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Work in Progress. Haydn's Schemata and Hexachords: Two Analytical Case Studies

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Cover Page Footnote

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Work-in-Progress

Haydn's Schemata and Hexachords: Two Analytical Case Studies

by Gilad Rabinovitch
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I. Introduction

Over the last two decades or so, the study of historical partimento pedagogy has shed considerable light on the training and musicianship of eighteenth-century European musicians. William Renwick's edition of a manuscript form Bach's circle shows some of the possible routes to improvising fugue.[1] Robert Gjerdingen and Giorgio Sanguinetti address schemata and partimenti pedagogy, suggesting that keyboard musicianship was tightly related to a repertoire of schemata that are embellished in surface diminutions.[2] Peter van Tour examines the written-counterpoint curriculum in the Neapolitan conservatories, while Vasili Byros reconstructs stages of the compositional process.[3] Of course, scholars have also explored intersections between schemata and additional branches of research: among other inquiries, Gjerdingen and Janet Bourne reflect on construction grammar in linguistics and its relevance to schema theory in music scholarship;[4] Byros and Olga Sánchez-Kisielewska address intersections of schemata and topic theory, highlighting the rich and complex relations between elements of musical structure and signification in the period.[5] Such inquiries move away from mystified notions of artworks as uniquely inspired creations and examine the artisanal practices of historical European musicians and their communicative potentials for listeners well-versed in the

[1] William Renwick, *The Langloz Manuscript: Fugal Improvisation through Figured Bass*. Oxford: Oxford University Press, 2001.

[2] Robert O. Gjerdingen, *Music in the Galant Style*. New York: Oxford University Press, 2007; Giorgio Sanguinetti, *The Art of Partimento: History, Theory, and Practice*. New York: Oxford University Press, 2012.

[3] Peter van Tour, *Counterpoint and Partimento: Methods of Teaching Composition in Late Eighteenth-Century Naples*. Uppsala: Uppsala Universitet, 2015; Vasili Byros, "Prelude on a Partimento: Invention in the Compositional Pedagogy of the German States in the Time of J. S Bach." *Music Theory Online* 21/3 (2015).

[4] Robert O. Gjerdingen and Janet Bourne, "Schema Theory as a Construction Grammar." *Music Theory Online* 21/2 (2015).

[5] Vasili Byros, "Topics and Harmonic Schemata: A Case from Beethoven." *Oxford Handbook of Topic Theory*, ed. Danuta Mirka. New York: Oxford University Press, 2014: 381–414; Olga Sánchez-Kisielewska, "Interactions between Topics and Schemata: The Case of the Sacred Romanesca." *Theory and Practice* 41 (2016): 47–80.

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style, dead or alive (whether or not such listeners are explicitly familiar with schema labels or know them implicitly as elements of the style).

The study of partimenti, schemata, and historical pedagogies continues to surprise: in a recent book, *The Solfeggio Tradition*, Nicholas Baragwanath reconstructs a forgotten conceptual framework for eighteenth-century musicians—hexachordal solmization.[6] The traditional Guidonian hexachord ut-re-mi-fa-sol-la or do-re-mi-fa-sol-la was still relevant to the training of many eighteenth-century musicians. In order to fit melodies beyond the confines of a hexachord, musicians had to mutate (that is, switch to another hexachord)—as Baragwanath reconstructs by considering a wealth of practical manuals from the period. To us, present-day musicians and scholars trained in seven-syllable solmization, losing the "technological innovation" of a seventh solmization syllable si or ti might seem more daunting than losing screen time with one of our favorite electronic gadgets; yet if we want to understand a crucial conceptual framework for skeletons and diminutions in eighteenth-century musical practice, then Baragwanath's reconstruction of hexachordal solmization is crucial. Joseph Haydn was trained in this tradition as a choir boy, which means that Baragwanath's reconstruction is relevant for understanding Haydn's ways of conceptualizing music. (Indeed, Baragwanath offers several analytical vignettes on score excerpts by Haydn as they relate to aspects of the solfeggio tradition).

In this paper, I will take two pieces as case studies for the interactions of schemata and hexachords: the minuet *al roverso* (or retrograde minuet) from the Symphony Hob. I: 47 and the first movement of the String Quartet Op. 50, no. 6. I will argue that these pieces display both solmization games and puns that are "insider" jokes decipherable only by those who have internalized hexachordal solmization; at the same time, Haydn's play upon galant schemata has communicative potentials for listeners enculturated in eighteenth-century galant music. Presumably, enculturated listeners shared an intuitive knowledge of the types of idiomatic structures proposed by Gjerdingen, even if they do not know the schema labels; the more esoteric *solfeggio* tradition reflects a mental model only for

[6] Nicholas Baragwanath, *The Solfeggio Tradition: A Forgotten Art of Melody in the Long Eighteenth Century*. New York: Oxford University Press, 2020.

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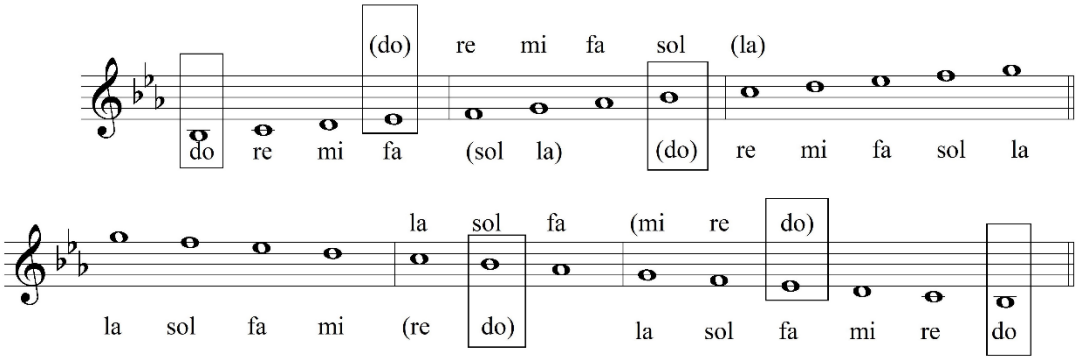
musicians familiar with it (that is, mostly deceased musicians).[7] As I will argue through the analyses, Haydn's communicative game plays upon both types of knowledge, creating a multi-faceted conceit. Before I move into some analyses, I have to introduce an aspect of Baragwanath's reconstruction of hexachordal solmization.



Example 1. *Cantus durus* system transposed to become E-flat major scale: a combination of the hard hexachord (transposed so as to start on B-flat) and a natural hexachord (transposed to E-flat).

Example 1 paraphrases Baragwanath's example 6.4(a), showing how the *cantus durus* system can be conceptualized as a union of a natural hexachord and a hard hexachord.[8] Through the mechanism of key signatures—which became more systematized in the eighteenth century—the whole system may be transposed, for instance, to E-flat major, as in my Example 1.[9] In a major scale, hexachordal mutations in ascending are based on solmizing "re" instead of "sol" or "re" instead of "la," depending

[7] Whether any present-day expert reconstruction of historical norms actually represents the mental habits of past listeners is of course a speculative question: Gjerdingen's historical schemata and Hepokoski and Darcy's "generic contract" between European musicians and their listeners require validation from multiple angles (for the latter theory, see James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata*. New York: Oxford University Press, 2006). The search for galant schemata has been modeled computationally in James Symons's dissertation (see James Symons, "A Cognitively Inspired Method for the Statistical Analysis of Eighteenth-Century Music, as Applied in Two Corpus Studies." PhD diss., Northwestern University, 2017), as well as in several recent studies by members of the Music Information Retrieval community. If schemata can be inferred from a corpus by computer, it suggests the possibility that schemata would have been acquired by listeners exposed extensively to a corpus. Here I take galant schemata as a given and speculate on the relationship between these elements of style and the more esoteric solfeggio tradition, of which Haydn had insider knowledge.

[8] See Baragwanath, *The Solfeggio Tradition*, p. 90.

[9] For related discussions of hexachords and additional aspects of traditional pedagogies, see also Eric Chafe, *Monteverdi's Tonal Language*. New York: Schirmer Books, 1992.

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on the position of the mutation. In descending, mutations happen by using "la" instead of "re" or "la" instead of "mi," again depending on the position within the scale made of overlapping hexachords. (Solmization syllables without parentheses represent syllables actually solmized, those in parentheses would generally not be used, unless the melody or segment does not require a hexachordal mutation and fits snuggly within a hexachord).

Gjerdingen's High-2 drop would likely be a familiar element of style to anyone well-versed in eighteenth-century style (Example 2). This type of embellishment is a kind of "overshoot" from a central melodic layer—whether we conceptualize it as galant schemata or in terms of melodic fluency among skeletal elements (that is, stepwise motion among skeletal core tones).[10] Baragwanath's reconstruction suggests that the High-2 is a type of *Inganno* or deceptive usage of solmization syllables: rather than creating a stepwise motion with scale degrees 5–4–3 respective to a local tonic (or solmization syllables sol-fa-mi respective to a single hexachord), the syllable "sol" is "deceptively" taken from a hexachord that lies is a fifth above. As I had discussed recently (and without being aware of the details of Baragwanath's reconstruction), the "High-2" or "High-6" drop is a point of idiomatic incongruence, in which a skeletal note (4 or 1, respectively)—or core tone in Gjerdingen's sense—is not on a point of metric stress (such as a downbeat), nor displaced from it by an accented dissonance of some type. Gjerdingen's skeletal core tones tend either to fall on points of metric stress (such as beats 1 and 3 in 4/4) or to be displaced from them by an accented dissonance. One common exception is skeletal scale-degrees 1 and 4.[11] In other words, scale-degrees solmized as "fa" as part of a "fa-mi" semitone are metric outliers, remaining skeletal even when they are radically displaced from a point of metric stress.

[10] For a discussion of melodic fluency in Schenker's writings, see William Pastille, "The Development of the *Ursatz* in Schenker's Published Works." *Trends in Schenkerian Research*, ed. Allen Cadwallader. New York: Schirmer Books, 1990: 71–85. For discussions of melodic fluency in galant schemata, see Andreas Metz, "Melodic Fluency in Keyboard Menuet Improvisation," Paper presented at the 9th European Music Analysis Conference, Strasbourg, 2017; Gilad Rabinovitch, "Hidden Polyphony, Linear Hierarchy, and Scale-Degree Associations in Galant Schemata." *Indiana Theory Review* 36/1–2 (2020): 114–166.

[11] Rabinovitch, "Hidden Polyphony."

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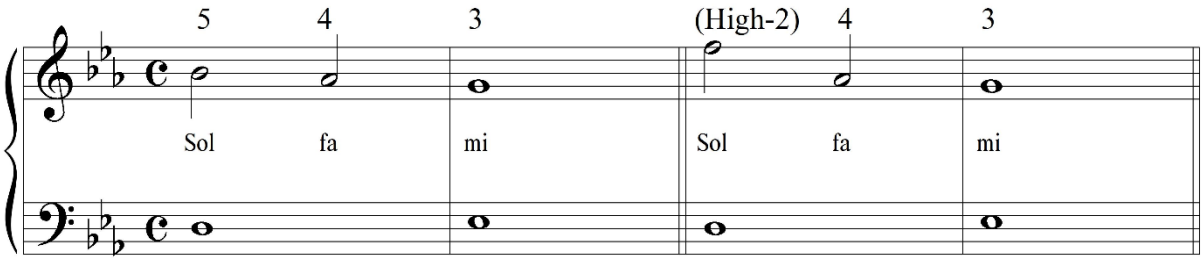

Example 2. Gjerdingen's High-2 as an *Inganno* (after Baragwanath 2020).

In order to make sense of the High-2 drop and associated embellishments as elements of the style, let us look at several measures from Carl Heinrich Graun's aria "Du held, auf den die Köcher" from *Der Tod Jesu*. Several outer-voice tritone resolutions (or "dominant-tonic" resolutions) are embellished through a typical flourish from the High-2 to the skeletal 4–3 resolution. The repertoire of idiomatic possibilities for the High-2 drop is not infinite: my recomposition in Example 4 shows the "fluent" galant speech goes beyond skeletons and peripheral melodic elements like the High-2, and encompasses typical surface formulas and diminutions, such as the ones learned in solfeggio and partimento treatises.[12] Yet I would assume that in the present forum of eighteenth-century scholars we might share intuitions about the idiomatic quality of Graun's original and the unidiomatic quality of my recomposition. In other words, while some aspects of eighteenth-century musicianship might be inaccessible to us (or require a careful philological reconstruction like Baragwanath's), other aspects of the style lend themselves to introspection and articulation through immersion in a stylistic corpus. I should mention here that Haydn's manipulations in the minuet *al roverso* include an unidiomatic pattern to which my Example 4 bears a certain similarity, as we will see below.

[12] For an illuminating discussion of surface structures in galant schemata and other related issues, see Robert O. Gjerdingen and Janet Bourne, "Schema Theory as a Construction Grammar." *Music Theory Online* 21/2 (2015).

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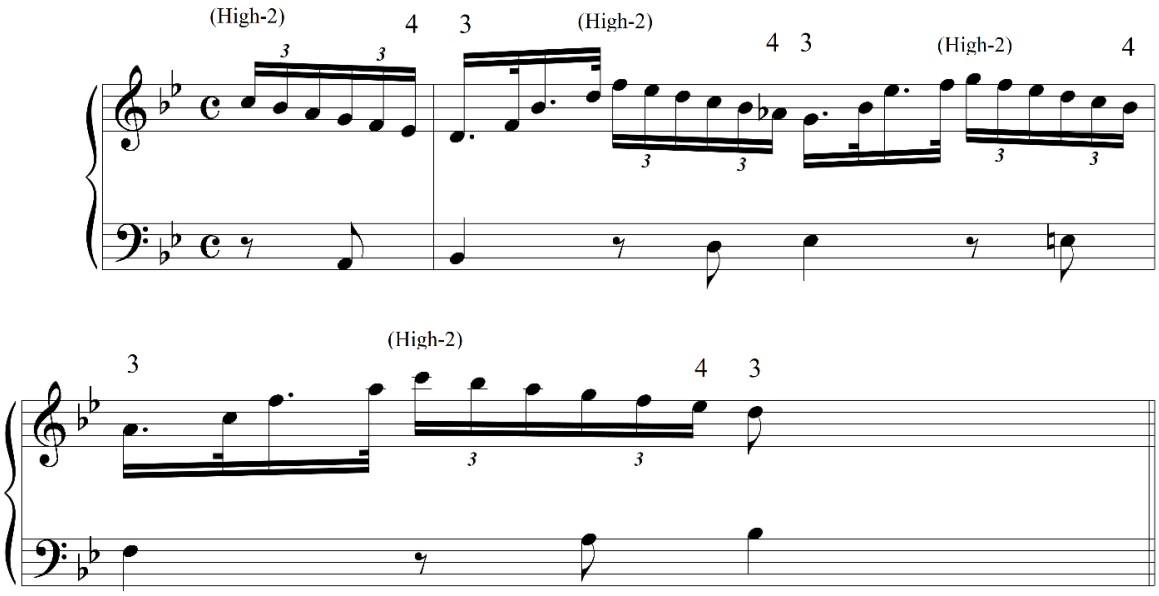
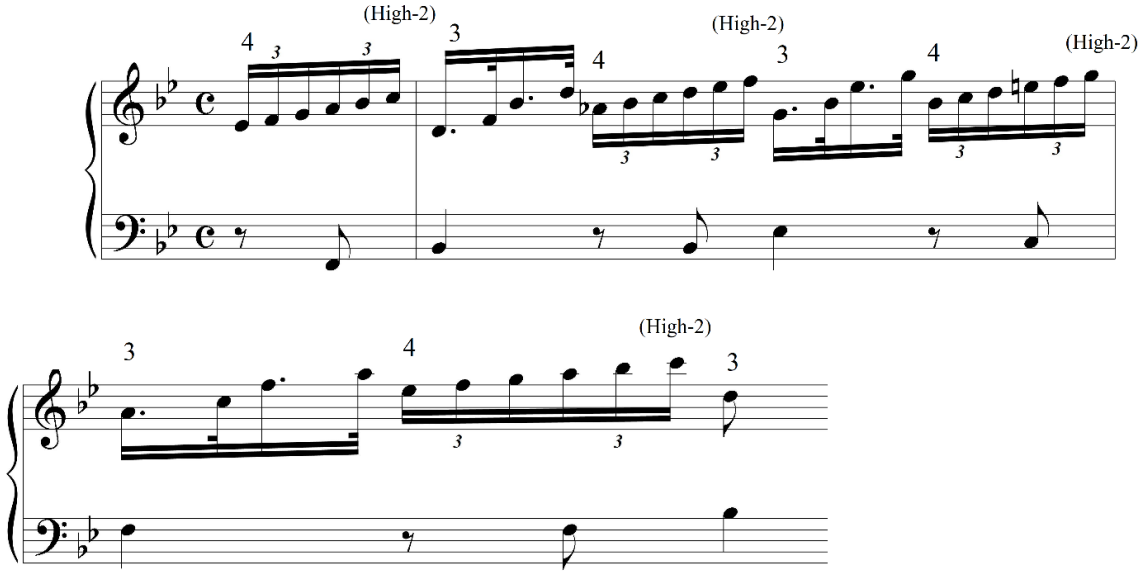


Example 3. Graun, "Du held, auf den die Köcher" from *Der Tod Jesu*, mm. 6–7 (reduced by the author, galant core tones 4–3 respective to a local tonic and High-2 peripheral melodic element annotated).



Example 4. My intentionally unidiomatic recomposition of Graun's embellished "fa-mi" skeletal resolutions.

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The typical *Inganno* of the High-2 drop takes a 5–4–3 pattern and moves the "sol" to a higher hexachord (Example 2), a framework that is embellished in Graun's aria. In Wolfgang Amadeus Mozart's well-known aria "Non so più" from *The Marriage of Figaro*, Cherubino's impassioned expression creates a more extravagant deception, which plays upon the typical *Inganno*.[13] Example 5 presents an analysis of the passage into schemata: Cherubino's opening four sung measures seem to imply Gjerdingen's Sol-Fa…Fa-Mi, which I relabel here as 5–4… 4–3 to avoid confusion between the skeletal tones of galant schemata and solmization syllables.[14] Example 6, which contains my recomposition, presents a schematic implication not realized. The juxtaposition of these two examples suggests that Mozart performs a deception upon a deception: instead of just using "sol" from the "wrong" hexachord, Mozart moves the following "fa-mi" to the upper, deceptive hexachord. In other words, for the impassioned Cherubino, the usual *Inganno* of moving the syllable sol only (Example 6) is not enough: he goes out of his way and adds an extra layer of solmization deception, which leads to a subversion of the conventional 5–4… 4–3 schema. The esoteric study of solfeggi would have been clear only to musicians trained it—choristers, castrati, composers, and others. Yet it is likely that listeners well-versed in the style—dead or alive—would at least implicitly recognize the schematic manipulation in Example 5, with the subverted implication to continue as in Example 6.[15] While I generally refrain from making autobiographical statements in my writing, I would like to stress that I had prepared this recomposition for a guest workshop at Cornell University in 2013—long before I had access to Baragwanath's reconstruction (and despite being aware at the time—through

[13] As I will discuss below (and, more fully, in the final version), often multiple notes were lumped together as melismas under a single solmization syllable. Nevertheless, the playfulness of examples like "Non so più" and the minuet *al roverso* lend themselves to interrogation even when using one syllable per note, as I do in this paper for simplicity. In analyzing Op. 50, no. 6, I will discuss the implications of melismas in solmization per Baragwanath's reconstruction and its significance for the playfulness of Haydn's movement.

[14] When absorbing Example 1 vis-à-vis my reconstructed solmization for Examples 5–6 (mm. 1–2), readers might wonder why I did not mutate to a lower hexachord on B flat-A flat-G-G-F-E flat, which could have been solmized "Sol-fa-la-la-sol-fa" with a mutation. Since the entire hexachord fits snuggly on the bottom of the vocal range, there is no need to mutate, and the lowest note, E flat 4, may be solmized "do."

[15] Note, too, that the setting of the words "Ogni donna mi fa palpitar" in mm. 11–12 of the aria, where the vocal pitches for "palpitar" are B flat–A flat–G, would have been solmized "Sol-fa-mi" (or, as we shall see later, probably as a two-syllable "fa-mi"), creates an elegant solmization pun between the poetry's "mi fa" and the solmization "fa-mi" on the word "palpitar." Compare to Baragwanath's discussion of Mozart's solfeggio Gj5323 (Baragwanath, *The Solfeggio Tradition*, pp. 270–271). Baragwanath argues that Mozart's exaggerated and unusual flourish on the syllable "mi" pokes fun at the vanity of Italian singers, whose "do-re-ME" and flourishes reflect their self-centeredness. Mozart's solfeggio Gj5323 is perhaps more familiar to many of us as a version of the *Christe eleison* solo from the Mass in C minor, K. 427.

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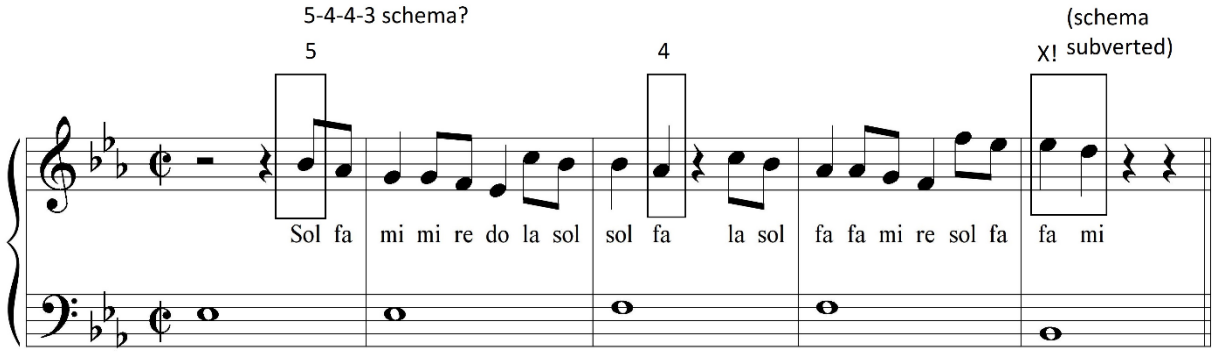
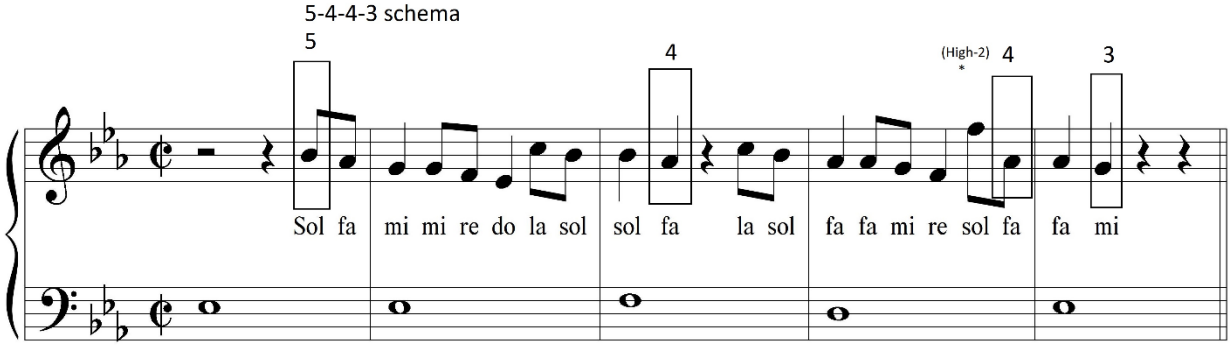
Gjerdingen's *Music in the Galant Style*—that the Neapolitan tradition used hexachordal solmization in some manner). Of course, Leonard Meyer and Gjerdingen had proposed many of these schemata based on their repertoire knowledge and research, without being aware of either partimenti or solfeggi, at least initially (in Gjerdingen's case). This is important, because it suggests that an understanding of the style and its patterns may be achieved through exposure and study, even for us, present-day musicians blind-sighted by an anachronistic seventh solmization syllable. Since this example by Mozart—as well as my two main Haydn examples to be discussed below—were already on my analytical desk before encountering Baragwanath's book, I was delighted to discover that they are playful not only in terms of galant schemata, but also contain hidden solmization games, which Baragwanath's reconstruction allows us to explore.



Example 5. Author's reduction of "Non so più" from Mozart's *The Marriage of Figaro*, mm. 1–5.



Example 6. Author's recomposition of Mozart's 5–4… 4–3 schema using the typical High-2 *Inganno*.

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II. Haydn's minuet al roverso

Haydn's minuet *al roverso* (see the melody of the minuet proper in Example 8) is a delightful example for the interaction between conventional schemata, a compositional conceit (retrograde), as well as hexachordal solmization. The compositional conceit of a retrograde minuet—realized so elegantly in this piece in comparison with other models from the period—requires some deviation from conventional schemata. What is at stake here is not just harmonic or contrapuntal "well-formedness" or grammaticality, but rather a play upon conventional patterns.[16] In Example 7, I have outlined how the G-major scale of Haydn's melody can be construed as a combination of hexachords on D and G, following Baragwanath's reconstruction.

Let us look at some of the constraints that the retrograde compositional conceit poses (Example 8). In order to create a pattern that would retrograde into an idiomatic descent to the tonic note at the end of the second reprise, Haydn interpolates m. 3, making a Meyer (scale degrees 1–7…4 –3) schema into a 5-bar unit in mm. 1–5. In my recomposition (Example 9), which forsakes the retrograde conceit, this instance of the Meyer schema is recast into a conventional 4-bar mold. In the original mm. 6–10 (Example 8), a conventional Prinner skeleton (scale degrees 6–5–4–3) connecting to a half-cadence melodic suffix (skeletal scale degree 2), playfully becomes a 5-bar unit, balancing the preceding 5-bar unit. The repetition of mm. 8–9 is unusual due to the contents of bar 8: High-2 followed by Gjerdingen's "core tones" 4 and 3 creates a strong idiom-specific expectation to be continued by scale-degree 2 in such a context, above and beyond the general tendency of melodies to proceed stepwise. Though this repetition is surprising, the metric embedding of the High-2 drop in mm. 8–9 is conventional: this is a peripheral melodic element that often occupies a strong metric position, while Gjerdingen's core-tone 4 (solmized "fa") occupies a weaker metric position. As discussed above, this is somewhat of an idiomatic exception for the tendency of galant core tones to either occupy a point of metric stress or be displaced from stress by an accented dissonance of some kind.

[16] On Haydn's minuet *al roverso* and related retrograde minuets, see Balázs Mikusi, "More than a Copy: Joseph Haydn's Menuet *al roverso* in Context." *HAYDN: The Online Journal of the Haydn Society of North America* 3/2.

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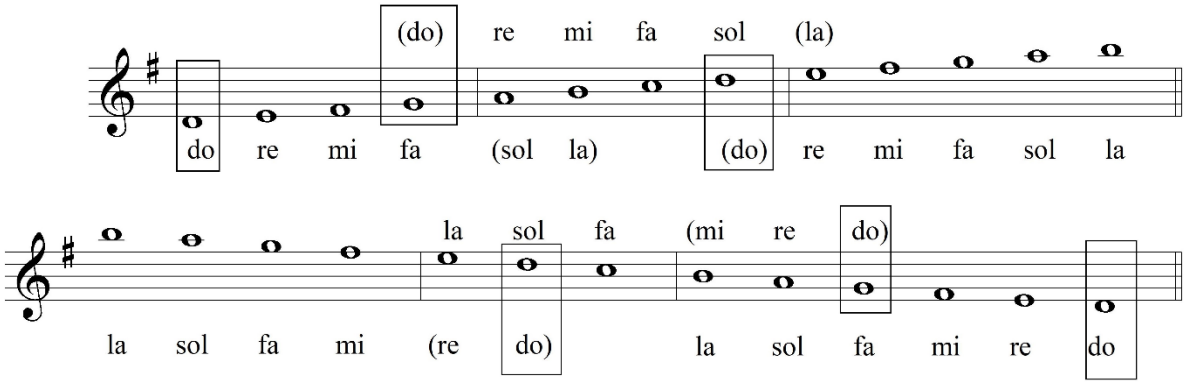
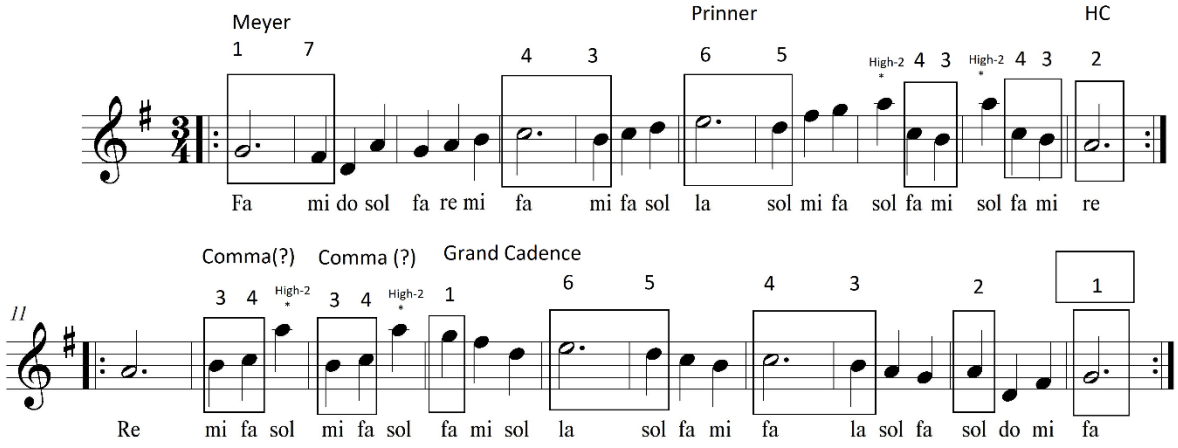


Example 7. The G major scale as a combination of the hard hexachord (transposed ot D) and natural hexachord (transposed to G), after Baragwanath.



Example 8. Haydn, Minuet *Al roverso* from Symphony Hob. I: 47, minuet proper, melody only.

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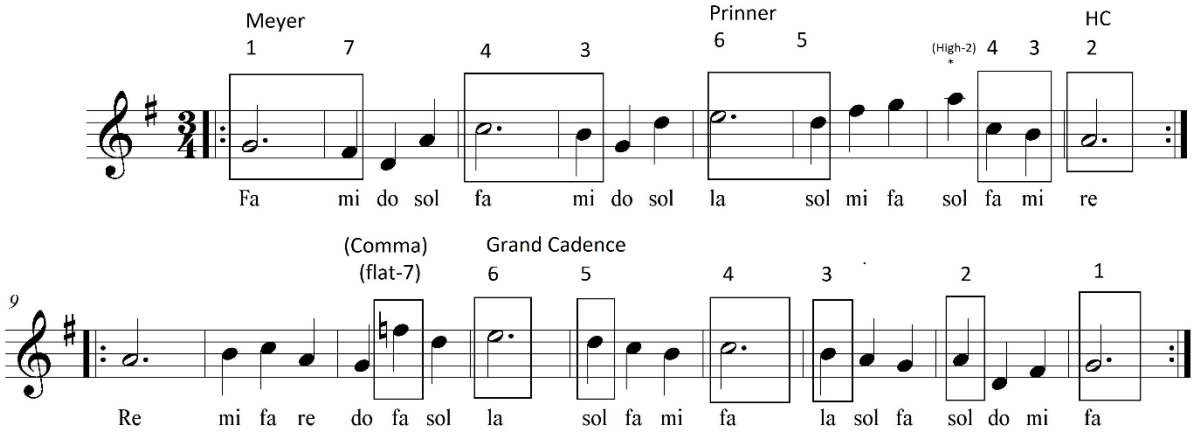

Example 9. My recomposition of Haydn's melody, fitting it into a conventional galant mold while forsaking the retrograde conceit.[17]

The repetition of m. 8 in m. 9 also draws our attention to the device of the retrograde, when the pattern is retrograded. MM. 11–13 (Example 8) are perhaps the most surprising in the entire minuet: the rhythmic retrograde of the High-2 melodic complex is a highly unusual event in the style. It seems to me that by repeating the whole pattern twice—once in bars 8–9, then in retrograde in mm. 12–13, Haydn creates a salient and noticeable manifestation of the retrograde technique for galant listeners. Present-day cognitive studies suggest that retrogrades are difficult for listeners to perceive. In fact, Haydn's minuet (in its keyboard version) was used by Elizabeth Hellmuth Margulis as a stimulus for a cognitive experiment on the perception of repetition. Margulis writes:

> [P]articipants in my study on repetition detection (Margulis, 2012) failed to register m. 11 as a repetition of m. 10 when exposed to the passage… [=minuet proper], despite that they follow immediately on each other's heels within the amusing structure of the movement, according to which the second part restates the first in retrograde. What explains the participants' failure to identify this repetition when other immediately successive repetitions of measure-length units (such as the ones in mm. 8 and 9) were identified without problem? Perhaps the acoustic differentiation between the performance of m. 10 and the performance of m. 11 was greater—

[17] The F natural in measure 11 of this recomposition is solmized "fa" per the traditional solmization rule: *una nota super la semper est canendum fa* (i.e., one note above la is always solmized fa).

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> performers tend to slow down at the end of phrases (m. 10), for example, but not at their beginnings (m. 11). But an alternative, if related explanation simply observes that the notes in m. 10 serve as an ending thing, but the notes in m. 11 serve as a beginning thing. According to this explanation, syntactic function is so salient that the beginning-end distinction makes m. 10 and m. 11, for all intents, separate "things" despite their surface similarity.[18]

Margulis's explanation of this failure to notice immediate repetition is elegant, demonstrating the productive dialectic of running experiments and theorizing their results. Yet the tonal cognition of Margulis's participants is based in the present-day Tower of Babel of tonal dialects: though we have a semblance of mutual intelligibility between tonal musics as far apart as Monteverdi, Rihanna, or Maslanka, say, most present-day listeners may not have sufficient exposure to eighteenth-century music so as to notice small points of idiomatic violation like the retrograded High-2 pattern.[19] (This statement is not meant to reinforce any cultural hierarchies of taste or genre—it is simply a neutral observation on the lack of familiarity of many present-day experiment participants with the small details of eighteenth-century idiom). The very strong violation of schematic norms in Haydn's mm. 12–13 is something that—presumably—can be understood by listeners with a strong sense of the idiom, even if they do not have an explicit label for this musical element. On the other hand, being aware of the jarring and unusual "stepwise" resultant solmization in mm. 12–13, "mi-fa-sol-mi-fa-sol," is something that requires an understanding of the esoteric solfeggio tradition. (This succession of syllables is almost never matched with such a jarring melodic succession). That is, an insider joke for a (narrow) circle of those who knew the hexachordal solfeggio tradition is embedded within a manipulation of conventional schemata the are presumably elements of style recognizable by a wider subset of listeners. Haydn seems as if he is communicating on multiple levels, making the retrograde conceit as transparent as it can be through a stark emphasis near the midpoint, while also playing some solmization games.

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[18] Elizabeth Hellmuth Margulis, *On Repeat: How Music Plays the Mind*. New York: Oxford University Press, pp. 42–43. The article cited within this quote is Elizabeth Hellmuth Margulis, "Musical Repetition Detection across Multiple Exposures," *Music Perception* 29 (2012): 377–385.

[19] Regarding the musical background and listening habits of Margulis's participants, see Elizabeth Hellmuth Margulis, "Musical Repetition Detection," p. 380. While 15 of 29 participants reported listening to classical music and 5 participants had some music theory training, it seems safe to me to assume—given the surprising paucity of performances of mid-eighteenth-century music even in present-day "classical" concert halls—that the participants are *not* thoroughly enculturated in the galant idiom.

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Another elegant way in which Haydn plays upon schemata can be observed in the way in which a succession of Prinner–HC in the first reprise retrogrades into a Grand Cadence pattern in the second reprise.[20] For instance, if we compare mm. 6–7 to their retrograde in mm. 14–15, we can observe the elegance of Haydn's play: though the pitch pattern E (dotted half)–D–F sharp–G (3 quarter notes) retrogrades simply to G–F sharp–D–E, the pattern of skeletal core tones does not retrograde precisely. Holding E for the entirety of m. 6 and m. 15 creates a skeletal scale-degree 6 that is useful for both the Prinner and the Grand Cadence patterns. In contrast, the three-quarter-note pattern D–F sharp–G in m. 7 situates the skeletal D (i.e., scale-degree 5) on a strong beat, as is typical for most schema core tones. This provides a smooth continuation down from the Prinner's scale-degree 6. When the pattern is retrograded in m. 14, it situates G on the downbeat, hence G is interpreted as a skeletal core tone (High-octave 1) of the Grand Cadence. Thus, Haydn's retrograde game is far from a mere "passable" minuet that can work harmonically and contrapuntally in retrograde: his playfulness seems as if it takes into account (even implicitly) skeletal patterns.

Finally, I would like to point out that it is for from trivial that the solmization syllables can be retrograded almost precisely: with the exception of m. 3 and its counterpart m. 18, which—due to mutations—are not *solmization* retrogrades of one another (despite the pitch retrograde), all other measures have corresponding solmization syllables in ascending and descending. Readers can observe this by reading the solmization syllables of mm. 11–20 backwards and comparing them to those of mm. 1–10. The fact that most patterns retrograde to the same syllables—despite the complexities and differences between mutations in ascending and descending—makes it seem almost as if this were a deliberate game. I should also observe that it would have been possible to solmize Haydn's original mm. 3–4 as fa-sol-la-fa, applying the traditional rule "*Una nota super la, semper est canendum fa*" (i.e., one note above la is always solmized fa), and creating a solmization pattern that lends itself to be retrograded perfectly in the second part.

[20] Regarding the Grand Cadence, see Robert O. Gjerdingen, *Galant Style*, pp. 152–153.

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III. Haydn's string quartet Op. 50, no. 6, first movement

The opening of Haydn's string quartet Op. 50, no. 6 plays not only upon finding the initial tonal center and meter, but also on hexachordal solmization.[21] In the final version of this article, I will explain Baragwanath's reconstruction of solmizing melismas, in which several notes are lumped under one solmization syllable per the "Amen" and "appoggiatura" rules. (In fact, it is quite possible that the preceding examples would have been solmized with some melismas, but for simplicity I have kept a one note-to-one syllable correspondence, which probably still captures the playfulness of those prior examples despite this small methodological compromise). For now, I will only observe that Baragwanath suggests that "traits"—symbols in solfeggio treatises that look somewhat similar to slurs—are indications in such manuals for lumping several notes under a syllable as an embellishment. In analyzing this movement, I will argue that slurs should be construed as traits in order to understand Haydn's solmization puzzle. These issues will be explained more thoroughly in the final version of this work-in-progress. For now, I will just mention that when the opening four measures of the piece are reinterpreted in the key of vi at the beginning of the development. I suspect at this stage of my research that Haydn maintains all solmization syllables but one for main melodic part: Sol–fa–la–sol–fa–mi–fa in the opening of the exposition turns into Sol–fa–la–sol–fa–mi–re in the development section.[22] Yet the music of each passage ultimately contains a sufficient number of tonal cues to allow listeners to hear diatonic scale degrees respective to D major (opening of exposition) and B minor (opening of development). In this case, too, Haydn plays two kinds of games: an esoteric solmization game and a game on skeletal scale degrees, which is decipherable in principle even for listeners enculturated in the style. In other words, galant schemata give us a glimpse into elements of a shared language, while hexachords clarify mental models for musicians who could spin out diminutions respective to skeletons consisting of solfeggio syllables. In my two analytical case

[21] See Danuta Mirka, *Metric Manipulations in Haydn and Mozart: Chamber Music for Strings, 1787–1791*. New York: Oxford University Press, 2009, p. 34.

[22] For an example to which my Example 11 is comparable, with re-based minor and "fa-super-la," see Baragwanath, *The Solfeggio Tradition*, p. 116 ex. 6.17(b), as well as the abstract descending model on p. 90, ex. 6.4(b). A more detailed explanation of this issue as well will be included in the final version of this paper.

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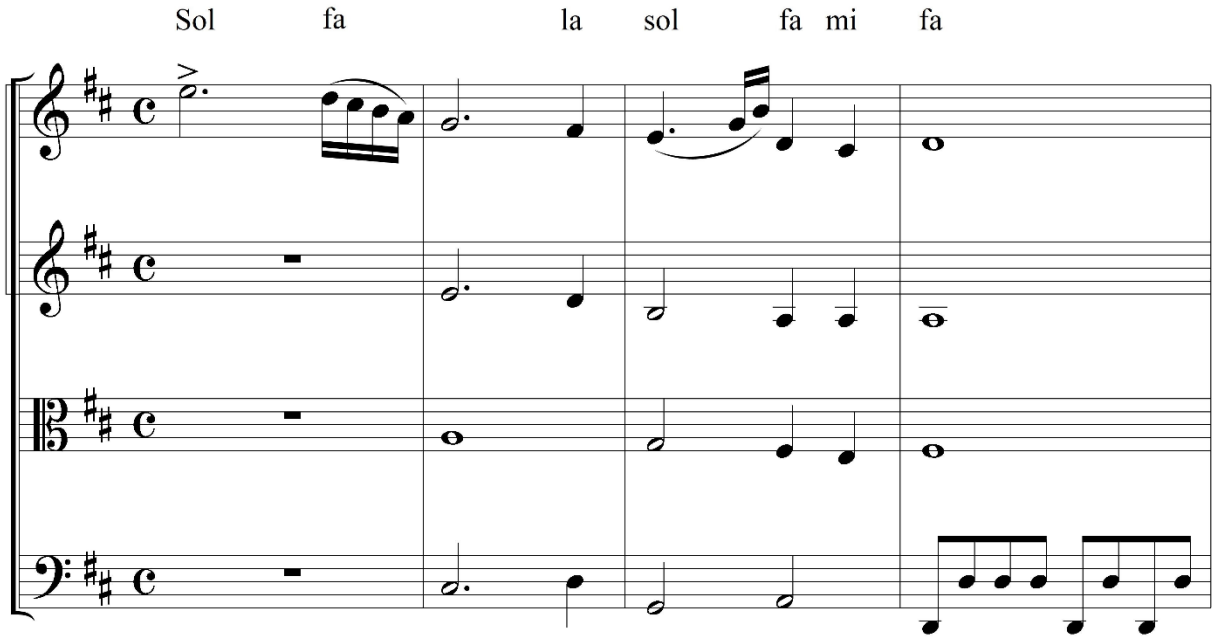
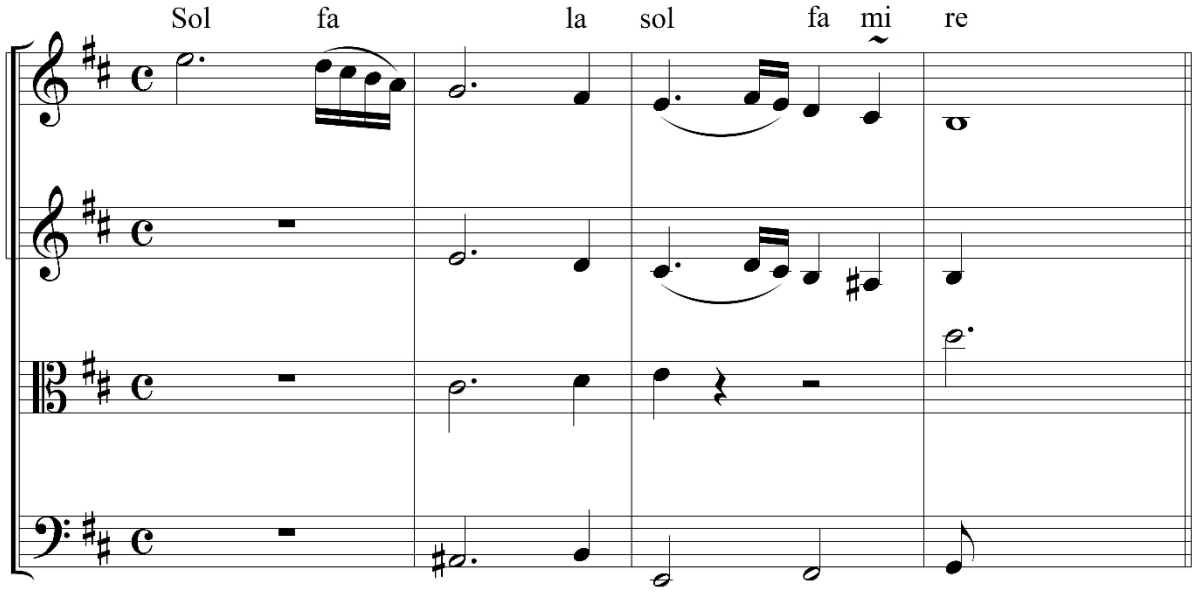
studies, Haydn seems as if he is playing the two games simultaneously. Thanks to recent work on schemata and solmization, we can reconstruct and appreciate these multi-faceted conceits.



Example 10. Haydn, String Quartet Op. 50 no. 6, mvt. 1, mm. 1–4 (beginning of the exposition).



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Example 11. Haydn, String Quartet Op. 50 no. 6, mvt. 1, mm. 55–58 (beginning of the development).

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Abstract

Two analytical case studies, from Haydn's minuet *al roverso* (from the Symphony Hob. I: 47) and the opening movement of the String Quartet Op. 50, no. 6, show the interaction of galant schemata (Gjerdingen 2007) and the hexachordal solmization of the solfeggio tradition (Baragwanath 2020). Haydn plays upon conventional galant schemata—presumably elements of style shared by listeners who are closely familiar with the idiom (even if they do not have explicit schema labels); he also plays upon a more esoteric element of his own training and that of many other musicians in the period: hexachordal solmization. By considering both schemata and hexachords, I argue that Haydn's conceits work on multiple levels, communicating with both stylistic insiders familiar with schemata, as well as with a narrower group of insiders trained in hexachordal solmization.