Reining in Pitch and Pitch-Class Motives: Rules for Improving Analytic Outcomes in the Tonal Theory Classroom

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Reining in Pitch and Pitch-Class Motives: Rules for Improving Analytic Outcomes in the Tonal Theory Classroom

BRENT AUERBACH

Pitch-based motives proliferate in many styles of music and are routinely covered in undergraduate instruction. The treatment motives receive, however, is usually cursory. Tonal theory instructors have many reasons for skimming the motivic analysis unit, among them time pressures, underestimating the topic's complexity, and the influence of textbook design. This standard rushed approach yields poor outcomes in which students are unable to reliably identify recurrences of a small set of motives over any musical span. They are as likely to apply brackets and labels indiscriminately to too many (trivial) events as they are to under-analyze large stretches of motivically-significant events.

This article offers a detailed methodology to combat such results, which manifests at its core as a set of graduated, restrictive guidelines for both students and teachers. The rules are cast in negative valence—e.g., "endeavor to not do this or that"—to counter the outcomes that result from classes being afforded too many freedoms in technique too early in their development. Such unrestricted analyses—which highlight phenomenally-dubious shapes, over- or under-analyze long stretches of music, and inconsistently relate ideas to each other—often fail to communicate a clear view of pieces. The utility of the method is supported by critiques of fabricated student analysis and teacher assignments centering on pieces by Fanny Hensel, Wolfgang Amadeus Mozart, and Edvard Grieg.

I. Introduction: Issues of Teaching Motivic Analysis

Pitch-based motives are routinely covered in undergraduate music theory instruction, frequently early in the curriculum and only briefly.1 Textbooks published over the last twenty-five years typically devote little room for the discussion of motives, ranging from one or two paragraphs to several pages at most.2 In these contexts,

1 While many theories regard motives as primarily rhythmic, with pitch content contributing to a shape's identity in some but not all cases (Zbikowski 2002, 26), this article—following Straus 1990 (24), Beach 2012 (xvii) and Forte 1983—concentrates on pitch and pitch-class motives. My decision to concentrate on pitch and pitch-class motives should not be viewed as an implicit argument against the central importance of rhythm-based shapes; indeed, many of the principles and guidelines detailed below can be adapted to rhythmic motive analysis.

2 With respect to textbooks that include sections on motive, see Kostka, Payne, and Almén (2018, 150) and Roig-Francolí (2011, 274) for briefer treatments of motive. See Clendinning and Marvin (2016, 362–68); Benjamin, Horvit and Nelson (2014, 234–39); Gauldin (1997, 149–53 & 338–39); and
the motive topic primarily serves to illustrate basic aspects of melody construction.³ A working definition for motive is provided. Then, the texts present the standard pitch transformations of inversion, augmentation, fragmentation, etc. to show how composers achieve novelty through variation while promoting continuity and coherence through economy of material (see Example 1). This approach to introducing motives presents no pedagogical complications in terms of content or the bracketing/labeling practices modeled, because communicating the concept, vocabulary, and basic usage of motives, in the theoretic sense at least, is fairly straightforward.

a. Two examples from Benward and Saker (2009, 120) from the section on pitch motives.

Example 1
Textbook illustrations of pitch motives

This article, in contrast, treats the issue of motives returning later in the curriculum as a means for carrying out analysis—a more complicated enterprise that has long occupied a tenuous position in the standard four- or five-semester undergraduate theory curriculum. Instructors who build a motivic analysis unit into their class plans have many reasons for doing so. Motives appear in most styles and genres of music; moreover, these shapes have been recognized by composers and Benward and Saker (2009, 119–21) for somewhat lengthier explications.

³ Two exceptions to this generalization should be noted. One is Caplin (2013), which invokes motive frequently throughout to reinforce the connection between motive and melody. While Caplin provides many astute insights into motivic relationships, they are too isolated to constitute a workable, standalone approach to analysis. The other is Laitz’s Complete Musician in its second and fifth editions (2008; 2023, with Callahan), which dedicates a full chapter to introducing pitch, rhythm, and texture motives, culminating in three demonstrations of advanced techniques (e.g., multi-movement motivic correspondence).

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theorists for centuries and are routinely used by musicians in their daily lives. A third reason for including motives is in keeping with musicians' early, informal experiences with them, perhaps sitting next to a studio teacher who pointed them out in scores. Lastly, motive is regarded by many, for better or worse, as a relatively easy theory topic to grasp, further recommending it as a potentially gentle, non-technical first foray into analysis.

Beyond this, motivic analysis offers other advantages that align more specifically with goals of theory pedagogy as practiced in music academic settings. Jane
Clendinning and Elizabeth West Marvin, the authors of *The Musician's Guide* series, assess the value of motivic analysis as follows:

Motivic analysis, a topic that has long fascinated music analysts and composers, can reveal remarkable economy and unity, generating complete and satisfying larger forms from a handful of motives. Identifying the primary motives and their transformations can also help you memorize a piece as well as shape a musical and satisfying performance (2016, 365).

The quote's second sentence lists two benefits that appeal to applied musicians: namely, that studying motives will save them time in the practice room and raise the effectiveness of their performances. The first sentence refers to rewards that are less immediately tangible. It argues that some aesthetic satisfaction derives from the “economy and unity” built into certain pieces, and that these aspects are discoverable by examining motives. To the extent that one would like students to express their knowledge about how classical music is structured and for what expressive purposes, it follows that a worthy skill to foster in them is medium-to-large-scale motivic analysis.

Despite the many benefits of motivic analysis, such a unit never appears in many curricula. One reason for this is the perennial problem of time pressures—with simply too many topics to cover in roughly two years. Another reason stems from the content and organization of the class textbook, which often provides the blueprint for an instructor's curriculum. In the rare instances where textbooks broach motivic analysis, the coverage is often brief and/or couched as an enrichment activity.

A third reason for not teaching motivic analysis is the general lack of established procedures for carrying it out. Within speculative theory, motives have long resisted systematization in nearly all respects, including their format (size and scope), nomenclature, and transformational behaviors. The literature, moreover, offers surprisingly little direction on how to organize and structure a full motivic analysis. My recent book, *Musical Motives* (2021), represents an exception in this regard; however, its scope precludes incorporation into a one- or two-week course block.

With the pedagogy of motives having long been disunified, it has fallen to instructors of each generation to determine anew their own views of what motives look like and how they act with respect to repetition and variation, as well as what constitutes a proper analytic claim. While few textbooks offer concrete guidance for carrying out motivic analysis, one or two at least endeavor to offer some advice. Examples include Turek's fine suggestion to “match an initial melodic idea with harmonies that fit it” (2007, 195) and the following recommendation from Clendinning and Marvin: “In
analysis, first identify motives by their shape and repetition, then look for possible transformations in rhythm, contour, or intervals that help to unify the passage. Above all, use your ears!” (2016, 364).

The fourth and last reason for omitting coverage of motivic analysis, this one also entangled with methodology, is that motives and motivic analysis are both more complicated than most think. The issue, put more directly, is that motives are inherently multi-dimensional. We may treat them as if they were purely pitch and rhythm entities; however, the fact that they may occur anywhere in a piece’s fabric speaks to them being intrinsically bound to all musical domains, including harmony, contour, articulation, and texture.

Theorists and educators who regularly work with motives are generally better able to sense how the melodic lines in tonal music coordinate with harmony. As a result, these seasoned analysts tend to parse motives more musically. Students who lack this training, on the other hand, too often seek out and draw circles around motives as they would targets in a word search task (Rosen 1994, 95). Growing out of that habit means pondering the larger contexts in which a motive’s constituent notes appear. At the same time that students develop that skill, they must also learn to navigate the “is-it-or-isn’t it?” ambiguities associated with the phenomenon of a shape returning with an altered surface rhythm and/or pitch profile.

These plural aspects of the topic are far too complex to be addressed by any “crash course” introduction to the topic. A day or two of lecture and demonstration followed by one or two assignments can result in a wide array of problems. One student’s paper may be festooned with brackets, boxes, and lettered labels (x, y, z, etc.), many or all inconsistently applied. Another’s may show vast stretches of un(der)-analyzed music, in which hardly any markings appear at all. It is not uncommon for both extremes to manifest in a single analysis!

A condition in which students cannot identify recurrences of a small set of motives over a span of music is pedagogically untenable. In response, this article prescribes a detailed pedagogy that will help students analyze motives consistently and with confidence. It begins in Section II by detailing three model behaviors associated with a convincing motivic analysis: panoramic vision, synthetic thinking, and consistency. The article’s core pedagogical offering is then presented as a method in the form of graduated, restrictive rules for identifying and associating motive forms and for organizing findings. The student rules are supported by a set of complementary guidelines for teachers. In Section III, the rules and guidelines are demonstrated by being applied to fabricated multi-stage analyses of works by Wolfgang Mozart,
Fanny Hensel, and Edvard Grieg. The article’s conclusion offers additional thoughts on the method, specifically with regard to curriculum design, that culminates in a final assessment of the rules in terms of their utility and—somewhat surprisingly—their flexibility.

II. Pedagogy of Motivic Analysis

This section outlines a novel path towards competency in motivic analysis in three main parts. The first part establishes three model (i.e., “good practice”) behaviors deemed essential in analysis. The second part introduces the restrictive rules pertaining specifically to motivic analysis. The third part lays out a full process of analysis, from instructor planning, through student work and multiple revision, all the way to the complete and improved analytical product.

A. Model Analytic Behaviors

To provide context for the rules to follow, I begin by introducing three model analytic behaviors. While all three naturally associate with effective analysis in general, conscious awareness of them is particularly critical when carrying out motivic analysis. The first behavior involves adopting what I call a “panoramic vision” approach to analysis. This term is intended to signal the opposite of a tunnel vision approach, where emphasis is given to findings obtained from too narrow a viewpoint (e.g., developing a Roman numeral analysis in the hope of definitively analyzing a piece.4) To promote panoramic vision, the rules have been crafted to expand the traditional classroom view of motives as pitch and rhythm events to include texture and harmony. With regard to texture, the method directs students to examine not just the melody, but all voices. Regarding harmony, it instructs them to determine the content and boundaries of motives not by intuition, but by calling on their knowledge of chord tones versus non-chord tones and on the technique of melodic reduction. This multi-domain concept of motive5 broadens the scope of analysis, encouraging students to hear and see shapes both at the surface and under reduction, and, equally

4 Here it is, of course, mistaken to think that a Roman numeral analysis can convey a comprehensive account of even a single one of a piece’s aspects, including harmony!

5 Critically, this approach can be extended beyond an introductory unit, eventually encouraging analysts to view motives themselves more broadly as “complex” configurations of rhythm, pitch, articulation, dynamics, gesture, etc. This view, codified early in Schoenberg’s (2006) definitions and demonstrations of motive, has been amplified in writings by Carpenter (1988), Epstein (1979), Zbikowski (2002), and Auerbach (2021).
importantly, to observe them interacting with each other.6

The second behavior is synthetic thinking, which means making analytic connections not merely on the basis of immediate, surface findings, but on discovered findings as well. This concept invokes the distinction between observation and interpretation, two activities both integral to analysis which are separable in conception if not fully in practice.7 Observation entails gathering up musical facts—e.g., pitch and rhythm configurations or textural and articulative gestures—as one reads a score or attends to a performance. Interpretation entails arranging those facts to form new conclusions about musical (and, in many cases, compositional) processes.

The last model behavior is consistency. Consider that musicians, when carrying out analysis, usually rely on extant theories such as set theory and contour theory. These frameworks provide scripts for carrying out research and serve as a lingua franca helping to ensure that others will follow their arguments (Kuhn 2012). As noted earlier, the fact that motivic analysis largely lacks such trappings of an established discipline is one of the main reasons it is difficult to teach: there is too little consistency and communication among practitioners. Students seeking a return of a target shape in a span of music should not freely make up reasons to explain how each new event relates to it, but rather should argue by appealing systematically to a single set of criteria. They should, moreover, be comfortable applying the same principles of motivic identification to every piece they examine. By extension, the virtue of consistency also applies to larger groups of students in a classroom (or analysts in a society) as a standard analysis method is practiced and findings are communicated.

B. Rules and Guidelines for Reining in Motives

The method presented in this part of the article manifests as a set of graduated, restrictive rules.8 The rules are cast in negative valence—e.g., “endeavor to not do this or that”—in a similar manner and for a similar reason that the foundational rules of species counterpoint are. It is to counter the outcomes that result from students being afforded too many freedoms in technique too early in their development. Such freewheeling, unrestricted analyses, which highlight phenomenally-dubious shapes,
over-or under-analyze long stretches of music, and inconsistently relate ideas to each other, often fail to communicate a clear view of pieces.

The philosophy of teaching via restrictive rules has garnered skepticism in modern pedagogy for many reasons, among them that it can discourage creative thought. I here reaffirm that instructors should remain cognizant of the potentially negative impacts of any proscriptive approach. In certain situations, however, such as at the very beginning of a unit, the “Endeavor to not” approach does have merits. The main one is that it allows for the installation of guardrails that can center practices, as opposed to admitting too many from the start. A corollary benefit is efficiency. In providing a means for streamlining classroom debates about which shapes are viable and which are not, this approach affords students more time to discuss the substantive content of the analyses at hand.

The “Endeavor to not” rules address a host of analytic concerns, ranging from microscopic issues of motive formation to macro-scale issues of structuring and presenting effective analyses. To further support the pedagogy, the main set of rules are supplemented by five guidelines for instructors that are meant to help them design class activities and homeworks.

To ground the following discussion and to prepare readers for the symbology used in the examples, this primer begins with some foundational definitions and conventions. The working definition for motive is a memorable musical event comprised of approximately two to seven notes. (Note, an important corollary to the stipulation about memorability is that any motive established early in an analysis must recur at least once.) The lower boundary requirement of two notes is firm, while the upper one is flexible. As noted earlier, all motives to be discussed will be regarded primarily as pitch and pitch-class entities. Although there are no prohibitions against harmonic,

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9 Increasingly, teachers have come to prefer rules that correlate actions with outcomes, such as “Incorporating parallel fifths into your part writing can result in this [drone/power chord]-like sonic effect.” This more neutral instructional stance is more edifying in that it tends to foster—as opposed to shutting down—student discussion and exploration. For more on the distinction between proscriptive and prescriptive rules and their role in theory instruction, see Dubiel (1990).

10 Readers should note that a significant portion of this article’s conclusion addresses when such guardrails may be removed.

11 Rationalizing motive as inherently melodic and embodying motion, Heinrich Schenker explicitly discounts the possibility of one-note pitch motives (1921 [2004], 27). Arnold Schoenberg, in contrast, very occasionally identifies single-attack events—notably, chord strikes—as motivic, even though his theory does not specifically treat the phenomenon. For more on chordal motives, see Anson-Cartwright (1996).
textural, contour-based, and even gestural motives, I recommend refraining from exploring these types in the earliest stages of instruction.

A brief set of examples centering mostly around Sousa’s Washington Post march will illustrate this article’s formatting and labeling conventions, as adapted from Auerbach 2021 (105–28); see Example 2. In the pitch/pitch-class domain, motives are most often named according to their bounding diatonic interval, such as “2nd” or “6th.” The specific quality (minor, major, perfect) of such intervals will be disregarded in tonal contexts to avoid the need for renaming motives that are diatonically transposed; for example, both C-D-E and D-E-F will be regarded as equivalent, “3rd” shapes. For motives taking the form of commonplace figures, it is possible to apply a descriptive label, such as “neighbor,” “arpeggio,” or “arch.” A motive’s basic label can, moreover, reflect its general direction and disposition. One may specify with a prose or arrow qualifier that a given motive form ascends or descends as so: ↑6th and ↓Arp for an upward sixth leap and downward arpeggiation. (Such designations, being optional, will not appear in all cases below.) Additional qualifiers can be called on to indicate, say, that a fourth motive is “linear” or “gapped” or that it features “chromatic motion” (e.g., “Chr. 4th”).

In the pitch and pitch-class domain, a motive may always manifest as a fully contiguous stretch of notes in one voice, otherwise known as a surface motive. Three motives of two different types are shown in Example 2a, where a descending fourth (↓4th) shape is followed by two chromatic arch (Chr. Arch) shapes. Readers may observe in this and all subsequent examples that analytic brackets, beams, and circles are used indiscriminately, on the basis of notational convenience, to maximize readability.

Pitch motives may also manifest under melodic reduction. To democratize and more quickly inculcate a technique that can take years to master, I advocate for a “mechanical” style of reduction that prioritizes notes that appear at regular durations,

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12 When describing strings of melodic pitches, the first note will be given a register designation in accordance with Acoustical Society of America standards. All subsequent notes will be assumed to lie in the same octave unless a new one is specified. For example, the pitch segment E₄-C-D-B₃-A-E₄ starts above middle C, crosses below it for two notes, and then ends on the E above.

13 Reduction, which simplifies a music’s surface to lay bare its underlying structure, is a primary concern in many styles of analysis; see Forte and Gilbert (1982, 7–17) and Morris (1993). Much of the skepticism that theorists harbor with regard to motivic analysis is rooted in its long tradition of favoring intuitive reductive approaches—exhibited most famously in Rudolph Réti’s Thematic Process in Music ([1951] 1978)—over more systematic methods. In response, a few theorists, such as Epstein (1979) and Boss (1999), have sought to inject more rigor into motivic analysis by incorporating reductive techniques found in other methods, most often tonal analysis.
a. Linear fourth (4th) and "chromatic arch" (CA) motives in Sousa's *Washington Post*, mm. 12–15.

b. Three linear third (3rd) motives appearing at the dotted-half note level (Sousa, *Washington Post*, mm. 40–48). The motives in the bass are surface motives; the soprano 3rd is discovered under melodic reduction.

c. Composite motive nomenclature. The same figure accommodates two labels, N+↑3rd at left and N(↑)↑4th at right (Sousa, *Washington Post*, mm. 53–54).

d. Demonstration of prefix and suffix tones decorating a core linear 6th shape spanning D♯–B♭ (Excerpt is newly composed, not from the literature.)

The entries at left show approach to the core shape by step above and below; those at right show exit by step down or up. The dotted bracket below the / 6th motive indicates a potential for an alternate label, 7th, that does not rely on a prefix.

**Example 2**

Demonstration of pitch and pitch-class motives, formatting and nomenclature.
for example at “every dotted half note.” (Here I would point out the sharp divergence from Schenkerian-style reduction, which places far less emphasis on surface rhythms and requires expert knowledge of counterpoint and harmony.)⁴ In Example 2b, mm. 41–43, a 3rd motive is beamed in the bass. Importantly, this does not constitute reduction, because all the tones in that voice are contiguous. The place where melodic reduction does occur is in mm. 45–47 in the melody: the extraction of tones at every one of three successive downbeats reveals another 3rd shape on E₄-F-G. The beams in the score excerpt illustrate that, in this case, the 3rd runs in parallel in the outer voices. (This insight, it should be noted, is the first that qualifies as an example of "synthetic thinking" behavior.)

Composite motives are recognized in this method as well. A standard plus sign, +, is used to indicate a discrete joining of smaller motives, as shown at left in Example 2c. A circled plus sign, ⊕, indicates an elided joining with one-note overlap, as shown at right. In allowing both composite motive labels, N+↑3rd and N⊕↑4th, to stand as correct and viable, this nomenclature convention expressly accommodates ambiguity. This flexibility precipitates two remarkable corollary conditions that should always be kept in mind. The first, more generally, is that ambiguity in labeling is inevitable when working with motives at this level of detail. The second is that ambiguity can and should be embraced and productively harnessed. An analyst encountering the raw melodic stuff of Example 2c, for instance, is free to decide between the 3rd- or 4th-based readings; they should make their choice so as to maximize resonance with 3rds or 4ths identified elsewhere.¹⁵

The last preliminary labeling convention allows analysts to view core motives as potentially being decorated by prefix and suffix tones.¹⁶ Stepwise approaches into a motive from above or below can be shown by placing a slash, \ or /, before the intervallic span designation, as in Example 2d, at left. Suffix motions exiting the core

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¹⁴ The precedent for my “equal duration” reduction is David Epstein’s Beyond Orpheus. His Rule 2 for “ascertaining structurally significant pitches in thematic shapes” holds that “significant notes more often than not lie upon rhythmic and/or metric strong points” (1979, 37). It is true that Epstein’s book reflects the influence of Heinrich Schenker, perhaps most tellingly in the emphasis it places on multi-level (hierarchical) analysis. Despite this, Beyond Orpheus remains primarily a Schoenbergian treatise (1979, 7).

¹⁵ I prefer a fourth-based reading of this piece on the basis of the many salient fourths expressed throughout; examples in the melody can be found in mm. 8–11 (D₅-G), mm. 11–12 (G₅-D) and mm. 22–23 (A₅-D₆).

¹⁶ Cadwallader (1988) similarly distinguishes the main body of a pitch-based motive from tones on its fringes that appear to change the spanning interval.
motive are illustrated at right. As was the case for composite motives, ambiguity comes into play with prefix and suffix notation. This can be observed in the bottom-left portion of the graphic, where the same C#₃-B₃ motive may be labeled as a 6th with prefix or a 7th without one.

Once a class has established its conventions for conceiving and labeling motives by relying on the above recommendations or its own procedures, it is appropriate to institute the rules list given in Example 3a. (Although the supplemental guidelines for instructors will not be treated until later in discussion, they are printed here in Example 3b to facilitate quick reference.)

As soon as the preview of the motive unit concludes, each member of the class should be given a copy of the rule sheet. The students should then proceed to a table reading of Rules i and ii and 1–6. Many, no doubt, will want clarification about certain words, such as “figuration,” “distortion,” and “style.” They may wish to voice early opinions about the rules, too, which should be encouraged. It is important during this activity that the instructor point out the varying scope of the rules. Some rules apply to very local phenomena such as individual pitch shapes, while others guide analysis in general by indicating where (not) to begin and how (not) to organize and present findings. The tone of discussion, overall, should be constructive. Even in the act of presenting the restrictive rules, teachers should couch the process in open and inquisitive terms, stressing that many of the restrictions will eventually be negotiable.

Rules i and ii, the “Initially, do not…” rules, put tighter restrictions on motive formatting; these rules may be relaxed near the end of the one- to two-week motive unit. Rule i discourages beginning or ending a motive on a tone of figuration such as a passing tone, neighbor tone, suspension, or anticipation. It is meant to prevent instances of students parsing a shape without pausing to consider where its natural boundaries are. Rule i offers a further boon in that it requires students to consider a passage’s harmonic content before delving into its motivic content, as in the vast majority of cases a tone of figuration will manifest as a non-chord tone. (Note: a rare exception to this, to be treated later in Example 12, may occur when seventh or ninth chords are present.) Consider the excerpt of Hortense de Beauharnais’s song, “L’aventu” shown in Example 4. A first attempt at analysis in part a of the example yields a set of problematic motives. The red circles indicate improper boundary tones. The first two bracketed 3rd shapes begin on neighbor tones; the third and fifth bracketed 3rds end on passing tones.

\[ \text{17} \] This rule is inspired by the common part-writing error of leaping away from non-chord tones, which can result in awkward-sounding, uncontrolled dissonances.
Initially, do not . . .

i. begin/end a motive’s core content on a tone of figuration such as a neighbor tone, passing tone, suspension, anticipation, etc.

ii. allow motives to cross voices.

Generally, endeavor to not . . .

1. distort a motive in terms of length (how many notes) nor in terms of interval content (no compression or widening of intervals, except in “leap” and “ARP” motives)

2. begin by analyzing motives, even if the desired result is a motivic analysis! (instead, start by analyzing form, harmony, and developing a sense of the piece)

3. analyze the melodic voice only.

4. seek out small motives inside tightly patterned figuration. (instead, trace the activity of each voice in the figuration across repetitions)

5. produce analyses that have stretches of motivic “overgrowth” and/or “deserts.”

6. produce a purely observational analysis. Include at least one non-obvious/non-surface event, such as . . .
   - motives under rhythmic alteration/inversion/reduction/transformation
   - motives migrating through textural space
   - motives interacting with each other in novel ways

Example 3a
"Endeavor to not" Rules for improving analytic outcomes for students working with pitch and pitch-class motives

Endeavor to not . . .

A. cause students to violate their motivic analysis protocol.

B. posit motives fewer than four or more than nine notes in length. Exception: shorter motives may function as sub-elements of composite motives.

C. create an analytic “bank” of motives that is too sparse or too full. Corollary: no “one-off” motives

D. treat expository themes or fugue subjects as motives.

E. neglect to prompt students to examine locations in the score where key motivic events occur.

Example 3b.
Supplemental “Endeavor to not” Guidelines for instructors designing analytical tasks
a. First attempt to identify 3rd-based motives in Hortense de Beauharnais's "L'aveu."
Violations of Rule i flagged in red.

Example 4
Analytic issues associated with Rule i.

b. Second attempt at analysis of "L'aveu", with all motives now conforming to Rule i.
The diagonal dashed arrow in m. 5 indicates the transfer of line within register from piano to the voice, indicating that the two parts share the melody.
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Reading the final theme gesture of Beethoven’s Piano Concerto no. 3 in C minor, op. 37, movement III as a core fourth with prefix pickup.

Example 4 (cont’d)
Analytic issues associated with Rule i.

A second attempt at analysis is shown in part b of the example; note the retention of the 3rd motive in mm. 8–9, the one unproblematic shape identified in part a. The vocal line in mm. 7–10 now features two linear 4th motives from B♭₄ to F that conform to the local I and V⁷ harmonies. The new reading makes two further improvements, one being the addition of a new, larger N motive in the melody, mm. 1–3 (repeated in 5–7) that emerges under melodic reduction. The other is the broadened scope of the analysis, which now also tracks motivic events in the right hand of the piano.

Example 4c is offered to facilitate a closer reading of Rule i, specifically the clause concerning a potential motive’s “core” content. The final theme from Beethoven's Piano Concerto no. 3, op. 37, movement III, begins in m. 411 on G♯₅, a non-chord tone with respect to the dominant harmony supporting it. It is possible for students to include this note as part of a motive as shown, provided that it is understood as a prefix. The core shape indicated by the bracket is the linear 4th pitch-class motive from A to D. This same motive is further explored in mm. 415–19 in multiple descending forms composed in invertible counterpoint (see crossed arrows).¹⁸

¹⁸ The presence of fourths in Example 4c's second system can be defended on two bases. One may argue first that equal duration reduction applies, with each stemmed note appearing on the second sixteenth pulse of each beat. A less literal reading, which is stronger in my opinion, turns on recognition
Rule ii treats the issue of compound melody. It discourages students from assembling a motive from tones appearing in separate voices, where “voice” is understood as a localized range of contiguous activity.\textsuperscript{19} As a practical guideline, I tell students that compound melody typically applies in cases where a line exhibits leaps of a fifth or greater and repeatedly reverses direction. These together are telltale signs of a melody being instrumentally (as opposed to vocally) conceived. Example 5a illustrates a case in which three large-gapped motives labeled in Camille Saint-Saëns’s melody could absolutely stand as motives. The rule, however, encourages students to view the melody as straddling two voices. In part b, analytical stems are added in mm. 7–9 to clarify this interpretation. The lower, alto voice, demarcated by the downward stems, can now be seen expressing a surface, lower-neighbor motion. The upper voice expresses a descending linear fourth (F\textsubscript{5}-C), or a fifth if continuing to B\textsubscript{4} at the half cadence in m. 10. The advantage of the former interpretation is that it allows one to hear the smaller A\textsubscript{5}-E fourth bracketed in m. 5 as transforming via enlargement into the F\textsubscript{5}-C fourth appearing in mm. 7–9.

It should be kept in mind that Rule ii does not apply in all cases that a melody contains large leaps. Example 5c illustrates a passage from Clara Schumann’s Romance, op. 21. Despite the presence of some larger leaps, this melody is smoother and more linear (read: less zig-zag-like) than the one by Saint-Saëns. The motive that appears in mm. 35–36 is apprehended in a single voice as the pitch-class motive, A\textsubscript{4}-A-G\#-A-F\textsubscript{5}-F. The analysis labels the motive as composite, assembled from an A-G\#-A neighbor eliding with a leaping element.

In contrast to the first two rules that will lapse more quickly, Rules 1–6 stand as the central, more longstanding instructions on analytic technique. Example 3a organizes the rules into two groups: Rules 1–4 apply during the seek and find portion (or what I will later call the “execution phase”) of analysis, and Rules 5 and 6 apply when findings are assembled and presented in the latter stages of analysis.

The emphasis in beginner instruction will naturally concern identifying literal returns of material, which may be said to occur whenever a target motive is restated either as a surface motive or under reduction with its pitch interval profile that the figuration in each hand is structured in three voices, with the outer voices descending linearly as surface motives.

\textsuperscript{19} This characterization of voice distinguishes it from a “part” in a musical texture, which itself may project a sense of multiple voices by means of compound melody (see Huron 2016). Remarkably, where Rule ii disallows motives from spanning voices, it does allow a motive to span multiple parts if they assemble into a single voice, as occurs in Violins 1 and 2 in Tchaikovsky’s Sixth Symphony, op. 74, movement IV, mm. 1–4 (Deutsch 2019, 35).
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a. First attempt to identify leaping motives in Saint-Saëns, Introduction and Rondo Capriccioso, mm. 3–10. Violations of Rule ii flagged in red

b. Second, improved attempt at analysis of the Saint-Saëns. Compound melody in mm. 7–10 is indicated by upward and downward stems, with the motives remaining inside each voice

c. Melody from C. Schumann's Romance, op. 21, mm. 35–38, illustrating that large leaps do not in this case imply compound melody

Example 5
Analytic issues associated with Rule ii.
maintained.\textsuperscript{20} This emphasis on exact repetition is, again, intentionally pragmatic: it is meant to firmly inscribe the identities of all motives. There is, of course, a long tradition in motivic analysis in which transformations such as fragmentation and interval adjustment are musically and responsibly handled.\textsuperscript{21} However, invoking these operations too early in instruction—which is to say: admitting that any two shapes with the same number of notes could be conceived as variants of one another—threatens the viability of the motivic association enterprise. For this reason, it is best to concentrate on objectively determined relationships first and to hold developing variation in abeyance as a topic for future study.

Rule 1 reflects the philosophy of privileging literal repetition and thus plays a central role in this pedagogy. It concerns motives in terms of their essential core material as expressed as an intervallic span. This rule may apply silently in classrooms that adopt the motivic labeling system described earlier: if one specifically denotes a shape a 4th, then one will generally be unable to equate it to some other 5th or 3rd motive. On the other hand, for classrooms that continue to rely on traditional letter labels, it will be necessary to emphasize Rule 1 early and frequently in instruction.

Example 6, which treats the beginning of the March from Tchaikovsky’s \textit{Nutcracker}, will illustrate this point. Measure 5 furnishes the target motive, a linear gesture that traverses a fifth in its first instance. It has been given the traditional label $S$, for “scale.” Three more forms of $S$ are proposed by the analyst in mm. 6–10. The more literal returns of the $S$ shape appear in the melody in m. 6 and m. 8. The rule violation occurs in mm. 9–10, where the main theme restarts. The ascending 3rd spanning $D_5$-$E$-$F_\#$ is not related to the scalar gestures that appear in mm. 5–6; to make the argument that this third is somehow another version of $S$ is to dilute the target motive’s identity. The March’s first theme gesture in mm. 1–2 is better understood as a wholly distinct entity, a more graceful \textit{arch} shape spanning four half-note attacks on $D_5$-$E$-$F_\#$-$E$, that may pursue its own developmental destiny by connecting to other

\textsuperscript{20} See Heneghan (2019, 36–42) for detailed discussion of Schoenberg’s views on various types of repetitions. The present method centers mostly on what Schoenberg considered to be “exact” repetitions, in which a musical motive is restated with all its features—interval content, rhythm, contour, etc.—preserved. (Note that this category includes transpositions of a motive to other scale degrees.) It also invokes to a limited extent his notion of “modified” repetition, in which the most important features of a motive are retained.

\textsuperscript{21} See Carpenter and Neff (2006, 15–43) for an authoritative overview of Schoenberg’s analytic method and his aesthetic philosophy, which are both largely based on the principle of developing variation. Frisch (1984) and Boss (2015) provide further influential accounts of Schoenbergian-style analysis.
“arch” shapes in the piece.\footnote{Readers will note that many other potential S gestures occur in mm. 5–8 that seem to span fourths, fifths and sixths, often in contrary motion. These have been left unbracketed so as not to obscure the main point of the example.}

Rules 2, 3, and 4, as noted earlier, offer guidance on where (not) to focus attention while executing an analysis. Rule 2 reminds students that one should not leap blindly into a work, seeking out its motives before becoming acquainted with its formal, harmonic, and overall content. The open-ended wording signals that such awareness is attainable in many ways, meaning that students need not craft in-depth, technical analyses and/or response papers in advance of analyzing a piece’s motives. They

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Example 6

Proper and improper Scale motives (S) in Tchaikovsky’s Nutcracker.

One violation of Rule 1 involving a return of the “scale” (S) motive is flagged in red.
may alternatively demonstrate their understanding of form by parsing the phrases at the small-scale level and labeling themes, reprises, and formal areas at higher levels. Students may track the harmony by documenting the presence of cadences, tonicizations, and sequences. They may wish to employ lead-sheet symbols—labels such as E\(^7\)/B and Dm\(^7\)/F, indicating root notes, qualities, and inversions—which are well suited to contexts in which the key is unstable or absent. Last, students may express their views in many ways, such as by discussing their points live or recording a video response, as opposed to writing up findings.

Rule 3 dictates that one’s survey of motives should not begin and end with a study of the melody line, whichever voice it appears in. It is necessary, rather, to scan the full texture for melodic shapes. Doing so promotes a healthy dialogue with the piece, allowing one to hear how all the voices interact. Furthermore, it fosters cross-modal awareness of how music’s motivic and harmonic content frequently fuse, as when a melodic idea in the bass line grounds and projects a functional progression. Example 7 prints two excerpts from the sixteen-measure theme of Joseph Haydn’s Piano Sonata in A major, Hob. XVI:36, movement II. At the outset, the theme presents a ↑3rd ⊕ ↓5th pitch-class motive.\(^{23}\) This C♯-D-E-A shape returns in mm. 14–16 to round out and unify this small section at its close. Specifically, the bass voice augments the motive’s rhythm and recontextualizes it as the backbone of the common cadential formula, I\(^6\)-IV-V-I. The beam here, although visually striking, once again denotes a surface motive. This means that the graphic makes no claim or implication about any so-called “motivic parallelism,” in which motive forms nest hierarchically in smaller and larger versions of themselves.\(^{24}\)

Rule 4 works in conjunction with Rule 3 to promote consistent and responsible handling of patterned figuration. Such figuration, often taking the form of arpeggiation-based accompaniment, typically presents fewer difficulties for string players and pianists. That said, all students stand to benefit from sensitivity to this rule. Rule 4 loosely evokes the concept of “noise” from information studies (Garfinkle and Rawls 2015, 183), which here refers to the motivic clutter that results from over-bracketing ubiquitous shapes, as opposed to seeking out rarer, more meaningful “signal” shapes.

\(^{23}\) Though, strictly speaking, pitch-class intervals have no upward or downward direction, it is still possible to rely on our intuitive sense of “up” and “down” when we describe motions in pitch-class space. Regarding the move from pitch-class B to C as an ascending second is, as Dmitri Tymoczko puts it, a “convenient abstraction of the sort composers regularly deploy” (2008, 5).

\(^{24}\) Where motivic parallelism is often privileged in Schenkerian analysis (Burkhart 1978), in the present method it represents just one of many discoverable relationships that qualify as synthetic.
Such clutter often results when students working on a waltz or march declare an early motoric, “oom-pah” figure as central and then work to document all of its recurrences.

To clarify, the prohibition is on extracting microscopic shapes from “tightly patterned” figuration. Rule 4 does not advocate that students ignore figuration entirely (an act counter-indicated by Rule 3) but that they treat the voices inside that figuration sensitively. The texture of Felix Mendelssohn’s *Song without Words* op. 19, no. 1 in E major features steady arpeggiation; observe the analysis begun in mm. 1–3 of Example 8a. Continuing the analysis in the same manner through m. 6 would yield twenty-four identified instances of this shape; this would amount to stating twenty-four superficial facts about the Arp motive’s presence with no further probing of its path, development, or significance. The preferred reading of mm. 1–6 is shown in Example 8b, where more distinct motives are identified on the basis of each individual voice’s content.

The last two rules listed in Example 3a pertain to the organization and communication of findings. The first, Rule 5, encourages students to self-monitor their motivic distribution, their hit rates, as it were. Motivic analysis, like all analytic systems applied to artwork, naturally resists firm rules about what constitutes too many or too few shapes in a reading. When introducing this rule to a class, it may help to appeal to their sense of musicality. To that end, I recommend that teachers draw an analogy between written analysis and live performance. On the “doing too much” side, bracketing every single two-note interval when analyzing a piece can be likened to over-playing a dense set of down-up articulations printed in a score. On the “doing too little” side, failing to recognize a prominent return of a motive in an analysis is an error of the same order as neglecting to foreground a refrain’s return when performing a rondo.

To drive home this point, instructors can provide students with pre-made, multiple readings of an excerpt, as in Example 9. Through discussion, students should come to see why both parts of the example are suboptimal. The reading in part a is too cluttered; upon encountering this overgrowth of brackets and symbols, readers will be unable to determine which motive events are primary and whether the analysis has a main point. The reading in part b is too sparse: large, desert-like spans of music are left blank, even in places where a quick glance confirms the presence of target 4th motives. A reader responding to this graphic will likely conclude that the analyst was unwilling or unable to complete their study of the excerpt. Even if neither assumption applies,
the end result in both cases is that very little information is communicated to readers.

The method’s last rule is the one that reminds students to strive for synthetic thinking. Rule 6 translates this requirement into practical terms, expressly delineating a synthetic analysis as one that lays bare at least one relationship that is not purely observational. There are many ways to satisfy this requirement. One is by identifying any real transformation, such as a motive appearing in a strikingly new rhythm or under mirror inversion in pitch. The last, stretched-out \( \uparrow 3\text{rd} \oplus \downarrow 5\text{th} \) motive shown beamed at the close of Example 7 would count in this regard. Another is to highlight a novel compositional treatment of a motive, for example, recognizing a target shape which appears first in isolation returning later either in rapid self-replication (“chaining”) or in multiple voices in counterpoint with itself. Just about the only claims that would not qualify are those pointing out a target motive returning with the same character and rhythm as before or under basic transposition.

A last point to be made about the restrictive rules for students will serve to transition the discussion towards instructors’ analytic behaviors. The rule set given in Example 3a actually applies fairly late in the analytic process. More specifically, it applies to the execution phase of motivic analysis, during which one seeks out shapes

will likely require adjustment to accommodate cases where a long contrasting section or episode (e.g., the B section of a ternary form piece) results in a central motive disappearing for a long duration.

Two excerpts from the theme presentation area of Haydn’s Piano Sonata in A, Hob. XVI: 36 (II).
Auerbach: Reining in Pitch and Pitch-Class Motives: Rules for Improving Analysis

Brent Auerbach – Reining in Pitch and Pitch-Class Motives

a. First reading, with too many arpeggiation (Arp) motives (violation of Rule 3).

![Image of arpeggiation motives](image1)

b. Second attempt, with motives determined on the basis of individual voice activity within the accompaniment.

![Image of individual voice activity](image2)

Example 8

Two readings of Mendelssohn's *Song Without Words*, op. 19, no. 1, mm. 1-6.

that were pre-determined as being central. As for that pre-determination, it occurs in the (somewhat distinct) design phase of analysis, the much earlier stage in which one surveys a piece and develops the “bank” of shapes that will be sought out.

The preliminary design phase is more complex and fluid than the execution phase: it requires analysts to propose shapes and to run brief provisional analyses with them to see how convincing the outcomes are. In order to support instructors as they design class exercises, this method supplements the main set of restrictive rules with the five guidelines printed in Example 3b. These guidelines, too, are couched in “Endeavor to not” terms.
The first guideline, A, applies globally, cautioning instructors to avoid supplying target motives that would cause students to violate their protocol. In essence, it serves as a reminder to teachers that the “Do Not” rules always apply to them as well. The remaining guidelines are more technically focused. Guideline B, for instance, pertains to the scope of motives that students should work with; the suggested length is between four and nine pitches/pitch-classes. The upper boundary is more intuitive, as shapes that are too convoluted are less likely to return in their entirety. The lower boundary requires a bit more explanation. Starting with one-note motives, those are disallowed because they are undefined in terms of note span; in fact, they do not technically constitute a shape at all.26 Two-note motives, though permissible, are problematic in that it is always possible to assert a relation between any paired two-note events: at the very least, they will both be classifiable as some motion up, down, by leap, or by step. In my experience, this is too much variability to admit early in instruction. I have experimented with assigning two-note targets more tightly delimited by specific quality (e.g., “minor 3rd”); however, even with that limitation, students still tend to overdo the bracketing in their scores.

Guideline B is in place to address a related issue involving very short motives, which is that they tend to constrain the analytic viewpoint. Example 10a, taken from the opening passage of Johannes Brahms’s Second Rhapsody, shows how an analyst has parsed the melody into a four-note, step-into-arpeggio idea (/Arp) that contains a two-note, step idea (2nd).

Each 2nd motive that is circled is correct; however, in assuming that 2nds are the only full and complete targets worth finding, the analyst is choosing not to consider whether that two-note gesture functions as part of a larger shape. Guideline B encourages one to always look beyond such blinkered assumptions. Despite the fact that even distinctive three-note motives can yield fruitful results in analysis, Guideline B goes one step beyond that, directing instructors from the outset to view motives as larger shapes composed of at least four notes. Following from this, Example 10b illustrates a more compelling reading of the Rhapsody excerpt that starts with recognition of a composite pitch-class motive built of two seconds: it has been given the label Chr. 3 = 2nd+2nd. This chromatic, four-note pitch-class motive, shown beamed in mm. 1–2 and inverted in mm. 3–4 (F–E–E♭–D), has the advantage of resonating with later chromatic events in mm. 12–13 (top melodic line) mm. 33–44

26 This rationale for the categorical exclusion of one-note pitch motives has a strong analog in rhythmic-metric theory, in which one-beat events are seen logically to lack duration. See Lerdahl and Jackendoff (1983, 18; 43).
Example 9

Multiple readings of Chopin’s Nocturne in F minor, op. 55, no. 1 illustrate the impact the density of motives has on an analysis’s effectiveness.
Guideline C addresses the issue of how many motive forms an instructor should establish as the basis for execution. Optimal ranges are piece-specific and cannot be given in terms of absolute numbers. In general, though, I recommend an upper limit of five targets and a lower limit of two. Any more than that may cause the analysis to become too unfocused, while any fewer elevates the risk of overlooking motive forms present in the supporting voices. The corollary to Guideline C warns against establishing as a target any motive that occurs only once in a piece (a “one-off” motive). This condition is specified to avoid a situation in which students are sent on a futile hunt for shapes that will never materialize.

Guideline D further delimits criteria for optimal shapes, suggesting that instructors refrain from establishing entire expository themes as potential targets. It may seem that this guideline overlaps with Guideline A because themes often take up more than nine notes, but that is not, strictly speaking, the case. The guideline draws a distinction between themes as signal/symbolic entities and smaller shapes that function more properly as motives. To explain, when an expository theme or sizable portion of it returns, it usually does so literally. Full theme recurrences coincide with (and help listeners comprehend) a piece’s form; thus, the mere act of theme recognition, while important, qualifies as more of an observation than an interpretation. Motivic recurrences, in contrast, may occur at any time, in any voice, and under transformation. As such, investigating the smaller motivic recurrences inside, between, and across themes is more likely to inspire interpretive findings.

The last Guideline, E, is included in the list to patch a conspicuous gap left by the other guidelines. Consider that while keeping Rules i–ii and 1–6 in mind will strengthen students’ local motivic claims, doing so will do nothing to prevent them from wholly overlooking events in the music that the teacher regards as central. This express reminder to provide specific prompts serves to consolidate class results by focusing students’ attention as they work.

The restrictive rules for students and restrictive guidelines for teachers are robust and highly detailed; however, they are not difficult to implement in a classroom setting. Doing so, in essence, requires students to remain cognizant of eight rules and for teachers to model broad, cogent, and consistent analytic technique.

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27 This claim expands a point made by Charles Rosen (1990) concerning this Rhapsody’s unconventional use of half cadences to establish key areas. The “reversed” I-V syntax in m. 13 in D minor includes a mixture element—the F sharps in the melody—which can be understood as resulting in part from motivic activity, specifically the melody’s chromatic descent from G to E.
C. Teaching Motivic Analysis

Sections A and B, above, served to advance and describe all the individual aspects of the method for improving classroom motivic analysis. To prioritize the student experience, the account of the system began *in media res*, with consideration of the central student rule set (Example 3a). By way of clarification and summary, the full pedagogical process is summarized in flowchart form in Example 11.

The process is initiated at the topmost node with the instructor’s design phase, in which they select pieces to examine and begin pre-analysis according to Guidelines A–D. The instructor then develops their task or assignment by producing a motive bank and instructions that are consistent with all guidelines, now including Guideline E. Next at stage 3, the students are introduced to motivic analysis and their rules set and discuss both at length. In the fourth node, students enter the execution phase as they are given a piece, a motive bank, and instructions with detailed prompts. In stage 5, the students and instructor evaluate the results of their analysis, flagging rule violations on the way to producing the next revision. The decision junction below the fifth node in the graphic loops back to the fourth, allowing for this process to be repeated as many times as desired. When all the rules are satisfied, the analysis may be confidently concluded (node 6). Thus, by means of the full iterative process, students deepen their understanding of the restrictive rules, motivic analysis, and the piece they are analyzing.
1. Instructor design phase: Select pieces/Pre-analysis
   **Guidelines A–D**

2. Instructor drafts in-class and take home analyses
   **Guidelines A–E**

3. Students introduced to the methodology
   **Example 3a rule set**

4. Student execution phase:
   seeking out motives / organizing findings
   **Rules i–ii, 1–4 / Rules 5–6**

5. Student and Instructor evaluate analysis
   **Rules i–ii, 1–6**

   all rules satisfied?

   no
   yes

6. Motivic analysis complete

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**Example 11**
Summary flowchart for pedagogy of motivic analysis.
III. The Restrictive Rules in Action: Critiquing Classroom Analysis

Section III fleshes out and reinforces the pedagogical method by concentrating on the revision stage of analysis (Node 5 in Example 11). Here, the function of the restrictive rules shifts, as they transform from analytic guardrails into a powerful tool for self-diagnosis, meaning error detection. The first set of fabricated analyses, centering on a Mozart excerpt, concentrates on student work; the second set, centering on a Hensel piece, critiques an instructor's work as they design an analytic task. In the third scenario, a larger string piece by Grieg serves as the basis for comparing two assignments crafted independently by two hypothetical teachers and attempted by their students.

The music shown in Example 12 is from the opening of Wolfgang Mozart's Sonata for Piano and Violin, K. 378, movement I. We may assume the teacher has assigned the score for study in advance and has delineated two motivic targets, the 3rd and the 4th. As no specifications have been made about the format of these motives, they may be linear or leaping, diatonic or chromatic, and may appear at the surface or under reduction.

The annotations in black ink in Example 12a represent the first student attempt at analysis. We first register the motives that fully adhere to the rules: these include the first ascending third in m. 1 and the linear fourth in the piano's right hand in mm. 5–6. The annotations in red indicate infractions involving voicing, figuration, and reduction. The beamed 4th spanning mm. 1–2 is flagged for violating Rule ii: it links tones from the upper and lower voices of the violin. All of the surface 4ths bracketed in mm. 2–4 are flagged for beginning or ending on tones of figuration, a violation of Rule i. It is clear that the circled D5 in m. 3 is a passing tone with respect to the measure's F7 harmony. Remarkably, the F5s circled in mm. 2 and 3 are chord tones; nevertheless they remain tones of figuration, neighbors that decorate the E♭. As such, each F makes for an awkward, almost unhearable starting point of a linear motive.

The next infraction occurs in the piano's left hand in m. 5. The 4th shape shown boxed is a product of tightly patterned figuration, so should be disregarded in accordance with Rule 4. The last problem occurs in the piano melody, mm. 7–8. Although it is possible to hear the F5-B♭ descent as a 5th composed of two 3rds, the current parsing results in the non-chord tone, D5 improperly serving as a boundary point for two shapes.

Example 12b depicts a first attempt by an alternate student or group to identify 3rd- and 4th-based shapes in the excerpt. In contrast to the first reading, this one de-
a. First attempt, with violations of Rule i, Rule ii, and Rule 4 flagged in red.

b. Alternate attempt, with part a errors corrected. Example as a whole violates Rule 3 (piano melody only) and Rule 6 (surface motives only).

Example 12
Fabricated student analysis of Wolfgang Mozart’s Sonata for Piano and Violin, K. 378, I. mm. 1–8.
c. Final attempt, in which the melody of mm. 1–2 is viewed as a composite motive. Purple arrows indicate the migration of the opening 4th motive component, B♭–E♭, to the tonally-balancing F–B♭.

Example 12 (cont'd)
Fabricated student analysis of Wolfgang Mozart’s Sonata for Piano and Violin, K. 378, I. mm. 1–8.
emphasizes the non-chord tones sounding at the crests of the melodic arcs in measures 2 and 3. In viewing the right-hand piano melody in mm. 1–4 as a more orderly succession of leaping and linear 3rds, this analysis commits no outright errors of motivic parsing. This is not to say that this new analysis is wholly unproblematic; it is more that the rules infringed on in this attempt are of a more global nature. One concern is that the analysis only treats the right hand of the piano, meaning it disregards Rule 3. Another is that the analysis only highlights surface motives (Rule 6); it does not expose any hidden content or make any claims about motivic progression. The most notable missed opportunity for interpretation involves the proliferation of third motives foregrounded in the example. To capitalize on this, the analysis, by means of prose and/or graphic annotations, could advance a claim about the gradual ascent of the third shapes in pitch space (and thus: energy) from B♭4-D5 in m. 1 to C5-E♭ and D-F in mm. 2–4.

Example 12c shows a last analysis drawn up in response to the previous two attempts. As before, the emphasis is on the activity of 3rd- and 4th-based motives; however, this time the student has joined the two motive forms together in mm. 1–2. The result is a new composite, “rise” motive, which is named after the slow-climb sensation projected by the motion traced from its first to its last note. Establishing this motive has led the student to notice a novel repetition, which occurs as the 4th⊕3rd “rise” shape in mm. 1–2 returns in mm. 3–4. Example 12c is further remarkable in demonstrating how easy it is for even a short analysis to fulfill the requirements of the full rule set. The fact that a single violin motive is identified in m. 8 is sufficient to satisfy Rule 3. “But what,” readers may wonder, “about the rule most likely to worry students, the one about whether their analyses ‘say enough’?” Rule 6, the one-minimum-insight rule, is easily satisfied in a number of ways. One possibility is to mention the metric shift of 4th⊕3rd in mm. 1–4 from beat 1 to beat 3 (again, see boxes). Another is to point out the small journey of the separable 4th shape, which migrates from scale degrees 1–4 (tonic to subdominant) at the beginning to the tonally balancing scale degrees 5–1 (dominant to tonic) in mm. 5–6 and mm. 7–8 (see purple arrows).

We next examine the pre-analytic work of an instructor designing a classroom exercise based on an excerpt from Fanny Hensel’s Mélodie, op. 4, no. 5; see Example 13. This beautiful, challenging piece incorporates applied-dominant harmonies and mixture chords, overlaying them with a complex melody rife with both accented and unaccented non-chord tones. For the purposes of this demonstration, the fabricated

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28 It is also possible to view and label this composite motive in terms of two staggered, “broken” thirds (3rd⊕3rd = B♭4-D♭ + E♭-C). However, doing so, as will be seen, means forgoing connections between the first and second halves of the excerpt.
Example 13

Instructor’s preliminary analysis of Hensel’s Melodie, op. 4, no. 5, mm. 1–6.

Proposed motive bank

First attempt, with infractions of Guidelines A and C (Rule 1) noted.
b. Second, improved attempt at analysis.

Example 13 (cont’d)
Instructor’s preliminary analysis of Hensel’s Mélodie, op. 4, no. 5, mm. 1–6.
analyses of *Mélodie* will be understood as occurring early in a second-year theory class, meaning that the “Initially do not rules” will apply.\(^{29}\)

The teacher in this case has listed two motive targets. The label **arch** indicates a five-note, pitch contour motive (see gable shapes in the bank), and the traditionally formatted label **y** indicates a two-note leap of any type. Recall that the present method does not prohibit traditional motive labels; however, it does discourage them to help avoid analytic inconsistencies frequently associated with generic label usage.

The score of Example 13a, including its brackets, beams, and labels in black, serves as the instructor’s answer key for the analysis. The annotations in red critique the key, noting the guidelines (and, where relevant, which associated rules) the teacher has neglected to observe. Guideline E is excluded from consideration, because the graphic represents only the instructor’s preliminary work and not the full drafted assignment.

Two other guidelines, however, are breached. The first infraction involves the **arch** shape. The fact that it appears only once, in m. 1, will likely confound students seeking multiple returns of it. Advancing it as a target thus violates Guideline C’s corollary condition. More significant is the teacher’s disregard of Guideline A: “do not cause students to violate their analysis protocol.” Looking again at the **arch** motive, we see a red circle drawn around its first note. To identify this shape, students would have to initiate the motive on A₄, a non-chord tone appoggiatura to the tonic B-major triad sounding, thus violating their Rule i.

The teacher’s impulse to propose a leaping gesture, in this case designated **y** in the motive bank, substantiates once more the concern about the risks of proposing gestural motives as opposed to more precise, span-named motives. The motive leaps down a sixth in its initial, “model” presentation. In all the instances of **y** that follow, the motive’s interval is altered, either contracting to fourths, fifths, and thirds, or expanding to an octave. If a teacher were to share this graphic as a model analysis, it would encourage students to violate the first rule of the method’s main set, Rule 1.

The most common cause of any of the guidelines to be violated is a rushed approach to analysis. Regarding Example 13a, the teacher-analyst presumably sought motivic inspiration from the melody in m. 1 without taking enough time to entertain the possibility of other shapes. In response to that first attempt, Example 13b offers a second reading that proposes its targets in light of later developments. The revised reading fosters a hearing in which three primary shapes, linear/leaping 3rd, **Neighbor** (N), and **Double Neighbor** (DN) migrate and echo throughout the excerpt, influencing the melody and harmony alike.

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\(^{29}\) For more on the issue of situating the motive unit in a curriculum’s later semesters, see Part V.
The first motive proposed is the 3rd, which appears prominently in the melody in mm. 1–2. At the moment the $D_{5}^{\flat}$-$B_{4}$ 3rd is completed on beat 4 of m. 1, the idea is handed off to the tenor, which states a chromaticized third descent starting on $B_{3}$ (see blue box). The tenor eventually goes on to state two more 3rds. The one in m. 4 serves to echo the $B_{3}$-$G_{\sharp}$ span from m.2. (The continuation to $F_{3}^{\flat}$ is viewed as a suffix event.) The one in m. 6 “caps” the excerpt with a last, drawn out surface 3rd motive that moves from $F_{3}^{\flat}$ down to $D_{3}^{\flat}$. The remaining third noted in the example is the longer descent shown in the melody in mm. 5–6. The equal duration reduction of the member tones, $E_{4}$-$D$-$C$, is signaled both by the beaming and by the dotted-line ties that reflect how the lower voice within the soprano is actually heard.

The second shape listed as a target is the double neighbor (DN). This pitch-class motive first enters in m. 3, where the melody extends the sound of $E$ over three beats (by means of a downward arpeggio) and then connects to the $D_{\sharp}$. The sequential repetition of m. 3 up a step in m. 4 completes the shape on $F_{3}^{\flat}$ and $E$. The DN returns in mm. 5–6 at the surface of the bass voice; in so doing, it supports dominant expansion in the harmony.

The last newly proposed motive is the neighbor (N). If suitably prompted, students will have little trouble finding at least one N in m. 1. Pressing them to find more such shapes can help them to see how a work’s chords and chord progressions often resonate with its motives; this is a powerful notion that can be revelatory to those just beginning their formal study of music. The three N motives that appear concurrently in m. 1 create a momentary vii$^{7}$ chord on beat 3 that both extends tonic and injects chromatic color into B major by means of the $G_{\flat}$. The N in the tenor in mm. 5–6 similarly works to expand a harmony—although it is V this time—helping to create expressive, modally-mixed ↓VI and ↓II chords.30

The third set of sample analyses, which will encompass both teacher and student efforts, treat Grieg’s “Anitra’s Dance.” A preliminary excerpt of this piece appears in Example 14a. We begin by imagining two instructors, Dr. Trad and Dr. Mod, separately preparing an analysis assignment for their classes. The teachers both apprehend two motives of importance in the melody. One is the ascending fifth, which first appears as $A_{4}$-$E_{5}$ in mm. 7–8; the other is the linear 3rd, which appears in several descending forms in mm. 8–14. Both instructors note the potential for linear thirds to join to form a composite fifth, as bracketed in mm. 8–9.

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30 Chromatic seconds, often over $G_{\flat}$-$G_{\flat}^{\sharp}$-$F_{\sharp}^{\flat}$, appear throughout the excerpt as well. The last one in the tenor, mm.4–5 ($G_{5}^{\sharp}$-$G_{4}^{\flat}$-$F_{3}^{\flat}$), extends the $B_{3}$-$G_{\sharp}$ linear 3rd descent in m. 4 by being elided to it.
We next imagine Dr. Trad providing students with Example 14a and a clean score of the movement, and then asking them to “find more instances of motivic thirds and fifths and to write up a brief commentary about the roles they play in the music.” The class, which has fully internalized the method’s eight-rule set, returns with the reading shown in Example 14b. Their sensitivity to Rule 2 in particular is evidenced by their pre-motivic score annotations that track details of harmony and form.

Even though they have worked hard, the analysis they have submitted ends up disappointing the instructor. Specifically, he is dismayed to see that virtually all the shape recurrences they have identified match the contexts of the original targets. In other words, all the 5ths marked past m. 15 are thematic events that essentially restate mm. 7–8. In drafting their commentary, the students find themselves hard pressed to say much more than the following:

The 5th motive first presented in the melody in the key of A minor in mm. 7–8 goes on a tonal journey. It moves to E minor in mm. 19–20, back to A minor in mm. 23–24, and to E minor again in mm. 35–36. In the second half of the piece, the motive transposes more rapidly through D major, D minor, F major, and A minor.
Example 14b
Fabricated student analysis generated in response to Dr. Trad’s prompt from Example 14a.

mm. 23-38 omitted (written-out repeat of mm. 7-22)
Example 14b (cont'd)
Fabricated student analysis generated in response to Dr. Trad’s prompt from Example 14a.
The problem that Dr. Trad senses is that, while all of the above observations are true, the analytic plot fashioned for them actually has little to do with motive. The account frames the tonal journey as the primary musical concern, with the unaltered motives readily slotting into each area. Worse yet, the student gloss comes off to Dr. Trad as flat and uninteresting; for example, it says nothing about the highly charged motivic events that occur in mm. 69–84.

But of course, the source of the problem is Dr. Trad's instructions, which fail to honor Guideline E. Although he has supplied the class with a list of viable motives to work with, he has not adequately prompted students on where to find them, nor guidance about transformations and behaviors to watch for. With regard to the class's supposed disinterest in the climax of the piece, this may simply be the result of miscommunication. It is unlikely that Dr. Trad's students failed to register the rising excitement in this span of music brought about through the sforzando and crescendo dynamics and the heightened chromaticism (Eb's and A's). They simply did not know where to look to discover more deeply embedded motives.

Wary of this possible outcome, Dr. Mod, in contrast, has developed the more detailed set of instructions shown in Example 15a. These directions yield the improved analytic outcome shown in Example 15b. In response to Dr. Mod's Prompt #1, the annotations in mm. 15–18 reveal the presence of a chromaticized, descending 5th motive that links this catchy, pre-cadential material back to the main theme stated in mm. 7–10. In response to Prompt #2, Dr. Mod's students notice not only that the melody of the b begins with surface thirds in mm. 39–40, but continues to segments of composite fifth motives built of thirds (cf. the music in mm. 43–45 to the melody in mm. 8–11 and 9-14). Prompted by Point #3, their analysis highlights the imitative treatment of the theme that appears in mm. 70–76 (see arrows). This new wrinkle, which elevates the piece's contrapuntal complexity, is notably retained all the way through the formal rounding and into the quasi-canonic, final a' section in mm. 85ff.

The last prompt in Dr. Mod's list, an admitted "reach" in terms of difficulty, directs student attention to a remarkable motivic event occurring at the piece's climax in mm. 69–80. The tension here emerges in large part from the unusual harmonies, which are analyzed in lead-sheet terminology as F7/Eb, F#6, and B9. (The first of these is more

31 The melody in the treble staff can be conceived in three voices; the top two exhibit a uniform, zig-zag motion on eighth-note pulses 1, 2, 4, and 5 in every measure. The jagged surface contour indicates the presence of compound line involving a soprano B4 pedal voice and a contiguous alto moving chromatically downward from B4 to D#. Similar to the stretched-out ↑3rd bassline in Example 7, this shape is a surface motive that masquerades as a reduction; therefore, the contiguous note pattern condition applies and not the equal-duration condition.
First, study the full piece, observing the form and making note of unusual harmonies.

Next, in the accompanying score, identify recurrences of the four target motives given above. Last, write up a short analysis of 1-2 pages that discusses the most notable recurrences of these motives. Your answer should directly respond to at least two, but preferably three, of the following prompts:

1. What motive serves as the backbone of the material first heard in mm. 15–18?

2. How are both continuity and contrast created, motivically, in the first phase of the b section, mm. 39–54. Which motive type, 5th or 3rd, seems to dominate the surface of the music? Having decided on one, can you find any traces of the other?

3. Where does the excitement level of the music ratchet up in b? Explain how this tension is created, in terms of dynamics, harmony, and motivic activity.

4. Where in the piece do our classroom models of tonal progression (Roman numerals/chord functions) seem to fail? mm. ____ to _____

There is a potential motivic explanation for the organization of this passage: what is it? (Hint: Examine the offbeat accompaniment! Analyze its harmonies with lead-sheet symbols, and carefully trace the notes of its slower-moving, topmost voice.)

Example 15a
Second approach towards developing a motivic analysis task on Grieg’s “Anitra’s Dance” from Peer Gynt.
Example 15b
Fabricated student analysis generated in response to Dr. Mod's prompt from Example 15a.

*mm. 23-38 omitted (written-out repeat of mm. 7-22)*
Example 15b (cont'd)
Fabricated student analysis generated in response to Dr. Mod's prompt from Example 15a.
Example 15b (cont'd)
Fabricated student analysis generated in response to Dr. Mod's prompt from Example 15a.
likely a diminished third chord in A minor, spelled enharmonically.) Where students might be hard pressed to offer a harmonic explanation for why the F₇/E♭(o3) chord in mm. 69–72 proceeds to F₇/E♭, a motivic explanation can be found lurking in the alto. As the orange circles and letter names indicate, the accompaniment unspools a twelve-measure F₄-E-D♯ line, with all notes occupying the same register and reducing to appear on beat 3 of every measure. This is the same linear, chromatic third heard twice in invertible counterpoint in mm. 11–14. Or, to summarize in classic hermeneutic fashion of the kind championed by Marvin and Clendinning (2016, 365), a quirky, chromatic gesture that passes by quickly in an early moment returns later, boosting the aesthetic impact of the work’s high point as an early motivic promise is fulfilled.

IV. Further Thoughts on the Rules for Reining in Motives

This closing section will round out discussion of the method by returning to an issue that has largely been overlooked, that being the question of when the method should be implemented, both as a whole and in its sub-aspects. The responses on offer will first serve the practical purpose of conveying advice to instructors on matters of classroom and curricular planning. As discussion proceeds, these same answers will serve a secondary, philosophical purpose, which is to provide a basis for re-assessing how restrictive the “do not” methodology really is.

The first question with regard to timing asks when this introductory unit should appear in the written theory curriculum. Generally speaking, it can be situated in any semester after the first as larger spans of music are subjected to study. The main thing to keep in mind is whether classes have attained the skills and knowledge required by the method. To understand and follow the “Endeavor to not” rules, students must be fluent in recognizing triads and seventh chords and non-chord tones (Rules i and 2), must understand the concept of compound melody (Rules ii and 4), and must be able to analyze the forms of the pieces they are studying (Rule 2).

If students have not yet mastered these skills by the end of the second semester, then teaching motivic analysis via this methodology should be postponed. I would add that, even if they have, waiting until the third or fourth semester of undergraduate study still may offer the advantages of giving students more time to improve their analytic technique and broadening the scope of pieces that may be treated. For example, it would be appropriate for first-year theory classes to tackle short and mostly-diatonic pieces such as the Mozart excerpt or select phrases from Grieg’s “Anitra’s Dance.” It is likely that second-year classes that have facility with applied chord syntax,
melodic/harmonic modal borrowing, and larger formal structures would be readily able to apply this method to more chromatic works such as the Hensel excerpt and the full Grieg piece. Continuing further, this method is fully suitable for graduate-level instruction. It is adaptable to any proseminar with a focus on technical analysis, such as an analytic survey course of the type where each multi-week unit introduces and drills a different technique.

Additional questions of timing are intimated by the format and details of the method itself. For example, the first two restrictive rules begin with the words “Initially, do not . . .” This raises the question of when should they lapse. To take another example, Rule 1’s emphasis on literal shape repetition (“Do not distort motives in terms of . . . interval content”) excludes findings obtained through awareness of developing variation procedure. For readers who are well versed in motivic analysis and find that rule overly restrictive, it is similarly natural to wonder how long it must be before this rule is lifted.

In answering, it is important to remember, first, that Rule 1 need never be lifted, as it will always be possible to craft highly flexible analyses with it in place. That said, if an instructor insists on abandoning it, the answer as to when to do so cannot be absolute. If the introductory unit on motivic analysis is slated to occupy the typical span of one to two weeks, it will likely not be practical to lift many, or possibly, any of the rules. The situation is different if the unit is scheduled for a longer stretch of time or if the plan is to revisit it in a future semester. Teachers in these situations should feel free to lift any of the “do not” guardrails they wish. They should decide this matter in the same way they do any other case of granting increased autonomy to classes: by tracking student progress and adjusting their pedagogy accordingly.

With respect to the three model analytic behaviors, the instructor needs to review student work to ensure 1) that it treats broad swaths of music, 2) that it is demonstrably interpretive (synthetic), and 3) that it displays consistency. The last of these three requirements is perhaps the easiest to monitor. A teacher may gently initiate the process of lifting rules by announcing a minor exception to one of them. I suggest starting with a more circumspect restriction, perhaps Rule i, ii, 3, or 4, and establishing a single, anomaly case. One can weaken Rule i by picking a single target shape from the motive bank and allowing students to highlight instances of it in the score that begin or end on a non-chord tone.

Teachers should then gauge student responses to determine whether these new freedoms are infusing their developing practice or upending it. Instructors should be watchful for the erosion of classroom consensus and/or their students abandoning
analytic restraint (e.g., increasingly rampant over-bracketing of scores). Both of these conditions signal that the communicative aspects of analysis are breaking down. If, on the other hand, no such fracturing is observed, that is a positive sign of a class’s maturity in handling motives.

Encouraged by such progress with the more limited-scope rules, teachers may explore the possibility of relinquishing even Rule 1, the most far-reaching of the method’s restrictions. Readers will recall that this rule was strictly enforced in discussion of an instructor’s initial attempt to analyze Hensel’s *Mélodie*. In that analysis (Example 13a) now reprinted as Example 16a, it was the flexibility afforded to motive *y* that proved problematic. Although each individual *y* shape may be readily apprehended, the overabundance of these generic leaps undermines the idea that a uniquely meaningful *y* shape even exists. In the case where essentially any two-note gesture can be *y*, it is difficult to articulate what new understanding a listener gains from attending to the particular succession of motives shown in Example 16a.\(^{32}\)

Example 16b provides a contrasting reading of the Hensel in which Rule 1 is fully lifted. There, balance between motivic fluidity (developing variation) and analytic rigor (restraint) is struck by recasting *y* as a three note, “hook” motive. Specifically, **Hook** (*H*) is formatted gesturally (meaning: not as a pitch motive) as a downward leap that rebounds to a step upward; the center note may or may not be accented as in the manner of an appoggiatura. **Hook** first appears as the gesture that opens the piece, with two more such shapes following at the melody’s surface in m. 2. In m. 3, the first camouflaged form of the motive appears. Hook’s migration to the bass voice promotes contrast and continuity. Even as it imparts sonic variety to the music by appearing in a new register (F\(^3\)–F\(^2\)–F\(^x\)), it supplies the missing puzzle piece needed to complete the every-beat saturation of mm. 2–3 with this shape. Four more close instances of the **H** motive are indicated in mm. 4–6. The highlighting there is given in an understated gray to contrast these smaller, more surface instances with the culminating form of the motive that appears in reduction across beats 2–4 in m. 6.

A last, important consequence of interrogating restrictive rules bears consideration. To think of them as impermanent, as necessarily expiring at some point, is to intimate a deeper truth about this methodology, which is that in practice it is far more flexible than it initially appears. I invite readers here at the end to

\(^{32}\) Even if *y* were formatted more strictly with a rhythmic requirement of two dotted-quarter notes, a great many additional *y* shapes could be posited indiscriminately. Examples include m.1, beats 2–3, the bass’s motion from B\(^3\)–A\(^#2\); m.3, beats 1–2, the soprano’s motion from E\(^5\) to G\(^#4\); and m. 6, beats 3–4, the melody’s last motion from A\(^#3\) to B.
a. Reprint of Example 13a. First attempt at analysis with rule violations flagged

Proposed motive bank

\[
\begin{align*}
y &= \text{leap} \\
\text{arch} &= \text{or} \ 	ext{contour}
\end{align*}
\]

Example 16
Instructor plan for analysis of Hensel's Mélodie, op. 4, no. 5.
b. Analysis undertaken following the suspension of Rule 1 in which developing variation technique (melodic interval alteration) is permitted. The new gestural motive traced is Hook (H) = leap ⊕ step. Blue arrows track motive migration and growth over time.
reconsider the negatively couched Rules and Guidelines of Example 3 to see how they can in fact be seen to instantiate a “how to” method. Reading the rules “between the lines,” we see them directing analysts when to begin looking for motives, where to look for them (in all voices, across a full work), and how to communicate findings so as to privilege discovery and synthesis over mere event reporting.

This type of guidance, no matter whether it is articulated in positive or negative terms, is meant to fill in the many gaps that too often attend to classroom motivic analysis. I am referring here to the gaps that in most cases yawn between one cliff edge where tasks are circumscribed and straightforward and a distant edge where they are more open-ended and ambiguous. I noted that it is one thing for students to follow along as a teacher shows how a target motive in one measure is inverted in the next, but quite another for them to seek out that target themselves. Likewise, it is one thing for students to highlight motive recurrences in a full piece or constituent section, but quite another to be asked to assemble those findings into an analysis that comments and sheds new light on it.

This method is of course no panacea, meaning that it cannot obviate all the difficulties inherent in teaching this highly complex topic. However, during the time that the motive unit remains open, instituting Rules i–ii and 1–6 will help students gain a clearer sense of what pitch-based motives are and what value they hold for analysis. For teachers, steady work with the rules and guidelines will aid them in generating tasks and assignments that are more efficient and intentional. Taken together, these mutually reinforcing spheres of activity will yield vastly improved analytic outcomes.

It is hoped that further benefits of inculcating students in this manner will accumulate long after the motive unit concludes. If enough musicians gain exposure to this or similarly carefully designed materials, then for them perhaps a last, longstanding gap may be filled, the one separating the promised results of this mode of analysis, which are typically grand, from the actual ones, which are typically less than inspired. This development may ultimately impact curricular design, such that motivic analysis in the future might again come to be viewed less as an enrichment-style novelty and more as a foundational practice that is ideal for interrogating music and communicating one’s insights and feelings about it.
Brent Auerbach – Reining in Pitch and Pitch-Class Motives

Works Cited:


