Reinterpreting Metrical Reinterpretation

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I. The Problem of Metrical Reinterpretation

Contemporary studies on phrase rhythm have drawn much attention to the phenomenon of overlap in formal and metrical domains. The coincidence of the end of one phrase and the beginning of the next is familiarly known as a phrase overlap. The rehearing of a weak beat as strong due to a (hyper)metrical shift is referred to as an elision, or, more commonly, a metrical reinterpretation (after Schenker's *Umdeutung*).[1] As William Rothstein asserts, both types of overlap are instrumental in creating forward musical momentum; the former "prevents any break in continuity," while the latter "propels the motion onward with great force."[2]

While the understanding of phrase overlap is relatively unproblematic, the conceptualization of metrical reinterpretation as the peculiar sonic event encompassing both accented and unaccented states on the metrical grid has generated a number of fundamental questions that have not been adequately addressed:[3]

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[1] Schenker 1935, 203. A related concept is *Tacterstickung* ("measure stifling"), which appears in Koch 1983, 55. Koch uses the term primarily to describe the elimination of a melodic cadence in the process of combining two basic phrases into a compound one. In Example 182, which illustrates *Tacterstickung*, Koch shows that the fourth measure of the first four-measure phrase has been elided with the first measure of the second four-measure phrase to create a seven-measure compound phrase. Such an elision is, to the modern reader, reminiscent of a metrical reinterpretation because the fourth element of one event sequence is at the same time the first element of the next. In Koch's discussion, however, *Tacterstickung* does not have any explicit metrical connotations. The overlap between "4" and "1" in the fourth measure aims more to show the theoretical derivation of the compound phrase then any perceptual reinterpretation (*Umdeutung*) of metrical values.

[2] Rothstein 1989, 54.

[3] In fact, some theorists even reject the validity of metrical reinterpretation as a theoretical construct. For example, Lerdahl and Jackendoff's well-formedness

What exactly causes metrical reinterpretation? What is its relationship with phrase structure in general? What expressive and perceptual significance does metrical reinterpretation have as part of a large-scale formal trajectory? Is metrical reinterpretation an intrinsic and immutable property of music, or is it a subjective experience of the listener that evolves as one's familiarity with the music does? By probing these questions, I argue that an understanding of the intricacies entailed in metrical reinterpretation will help us to reach deeper into the richness and complexities of tonal phrase rhythm. Further, I will show that an investigation of the aesthetic and formal effects of metrical reinterpretation allows analysts to engage a broad range of stylistic issues that reach beyond technical discussions of metrical and rhythmic properties of tonal music.

In current analytical practice, the phenomenon of metrical reinterpretation is generally understood as the instantaneous reinterpretation of a weak hyperbeat in one hypermeasure as the first (i.e., strong) hyperbeat of a new hypermeasure.[4] Example 1 shows a classic example cited by Rothstein. As he explains, the concluding tonic harmony of the primary theme overlaps with the transitional phrase at the downbeat of m. 32. This phrase overlap causes the last hyperbeat of the consequent phrase—a weak hyperbeat in the ongoing hypermeter—to be immediately reinterpreted as the first strong hyperbeat of the transitional

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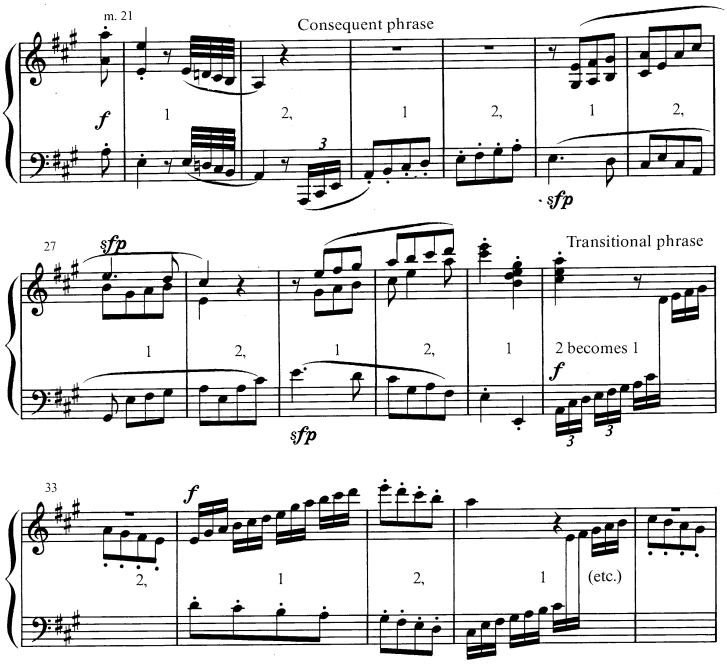
rules of metrical structure do not allow a time point to embody both a strong beat and a weak beat; consequently, their theoretical system does not entertain the possibility of reinterpreting a beat, but only the deletion of it. See Lerdahl and Jackendoff 1983, 101-4.

[4] Especially since the appearance of the groundbreaking works of Carl Schachter and Rothstein, Schenker's notions of meter and musical form have informed many discussions of metrical and phrasal overlaps. A basic assumption of the Schenkerian approach to rhythm is that irregular metrical and phrasal surfaces may often be traced to more symmetrical prototypes. Within this theoretical framework, phrase overlap and metrical reinterpretation play an integral part in tracing the transformation from uniform and abstract paradigms to the variegated and concrete foreground. It is thus no surprise that the most foundational research on metrical reinterpretation is largely found in Schenkerian analyses. See Kamien 1993; Rothstein 1981 and 1989; Samarotto 1999; and Schachter 1976, 1980, and 1987.

passage. In this case, as Rothstein rightly points out, the metrical reinterpretation is caused by the phrase overlap. Generalizing from this and other examples in his monograph, Rothstein asserts later that metrical reinterpretation appears to be created invariably by phrase or subphrase overlap: "Without an overlap there would be no reason for the listener to assume a reinterpretation in the metrical structure. Overlap often occurs without reinterpretation, but reinterpretation apparently never occurs without overlap."[5]

Example 1. Rothstein's hypermetrical analysis of Beethoven's Piano Sonata in A major, op. 2/2, first movement, mm. 21–37.



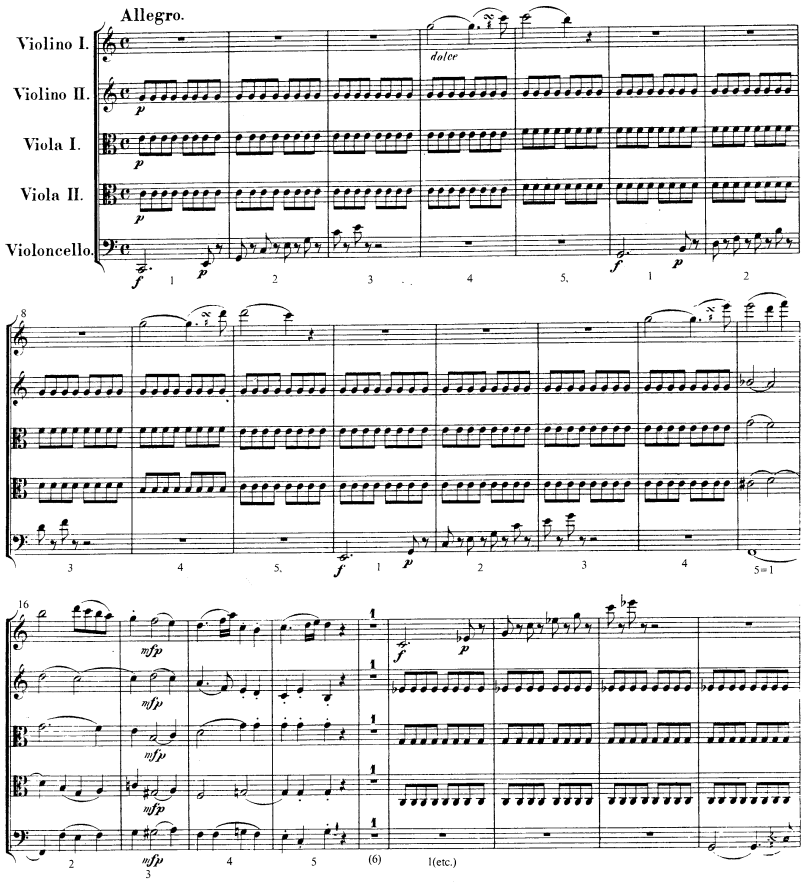
At first glance, this generalization seems valid. Many metrical reinterpretations, especially ones between prominent formal junctures, are indeed caused by phrase overlaps. Nevertheless, analysts have in fact invoked the concept of metrical reinterpretation in the absence of phrase or subphrase overlap, and

[5] Rothstein 1989, 52.

the abundance of such examples challenges the validity of the claim that "reinterpretation apparently never occurs without overlap." One instance is provided here in Example 2, which shows Rothstein's analysis of Mozart's String Quintet in C major, K. 515. In m. 15, Rothstein reads a metrical reinterpretation that, as he asserts, serves the crucial function of maintaining the five-bar hypermeter from the opening measures. In contrast to Example 1, however, the metrical reinterpretation at m. 15 occurs without (and therefore is not caused by) a phrase overlap.[6] Nor is there any suggestion of overlap at the subphrase level in m. 15 to incite the reinterpretation: the parallelism among mm. 4–5, 9–10, and 14–15 discourages the listener from hearing a subphrase boundary between m. 14 and m. 15, while such a boundary would have been necessary for the perception of a subphrase overlap at the alleged point of metrical reinterpretation. I concur that there is a tangible sense of metrical reinterpretation at m. 15, albeit through a different mechanism—and arousing a different perception—from the situation in Example 1. Phenomenologically speaking, the registral accent of the cello and the textural change in m. 15—features not shared by the parallel moments in m. 5 and m. 10—provide the first cue that a reinterpretation may be taking place. This cue, however, is counteracted by the aforementioned melodic parallelism among mm. 4–5, mm. 9–10, and mm. 14–15. A further complication arises when the melodic parallelism is subsequently made problematic in the transition from m. 15 to m. 16, where the expansion of the two-measure idea from mm. 4–5 and mm. 9–10 into a larger melodic gesture in mm. 14–19 is first divulged. The weakening of the melodic parallelism retroactively attenuates the previous counteraction against the phenomenal accents at m. 15, thereby strengthening (also retroactively) the impression of m. 15 as metrically strong. In other words, in the absence of phrase and subphrase overlaps, the metrical reinterpretation at m. 15 relies far more upon retroactive revision than that in Example 1 does. Whereas the immediate perceptibility of the metrical reinterpretation in Example 1 projects a resolute sense of forward momentum and temporal teleology, the retrospective orientation of

[6] There is clearly no phrase overlap in m. 15 because the harmony on the downbeat of the measure cannot be a cadential goal.

Example 2. Rothstein's hypermetrical analysis of Mozart's Quintet in C major, K. 515, first movement, mm. 1–20.



the metrical reinterpretation in Example 2 elicits a metrical perception that is more spatial than temporal.[7] The disparities between Examples 1 and 2 thus illustrate that, depending on the formal location and the characteristics of the surrounding phrases, there exist varying degrees of retroaction in the creation and perception of a metrical reinterpretation as well as a range of

[7] The distinction between spatial and temporal approaches to musical time in metrical analysis is discussed extensively in Hasty 1997, Chapter 1.

diverse aesthetic purposes—both important nuances not often recognized in analyses.[8] Without carefully addressing the causes and formal/perceptual effects, the invocation of metrical reinterpretation in musical analyses risks the pitfall of appearing as an arbitrary method to situate (or even force) a certain (sub)phrase into a predetermined hypermetrical paradigm even in the absence of explicit musical cues.[9]

II. Disentangling Metrical Reinterpretation from (Sub)phrase Overlap

A proper consideration of the formal function and aesthetic ramifications of a metrical reinterpretation must avoid an umbrella treatment that divorces the phenomenon from its phrasal and formal surroundings, and carefully examine the phenomenon within its local and global contexts. The first step toward this goal is to disentangle metrical reinterpretation from phrase overlap. As we have seen, extant analyses have been plagued by certain fundamental confusions as to the precise relationship between the two, resulting in problematic assessments. I will argue that this entanglement, as we have identified in contemporaneous writings, can be traced to a faulty assumption in Schenker's own discussion

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[8] Recently, David Temperley (2008) has discussed a phenomenon he calls "hypermetrical transition," which is similar to what I regard as a metrical reinterpretation with a strong retroactive element. While our premises and methodology thus overlap to some extent, the claims I make in this paper differ from Temperley's in two important aspects: (1) the transitions he discusses are hypermetrically ambiguous, while the cases I investigate in this paper involve shifts that I believe may ultimately be pinpointed at a specific location, albeit with varying degrees of retroaction; and (2) an important emphasis throughout this paper is that proper consideration of the aesthetic effects of metrical reinterpretations must be firmly grounded within their phrasal and formal contexts.

[9] A particularly common reading of metrical reinterpretation without phenomenal support is illustrated in Example 3(a) in Kamien 1993, where the metrical reinterpretation allows the phrase to complete a four-bar hypermeasure instead of closing on the third beat of the hypermeter.

of the relationship between phrases and hypermeter in his explication of *Umdeutung*.

In *Free Composition*, Schenker illustrates the phenomenon of metrical reinterpretation using the excerpts presented in Example 3. Figure 149/2 shows a metrical reinterpretation in m. 35, where Schenker explains that

> the fourth bar of the second 4-measure group is reinterpreted as a first bar. Incidentally, music is the only art in which an ending can also be a beginning; this situation is clearest when one single tone is involved. In this phenomenon lies the root of any possible reinterpretation of metric values.[10]

Schenker's use of the word "group" needs clarification. The first two four-measure "groups" are clearly equivalent to what we would call phrases, as they both involve functional progressions toward tonic harmonies at authentic cadences. The next four-measure "group," however, constitutes a hypermeasure rather than a phrase, as both harmonic and melodic trajectories point to m. 39 as the goal of the phrase. Despite this inconsistency, Schenker's description of the reinterpretation of the fourth bar of one four-measure group (i.e., phrase) as the first bar of the next group (i.e., phrase) strongly implies a causal relationship between phrase overlap and metrical reinterpretation.[11]

The inseparable connection between phrase overlap and metrical reinterpretation becomes even clearer when we examine Fig. 149/1 in Example 3. As Schenker comments:

> The first group, an 8-measure unit, is followed by a group which consists of only seven measures. Therefore one should not regard the first measure of the third measure-grouping as a possible eighth bar of the second group and reinterpret it metrically.[12]

In this statement, Schenker restricts a hypermeasure, as indicated by his numerical notation, to within the confines of a group (i.e., phrase). When a phrase comes to a halt, in other words,

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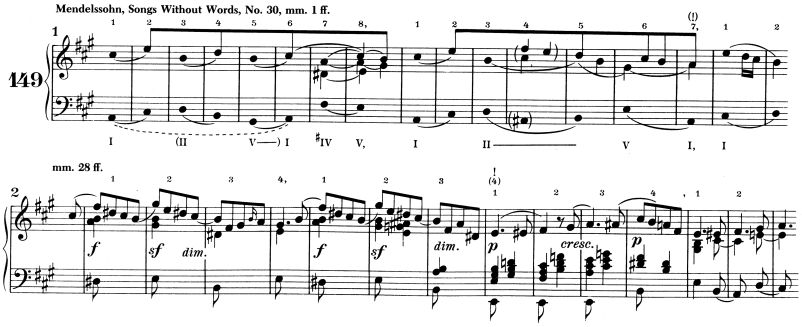
[10] Schenker 1979, 125-126.

[11] That Schenker refrains from reading a metrical reinterpretation in m. 39 by putting a "5" at the end of the five-measure group in mm. 35-39 is probably due to his bias for four-measure hypermeter.

[12] Schenker 1979, 125.

so must a hypermeasure. Thus, in the second phrase, the normative duple hypermeter established in the first phrase must cease at the seventh measure, thereby creating an asymmetrical metric structure.[13] From this argument, a metrical reinterpretation must indeed result from a phrase overlap, which allows a hypermeasure to continue until the point when the accented beginning of the next phrase necessitates a reinterpretation. Rothstein follows Schenker's formulation when he refers to situations illustrated by Schenker's Fig. 149 as "successive downbeats," reading a metrical reinterpretation only where there is a phrase overlap.[14]

Example 3. Schenker, Free Composition, Figure 149/1 and 149/2.



[13] While Schenker's numbers identify only an eight-bar hypermeter, one could infer from Schenker's privileging of four-measure orderings that a duple hypermeter involving four- and two-bar hypermetrical units is also operative.

[14] See Rothstein 1989, 58. At this point, I must acknowledge that a phrase boundary, especially one between two main formal sections, does encourage the reading of successive downbeats (instead of metrical reinterpretation) because the rhetorical closure of the end of a formal section somewhat undermines the projection of the ongoing hypermeter to allow for a restart of the hypermeter in the next phrase. What I caution against here is that this assumption should not be generalized to cover every instance of phrase overlap or formal boundaries. The whole category of end-accented themes discussed by David Temperley (2003), for example, owes its existence to the possibility that the hypermeter of the previous phrase continues across a phrase boundary so that the end-accented themes articulate the strongest hyperbeat toward the end of the (sub)phrases. I will further pursue this point in the discussion of Examples 13 and 14.

A central problem with Schenker's formulation is the conflation between phrasal (i.e., grouping) and hypermetrical conclusions. Specifically, Schenker assumes that a hypermeasure cannot continue beyond phrase boundaries. This problematic premise leads him to rule out, in Figure 149/1, the anticipation of the last beat of the ongoing hypermeter in m. 16. Recent theoretical explorations of the nature of meter and rhythm, however, have firmly refuted the view that phrasal and metric closures are equivalent. Eytan Agmon has proposed a theoretical model of closure in which the release that marks the absolute endpoint of the composition is supplied mentally by the listener after the attack of the final chord. The central idea, as Agmon states, is that "*tonal and rhythmic closures cannot coincide*."[15] More recently, Christopher Hasty's discussions of indeterminate duration and meter as projection strike a similar chord. About the last measure of the first movement of Beethoven's Piano Sonata in F minor, op. 2/1, Hasty states, "[i]f there is not a definite beginning for a new event that would make the present event [i.e., the onset and the duration of the last chord] past, the end of the present event will be indeterminate and the duration of the event will be indeterminate."[16] Overall, his theory of meter as a projective process implies that durational projection (and therefore the perception of meter) remains operative beyond the onset of the closing tonal event.[17]

Recent perceptual theories concerning metrical anticipation further support Agmon's and Hasty's points. Music psychologists have long studied how the perception of a hierarchical temporal structure, such as a musical passage in duple hypermeter, empowers listeners to project the temporal locations of significant events in the future (such as the end of a phrase). The fulfillment

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[15] Agmon 1997, 56 (italics original). In this statement, Agmon follows up on Edward T. Cone's (1968, 68) famous inquiry into the nature of the beginning and end of a composition. Cone himself has asserted that the rhythmic closure of a composition typically coincides with the end of a hypermeasure, which is often actively supplied by the listener when tonal closure happens "too early" within the hypermetrical context.

[16] Hasty 1997, 79.

[17] See Hasty's discussion of meter as projection in Chapter 7.

and violation of these expectancies are shown to have a significant effect on our cognitive processing of the temporal characteristics of musical phrases.[18] Further, conflating a phrase boundary with the completion of a hypermetric unit also undermines the rich possibilities that have recently been brought to light regarding the interaction of phrase-rhythmic structure and formal context. For example, David Temperley has shown that the continuation of a hypermeter across group (i.e., phrase) boundaries creates many end-accented phrases (as opposed to beginning-accented ones) in the closing zone of sonata form.[19] These important nuances would be obscured if we were to follow Schenker's equation of hypermetrical conclusions to phrasal ones. Figures 149/1 and 149/2, I will thus maintain, are not distinct metrical phenomena, but different phrasal situations, both involving a readjustment (*Umdeutung*) of metrical perception.

In sum, I have proposed three important clarifications on the nature of metrical reinterpretation. First, metrical reinterpretations may occur at a variety of formal locations, with or without phrase overlap. (One significant corollary of this is that metrical reinterpretations are not always caused by phrase overlaps.) Second, depending on the formal location and the characteristics of the surrounding phrases, metrical reinterpretations require different degrees of retroaction in order to be projected and perceived. Third, depending on the degree of retroaction involved, metrical reinterpretations fulfill diverse aesthetic purposes, ranging from the

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[18] See Boltz 1989a and 1989b.

[19] Temperley 2003. Taking Temperley's point as a springboard, Ng (unpublished) has recently shown the importance of incorporating these various phrase-rhythmic scenarios into the understanding of James Hepokoski and Warren Darcy's Sonata Theory (2006). In the context of the present discussion, Temperley's observation may be translated to mean that the primary- and secondary-theme zones are by default beginning-accented, whereas in the closing zone the employment of end-accented themes becomes a standard option alongside with the traditional beginning-accented ones. If these compositional options constitute the norm, then deviations may be regarded as deformations—procedures that Hepokoski and Darcy view as an important source of "originality" and "depth" in the masterworks. The beginning of the secondary-theme zone with an end-accented theme, for example, is a highly unusual gesture that warrants special analytical attention.

enhancement of forward propulsion to the suggestion of retrospective evaluation. In the rest of this paper, I will demonstrate that composers utilize metrical reinterpretations at different formal locations to construct a variety of phrase-rhythmic schemata and to achieve different expressive ends. I will also show that the different effects and functions of metrical reinterpretations at different formal junctures contribute a valuable resource for constructing stylistic norms and heightening compositional interest and originality.

III. Metrical Reinterpretation within Musical Form: Effects and Functions

A. Retrospective metrical reinterpretation at phrase overlap

Let us return to the metrical reinterpretation in Example 1. As discussed earlier, the reinterpretation of hypermeter is immediately perceptible because of the marked initiation of the new phrase. Formally, the reinterpretation here epitomizes the occurrence of metrical shift at the end of the primary-theme zone, where the transition is simultaneously launched with emphatic momentum. The phrase overlap between these two formal zones often gives rise to what Lerdahl and Jackendoff call an elision—a familiar example of which is in the first movement of Haydn's Symphony no. 104.[20] Psychologically, the impact of the hypermetric downbeat at an elision triggers what David Huron calls a "fast-track response" and creates a startling effect that allows for a prompt appraisal of the situation as a hypermetrical jolt.[21] To recapture

[20] Lerdahl and Jackendoff 1983, 58.

[21] Huron 2006, 19. Huron's ITPRA theory, which models the cognitive processes of musical anticipation, provides a useful framework for the conceptualization of a metrical reinterpretation. As Huron explains in Chapter 1, the theory delineates specific types of responses prior to and after the anticipated event. Response types before the event onset include imagination (I) and tension (T): the former imagines the outcome and accordingly attempts to increase the likelihood favorable situations, while the latter prepares for the anticipated event by heightening both motor arousal and perceptual attention. After the onset of the event, modes of responses then proceed to prediction (P), reaction (R), and finally, appraisal (A). Prediction response assigns "rewards" to accurate expectations and

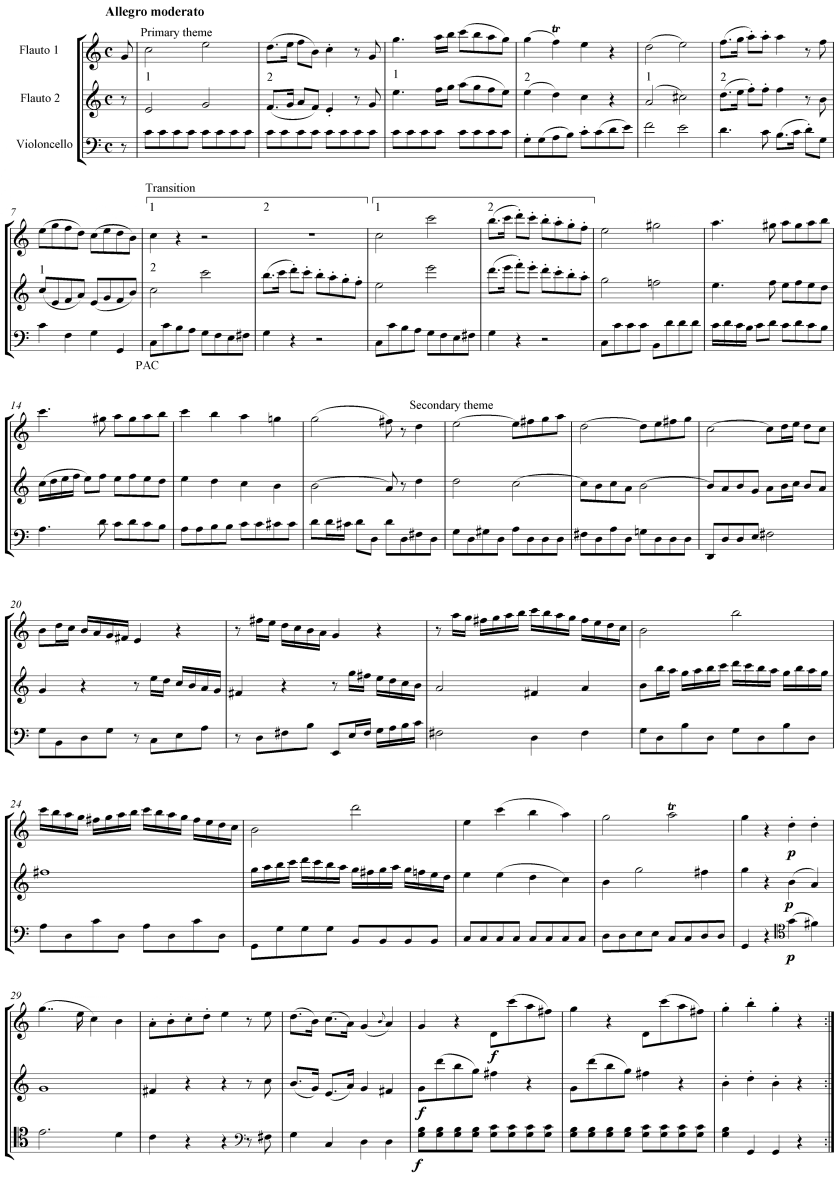
Rothstein's description, this type of metrical reinterpretation "propels the motion onward with great force."

Rarely discussed, however, is the possibility of a more retrospective reinterpretation at a phrase overlap that creates a very subtle kind of metrical shift. Example 4 shows the opening passage of Haydn's Trio for two flutes and cello in C major, Hob. IV/I. At the downbeat of m. 8, the cadential tonic chord of the primary theme, which falls on a weak beat of the foregoing hypermeter, overlaps with the transition.

Typically, the launching of the transition here creates an instantaneous reinterpretation similar to that in Example 1. Yet, in this trio, there is no distinctive phenomenal accent (akin to the one in Haydn's Symphony no. 104 and other comparable examples) to instigate an instant perception of a hypermetric downbeat at the transition. In fact, the phrase overlap itself is somewhat concealed as the beginning of the transition theme is woven into the cadential fabric of the primary theme. While the eighth-note figure in the cello in m. 8 sounds like a "lead-in" to the next phrase (a melodic device often used to connect phrases in a multi-modular primary-theme zone), the Cs in the second flute present no immediately distinct motive to suggest the onset of the transitional theme. It is only after hearing the two-bar groups in mm. 8–9 and 10–11 that one retrospectively realizes that the octave leap in m. 8 indeed marks the definitive opening of the transition zone.

"punishments" to inaccurate ones; reaction response is a fast, immediate, and unconscious assessment of the event; finally, appraisal response is a slower, subsequent, and conscious assessment of the same event. A "fast-track response" is the immediate reaction to a surprising event and assigns affective significance to sensory stimuli. In the context of our discussion, a fast-track response is set off by the impact of an instantaneous metrical reinterpretation, the affect of which is immediately registered. Complementing a fast-track response is a slower appraisal response, which, in our context, may be thought of as the process of evaluation following a more retrospective metrical reinterpretation.

Example 4. Haydn, Trio in C major, Hob. IV/1, first movement, mm. 1–23.



Once this is recognized, Lerdahl and Jackendoff's "Strong Beat Early" preference rule biases the listener toward interpreting the beginning of the two-measure groups at mm. 8 and 10 as metrically strong, implying that a metrical reinterpretation would have to occur retroactively at m. 8.[22] This need to search backward for a hypermetric anchor (or, in Huron's term, a more extensive activation of the appraisal response) attenuates the impact typically brought about by the launch of an overlapping transition. Incidentally, the beginning of the secondary-theme zone in this movement preserves a transitional rhetoric through increased rhythmic activity and a stubborn dominant pedal that destabilizes the local tonal area, as if to compensate for the failure of the transition to create the momentum with which it is normally associated. An understanding of the metrical nature of m. 8 thus illuminates the rationale for the curious tonal and rhythmic characteristics of the secondary-theme zone. In comparison, a transition in Haydn's oeuvre that begins with an emphatic metrical reinterpretation much more frequently precipitates toward a subdued and lyrical beginning of the secondary-theme zone.

B. Metrical reinterpretation at a cadential extension

Metrical reinterpretations take place not only at cadences that overlap with the next phrase, but also frequently at cadences that are extended.[23] Although the onset of the extension may lack the drastic dynamic or textural changes that would cause an instantaneous reinterpretation, there are at least three factors that promote a prompt perception of the reinterpretation. First, the extension often shows a clear duple sub-grouping scheme that accentuates the onset of the extension. This grouping characteristic is so ubiquitous in cadential extensions that, once a listener perceives the extension beyond the cadential attack, the experience of a strong beat at the launch of the extension (and therefore the perception of a metrical reinterpretation if the phrase proper concludes on a weak beat) is virtually immediate. Second, a common function of cadential extensions is to dissipate the tonal

[22] Lerdahl and Jackendoff 1983, 76.

[23] Rothstein (1989, 70-73) calls these situations "suffixes."

energy that has accumulated in the build-up toward the cadence. A cadential extension thus typically happens at the end of a substantial formal section, especially one that is tonally daring, such as the transition or the development in sonata form. The discharge of tonal energy at the cadential resolution creates a strong tonal accent, which often helps to articulate the resolution as a hypermetrically strong point. Finally, according to Lerdahl and Jackendoff's fifth metrical preference rule, the longer duration of the cadential goal than the preceding harmonies encourages the perception of a relatively strong beat at the inception of the harmonic prolongation.[24] Often, these factors work in tandem to render the impact of a metrical reinterpretation at a cadential extension virtually instantaneous.

The end of the transition zone in sonata form often features cadential extensions with all of the above characteristics. Example 5 shows the transition in the exposition of Mozart's Piano Sonata in A minor, K. 310/I, where duple hypermeter projects a weak-beat cadence on V of the secondary key at m. 16. Despite this projection, a cadential extension (i.e., what Hepokoski and Darcy call the "dominant lock") signaled by the Alberti bass creates a sense of metrical accent (and therefore metrical reinterpretation) at m. 16, on account of its dynamic and harmonic emphasis.[25] The typical alternation between V/V and its neighboring six-four chord then establishes a duple hypermeter that concludes the transition at a strong hypermeasure in m. 22. As it turns out, a strong hypermetrical ending of the transition is a "lower-level default"—to use Hepokoski and Darcy's term for a less-favored composition option—perhaps due to the metrical disjunction created when the secondary-theme zone begins (as it usually does) on another strong hyperbeat.[26]

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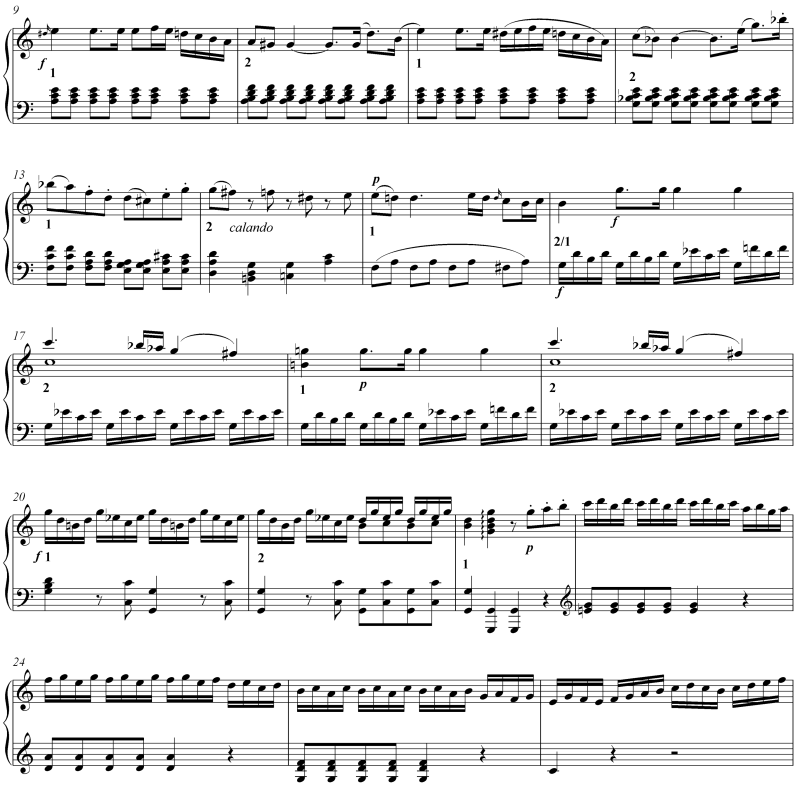
[24] Lerdahl and Jackendoff 1983, 84. I thank one of the anonymous readers of this article for pointing out the relevance of Lerdahl and Jackendoff's last metrical preference rule here.

[25] Hepokoski and Darcy 2005, 200. The term "dominant lock" refers to the prolongation of the cadential dominant in preparation for the secondary-theme zone.

[26] As I have discussed earlier, the current understanding of metrical reinterpretation espoused in most extant analyses does not consider m. 23 to be a case of metrical reinterpretation, but a different phenomenon called "successive

Example 5. Mozart, Piano Sonata in A minor, K. 310, first movement.



In the case of K. 310, the disjunction between the two zones serves an important rhetorical function: it highlights the stark contrast between the primary-theme and secondary-theme zones manifested as a modal shift (from minor to major), a textural change (from dense to sparse), and a rhythmic transformation (from prevalent dotted rhythms to fluid sixteenth-note runs) despite the surface rhythmic continuity between the zones.

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downbeats." Having disentangled metrical reinterpretation from phrase overlap in the previous section, I would argue that the downbeat at m. 23 should indeed be considered a case of metrical reinterpretation, as I will further explicate later in this paper.

The retransition in the second movement of Mozart's Piano Sonata in G major, K. 283, which is shown in Example 6, performs a radically different formal-rhetorical function despite its similar metrical schema to that in K. 310. The development presents, at m. 16, a statement of the opening theme in D minor that is displaced metrically by half a measure; the ensuing passage is thus not only tonally removed from the tonic, but also metrically dissonant.[27]

The cadential resolution at m. 22 is anticipated to be metrically weak in the duple meter shown in the analysis. Yet, the cadential extension in mm. 22–23 also causes a metrical reinterpretation at m. 22 in similar ways to the two previous examples. Significantly, this metrical reinterpretation restores the notated meter and thereby ensures that the recapitulation of the opening theme in m. 24 is metrically consonant.[28] In the absence of a preparatory dominant, the realignment with the notated meter at m. 22 critically takes on the function of a linkage—albeit a metrical one instead of the expected tonal retransition—to the recapitulation in m. 24.

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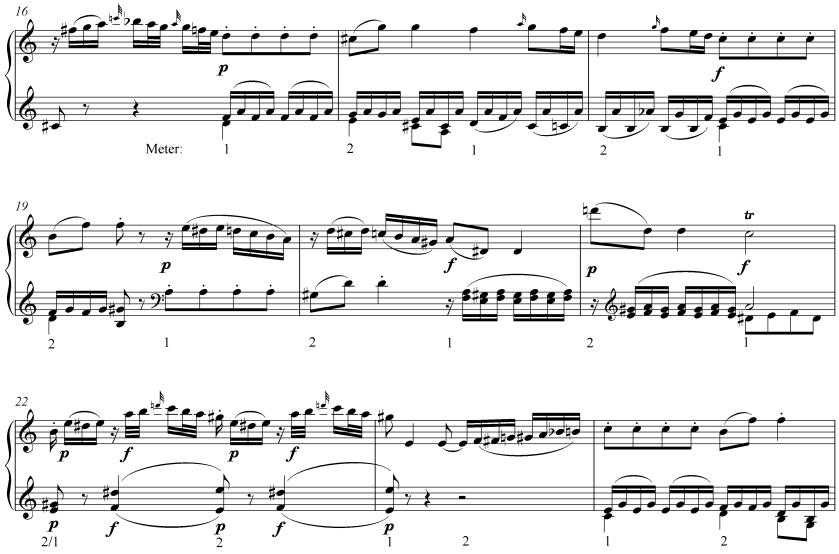
[27] The metrical dissonance here resides in the displaced relationship between the notated and sounding meters. Krebs calls this type of metrical dissonance a subliminal displacement dissonance. See Krebs 1999, 46.

[28] Schenkerian writers generally seem reluctant to call metrical readjustment at a cadential extension a metrical reinterpretation; presumably, this is due to the differentiation between what Rothstein (1989, 97-101) calls the underlying hypermeter—i.e., the hypermeter of the basic phrase—and the surface hypermeter of various types of phrase expansions. For examples of how the two levels of hypermeter operate separately, see analyses in Rothstein 1981 and Burkart 1991. It seems to me, however, that this differentiation between surface and underlying hypermeters is more theoretical than perceptual; as I have argued, the collision between weak and strong beats at the onset of the cadential extension is almost as immediately audible as one that occurs at a phrase overlap. If we ascribe to metrical reinterpretation any perceptual relevance, then the differentiation between the underlying hypermeter of the basic phrase and the surface hypermeter of a cadential extension should not prevent us from understanding the above examples as cases of metrical reinterpretation.

Example 6. Mozart, Piano Sonata in G major, K. 283, second movement.

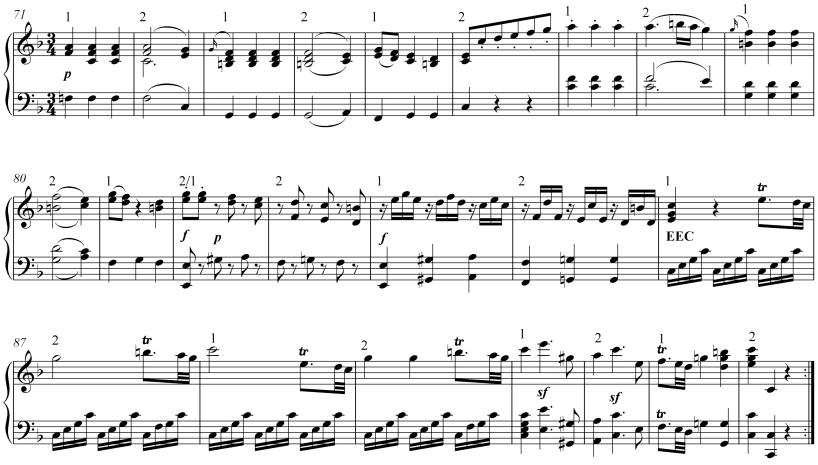


C. Metrical reinterpretation at a cadential evasion

Another well-documented phenomenon following the approach to a cadence is a cadential evasion. A cadential evasion often occurs when a strong tonal trajectory toward a cadential release is thwarted by replacing the goal harmony with an inconclusive one, most often an inverted tonic or a root-position submediant chord. Commonly, the entire cadential progression then resumes, attempting "one more time"—to use Janet Schmalfeldt's well-known description—to attain the tonal and rhetorical resolution of the phrase.[29] Though the phenomenon of cadential evasion is widely known and discussed, the hypermetrical consequences of the evasion are rarely examined. I will presently investigate instances where the presence of metrical reinterpretation at an evasion interacts with other musical parameters, either to delineate formal expectations or to create compositional resources for further development.

[29] Schmalfeldt 1992.

Example 7. Mozart, Piano Sonata in F major, K. 332, first movement.



Example 7 shows the last passage of the secondary-theme zone in Mozart's Piano Sonata in F major, K. 332/i. At m. 77, the consequent phrase restates, at an octave above, thematic materials from the antecedent phrase in mm. 71–76. A symmetrical continuation of the consequent phrase would have reached a perfect authentic cadence at m. 82 on a hypermetrical weak beat. However, the cadential $\frac{6}{4}$ in m. 81 "slips" to a V_2^4 and proceeds to a I^6 in m. 82, which is harmonically too weak to conclude the period. The I^6, instead, launches a new cadential idea marked *f*. The strong dynamic accent and the subsequent audacious initiation of another cadential module support a virtually instantaneous metrical reinterpretation at m. 82. This new cadential idea then fails again to close the period in m. 84, due to a similar slip through V_2^4 to I^6 in mm. 83–84. Finally, the repetition of the idea from m. 84 actualizes the long-awaited cadence in m. 86—significantly, on a hypermetrical downbeat because of the instantaneous metrical reinterpretation in m. 82. Thus, the jolt created by the metrical reinterpretation in m. 82 not only energizes the push toward the goal of the whole period, but also relocates the goal to a strong

hypermetrical point, which typically signals the end of the secondary-theme area and the onset of the closing material.[30]

A more complex case of metrical reinterpretation at a cadential evasion is found in the opening period (mm. 1–19) of the finale of Mozart's Jupiter Symphony, which is shown in Example 8. The antecedent phrase in mm. 1–8 establishes a four-bar hypermeter with its four-measure groups and the textural accent in m. 5. Beginning in m. 9, the consequent phrase initially maintains the quadruple hypermeter through its parallel melodic structure to the antecedent. A cadential evasion then occurs at m. 16 when a potential perfect authentic cadence is deferred by the ascending motion of the top voice to $\hat{3}$. To close the period, Mozart employs the "one-more-time" rhetoric by reinvigorating the cadence-approaching materials from m. 13ff. Usurped of the melodic closure needed for a perfect authentic cadence, the tonic harmony in m. 16 immediately gives way to the subdominant chord from m. 13, which was previously heard as hypermetrically strong. Consequently, although a weak hyperbeat is expected at m. 16, a swift return to materials from m. 13 at the brisk tempo of this movement prompts the listener to perceive—almost instantaneously—a strong measure (and therefore a metrical reinterpretation) in m. 16.

The perception of this marked shift leads to two radically different hypermetrical interpretations of the following passage in mm. 19–35. One interpretation is that the listener continues, after the metrical reinterpretation at m. 16, to hear quadruple hypermeter until statements of a prominent three-measure motive (hereafter called motive X) in mm. 19–25 force the listener to shift to triple hypermeter. This orientation is shown as Hearing A in Example 8. Statements of motive X are heard as beginning-accented in this hearing, as the agogic accents after the initial pick-up coincide with (and also reinforce) the hypermetrical downbeats. The majority of motive X is thus heard as a gesture "rebounding" from a prominent downbeat early in the motive.

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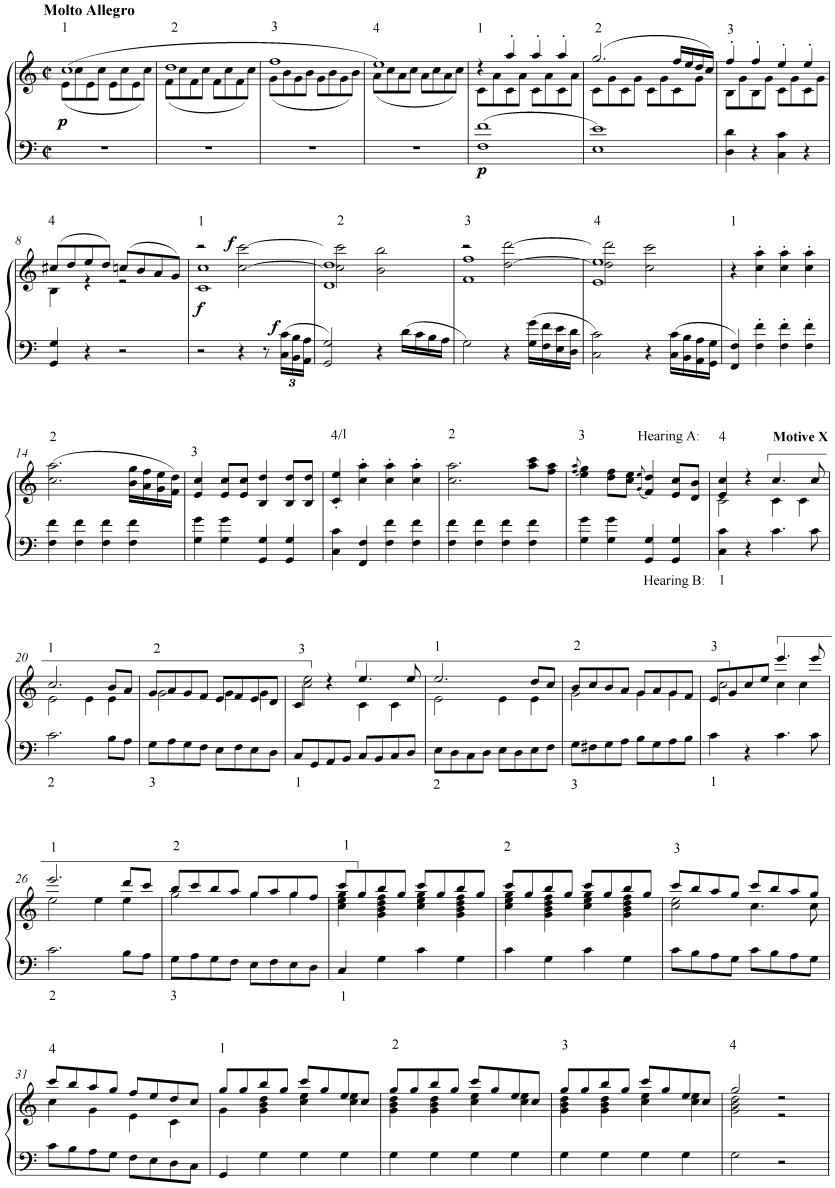
[30] See Temperley 2003, for a discussion of the metrical characteristics of the closing zone.

Example 8. Mozart, Symphony no. 41 in C major, K. 551, fourth movement, mm. 1–35.



The last statement of X in mm. 25–28, however, involves a metrical reinterpretation at the end: the downbeat of m. 28 is at once the last beat of motive X and the strong first beat of the four-measure group in mm. 28–31.

Alternatively, the listener may take the metrical reinterpretation at m. 16 as a signal to switch to triple hypermeter; this switch is motivated by the parallelism between mm. 13–16 and mm. 16–19. As shown by Hearing B in Example 8, triple hypermeter continues until the four-measure group in mm. 28–31 compels the listener to revert to quadruple hypermeter. Such an interpretation provides a "less bumpy" way to hear the passage (because the metrical reinterpretation at m. 28 is eliminated); however, the most important distinction from Hearing A is that statements of motive X are now heard as end-accented. Instead of rebounding from a strong hypermetrical accent early in the motive, each statement begins immediately after a downbeat and moves toward the next downbeat at the end of the motive.[31] The disparity between these two hearings betrays the inherent ambiguity in the hypermetrical profile of motive X. To be sure, the agogic accent of the motive strongly positions the downbeat early; however, the descending scalar motion also articulates the last note as an important tonal goal that warrants emphasis.

From the possibilities outlined above, a subtle compositional detail emerges that possesses tremendous potential for exploitation.[32] To begin with, the metrical ambivalence of motive X is progressively explored and dramatized in its subsequent appearances. As shown in Example 9, motive X returns in m. 64 during the "dominant lock" before the medial caesura. The hypermeter of the transitional phrase in mm. 53–64 may be interpreted in two conflicting ways, which in turn lead to the two aforementioned metrical interpretations of motive X. In Hearing A, the twelve measures of the transitional phrase simply project a

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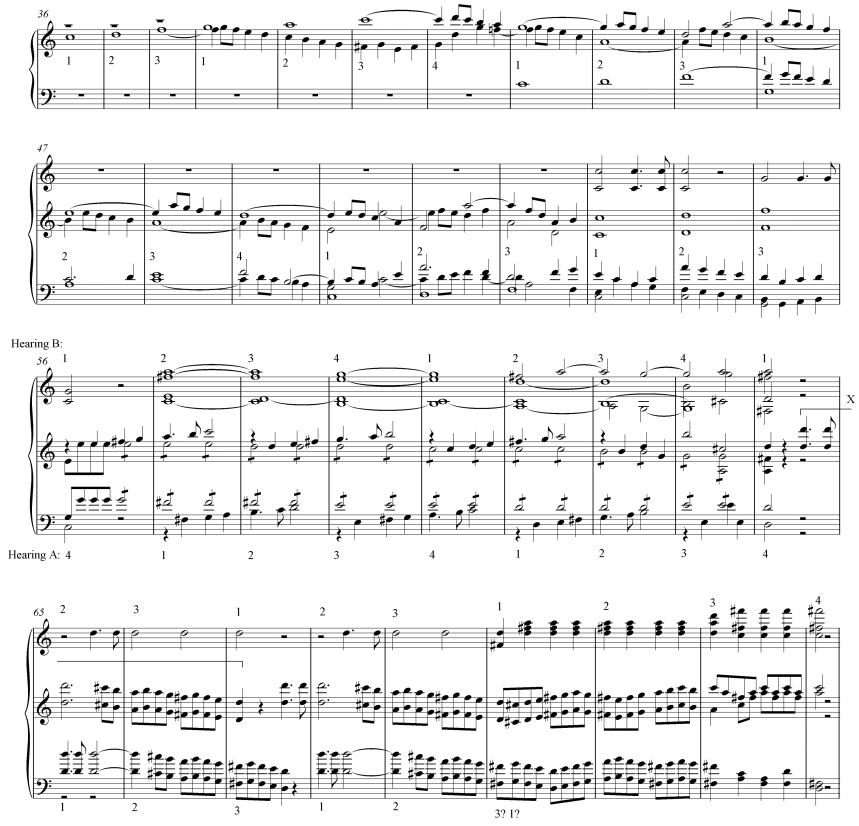
[31] Rothstein (1989, 29-30) refers to this situation as one that begins with an "afterbeat."

[32] Notice that although the agogic accent (often performed as dynamically accented) seems to tip the hearing of motive X toward the beginning-accented configuration, Mozart's instrumentation reinforces the goal of the motive, and therefore buttresses the end-accented interpretation.

quadruple hypermeter, which places the cadential V/V in m. 64 on a weak measure.

Example 9. Mozart, Symphony no. 41 in C major, K. 551, fourth movement, mm. 36–73.



In this context, statements of motive X in the cadential extension are heard as beginning-accented. Yet, Hearing A is somewhat unsatisfactory for both contextual and intertextual reasons. The sequential progression in mm. 57–62, which is based on a descending-fifth-circle of interlocking diatonic seventh chords,

contains a chain of 9-5 suspensions in the second bassoon.[33] These suspensions support the perception of strong beats on mm. 58, 60, and 62, which contradict Hearing A. On the other hand, the attainment of V/V in m. 64 on a hypermetrical weak beat is incompatible with Mozart's treatment of the same formal juncture in the same period and genre as this movement; that is, in all sonata-form movements in his late symphonies, the harmonic goal of the transition is invariably placed on a strong hyperbeat.

What, then, is the alternative to Hearing A? The answer, I believe, lies in the previous fugato passage in mm. 36–53. In the succession of subjects (in tonic) and answers (in dominant), entrances of a subject and the next answer are always separated by three measures, and those of an answer and the next subject always by four. Since all subject and answer entries can be heard to begin new hypermeasures,[34] this passage gives rise to a sense of alternating between three-bar and four-bar hypermeasures. Subsequently, the consistent initiation of a three-bar hypermeasure by statements of the subject sensitizes the listener to the possibility of hearing mm. 53–55 as a three-bar hypermetrical unit. While the construal of m. 56 as strong may seem flimsy at first, it is buttressed by both the initiation of a new sequential idea in m. 56 and the aforementioned chain of 9-5 suspensions. The re-orientation here not only places the cadential V/V in m. 64 on a strong hyperbeat—to comply with the normative schema in Mozart's late symphonies—but also reaffirms the potential of hearing the following motive X as end-accented. In this case, the end-accented interpretation of motive X is further strengthened by an intriguing detail in Mozart's orchestration: in mm. 67 and 70, Mozart adds a trumpet at the end of motive X to accentuate the end of the scalar descent.[35]

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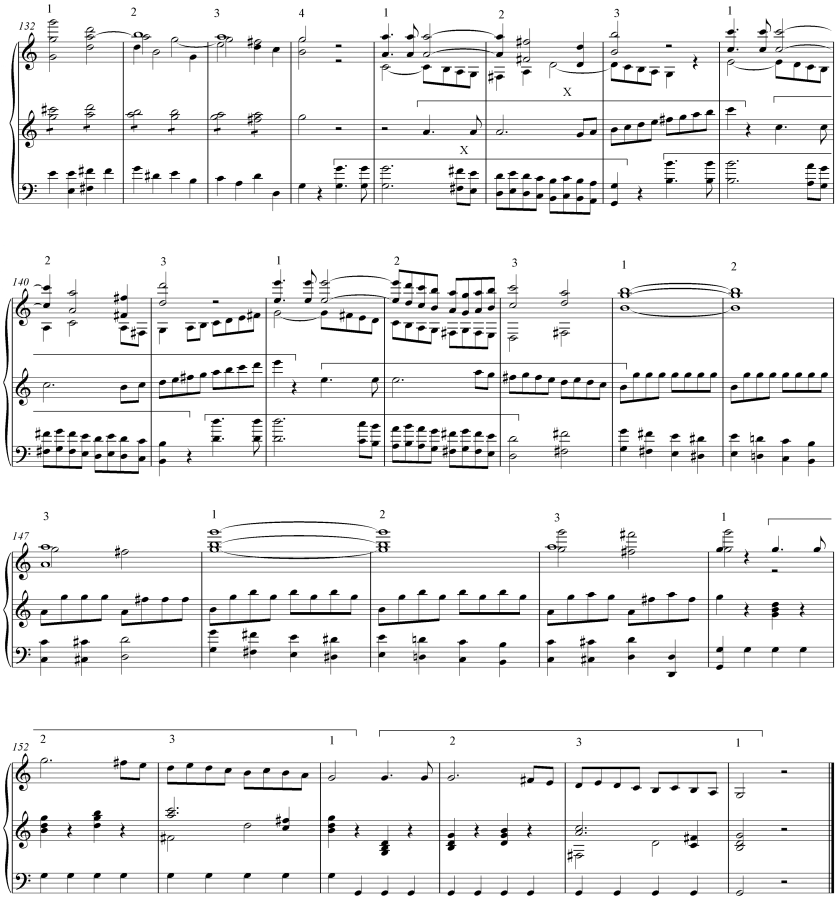
[33] The second horn and trumpet also have the suspensions, but they resolve irregularly because of the physical constraints of the instruments.

[34] Since the first statement of the subject in m. 1 clearly projects a downbeat on the first note, it is very unlikely that one would hear the hypermetrical profile of subsequent entries of subject/answer differently.

[35] One could perhaps add to Hearings A and B a third possibility: a hybrid between the two by maintaining Hearing A until m. 64, at which point a metrical reinterpretation at the cadential extension switches the hypermeter to that in Hearing B.

The opposition between beginning- and end-accented hearings of motive X culminates in a direct confrontation between the two in the closing zone of the exposition, which is shown in Example 10. After the secondary-theme zone closes in m. 135 on the last beat of the foregoing four-bar hypermeter, motive X enters first as beginning-accented in the closing zone, in the cellos and basses.

Example 10. Mozart, Symphony no. 41 in C major, K. 551, fourth movement, mm. 132–157.



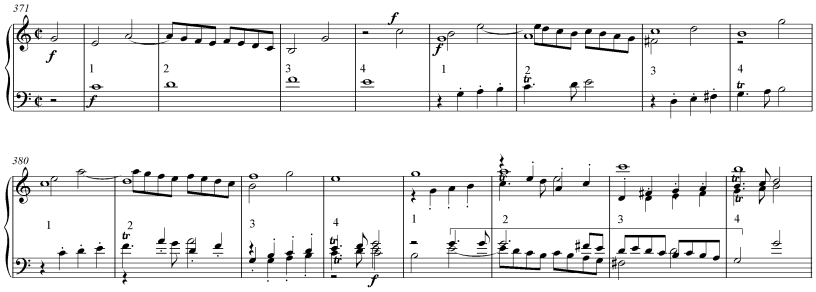
One measure later, however, the violins enter with what is essentially an inverted statement of X, albeit with several intervallic modifications. With the hypermetrical downbeat already established by the basses and cellos in the previous measure, statements of X in the violins are unavoidably heard as end-accented. The two continue to play against each other until m. 142, where the end-accented version—the "underdog" hearing—is privileged as the lone version that wraps up the exposition.[36]

The preponderance of motive X in the development and the resulting metrical complexities are outside the scope of this paper. Yet, a final compositional detail concerning motive X in the coda requires our attention. As shown in Example 11, the recurrent instances of the opening four-bar motive strongly establish a four-bar hypermeter in the coda. Against this relatively stable hypermetrical backdrop, motive X first enters in the coda at m. 384, in the cellos. Significantly, the metrical placement of this statement of motive X synthesizes its beginning-accented and end-accented orientations. Preserved from the end-accented version is the onset of the motive immediately after a hypermetrical downbeat (and therefore the placement of the agogic accent on the second beat of the hypermeter); characteristic of the beginning-accented version is the conclusion of the entire motive on the weakest beat of the hypermeter. Before the triumphant return to the opening materials of the movement at m. 399, statements of motive X throughout the coda conform to this metrical placement. In this sense, the coda resolves the extended conflict between the two orientations of motive X by assimilating the motive into a passage of unyielding quadruple hypermeter. This assimilation is possible because of a radical transformation in the relationship between motive X and the hypermeter of the piece: while instances of motive X prior to the coda more or less prescribed a triple hypermeter, albeit while leaving the exact position of the

[36] One could also argue that the cadential resolution at m. 135 causes a metrical reinterpretation, thus rendering statements of motive X in the cellos in mm. 135–44 end-accented. In this alternative reading, the emergence of the end-accented interpretation happens earlier than in the analysis I proposed above. The main point, however, remains the same: the two metrical orientations of X continue to be exploited throughout the movement.

downbeats open to interpretation, the quadruple hypermeter in the coda becomes a stabilized background against which the metrical character of motive X is determined. Insights into these conflicts between triple and quadruple, and between beginning- and end-accented readings of motive X, originate from the awareness of one singular moment and all its subsequent developments—the moment when the cadential evasion in m. 16 promotes the perception of a metrical reinterpretation. It is in this sense that the instantaneous reinterpretation at m. 16 can be understood as the progenitor of an intricate metrical problem and its final resolution in this last symphonic movement by Mozart.

Example 11. Mozart, Symphony no. 41 in C major, K. 551, fourth movement, mm. 371–387.



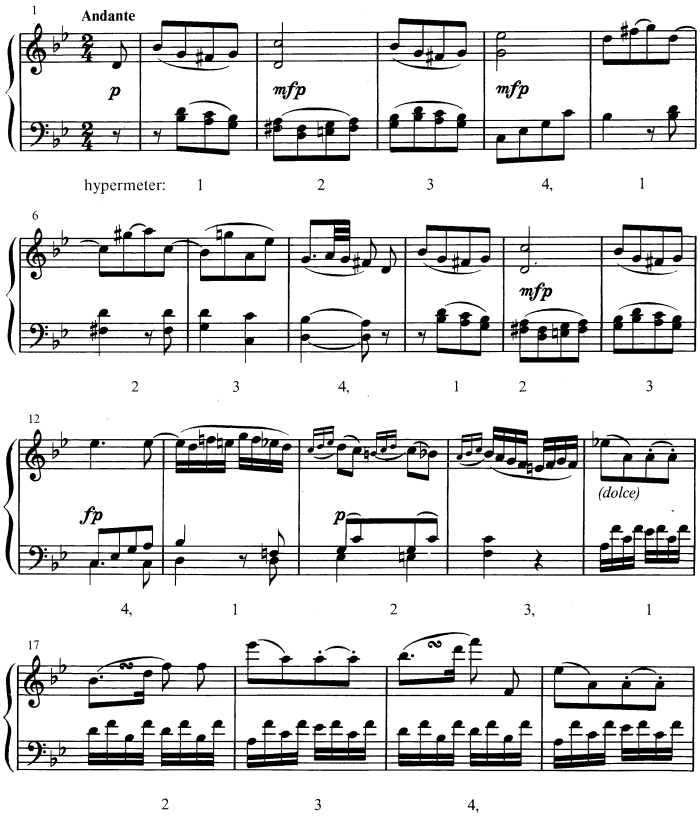
D. Metrical reinterpretation at the beginning of a phrase or section (without phrase overlap with the previous section)

We have already seen that Schenker's conflation of phrasal and hypermetrical overlaps has caused certain confusions regarding the cause of a metrical reinterpretation and its relationship with phrase overlap. I will presently expand on this issue within a specific formal context—namely, at the division between the transition and secondary-theme zones. Example 12 shows Rothstein's analysis of this formal juncture in Beethoven's Piano Sonata in G minor, op. 49.[37] Following Schenker's treatment of non-overlapping sections,

[37] Rothstein 1989, 59.

Rothstein halts the first hypermeter at m. 15 and begins a new one in m. 16. The situation is thus deemed a case of successive downbeats without metrical reinterpretation. Yet, Rothstein also makes an important qualification for m. 16: the lack of harmonic change from the previous bar significantly diminishes the downbeat character of m. 16. In other words, one could momentarily hear m. 16 as an upbeat to m. 17, where the progression to I in the secondary key area suggests a metrical accent on account of its harmonic change.

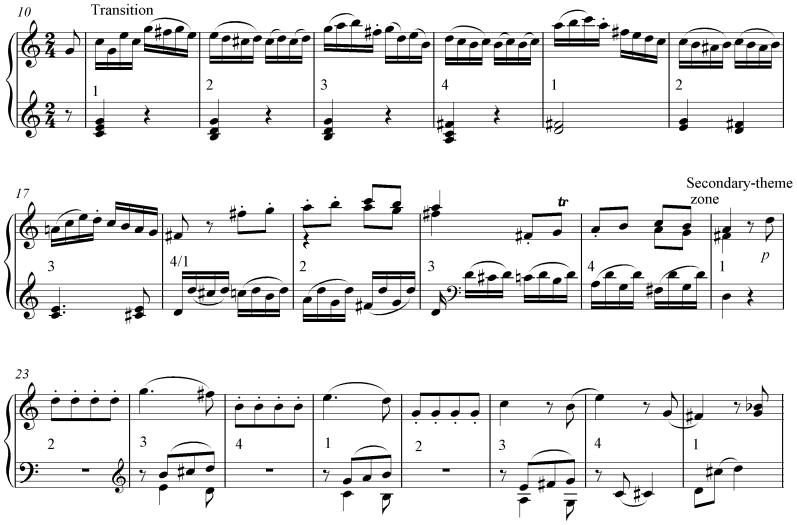
Example 12. Rothstein's hypermetrical analysis of Beethoven's Piano Sonata in G minor, op. 49, first movement, mm. 1–20.



This perception, however, is weakened when the grouping structure of the secondary theme is later clarified. Thus, m. 16 constitutes a moment of metrical ambiguity at which, I would argue, a sense of metrical reinterpretation could in fact be induced by the performer's intervention: the perception of continuity from m. 16 (and thus the anticipation of beat 4 of the previous hypermeter) could be enhanced by playing through the sectional boundary without taking *ritard*, while the E-flat in the right hand in m. 16 could be slightly emphasized to reinforce the downbeat character (and thus the feeling of metrical reinterpretation).

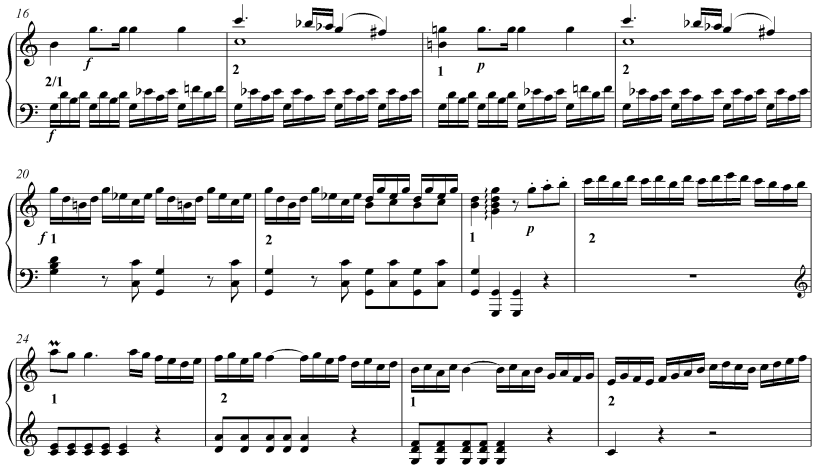
Example 12 shows again that a new phrase or section does not necessarily restart the hypermeter. In fact, many secondary-theme zones begin hypermetrically weakly after a transition that concludes on a strong beat. One instance is illustrated in Example 13. The main body of the primary and transition zones maintains, more or less, a consistent four-bar hypermeter; the dominant lock at the end of the transition zone begins with a metrical reinterpretation and concludes on a strong beat of the four-bar hypermeter (thus outlining the same metrical schema as that in K. 310).

Example 13. Mozart, Piano Sonata in C major, K. 279, third movement.



The secondary-theme zone then enters in m. 23 in the absence of harmonic and textural changes, which are crucial to the establishment of a new hypermeter. As it turns out, the entirety of the secondary-theme and closing zones can be heard to perpetuate the quadruple hypermeter from the dominant lock. In this light, an intertextual consideration of the formal boundary between the transition and secondary-theme zones begs the question of whether two consecutive strong beats at a formal juncture (such as in K. 310) may simply be labeled as "successive downbeats" without reinterpretation. Listeners familiar with the situation in Example 13 may well expect a metrical continuation beyond the strong-beat conclusion of the transition zone; consider the recomposition of K. 310 shown in Example 14. That this hypothetical version provides a stylistically sound alternative to Mozart's original (see Example 5) demonstrates the general need to conceive of a strong-beat beginning of the secondary-theme zone as one that reinterprets an expected weak beat, and therefore one that promotes a sense of metrical shift and disjunction.[38]

Example 14. Mozart, Piano Sonata in A minor, K. 310, first movement: hypothetical version.



[38] Another example of this situation is found in the second movement of Mozart's Symphony no. 35 in D major, K. 385.

E. Mid-phrase metrical reinterpretation

By "mid-phrase metrical reinterpretation," I am referring to reinterpretations in the middle of a phrase that are not associated with any cadential evasion or extension. This type of metrical reinterpretation is normally less perceptible than the ones discussed above, due to the lack of heightened awareness brought about by a cadential approach or resolution. Often, perception of the reinterpretation depends on knowledge of the sequence of events following the purported reinterpretation, and must therefore be inferred retroactively.

The most common situation in which analysts tend to read a metrical reinterpretation in the middle of a phrase outside the context of a cadential extension or evasion occurs when the beginning of a subgroup is accented in contradiction to the ongoing metrical orientation. An instance is shown in Example 15a, which reproduces Ryan McClelland's hypermetrical analysis of Haydn's String Quartet op. 76/3, iii, mm. 1–20.[39] McClelland reads, I believe correctly, the first five-measure phrase as comprising first a hypermetrical upbeat in m. 1 (including the pickup to m. 1), and subsequently a four-bar hypermeasure in mm. 2–5. The seven-measure second phrase in mm. 6–12 then completes two full measures of the quadruple hypermeter by way of a metrical reinterpretation in m. 9. This hypermetrical reading is motivated by the subgroup structure of the phrase: the pickups to mm. 6 and 9 initiate the two subgroups of the phrase, resulting in his hearing of the downbeats of m. 6 and 9 as hypermetrically strong.[40] Measure 9, which initially serves as the fourth beat of the foregoing quadruple hypermeter, must therefore be reinterpreted as a downbeat.

While I agree with McClelland's hypermetrical reading of the passage, I also propose to reconsider the passage in light of its phrasal location and the degree of retroactive analysis associated with the metrical reinterpretation. The issue at hand is that the

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[39] McClelland 2006, 43.

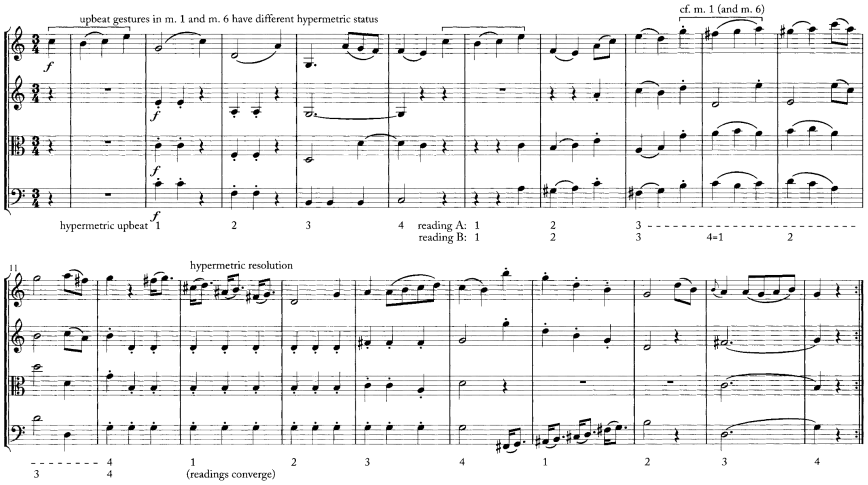
[40] McClelland is here implicitly invoking Lerdahl and Jackendoff's "Strong Beat Early" preference rule. Also, because of the motivic parallelism between m. 9 and m. 10, the hearing of a stronger beat at m. 9 is further supported by the "First Occurrence Strong" rule discussed in Temperley 2008, 306.

beginning of a group at m. 9 does not guarantee the perception of a strong hyperbeat to create a metrical reinterpretation. McClelland supports the reading of a metrical reinterpretation by asserting that m. 9 "initiates a cohesive four-measure [in mm. 9–12]." This four-measure unit may indeed be heard as one four-bar hypermeasure, thereby placing a strong hyperbeat at m. 9; the listener, however, has no knowledge of the four-measure group until m. 12. Compare Haydn's version with a hypothetical revision in Example 15b; here, the four-measure group is expanded to a five-measure group so that the second phrase conforms to the eight-measure norm. In this case, there is no need to reinterpret the hypermeter at m. 9, which simply completes the previous hypermeasure and allows m. 10 to begin the next one. Clearly, then, the metrical reinterpretation at m. 9 of Haydn's version is strongly retrospective; its perception strengthens, perhaps, as one becomes more familiar with the piece. In this sense, one could say that a metrical puzzle is proposed in m. 9 with the initiation of the new subgroup; the solution of the puzzle is then revealed in m. 12, whereupon the hypermeter gains a much stronger footing. This mode of description of the metrical reinterpretation more aptly captures the spirit of McClelland's analysis of a passage that intriguingly engages metrical issues by playing with the accentual status of an upbeat gesture. By comparison, the rigid description of m. 9 as an instantaneous reinterpretation misses the important subtlety.

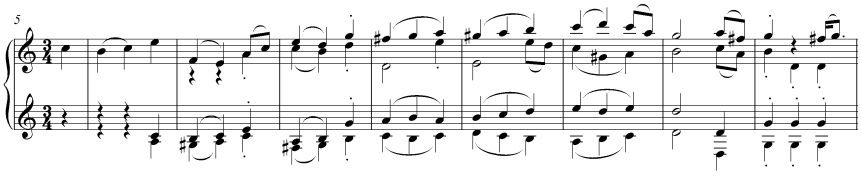
A less-discussed source of metrical reinterpretation in the middle of a phrase is a particular harmony that is normally found on strong beats. An obvious candidate is the cadential $\frac{6}{4}$ chord. Example 16, taken from the first Minuet of Mozart's String Quartet in E-flat major, K. 428, shows an instance where a cadential six-four chord (in m. 46) results in a metrical reinterpretation that underlines a significant metrical problem of the movement. On the surface, the excerpt playfully alternates between four-measure and six-measure segments. The real intrigue of the phrase rhythm here, however, lies in the varying hypermetrical organizations of these units. The passage opens innocently with a four-bar hypermeasure that coincides with a four-bar subgroup. This is then followed by what could have been another four-measure unit that attains a cadential V at m. 34. The potential symmetry fails, however, because of the cadential extension in mm. 34–36 that prolongs the

V. As per our previous discussion on cadential extension, one could easily hear a metrical reinterpretation at m. 34. The extension itself also evades quadruple hypermeter; instead, its three-measure length expands the subphrase that starts in m. 31 from four measures to six measures. This six-measure group has a very different metrical profile from that of the six-measure opening theme (which returns in m. 36) because of the metrical reinterpretation in m. 34: the reinterpretation causes mm. 31–36 to sound like a 3+3 configuration instead of the 2+2+2 design of the opening theme. In fact, the return of the opening theme in mm. 36–42 makes explicit this hemiolic contrast between the two metrical patterns.

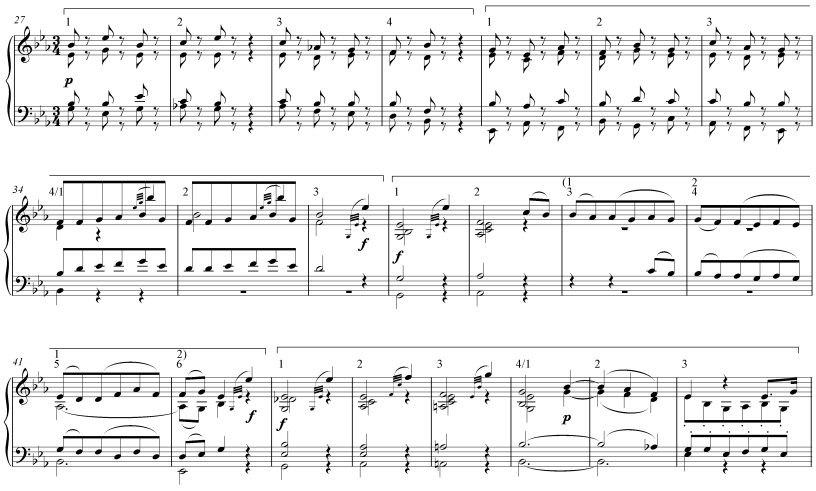
Example 15a. McClelland's hypermetrical analysis of Haydn's String Quartet op. 76/3, third movement, mm. 1–20.



Example 15b. Haydn, String Quartet op. 76/3, third movement, hypothetical recomposition.



Example 16. Mozart, String Quartet in E-flat major, K. 428, third movement.



More important, though, is that the continuation of the opening theme in mm. 42–48 is revised to perpetuate this hemiolic conflict: the cadential six-four chord in m. 46 forces the listener to reinterpret a weak beat of the foregoing duple hypermeter as a strong beat, forcing the six-measure group in mm. 42–48 into a 3+3 pattern. It is as if the opening theme, which has been presented consistently in a 2+2+2 configuration in the movement, has been invaded by the 3+3 alternative previously introduced by the cadential extension in m. 34. Attention to these conflicts instigated by metrical reinterpretations allows us to appreciate the temporal narrative of the movement as not just a concatenation of groups of different lengths, but also an interplay between different possible subdivisions of what Richard Cohn calls a "mixed complex,"[41] which is an important source of metrical interest in tonal compositions.

[41] Cohn 1992. Cohn defines a mixed complex as a metrical complex whose length is a multiple of two or more distinct primes. For example, a span of six metrical units (e.g., the six-bar hypermeasure in Mozart's String Quartet, where each bar is equal to one metrical unit) is a multiple of two primes: 2 and 3. As Cohn points out, a mixed span invites conflicting interpretations of the span (e.g., a six-unit

IV. Is a Metrical Reinterpretation Always a Metrical Reinterpretation? Another Suggestion for Future Studies

As we have seen, the main aesthetic impact of metrical reinterpretation lies in its arousal of the feeling of jolt, surprise, and disturbance; indeed, our foregoing discussion of the rich repository of formal functions and sonic effects of metrical reinterpretation fundamentally depends on this assumption. Yet, one must question whether a metrical reinterpretation in one hearing will be experienced identically in future hearings regardless of the perspective and experience of the listener. More precisely, can one learn to rehear the meter and hypermeter leading up to the metrical reinterpretation such that the need for reinterpretation can be eliminated? To be sure, analysts have offered many valuable insights into this difficult issue. Their overall approach centers on two distinct dichotomies: "radical" versus "conservative" in one's listening habit (based on Imbrie 1973), and "modular" versus "non-modular" in one's cognitive processing.[42] Since the arguments surrounding these oppositions are fairly well known, I will refrain from rehearsing them here. Instead, I wish to sketch out a few pointers for yet another way to engage this issue in the future. The point of this brief account is to consolidate two important arguments in this paper: (1) metrical reinterpretation is a considerably more complex phenomenon and requires more nuanced analytical treatments than has been acknowledged in analyses; and (2) the nature and effect of a metrical reinterpretation

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span may be divided into two 3-unit spans or three 2-unit spans, as in the case of Mozart's String Quartet) to create compositional interest. A pure span (i.e., a span whose length is the multiple of just one prime, such as a 4-unit span) is not susceptible to such ambiguity.

[42] The idea of modular cognitive processing as it relates to music perception is proposed by Jackendoff (1991), who argues that fulfillment and denial of musical expectations continue to operate even with repeated listening (and hence familiarity with the stimuli), because our listening experience happens in separate modules—that is, the processing of stimuli in a particular experience occurs distinctly from facilities responsible for the long-term memory of the same piece, making any particular listening experience practically like a new one. For further explication and application of the model, see Temperley 2001 and 2008.

are almost always tied to a variety of other musical parameters, especially those within the tonal and formal domains.

In his categorization of mid-bar shifts in Bach's keyboard music, Charles Burkhart observes three ways of shifting the downbeat to the middle of the notated bar, which are summarized in Example 17. Burkhart's categories of "elision" and "successive downbeats" are essentially the same as Rothstein's metrical reinterpretation and successive downbeats, albeit transferring the phenomena from the hypermetrical to the metrical level. The remaining category, called "added beat," results from the interpretation of a triple-time measure prior to the shift. On the differences among the three categories, Burkhart writes:

> Elision [or metrical reinterpretation] and added beat are both the result of overlapping phrases. Of the two, elision [or metrical reinterpretation] is the more drastic because here not only the phrases but also the measures overlap, causing the listener to reinterpret a 2 as a 1. What I call "added beat" (that is, an added half measure) is perceived as producing a measure of 3/2. Very common in non-periodic phrasing, it often occurs just before a given phrase overlaps with the next. The resulting 1-2-3 usually forms a kind of small sub-phrase, often a 3rd-progression. Added beat produces only the very gentlest of bumps. Far from causing a disruption, it promotes the surface evenness and plasticity of phrasing so characteristic of Bach's style.[43]

While Burkhart maintains that metrical reinterpretation and added beat are mutually exclusive, other writers have correctly suggested that whether one hears a metrical reinterpretation or an added beat mostly depends on one's experience with the composition and one's listening habit.[44] One important point made by Burkhart, however, deserves attention. In what he claims to be added-beat situations, he observes that an implied measure in triple is held together by a coherent middleground tonal gesture. Example 18, which shows Burkhart's reading of both metrical reinterpretation and added beat in Bach's Two-Part Invention in A major, is illustrative. Burkhart states that the elision (i.e., metrical reinterpretation) in m. 12 is "quite noticeable, albeit very gentle"; although he offers no explanation for the reinterpretation here, one

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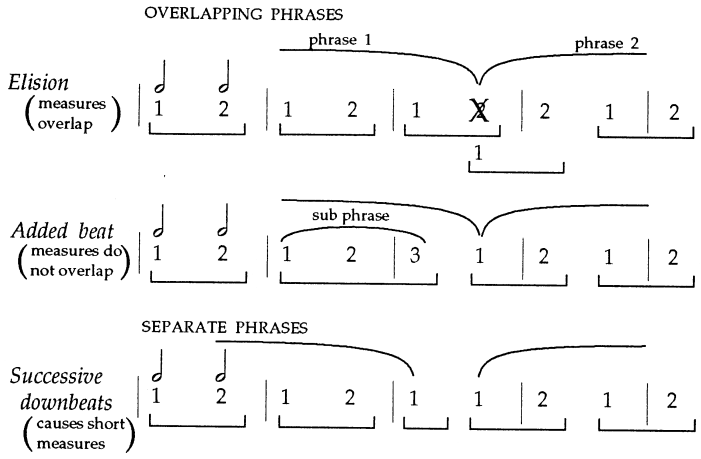
[43] Burkhart 1994, 5.

[44] See Imbrie 1973 and Lerdahl and Jackendoff 1983, 22.

could perhaps support his reading by citing the tonal release (i.e., the resolution of dominant to tonic in C♯ minor) and the beginning of a sequential group.[45] The next shift then occurs in m. 17, where beat 3—a strong beat in the shifted meter that began at the aforementioned elision—is inexplicably construed as an added beat. Why does he not maintain the shifted meter throughout m. 17 and read the downbeat of m. 18 as a case of metrical reinterpretation instead? The reason, I believe, is that the sequential motion in mm. 16–17, which outlines a 3rd-progression, prompts him to hear this situation as an added beat.

Example 17. Burkhart's categories of mid-bar shift in Bach's keyboard music.



Although I object to the categorical equation of tonal middleground progression to the continuation of a metrical unit, which is clearly as problematic as Schenker's conflation of metrical and phrasal conclusions, Burkhart's observation draws our attention to the possibility that, due to certain tonal effects, some metrical reinterpretations are more prone than others to being eliminated by rehearing the preceding hypermeter. In Example 18, the sequential motion in m. 17, which projects a sense of tonal

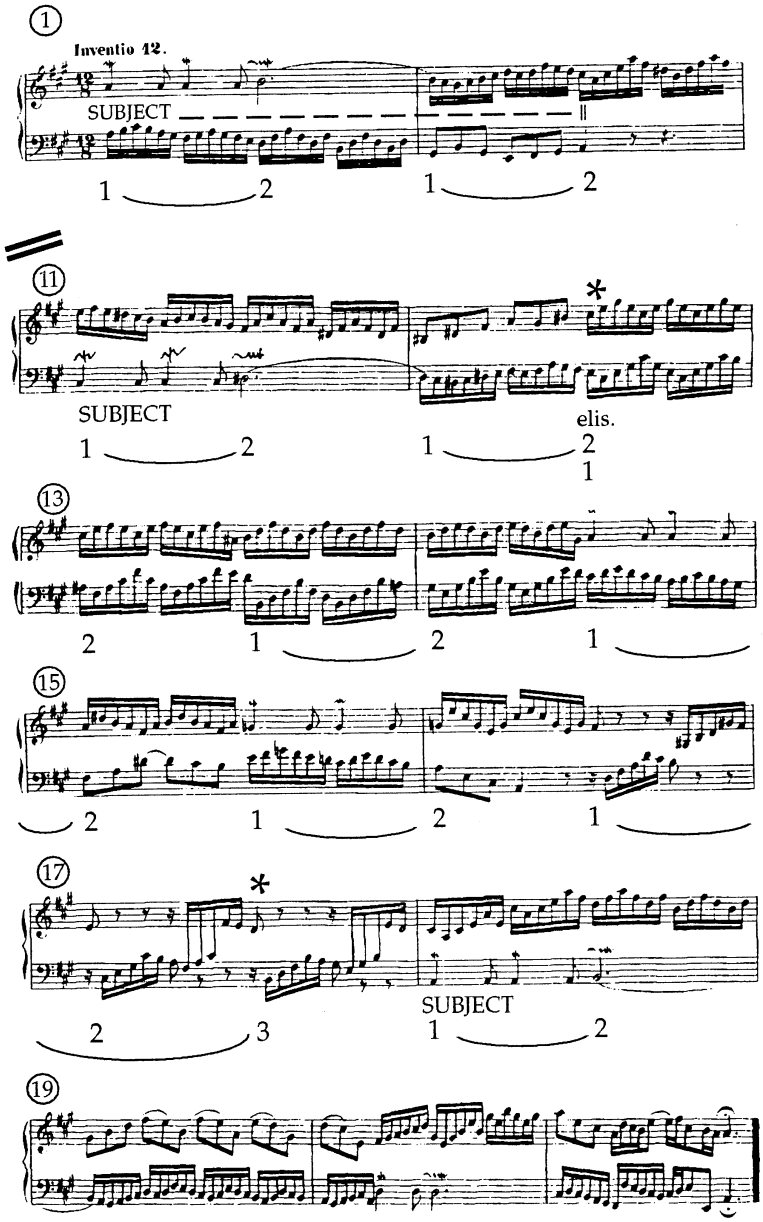
[45] Burkhart does draw attention to the sequence later in his essay, but only with regard to performance issues.

expansion, suggests the presence of what Schenker calls *Dehnung* and encourages listeners to stretch the metrical unit to accommodate for the shift. In fact, m. 12 may also be susceptible to the added-beat interpretation because of the lack of harmonic change from the previous measure.

V. Conclusion

In this paper, I have shown that the phenomenon of metrical reinterpretation constitutes a rich repository of functions and effects depending on where they occur and how they are perceived. Extant discussions of metrical reinterpretation, as we have seen, may have overlooked some of the complexity and subtleties that the phenomenon entails. Freeing metrical reinterpretation from its conflation with phrase overlap and situating it firmly in the context of formal discussion, I have demonstrated that the recognition of metrical reinterpretation in both normative and unusual phrase-rhythmic situations refines our appreciation of stylistic and aesthetic matters beyond those that involve the more familiar elements of harmony, melody, and rhetoric. Careful consideration of the nature of metrical reinterpretation and its interaction with other musical parameters—and, consequently, a proper evaluation of its vital contribution to shaping tonal forms—entails more than trivial isolation of one singular metrical phenomenon for the sake of technical discourse. Rather, it allows analysts to engage broader issues of criticism and to acquire an even better view of the landscape of compositional techniques and styles within the common-practice tonal era.

Example 18. Burkhart's analysis of Bach's Two-Part Invention in A major, mm. 1–21.



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