A, B).

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