

Theories of musical rhythm in the eighteenth and nineteenth centuries

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Everyone agrees: it is difficult to talk about rhythm in music, or, for that matter, the temporal experience in general. Compared with spatial relations, which appear to us as fixed and graspable, temporal ones seem fleeting and intangible. As a result, the language of time and rhythm is complex, contentious, and highly metaphorical. Considering that theorists today continue to have difficulty dealing with the metrical and durational organization of music from the eighteenth and nineteenth centuries – our most familiar music – it should come as no surprise that theoretical writings from those centuries often present themselves as perplexing and in need of explication. Though their manner of formulation may at times seem odd or convoluted, these theorists nonetheless ask many of the same questions about musical rhythm that underlie current concerns: What is a metrical accent? How do the profusion of time signatures relate to each other? Do the groupings of measures create a sense of larger-scale rhythm? Can various durational patterns be organized according to some scheme or another? How does our understanding of musical rhythm affect performance, especially tempo, phrasing, and articulation?

Like many other domains of music theory, rhythmic theories are largely formulated in relation to a distinct compositional practice. Thus when compositional styles change, theorists respond by modifying their conceptions and formulating new ones in order better to reflect such transformations in practice. The high Baroque style, with its motoric pulses, regularized accentuations, and dance-derived rhythms, induced early eighteenth-century theorists to focus in detail on the classification of various metrical and durational patterns and to begin accounting for that most elusive concept – metrical accent. Later in the century, the emergence of the galant and Classical styles, with their emphasis on formal articulations, melodic prominence, and balanced phrasings, stimulated theorists to consider the rhythms projected by phrase groupings and cadential goals. And some nineteenth-century Romantic idioms, whose phrase rhythms are even more regularized and symmetrical, encouraged theorists to promote varying (and often competing) schemes of hypermetrical organization.

Though changes in musical style certainly prompted theoretical refinement and innovation, a strong conceptual inertia is evident in these writings. Thus early eighteenth-century rhythmic theory continued to be highly influenced by elements of the Renaissance mensural system, and it was not until much later in that century that an

entirely modern conception of musical meter found systematic expression. This notion of meter then functioned as the basis for most nineteenth-century approaches. So, despite significant changes in compositional style, the sense of a “common practice” of rhythmic organization is reflected through strong conceptual continuities in the theoretical thought of both centuries.

Eighteenth-century theories: transition, innovation

Theories of rhythm in the eighteenth century (which more rightly includes the last two decades of the seventeenth century) concern themselves largely with describing and explaining the *modern system* of rhythm (as opposed to the earlier *mensural system* of the Middle Ages and Renaissance). In the first half of the century, rhythmic theories generally reflect Baroque practice but still incorporate considerable vestiges of the mensural system. Theorists of the time were highly preoccupied with classifying the numerous time signatures commonly employed and with trying to account for the phenomenon of metrical accent. Moreover, the Baroque use of conventionalized durational patterns (especially in dance-related genres) motivated some theorists to undertake complex taxonomies derived from the Greek poetic meters. The second half of the century saw the emergence of novel ideas that effected a decisive break with earlier conceptions. This new view posited a fundamental dichotomy between a strictly hierarchical organization of metrical accents (within which various forms of nonmetrical accentuation could occur) and the fully unconstrained use of varying durational values. The influence of the new galant style prompted later eighteenth-century theorists to regard the groupings of individual measures into phrases of varying lengths as distinctly “rhythmical,” thus leading to the creation of sophisticated descriptions of phrase-structural procedures.

From the mensural system to the modern system

Prior to the seventeenth century, rhythm in Western music was organized according to the mensural system.¹ The (conceptual) starting point of the mensural system is a single *long* duration (which is sometimes doubled into a *duplex long*). A top-down process of division by three (*perfection*) or by two (*imperfection*) yields a faster level of motion consisting of *breves*. The same process divides the breve into two or three *semi-breves*, and each semibreve into two or three *minims*. Various rules of perfection and imperfection permit a limited number of durational patterns to obtain among these values at a given level of motion. More complex durational relations arise through the use of *proportional signs*, which in the case of the *sesquialtera* (3:2), for example, stipu-

¹ See Chapter 20, *passim* for details.

lates that three minims sound within the same time span as two prior minims. Thus unlike our modern system, in which the note values remain fixed and independent of the time signature, durations in the mensural system are contextually dependent to some extent upon the specific mensuration and proportion indicated by the signs.² The absolute duration of notes, and hence, their tempo, is determined by the *tactus*, which resides at the level of the semibreve (occasionally the breve). Each *tactus* embraces a single down-and-up motion of the hand (*thesis* and *arsis*) and moves at a moderate rate of speed, corresponding roughly to the pulse rate of a human at rest. In the case of a duple division of the semibreve, the *tactus* motions are equal in length; with a triple division, the *tactus* remains two-part, but the *thesis* lasts twice as long as the *arsis*.

During the seventeenth century, the mensural system gradually evolved into the modern system of note values and meters.³ The breakdown of the older system occurred as part of a broader historical process (begun in the thirteenth century and continuing into the twentieth) of composers employing ever shorter note values. Eventually the long and the breve were rarely used, and the division of the minim (our half note) into values corresponding to quarter, eighth, and sixteenth notes created durational relations that could no longer be governed by the mensural principles of perfection and imperfection.⁴ In order to indicate regular patternings of these shorter values, the traditional mensuration and proportional signs took on new meanings and were eventually transformed into our modern *time signatures*. Thus the mensuration signs C and C (originally indicating *tempus imperfectum* and *tempus imperfectum diminutum* respectively) became general symbols for duple meter, while various triple-meter signatures evolved out of proportional signs, such as $3/2$ and $3/4$. The demands for an increasingly wider spectrum of tempos, especially within an individual movement, led to the mensuration and proportional signs specifying varying rates of *tactus* motion. In addition, tempo became more intimately linked to the length of the note values employed in a work, so that pieces using relatively long durational values (combinations of half notes and quarter notes) were meant to be performed more slowly than those using shorter note values.

Since the changes in compositional practice just sketched occurred gradually and over a long period of time, no one theorist of the seventeenth century stands out as articulating a consistent and comprehensive rhythmical system, though the contributions of Michael Praetorius (1614–19),⁵ Marin Mersenne (1636–37),⁶ Charles Butler (1639),⁷ Giovanni Maria Bononcini (1673),⁸ to name but a few, are frequently cited by historians. Instead, theoretical writings from this period present discrepant accounts on many issues and display a hotchpotch of conservative and progressive views. It is

2 Dahlhaus, "Entstehung des modernen Taktsystems," p. 223.

3 See Houle, *Meter*, Chapter 1. Houle's study, the principal English-language secondary source for rhythmic theories in the seventeenth and eighteenth centuries, has highly influenced my treatment of many issues in this chapter.

4 *Ibid.*, p. 32.

5 Praetorius, *Syntagma musicum*.

6 Mersenne, *Harmonie universelle*. 7 Butler, *Principles*. 8 Bononcini, *Musico prattico*.

not until the eighteenth century that individual theorists, such as Johann Mattheson, Johann Philipp Kirnberger, and Heinrich Christoph Koch, put a more personal stamp on the theory of rhythm and began to formulate a more complete account of our modern system, though even with these theorists, remnants of earlier mensural practice continued to find expression.

Classification of meters

Musicians today are so familiar with the mechanics of note values, time signatures, and metrical organization in music of the high Baroque that it is perhaps surprising to discover how contentious these issues were for theorists of the period. Indeed, classifying the multitude of meters and their corresponding time signatures used by composers (plus many others that had largely become abandoned) became an obsession of these theorists.⁹ Competing schemes based on varying underlying principles were vehemently attacked and defended. At least two basic issues regularly prompted debate: the number of primary divisions in a measure, and the nature of *compound* meters.

Primary divisions. The modern concept of meter evolved out of the mensural tactus (hence the German term for meter, *Takt*), with the duration of a whole measure (equivalent to a semibreve, the standard value of the tactus) functioning as the starting point of the metrical system. The measure then becomes divided into smaller parts at one or more levels of motion. Inasmuch as the complete measure represented the original tactus, the measure was often initially divided into two parts – thesis and arsis – and some theorists, especially in Germany, even held that all meters were fundamentally two-part in structure. Thus Mattheson, the most zealous upholder of this conservative position, presents a primary division of the measure into *equal* meters (our duple and quadruple meters) or *unequal* meters (triple). The latter are made up of two parts, the first (thesis) lasting twice as long as the second (arsis), just as in the original tactus theory.¹⁰ Gradually, however, the notion that the primary divisions represent tactus motions gave way to a newer concept, namely, that the divisions “measure off,” like a ruler, the time span of a measure.¹¹ The need for an exclusively binary division (tied to the original tactus hand motions) was eventually abandoned, and more forward-looking theorists, especially in France, placed three-part or four-part divisions on an equal footing with the original two-part division of the measure.¹²

9 See Houle, *Meter*, Chapter 2; Seidel, *Rhythmustheorien*, Chapter 2; Maier, *Theorie des Taktes*, Chapters 1–2; Schwindt-Gross, “Einfache Takte,” pp. 206–12. Seidel’s work is the most comprehensive investigation of rhythmic theories in the eighteenth and nineteenth centuries to date. I am highly indebted to many of his descriptions and interpretations. Maier’s study is also a highly valuable source of information on late Baroque metrical theory.

10 Mattheson, *Neu-eröffnetes Orchester*, p. 78; *Der vollkommene Capellmeister* (Harriss trans., p. 365). See also Maier, *Theorie des Taktes*, pp. 17–21; Seidel, *Rhythmustheorien*, pp. 58–61; Houle, *Meter*, p. 45.

11 Maier, *Theorie des Taktes*, p. 16. 12 Houle, *Meter*, pp. 36–38.

Compound meters. In their efforts to make conceptual sense out of the wide variety of possible meters, many Baroque theorists distinguished between simple and compound meters. One major area of theoretical disagreement concerned the classification of the compound meters $6/4$, $6/8$, $9/8$, $12/8$, etc. Most theorists recognized that such meters have some kind of triple organization, and some, such as Tomás Baltazar Janovka, simply included them together with $3/2$ and $3/4$.¹³ Other theorists, especially the highly vocal Mattheson, argued that $6/4$, $6/8$, and $12/8$ are fundamentally two-part in nature and thus classified them with C , ♩ , $2/4$, etc.¹⁴ Johann Gottfried Walther even proposed two completely different schemes so that some compound meters ($6/4$, $12/8$, $24/16$) could be viewed as either duple or triple.¹⁵ These discrepancies in classification largely arise from theorists' taking different levels of musical motion as essential for defining the meter. Thus Mattheson's scheme focuses all attention on the first level of measure division (the duple organization of the dotted eighth notes), while Janovka attends primarily to the fastest meaningful level (in this case, the triple organization of the eighth notes).¹⁶

In general, theorists defined compound meters as the joining together of two or more simple meters. The results of such combination could yield, however, widely differing results. So, for example, Janovka and Johann David Heinichen considered $6/8$, $9/8$, and $12/8$ meters to be compound because they combine together two, three, or four simple $3/8$ meters.¹⁷ For Friedrich Wilhelm Marpurg, however, $4/4$ is the principal compound meter, consisting as it does of two $2/4$ meters; $12/8$ is also compound because it represents a triple subdivision of the compound $4/4$. But Marpurg regards $6/8$ and $9/8$ as *simple* meters derived from $2/4$ and $3/4$ by triple subdivision.¹⁸ Again, these discrepant accounts arise because the theorists focused their attention at differing levels of motion.¹⁹

Metrical accentuation

A central innovation of the modern system of rhythm is the explicit recognition that temporal events are differentiated through some notion of accentuation.²⁰ The concept of accent was initially linked to poetic theory and referred to the emphasis accorded a particular syllable either through its greater length or a more forceful pronunciation. A more specifically musical accentuation was articulated as early as 1636 (in some statements by Butler) but does not become an essential feature of rhythmic theory until

13 Janovka, *Clavis*, pp. 141–43; see Seidel, *Rhythmustheorien*, pp. 59–60; Maier, *Theorie des Taktes*, p. 33.

14 Mattheson, *Neu-eröffnetes Orchester*, p. 77; see Maier, *Theorie des Taktes*, p. 31.

15 Walther, *Praecepta*, pp. 29–33; see Maier, *Theorie des Taktes*, p. 29.

16 Maier, *Theorie des Taktes*, pp. 31–32; Seidel, *Rhythmustheorien*, p. 59.

17 Janovka, *Clavis*, pp. 141–43; Heinichen, *Generalbass*, p. 290; see Maier, *Theorie des Taktes*, pp. 33–36.

18 Marpurg, *Anleitung*, pp. 68–69; see Maier, *Theorie des Taktes*, pp. 36–38.

19 Maier, *Theorie des Taktes*, p. 35; see also Grave, "Metrical Displacement."

20 The mensural system would seem not to embody notions of accentuation, though that issue remains in dispute.

later in the seventeenth century.²¹ As a general rule, accent was linked directly to meter; the idea of *nonmetrical* accentuation arose now and then but did not become an important component of rhythmic (and performance) theory until the nineteenth century. Theorists in the early part of the eighteenth century were particularly concerned with the terminology of indicating accentuation and with the actual patterns of accent associated with individual meters.

Terminology of accentuation. The wide variety of terms for accentuation used by Baroque theorists clearly reveal the conceptual difficulties attendant on metrical accent. From today's perspective, we might assume that the simplest way of talking about accentuation would be in reference to a greater intensity imparted to a beat. Yet early eighteenth-century theorists only sporadically mention dynamic differentiation as a cause for, or a result of, accentuation. Rather, their most typical way of expressing the idea derives from poetic theory, which, in reference to ancient Greek, differentiates longer and shorter syllables, generally in the proportion of 2 : 1 (long to short). Since the real length of the beats within a measure are equal, theorists speak of the *internal* length of notes (*Quantitas Intrinseca*) as distinct from their actual, *external* length. As Wolfgang Caspar Printz states,

the position in the measure has a peculiar power and virtue which cause notes equal to one another, according to the time signature, to seem longer or shorter. This should be especially noted as much because of the text as because of consonance and dissonance.

The apparent different length of notes that are equal according to their time or value, is called *Quantitas Temporalis Intrinseca*, or the inner duration.²²

Printz's mention of an "apparent" difference in length between the notes implies that accent resides in our personal cognition of an event rather than in the event itself. Mattheson strikes a similarly psychological tone when he speaks of an accented note as having an "inner content and emphasis" (*innerliche Gehalt und Nachdruck*).²³ In other words, the mere position of the note within the measure is sufficient to impart accentuation in the absence of any real durational or dynamic differentiation.

Printz's linking of consonance and dissonance to metrical placement points to another aspect of accentuation reflected in terminology. Notes that function as metrically accented were frequently labeled *good*, those that are unaccented, *bad*. These strangely moral judgments about notes arose from the attempt to explain why consonances and dissonances have certain determinate metrical positions. As Walther put it, a good beat is "suitable for the placement of a caesura, a cadence, a long syllable, a syn-copated dissonance, and above all a consonance (from which comes its name – *di*

21 Butler, *Principles*, p. 26; see Houle, *Meter*, p. 31.

22 Printz, *Phrynis Mitilenaeus*, vol. 1, p. 18; see Houle, *Meter*, pp. 80–81; Horn, "Johann David Heinichen," pp. 197–99.

23 Mattheson, *Critica musica*, vol. 1, p. 43; see Maier, *Theorie des Taktes*, p. 50; Seidel, *Rhythmustheorien*, p. 111.

buona).²⁴ A related set of terms distinguishes accented notes as *struck* (*schlagend*) versus unaccented ones that are *passing* (*durchgehend*), again in obvious reference to consonance–dissonance placement.²⁵ Additional terms used by eighteenth-century theorists for metrical accentuation include *thesis* versus *arsis* (in extension of their original meaning as the first level of tactus division), *strong* versus *weak* (more typically used later in the century), and finally *accent* versus *unaccent* (with no necessary implication of dynamic stress).

Patterns of accentuation. The distribution of accents within the various meters was widely discussed by Baroque theorists. In the case of duple and quadruple meters, the accent analysis largely conformed to our modern understanding (i.e., first and third beats, accented; second and fourth, unaccented). For triple meter, however, no consensus was achieved, and a number of options proposed have no counterpart in today’s practice. Every theorist, of course, attributed accent to the first beat, and many regarded the subsequent two beats as unaccented. But since metrical organization was conceived to relate intimately with consonance–dissonance practice, it became necessary to explain why, for example, the *syncope* (suspension) dissonance, which normally must occur on an accented beat, may be placed on the second beat of a triple meter. To accommodate this situation (as well as to explain, for example, the stress usually given to the second beat in a sarabande) some theorists posited the following pattern of accentuation in normative triple meter: – – ∪ (the dashes and cups refer to accents and unaccents respectively).²⁶ The attempt to correlate accent organization with the primary thesis–arsis division of the measure led theorists to propose another scheme, whereby the third beat receives accentuation through its association with the onset of the arsis: – ∪ –.²⁷ That this pattern along with the previous one results in two consecutive accents (either within the barline or from one bar to the next) seems not to have been of concern to these theorists. Today, however, such a situation is normally thought to violate fundamental principles of metrical organization, and thus we might want to recognize in these differing metrical interpretations an attempt by eighteenth-century theory to account for various types of *nonmetrical* accentuation.

Durational patterning, rhythmopoeia

A hallmark of Baroque style is the use of rhythmic motives (especially in instrumental, dance-derived genres) to provide surface uniformity and continuity and to help

24 Walther, *Musikalisches Lexicon*, p. 598; see Houle, *Meter*, p. 83.

25 Walther, *Praecepta*, p. 151; see Maier, *Theorie des Taktes*, p. 45. The idea of “striking” the note perhaps suggests a dynamic intensification, but this would be an erroneous interpretation, as the use of the term *schlagend* in seventeenth- and early eighteenth-century theory in fact derives from thorough-bass practice; see Maier, *Theorie des Taktes*, p. 146, n. 187.

26 Walther, *Praecepta*, p. 23; Scheibe, *Der critische Musikus*, p. 348.

27 Mattheson, *Critica Musica*, vol. 1, p. 33; Walther, *Praecepta*, p. 23; Scheibe, *Der critische Musikus*, p. 348.

express the single *Affekt* responsible for achieving aesthetic unity in a movement. In response to this compositional practice, some theorists of the period attempted to classify the variety of durational patterns regularly appearing in compositions. They based their approaches on theories of Greek poetic meters, as transmitted through the humanistic revival of ancient thought and practice by late sixteenth- and early seventeenth-century writers.²⁸ This theory of *rhythmopoeia*, as it came to be known, defines various patterns of long and short durations using the traditional Greek metrical terms: for example, *iamb* for the pattern short–long; *trochee* for long–short; *anapest* for two shorts followed by a long; and so forth. The most important eighteenth-century exponents of *rhythmopoeia* are Printz and Mattheson, in that order chronologically. For practical reasons, however, it will prove easier to discuss Mattheson’s approach first and then turn briefly to Printz’s.²⁹

Mattheson. Johann Mattheson’s (1681–1764) extensive list of twenty-six durational patterns, which he calls *sound-feet* (*Klangfüße*) in analogy to the feet of poetic meters, represents the most complete extant theory of musical *rhythmopoeia* (see Example 2.1.1 for a sampling). As his brief musical examples reveal, Mattheson clearly found a way to accommodate many of the standard rhythmic (and melodic) motives that regularly appear in early eighteenth-century compositions, and at a level of general description, his labels are readily applicable to many passages. But from a stricter theoretical perspective, his account is problematic in a number of ways.

Any useful theory of durational patterning must, at minimum, specify criteria for durational differentiation and for pattern segmentation. As for the first issue, Mattheson appeals to the actual durational value of the notes to distinguish between those that are deemed long and short; thus his system, unlike that of Printz to be discussed shortly, makes no direct appeal to the internal length of the notes (i.e., their metrical accentuation). In some cases, however, assigning length or shortness to a note is ambiguous, and Mattheson brings metrical considerations to bear on the decision. For example, the pattern $\text{♪} \cdot \text{♪} \text{♪}$ yields the proportions 3 : 1 : 2. The dotted quarter is obviously a long; the eighth note, a short. If the final quarter note, which is manifestly longer than the preceding eighth, is considered long, then the pattern would be an *amphimacer* (– ∪ –; cups and dashes now referring to external length); if the final note is short, then a *dactyl* arises (– ∪ ∪). Mattheson opts for the second interpretation (as shown in Example 2.1.1, no. 5)³⁰ and justifies his choice by noting that the quarter note “seems to be twice as long according to its external aspect as the second or middle one; is nevertheless just as short in its intrinsic value, because of the upbeat of the

28 Houle, *Meter*, pp. 62–63. A similar neo-classical impulse led to the resurrection and adoption of ancient *rhetorica* teachings by theorists at the same time. See Chapter 27, pp. 854–67.

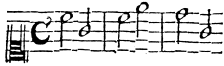
29 See Seidel, *Rhythmustheorien*, pp. 42–51, 63–66; Houle, *Meter*, Chapter 3.

30 Mattheson’s metrical analyses contain a number of typographical errors: the *trochee* (pattern 4) should not be – ∪, as he shows, but rather – ∪; the *iamb* (pattern 3) should be ∪ –, not ∪ – –; and the *bacchius* (pattern 9) should not be – – ∪, but rather ∪ – –.

Example 21.1 Examples of sound-feet from Mattheson, *Der vollkommene Capellmeister*, pp. 164-70

Feet of Two Syllables

1) Spondee - - - -



3) Iamb v - -



2) Pyrrhic v v



4) Choraeus or Trochee - - v



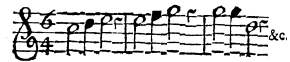
Feet of Three Syllables.

5) Dactyl. - v v



10) Amphimacer, - v -

allegro.



6) Anapaest. v v - - etc.

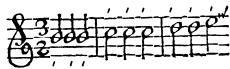


11) Amphibrachys, v - v

vivace.



7) Molossus. - - - etc.



12) Palymbacchius, - - v

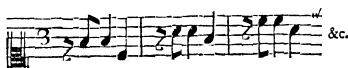
andante.



8) Tribrach. v v v



9) Bacchius. - - v



measure.”³¹ Here, he appeals explicitly to meter, but his explanation is merely ad hoc. Indeed, Mattheson never arrived at a satisfactory and consistent relation of sound-feet to meter.

As for the second issue, that concerning the segmentation of sound-feet, Mattheson consistently delimits the durational patterning to the confines of the measure. Two problems result: the external lengths of notes frequently contradict their internal lengths (the *iamb* is but one example), and more importantly, it is not possible to account for rhythmic patterns that cross over the bar line, as manifestly arise throughout the Baroque (such as in the subject of Bach’s C minor Fugue from the first book of the *Well-Tempered Clavier*).

Printz. Some of the issues that caused difficulties in Mattheson’s theory of *rhythmopoeia* are handled more successfully by Wolfgang Caspar Printz (1641–1717). Unlike Mattheson’s exhaustive listing, Printz identifies six basic patterns (see Example 2.1.2) – *iambus*, *trochaeus*, *enantius* (or *contrarius*), *dactylus*, *nothrus* (or *spondaeus*), and *syncopaticus*. Within each category, Printz recognizes various versions (such as *iambus ecclesiasticus*, *hypochematicus*, *melismaticus*, and *proportionatus*) based largely on the lengths of the component durational values. His criteria for distinguishing long from short differ from Mattheson in that four of the patterns are based principally on the “internal” length of notes, not necessarily their actual “external” length. Thus the *iambus*, *trochaeus*, and *dactylus* have versions in which the notes making up the pattern are of equal duration. As regards segmentation, Printz is somewhat more flexible than Mattheson in that the *iambus* pattern is permitted to cross over the bar lines. Yet despite these theoretical advantages, Printz’s theory also has some shortcomings. Not only are the number of his patterns quite limited (for example, he cannot account for the very common *anapest* figure: $\cup \cup -$), but internal contradictions within the theory appear as well. The *enantius* pattern is, like the *iambus*, made up of a short followed by a long, but in this case, it is the external length, not the internal one, that defines the pattern and its boundaries with respect to the measure. These problems, along with those identified in connection with Mattheson’s approach, perhaps explain why *rhythmopoeia* reached a dead end with these theorists and why later theorists largely abandoned the attempt at providing a comprehensive theory of durational patterning.³²

Origins of the Akzenttheorie

The medieval and Renaissance mensural system is rooted in an Aristotelian conception of temporality, whereby the passage of time is conceived as a succession of discrete,

31 Mattheson, *Der vollkommene Capellmeister*, p. 167 (Harriss trans., p. 355).

32 A later discussion of *rhythmopoeia* is found in Koch, *Introductory Essay*, pp. 66–69, but the topic plays little role in the subsequent development of his theories. Interest in durational patterning in music, inspired by ancient Greek metrical theory, was renewed late in the nineteenth century by Westphal, *Allgemeine Theorie*, and Wiehmayer, *Musikalische Rhythmik und Metrik*; see Smithers, “Theories of Rhythm,” Chapter 4 and pp. 256–60. For a twentieth-century reincarnation of metrical poetics in music theory, see Chapter 22, pp. 710–11.

Example 21.2 Examples of *rhythmoḗpoia* from Printz, *Phrynis Mitilenaeus*, vol. III, pp. 100–07

1) Iambus vulgaris ecclesiasticus hypochematicus melismaticus



2) Trochaeus vulgaris ecclesiasticus hypochematicus melismaticus



3) Enantius or Contrarius primae divisionis secundae divisionis



4) Dactylus secundae divisionis tertiae divisionis



5) Nothrus or Spondaeus



6) Syncopaticus vulgaris diphthongus triphthongus Syncopaticus vulgaris medius diphthongus triphthongus Syncopaticus vulgaris tachinus diphthongus triphthongus



individual *times* (in the plural) each marking a concrete type of cyclical motion (e.g., the rising and falling of the sun, the turning of a wheel). Whether it be the original mensural long, or later, the individual tactus, this basic unit delimits the essential time-spans of rhythmic motion. During the seventeenth century, a new conception of temporality emerged, one eventually codified by Newton, in which *time* (in the singular) is understood as an empty, homogeneous, and infinite span, waiting to be filled by

any kind of motion.³³ It was not until the second half of the eighteenth century that a group of thinkers working closely together in Berlin – the music theorist Johann Philipp Kirnberger (1721–83), the aesthetician Johann Georg Sulzer (1720–89), and the composer Johann Abraham Peter Schulz (1747–1800) – articulated a theory of musical rhythm founded upon this newer concept of time.³⁴

Unlike theorists in the first half of the eighteenth century, who regarded the entire measure as the starting point of a metrical theory, Kirnberger begins with an unlimited succession of undifferentiated and aesthetically insignificant stimuli, what we now typically call pulses or beats. These beats then become differentiated through accent:

it is necessarily required that such a series of tones group themselves into units of equal length . . . These equally long and equally shaped units now constitute what one calls meter in music . . . It is also necessary to have accents, because without them the ear would have no cause to group the series of tones into equally formed units.³⁵

Measures, in turn, can group together to build more complex, higher-level phrases or periods. This cumulative process of metrical units of one level grouping to form new units on a higher level gives rise to a hierarchical framework within which the actual music receives its metrical interpretation.³⁶

In Kirnberger's theory, which Hugo Riemann later characterized as the *Akzenttheorie*, the individual measure no longer delimits fundamental rhythmic activity as did the earlier tactus-derived measure. The actual lengths of the notes need not correspond directly to metrical units at a given level, and the grouping of notes into motives need not be confined to the boundaries of the measure. And rather than being linked to the traditional Greek meters, durational values are free to assume a wide variety of patterns, always retaining, however, their metrical interpretation as defined by the hierarchy of accents and unaccents. By clearly separating metrical organization from durational and grouping organization, Kirnberger and his circle laid the aesthetic basis for a fundamental dichotomy, which has persisted until today, between rhythm, as unconstrained durational patterning, and meter, as rigid accentual hierarchy.

Meter: tempo and character

Though the foundations of Kirnberger's metrical theory effected a decisive break with earlier approaches, some residues of mensural theory still appear in his theories, especially the idea that the duration of notes is indicative of tempo. Indeed with

33 Dahlhaus, *Musiktheorie*, vol. II, p. 160.

34 Determining the actual "author" of the principal sources for this theory is difficult; for details, see Kirnberger, *Art*, p. xi. For the sake of convenience, Kirnberger will be identified here as the principal theorist, even for statements that may have actually been written by Sulzer or Schulz. Kirnberger's theories are discussed at length by Seidel, *Rhythmustheorien*, pp. 85–134.

35 Sulzer, "Tact," in *Allgemeine Theorie*, vol. IV, pp. 491–92.

36 In eighteenth-century thought, *metrical* interpretations were still largely confined to the boundaries of the measure; a more explicit notion of *hypermeter* is not formulated until the following century.

Kirnberger, this idea reaches its fullest expression; after him, it largely disappears from the theoretical literature, as the expressions *Largo*, *Andante*, *Presto*, and so forth entirely take over the role of tempo markings.

According to Kirnberger, an individual meter (with its unique time signature) specifies not only accent organization, but also tempo, articulation, and the general character of the musical passage set within that meter. Meters are also normally associated with certain genres and dance types. A given time signature defines a range of note values typically used with its meter. The external length of the notes suggests the *tempo giusto* (natural tempo) of the meter, a tempo that may be modified by Italianate expressions. An individual meter also implies its general style of articulation. For example,

2/2 meter, or rather *alla breve* . . . is most often used in church pieces, fugues, and elaborate choruses. It is to be noted about this meter that it is very serious and emphatic, yet is performed twice as fast as its note values indicate,³⁷ unless a slower tempo is specified by the adjectives *grave*, *adagio*, etc. The same is true of the *6/4* meter of two triple beats that is derived from *2/2* meter, but the *tempo giusto* of the meter is somewhat more moderate. Both meters tolerate no shorter note values than eighths.³⁸

In the case of *3/4* meter, Kirnberger notes that

[it] is not as common in the church style as *3/2*; but it is used very often in the chamber and theatrical styles.

Its natural tempo is that of a minuet, and in this tempo it does not tolerate many sixteenth notes, even less thirty-second notes, in succession. However, since it assumes all degrees of tempo from the adjectives *adagio*, *allegro*, etc., all note values that fit this tempo can be used, depending on the rate of speed.³⁹

As these statements reveal, issues of duration, tempo, articulation, style, and genre are interwoven with those of meter. Later theorists, responding to contemporary compositional practice, largely separate these domains, especially the connection between meter and tempo.⁴⁰ The aesthetic basis of Kirnberger's concept of meter may mark the starting point of the new *Akzenttheorie*, but the fuller realization of his metrical theories represents the end of a line of thought reaching back several centuries.

Accent: metrical and nonmetrical

In describing the accent organization of the various meters, theorists in the second half of the eighteenth century continued to employ the wide variety of binary oppositions developed by Baroque theorists – long vs. short; good vs. bad; struck vs. passing; accented vs. unaccented. But another idea, one rarely expressed in earlier theory, gained in prominence throughout the century: that metrical accentuation is associated

³⁷ Because of the older proportional tradition that the tactus of *alla breve* moves twice as fast as the normal semibreve tactus. ³⁸ Kirnberger, *Art*, p. 386. ³⁹ *Ibid.*, p. 396.

⁴⁰ Thus, from Beethoven on, composers could write very slow-moving works using mostly eighth, sixteenth, and thirty-second notes.

with an actual dynamic intensification supplied by the performer.⁴¹ Thus Kirnberger regularly speaks of beats being *strong* or *weak*. That this distinction has performance implications is clear from statements like the following: “the pressure [of the bow] that marks the first note of the measure in each meter . . . determines . . . the downbeat of the measure, which always falls on the first beat of the measure.”⁴²

Theorists in the later part of the century also became more explicit about the possibility that accentuation could be applied to, or was even inherent in, events occupying metrically weak positions. This idea of a nonmetrical accent finds expression in Kirnberger’s three-fold classification of musical accents (based on a similar model proposed by Sulzer for natural language) – *grammatical*, *oratorical*, and *expressive*. Grammatical accents directly pertain to meter: they are “the long and powerful tones that make up the main tones of each chord; they must be distinguished from other, passing tones . . . through [internal] length, through emphasis, and through greater perceptibility. These tones fall on the good beats of the measure.”⁴³ On the contrary, the oratorical and expressive accents (the latter being a stronger, more emphatic version of the former) occur independently of meter: they are individual tones (or groups of tones) specially emphasized both compositionally (through musical figures, harmonies, or dissonances) and in performance (through dynamic intensification).⁴⁴ The *Akzenttheorie* thus lives up to its name by positing a wide variety of accents – some metrical, some not – that operate at multiple levels of motion. Left undiscussed by Kirnberger is the question of how these different accents actually exist together – both in performance and experientially – and even how to formulate a coherent theory of multiple accentuations. These questions emerge as central topics of discussion and debate in nineteenth-century theory.

Rhythm: phrase structure and melody

Although Kirnberger uses the term *rhythm* in its general sense,⁴⁵ he also employs it more narrowly along the lines of what we would today understand as the domains of phrase structure, melody, or even form. Just as individual beats can group into measures, so too can individual measures group into phrases (and phrases into periods), thereby projecting the *rhythm* of a melody. Unlike individual beats, whose grouping into measures arises by means of accent, the grouping of measures into phrases occurs when the flow of the melody is demarcated by *resting points* of varying degrees.⁴⁶ Some of these resting points are actual cadences, others are merely breaks in the melodic line

41 See Houle, *Meter*, Chapter 6. 42 Sulzer, “Tact,” in *Allgemeine Theorie*, vol. iv, p. 495.

43 Sulzer, “Accent,” in *Allgemeine Theorie*, vol. i, p. 18. Note that here Kirnberger employs almost every eighteenth-century term for metrical accent. 44 *Ibid.*, pp. 18–19.

45 Especially in the article “Rhythmus,” in Sulzer’s *Allgemeine Theorie*.

46 Kirnberger, *Art*, p. 408. Thus Kirnberger’s *rhythm* should not be understood as *hypermeter*, since the measures themselves are not construed as accented or unaccented; the idea of measures or phrases being metrically accented does not arise until the nineteenth century.

associated with “restful” chords (especially dominant harmony).⁴⁷ Kirnberger notes that “the best melodies are always those whose phrases have four measures,”⁴⁸ but he regularly discusses the possibility of phrases lasting three or five measures. Of particular theoretical importance are those cases where he demonstrates how an odd-numbered phrase derives from a more normative four-measure model.⁴⁹ In many respects, Kirnberger was influenced by the work of Joseph Riepel (1709–82), who effectively initiated the tradition of phrase-structural analysis. Kirnberger, in turn (along with Riepel), influenced Koch, who developed the most comprehensive account of phrase structure in eighteenth-century theory.

Riepel. Though little known until recent years, Joseph Riepel’s (1709–82) reputation has grown significantly as historians have discovered that his writings, admittedly often convoluted and inconsistent, contain the core ideas of eighteenth-century phrase-structural theory.⁵⁰ Especially noteworthy is the wide variety of ways in which he characterizes the organization and content of phrases. He thus distinguishes them on the basis of their rhythmic activity (a concern rarely addressed by eighteenth-century theorists), their overall melodic contour, their underlying harmonic support, their degree of melodic closure, and their length in terms of measure numbers. Riepel establishes the four-measure phrase as a norm (at least for the minuet genre) and discusses ways in which such phrases can be expanded and altered. Although Riepel failed to shape his ideas into a systematic whole or to transmit much of his specialized terminology, his detailed analyses and critical commentary (on his own musical examples, admittedly) pointed the way for further developments by Kirnberger and Koch.

Koch. In the manner of much eighteenth-century theory, Heinrich Christoph Koch’s (1749–1816) approach to “melodic” (i.e., phrase-structural, formal) organization is rooted in analogies with natural language (speech, poetry, rhetoric).⁵¹ Just as language can be broken down into sentences, sentences into clauses, and clauses into parts of speech (subject, predicate), the melody of a composition can be divided into periods, phrases, and melodic segments.⁵² At the basis of Koch’s “mechanical rules of melody,” as he calls them, are two notions: *melodic punctuation*, the demarcation of melodies through their resting points, and *rhythm*, the length and proportions of melodic sections with respect to their number of measures. Like Riepel and Kirnberger, Koch identifies the four-measure phrase as “most useful and most pleasing,” but going

47 Kirnberger, *Art*, p. 404. 48 *Ibid.*, p. 409. 49 *Ibid.*, pp. 409–12.

50 Riepel, *Anfangsgründe*; see also Knouse, “Joseph Riepel”; London, “Riepel and Absatz”; Lester, *Compositional Theory*, pp. 258–72.

51 Koch’s theories, especially as a stimulus for analyzing music of the Classical period, have received considerable scholarly attention in recent years; see Baker, “Heinrich Koch,” pp. 1–48; Lester, *Compositional Theory*, pp. 285–99; Budday, *Grundlagen musikalischer Formen*; Sisman, “Small and Expanded Forms.” Also see Chapter 2, pp. 57–58 and Chapter 27, pp. 881–82.

52 Koch, *Introductory Essay*, p. 1.

Example 21.3 Basic phrases from Koch, *Introductory Essay*

(a) Example 1, p. 4



(b) Example 8, p. 7



(c) Example 10, p. 7



considerably further in theoretical scope and rigor, he provides a comprehensive framework for analyzing phrases of varying lengths. To that end, he proposes three main categories of phrase – *basic*, *extended*, and *compound*.

The basic phrase contains “only as much as is absolutely necessary for it to be understood and felt as an independent section of the whole.”⁵³ The phrase normally consists of two two-measure segments, the first of which, continuing his linguistic analogy, Koch likens to a “subject,” the second, to a “predicate” (see Example 21.3a). Each segment concludes with a “resting point of the spirit” (*Ruhepunkt des Geistes*), sometimes an actual cadence at the very end of the phrase, sometimes a noncadential articulation internal to the phrase.⁵⁴ While every basic phrase expresses a sense of structural completeness, some are more complete than others. Thus Koch distinguishes between “internal” phrases and “closing” phrases on the basis of their “ending formulas”; his examples suggest that this difference is based on cadential strength, namely, between the weaker imperfect authentic cadence ending an internal phrase (as in Example 21.3b) and the stronger perfect authentic cadence ending a closing phrase (as in Example 21.3c).⁵⁵

An extended phrase features “more than is absolutely necessary for its completeness.”⁵⁶ Koch defines three techniques used to create the phrase extension: (1) repeat-

53 *Ibid.*, p. 3.

54 When speaking of “resting points of the spirit,” Koch acknowledges that the boundaries of grouping structures (to speak in today’s terms) are impossible to define with explicit criteria, but rather ensue from “feeling” on the part of the listener; *ibid.*, p. 4, note 7; see also p. 1, note 1.

55 *Ibid.*, p. 7. 56 *Ibid.*, p. 41.

Example 21.4 Extended phrases from Koch, *Introductory Essay*

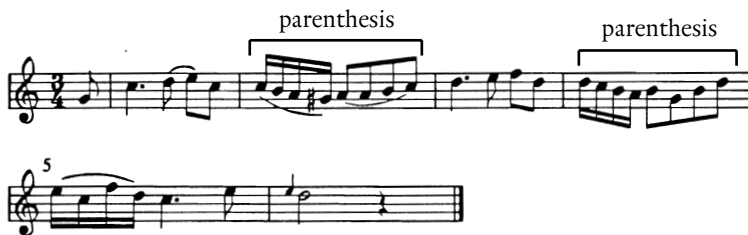
(a) Example 133, p. 43



(b) Example 148, p. 46



(c) Example 180, p. 54



ing some part of the phrase, often the opening two measures (see Example 21.4a); (2) adding an appendix to the ending formula (see Example 21.4b); and (3) parenthetically inserting unessential melodic ideas between segments of a phrase (see Example 21.4c).⁵⁷ Though all of these extension techniques result in phrases that are literally longer than the basic phrases from which they (conceptually) derive, Koch stresses that for purposes of establishing the “rhythmic relations of phrases,” the extended phrase is equal in length to its original basic phrase.⁵⁸

A compound phrase consists of “two or more phrases, complete in themselves, [that] are combined so that externally they appear in the form of a single phrase.”⁵⁹ This combination of phrases can occur in a variety of ways, the two most typical being cases (1) where the first phrase elides with the second, a procedure Koch rather colorfully calls

57 *Ibid.*, pp. 41, 45, and 53. The identification of repetition, appendix, and parenthesis have been added to Examples 21.4a–c. 58 *Ibid.*, p. 42. 59 *Ibid.*, p. 3.

Example 21.5 Compound phrases from Koch, *Introductory Essay*

(a) Example 182, p. 55

(b) Example 188, p. 57

Example 21.6 Six-bar phrase from Koch, *Introductory Essay*, Example 53, p. 18

“strangling of the measure” (*Tacterstickung*) (see Example 21.5a), or (2) where the cadential punctuation of the first phrase is eliminated (see Example 21.5b, in which the “original” cadential ending of m. 4 is shown above the measure).⁶⁰

From this discussion, one might have the impression that Koch’s basic phrase would necessarily be four measures in length (or perhaps less), with phrases of five or more measures classified as extended or compounded. But Koch describes a number of basic phrases embracing five, six, and seven measures (such as in Example 21.6). He recognizes extended phrases only when they contain repetitions or interpolations of some kind. Thus the distinction between basic and extended is not essentially rooted in notions of phrase symmetry – an aesthetic criterion that finds primary expression in nineteenth-century thought – but rather on the degree to which the formal completion expressed by phrases is efficient or redundant. In this respect, Koch’s emphasis on varying weights of cadential goals rather than on balanced phrasing is somewhat more

⁶⁰ Ibid., pp. 54–57.

in tune with Classical practice than subsequent Romantic theories, which have tended to give a rather distorted view of Classical phrase structure as fundamentally symmetrical.

Nineteenth-century theories: consolidation, speculation

Nineteenth-century rhythmic theory is largely devoted to consolidating and expanding the late eighteenth-century *Akzenttheorie*. In the hands of some theorists, the notion that accent involves perceived dynamic changes led to practical applications of the theory with, in the case of Mathis Lussy, emphasis on matters of performance. But the earlier conception of accent as essentially cognitive, thus not necessarily tied to a performed intensification, stimulated Moritz Hauptmann to speculate on a more unified conceptual framework for the *Akzenttheorie*. Some nineteenth-century theorists continued to address issues of higher-level rhythm by developing the Kochian tradition of phrase-structural analysis in response to changes in musical style. Under the influence of the predominantly regularized phrase organization exhibited by Romantic styles, these theorists began to conceive of such higher-level processes as less properly “rhythmical” than “metrical” as they had been understood in the prior century. The principal concerns of nineteenth-century theorists culminate in Hugo Riemann’s “system” of rhythm and meter, which combines a powerful critique of the *Akzenttheorie* with novel concepts of metrical organization within periodic structures.

The practical Akzenttheorie: Mathis Lussy

The conjunction of accent and dynamic intensification became so entrenched in nineteenth-century thought (and just why that occurred has yet to be fully answered) that a theory of rhythm implied at the same time a theory of performance. Numerous theorists stipulated that metrically strong positions within a bar be performed with greater intensity than metrically weak ones. A typical exemplification of this principle is offered by Adolph Bernhard Marx in his widely influential *Allgemeine Musiklehre*.⁶¹ Using vertical strokes as symbols, he identifies varying gradations of accentuation within a measure and specifically instructs that the greater the accentuation, the louder the note should be performed. An extreme case is shown in Example 21.7, where up to four degrees of accent are identified. The manifestly unmusical results of performing such a passage in this way led even Marx to observe that the “law of accentuation” should not be taken too far.

More useful approaches to performance derived from refinements and expansions of

61 Marx, *Allgemeine Musiklehre*, p. 125. See Smithers, “Theories of Rhythm,” pp. 17–21; this dissertation still remains the most extensive survey in English of nineteenth-century rhythmic theories.

Example 21.7 Performed accentuations from Marx, *Allgemeine Musiklehre*, p. 125



Kirnberger's three-fold classification of accents. The most comprehensive theory was presented by Mathis Lussy (1828–1910), who distinguishes among *metrical* accents, which are associated with our instinct, *rhythmic* accents, associated with our intelligence, and *expressive (pathétique)* accents, with our sentiments.⁶² Lussy's "rules" for metrical accentuation entirely accord with traditional views, such as those of Marx. By rhythm, Lussy means any significant group of events, from simple motives to larger phrase-structural units, thus continuing the semantic tradition from the previous century. The rules for rhythmic accents derive from the desire to articulate the beginning and end of such groups. As one simple rule, admitting few exceptions, Lussy requires the first note of a group to be accented. The case of a group's final note is more complicated, and thus he details a variety of situations where that note is preferably accented or unaccented.⁶³ The expressive accent makes its effect primarily as a "surprise" or "exception" to the regularity of metrical and rhythmic accents. Consequently, Lussy can give no rules for their use and, instead, enumerates an extensive list of metrical, rhythmic, melodic, harmonic, and tonal situations that tend to call for expressive accentuation (such as syncopations, note repetitions, dissonances, and chromatic harmonies).⁶⁴ Typical of the nineteenth-century prizing of individual sentiments, and in accord with the title of his treatise, Lussy privileges the expressive accent over the other two types: "In spite of the importance of the bar, metrical accent must give way to rhythmical accent, and both must in turn give way to the expressive accent, which will always take the lead and rule the others."⁶⁵

Though Lussy's treatise was highly influential, particularly upon teachers of performance, the actual theoretical content of his approach is problematic. (The most aggressive critique was launched by Riemann, whose views on the matter are examined below.) A central issue of concern is how the multitude of accents from various sources actually function in relation to each other. Although it might be the case that a performer would prioritize the accents in the manner prescribed by Lussy, the listener must somehow continue to perceive the metrical accents, or else the sense of meter would be lost. Since his concept of accent is tied so strongly to a literal dynamic

62 Lussy, *Musical Expression*, pp. 14–15. A later treatise by Lussy, *Le rythme musical*, develops some new topics but is largely based on *Musical Expression*. See Smithers, "Theories of Rhythm," pp. 79–142, for a detailed introduction to Lussy's theories. 63 Lussy, *Musical Expression*, pp. 116–22.

64 *Ibid.*, Chapter 6. 65 *Ibid.*, p. 15.

intensification, Lussy cannot explain how metrical accentuation can continue to be projected in the midst of powerful nonmetrical accents.

The speculative Akzenttheorie: Moritz Hauptmann

Despite the tendency to link accent to dynamics during the nineteenth century, a number of theorists nonetheless retained the eighteenth-century idea that accent is fundamentally a cognitive phenomenon independent of external intensification. Thus Gottfried Weber speaks of metrical accent as possessing an “internal weight” whether or not that metrically strong moment is actually performed with greater force.⁶⁶ Weber clearly derives his usage from earlier notions of *quantitas intrinseca*, except that now the issue involves not a conceptual differentiation of durations, but rather one of dynamics.

The disconnection of accent from dynamic intensification, as witnessed in Weber, permitted theorists to develop more speculative models of musical meter unencumbered by practical concerns of performance. The most theoretically sophisticated account of the *Akzenttheorie* is offered by Moritz Hauptmann (1792–1868), whose *Die Natur der Harmonik und Metrik* set a new standard for theoretical discourse. Rooted in the organicist ideology of Goethe, with external resemblances to Hegel’s dialectic, Hauptmann’s book attempted an entirely novel explanation for the fundamentals of musical rhythm and meter.⁶⁷

For Hauptmann, the series of beats underlying the traditional *Akzenttheorie* is not a simple given. He thus subjects these beats to a rigorous analysis, one which might well be described as proto-phenomenological. He first notes the obvious fact that a single beat, by itself, cannot determine a portion of time; this requires a second beat, which demarcates the complete time-span. But the appearance of this second beat signals the beginning of a second time-span durationally equal to the first. “At the end of this second space we may expect a new [third] beat, which, however, cannot happen earlier than at that point of time without causing an interruption, a curtailment of the time determined for us by the [first] two beats.”⁶⁸ Hauptmann represents this “projection of time” (to use Christopher Hasty’s expression)⁶⁹ as shown in Example 21.8a. When the third beat occurs as expected, the resulting structure yields one complete unit of *two-timed* (duple) meter. From a dialectical perspective, this simple meter represents the notion of *unity* (akin to a Hegelian *thesis*).

A unit of *three-timed* (triple) meter arises when a fourth beat becomes incorporated

66 Weber, *Musical Composition*, vol. 1, p. 82; see Smithers, “Theories of Rhythm,” p. 30.

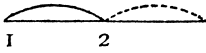
67 See Seidel, *Rhythmstheorien*, pp. 135–56; Smithers, “Theories of Rhythm,” pp. 39–78. Hauptmann’s harmonic theories are discussed in Chapter 14, pp. 459–62 and Chapter 23, p. 736.

68 Hauptmann, *Harmony and Metre*, p. 190.

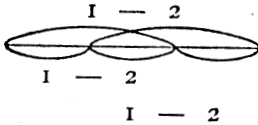
69 Hasty, *Meter as Rhythm*, pp. 100–02, for a discussion of Hauptmann’s ideas on the formation of meter.

Example 21.8 Metrical patterns from Hauptmann, *Harmony and Metre*

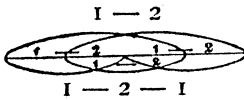
(a) p. 190



(b) p. 191



(c) p. 239



into the structure. As a result, the second time-span acquires conflicting interpretations: on the one hand, it continues to function as the “second” element in relation to the first, just as in a simple duple meter; on the other hand, this second time-span now functions as a “first” in relation to the third time-span, which “follows as echo of the second.”⁷⁰ Moreover, two higher-level units now arise, but they overlap around the second time-span. (Example 21.8b shows the multiple interpretations of a single unit of triple meter.) The conflicting interpretation accorded the second time-span and the overlapping of the two higher-level units render triple meter representative of the dialectical notion of *opposition (antithesis)*.

With quadruple meter, the addition of a fourth time-span allows the second time-span to become restored to a position of essential secondness, while the third span acquires a more primary meaning of “first” in relation to the fourth span, as “second.” Moreover, the higher-level two-part units, which were interlocked (and thus internally conflicted) in triple meter, become fully whole in quadruple meter (see Example 21.8c). As a result of this complex interpretation of beats, quadruple meter represents the dialectical notion of *unified opposition (synthesis)*.⁷¹

In so grounding quadruple meter, Hauptmann is responding to musical instincts, reflected in many classification schemes from the middle of the eighteenth century on, that this meter is genuinely distinct from duple meter and not merely a mechanical

⁷⁰ Hauptmann, *Harmony and Metre*, p. 191. ⁷¹ *Ibid.*, pp. 192–94.

combining together of two duple-meter units.⁷² Indeed, Hauptmann not only discusses the difference between these metrical situations but also devotes considerable space to demonstrating why quintuple and septuple meters are entirely “artificial and inorganic.”⁷³ For Hauptmann, the need to justify the organic unity of all truly artistic manifestations is paramount, and this concern leads him to formulations that might strike the modern reader as somewhat strange, if not downright bizarre. Nonetheless, his remarks on the phenomenology of time perception are highly insightful and mark a major theoretical advance in speculations on musical meter and rhythm.

Unlike the traditional *Akzenttheorie*, Hauptmann’s concept of meter does not initially invoke the notion of accentuation. As he develops his theory, however, accent plays an increasingly important role. Indeed, his accent concept is highly original and of historical and theoretical significance. In characteristically dialectical language, Hauptmann writes: “A first element of time, which metrically can only be the first of a second equal to it, is, in regard to its second, *determining*; the second is *determined*. A first as against its second has the energy of beginning, and consequently the metrical accent.”⁷⁴ Here, for the first time, the idea of metrical accent is entirely divorced from its traditional associations with poetic meter, durational differentiation, dynamic differentiation, internal length, and contrapuntal theory. Rather, a unit of time acquires accentuation essentially by being a *first* of some metrical unit and thereby possesses the “energy of beginning.” As in the notion of *quantitas intrinseca*, Hauptmann conceives of accent as entirely internal to the musical event, not something that happens to it through some external force, such as dynamic intensification. The mere fact of metrical initiation is sufficient to produce our perception of accent.

Hauptmann easily applies his definition to the two parts of duple meter: the first part is accented; the second part unaccented. His analysis of triple and quadruple meters is more complicated, owing to the way in which he understands how these meters organize time. For triple meter, each metrical “1” is an accented member, each “2” an unaccented one (see again Example 21.8b). In combining these time-spans, Hauptmann rather mechanically adds together the accents and represents the resulting scheme as shown in Example 21.9a.⁷⁵ The first beat has double accentuation, the second beat has single accentuation, and the third beat is unaccented. The idea that two beats of a triple meter can be accented is not new, and thus when Hauptmann assigns accent to the first and second members of this meter he follows eighteenth-century traditions (as earlier discussed). His analysis of quadruple meter is more convoluted and

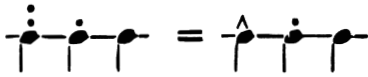
72 Not all theorists, however, recognize quadruple meter as a fundamental, distinct meter; see Weber, *Musical Composition*, vol. 1, pp. 71, 88, 90–91.

73 In this respect, Hauptmann follows the consensus of prior theorists regarding the undesirability of these asymmetrical meters. By mid-century, however, François-Joseph Fétis acknowledged the possibility of using quintuple meter “in the rhythmic system of future music” (“Du développement futur,” p. 354); see Arlin, “Metric Mutation.”

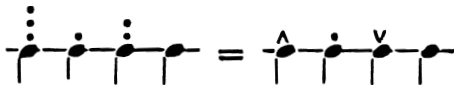
74 Hauptmann, *Harmony and Metre*, p. 204.

75 Each dot represents a single degree of accentuation. Hauptmann also uses the caret and inverted caret to express varying grades of accentuation.

Example 21.9 Accent patterns from Hauptmann, *Harmony and Metre*
 (a) p. 238



(b) p. 239



results in the pattern shown in Example 21.9b. Here, Hauptmann traditionally accords greater weight to the first beat than to the third, but he is unique among theorists in assigning accentuation to the second beat as well.

Having so vehemently argued that a metrical unit begins with an accent, Hauptmann reverses his position and claims that such a unit can start with a second, unaccented member. He justifies this turn around by invoking dualist notions that he used earlier in his treatise to account for the minor triad (and minor modality in general). In harmony, the major triad (and modality) achieves *positive unity*; on the contrary, the minor triad expresses *negative unity* because of its “backwards construction” (whereby the fifth of the chord is viewed as the logical starting point of harmonic organization).⁷⁶ In meter, a “major” or positive metrical unit begins with a first, accented time-span; a “minor” or negative meter begins with a second, unaccented span. This idea becomes clearer when Hauptmann represents the two forms in musical notation:

In the metrical notion of major the first and second as positive unity is musically written: ♪♪|.

In the metrical notion of minor the second and first as negative unity is musically written: ♪♪.

This beginning with the unaccented member is called the *upbeat*.⁷⁷

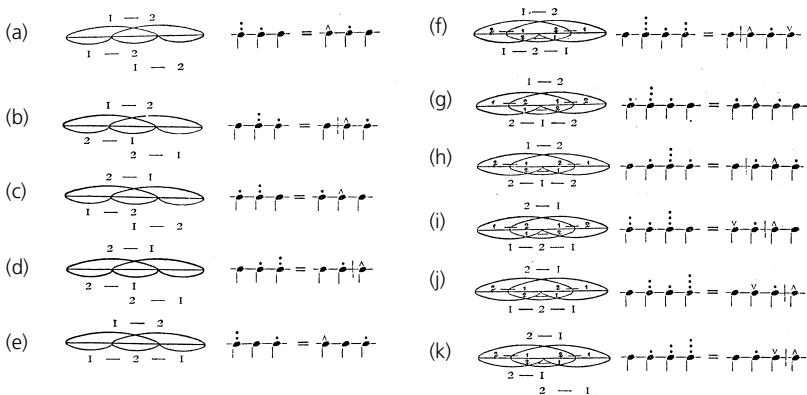
Thus a metrical unit is not confined within the bar lines of a piece but rather can, through a negative accentuation, begin with an upbeat and cross over to the subsequent downbeat. It is clear, then, that Hauptmann’s meter means more than the *Takt* of the traditional *Akzenttheorie*, for the analysis of a metrical unit involves not only an identification of accented and unaccented events but also the specific *grouping* of these differentiated events.

Like most nineteenth-century theorists of the *Akzenttheorie* tradition, Hauptmann observes that musical works contain many accents and unaccents in a wide variety of

⁷⁶ Hauptmann, *Harmony and Metre*, pp. 14–17. For a discussion of Hauptmann’s theory of harmonic dualism, see Chapter 14, pp. 459–62. ⁷⁷ *Ibid.*, p. 214.

Hauptmann's patterns of accentuation

Hauptmann holds that any basic (two-part) metrical formation may be "positive" by beginning with an accented element that progresses to an unaccented element (which he represents as "1—2") or may be "negative" by beginning with an unaccented element progressing to an accented one ("2—1"). Since he conceives of triple and quadruple meters as originating out of two-part metrical formations, he can generate a variety of accentual patterns by allowing each component formation to be positive or negative. In the case of triple meter, eight possible patterns may result; for quadruple meter, the total increases to thirty-two patterns. A selection of patterns for each meter are shown here. By "adding up" the various accented elements within a pattern, Hauptmann generates beats that have differing accentual weights. Thus in the triple pattern (b), the first beat has no accentuation, the second beat has double accentuation, and the third beat has single accentuation. Hauptmann further interprets this pattern to represent a metrical group that begins with an upbeat leading to the metrical downbeat and concluding with the second beat (which also has some accentual strength). In pattern (c), the first beat has single accentuation, the second beat, double accentuation, and the third beat remains unaccented. Here, Hauptmann sees the first beat as the metrical downbeat, with the second beat having stronger accentuation. Although Hauptmann presents these many metrical patterns in the abstract, he means them to represent actual musical situations. Thus pattern (c) just discussed would represent the special weight accorded the second beat in a sarabande, for example. Or a four-beat motive that features a crescendo anacrusis to a downbeat would take the form shown in pattern (k).



patterns. By introducing the notion of negative meter, he can account for these numerous groupings and accents within the groups. His model generates all usable metrical forms, while excluding those that are not "natural" (or, as we would say today, not "stylistic"). The significance of his conceptions must not be undervalued: whereas many theorists distinguish among different types of accent (metrical, rhythmic, expressive), Hauptmann is the first to propose a truly unified theory of accent: "no accent can be an isolated determination, nor occur in a single portion of time as a solitary element not standing in an arrangement of accents and not in reciprocal relation with all the other parts of time in a metrical unity. Each single accent is always rooted

Example 21.10 Analysis of *rhythme* from Reicha, *Traité*, Example R³

1^{re} Rhythme de 4 mesures .
1^{ste} Rhythmus von 4 Takten.

2^e Rhythme de 4 mesures .
2^{te} Rhythmus v. 4 Takten .

3^{eme} Rhythme de 4 mesures .
3^{ter} Rhythmus von 4 Takten .

Allegro.

Cad. interrom.
Unterh: Cad.

Cad. interrom.
Unterh: Cad.

Cad. parfait
Vollk: Cads

in the metrical system.⁷⁸ Hauptmann recognizes that no matter how an accent may actually function, be it the first beat of a measure or a stressed second beat, the accent must ultimately be conceived in terms of one fundamental principle. Whereas Lussy presents a series of ad hoc rules and observations, Hauptmann attempts to establish a theoretically coherent system.

Higher-level rhythm

Symmetry. The eighteenth-century notion that phrase structure and melodic organization are essentially rhythmic phenomena (see the earlier discussion of Riepel, Kirnberger, and Koch) continued to find expression in early nineteenth-century theories, such as those of Jérôme-Joseph de Momigny, Antonín Reicha, Fétis, and Weber.⁷⁹ Indeed the word *rhythm* was specifically used by Reicha as a technical term for mid-level units of phrase organization (approximately four measures).⁸⁰ A distinguishing feature of these theories is the central role played by the aesthetic ideal of *symmetry*. To be sure, eighteenth-century theorists tended to privilege symmetrical phrase groupings; nonetheless, Koch's "basic" phrase, for example, could contain three or five measures, without necessarily being referred to a four-measure norm. Undoubtedly influenced by stylistic changes in early nineteenth-century music (Beethoven's phrase groupings are consistently more regular than those of Haydn and Mozart), contemporary theorists emphasized symmetry as a major component of rhythm.⁸¹ As Weber notes, rhythm's "essential nature . . . consists in a perfect symmetry, as it respects the duration and the accent of the tones."⁸² The analytical fallout of this emphasis can be witnessed in Reicha's *Traité de melodie*, where, in an effort to preserve the goal of a "square rhythm" (*rhythme carré*), a ten-measure melody is analyzed (rather unconvincingly) as three four-measure phrases (*rhythme*), whose third and sixth measures have overlapping functions (see Example 21.10).⁸³

78 Ibid., p. 253.

79 It is not until somewhat later, with Marx, for example, that these concerns are associated more with form than with rhythm. See Chapter 28, pp. 882–83.

80 Baker, "Ars poetica," pp. 428–29; Fischer, "System and Impulse," pp. 36–39; London, "Phrase Structure," pp. 25–27.

81 London, "Phrase Structure," p. 21.

82 Weber, *Musical Composition*, vol. 1, p. 62.

83 See Baker, "Ars poetica," p. 432, who compares this analysis with another one based on the principles of Koch.

Hypermeter. As theorists came to consider higher-level rhythms to be essentially symmetrical, they increasingly characterized them as decidedly *metrical* in quality. Thus Reicha describes a rhythmic hierarchy in which entire measures and measure groupings mark off equivalent time-spans, just as do the individual beats of a measure.⁸⁴ Here, a rudimentary notion of hypermeter is clearly suggested, although, as George Fisher notes, “the conception . . . is durational rather than accentual; meter is defined by a succession of equal spans rather than by any accentual gestalt.”⁸⁵ Momigny’s version of the rhythmic hierarchy goes a step further by implicating more directly a sense of metrical accent. He starts with the motion from upbeat (*levé*) to downbeat (*frappé*), a fundamental pattern that he sees replicated at higher levels of musical structure.⁸⁶ A more explicit formulation of hypermeter is offered by Weber, in whose rhythmic hierarchy “the measures are distinguished from one another . . . in respect to their greater or lesser internal weight or accentuation, in the same way as the parts of measure are distinguished among themselves.”⁸⁷ With Weber, the essential elements of a fully-functional hypermeter are set in place. The analytical application of hypermeter by early nineteenth-century theorists, however, remained scanty. It was not until Riemann, considerably later in the century, that a new model of hypermeter engendered a significant quantity of analytical work.

Critique of the Akzenttheorie: Hugo Riemann

The *Akzenttheorie*, initiated by Kirnberger, elaborated most practically by Lussy, and formulated most theoretically by Hauptmann, elicited its greatest critique in the writings of Hugo Riemann (1849–1919). Though following at first in the footsteps of Hauptmann, Riemann soon broke with his theoretical mentor and propounded what he believed to be a fundamentally new conception of rhythm and meter. According to Riemann, the *Akzenttheorie* is deficient in a number of respects. First, the theory is mistakenly premised on an analogy with the rhythm of natural language, whereby the idea of accented and unaccented syllables is transferred to musical tones. Second, the alternation of accents and unaccents implies that performers introduce abrupt changes in tone intensity, thus yielding a mode of musical phrasing that is “tasteless [and] contradictory to the practice of all good artists.”⁸⁸ Third, the attempts by theorists, such as Lussy, to break away from the mechanical performance of metrical accents by proposing a variety of rhythmic and expressive accents results in a hotchpotch of ad hoc formulations and individual solutions lacking theoretical precision and (especially important for Riemann) any sense of *system*. As correctives, Riemann offers two new models of musical rhythm, the first

84 Reicha, *Traité*, p. 17, note 1. 85 Fisher, “System and Impulse,” p. 38.

86 Momigny, *Cours complet*; see London, “Phrase Structure,” p. 22; Seidel, *Rhythmustheorien*, pp. 199–204. 87 Weber, *Musical Composition*, vol. I, p. 87.

88 Riemann, “Die musikalische Phrasierung,” in *Präludien und Studien*, vol. I, p. 76.

Example 21.11 Dynamic shading from Riemann, *Musikalische Dynamik*, p. 11



of which appears most fully developed in his early treatise *Musikalische Dynamik und Agogik* (1884). A second model, reflecting Riemann's mature theory, is found scattered among a number of his other writings.

Musical dynamic and agogic. Riemann's initial model is based not on a series of undifferentiated pulses, as in the *Akzenttheorie*, but rather on the gradually changing intensity of two or three tones grouped into a *metrical motive*.⁸⁹ The most important feature of a metrical motive is its *dynamic shading* (*dynamische Schattierung*): a steady growth, a becoming, a "positive development" leads to a *dynamic climax* followed by a passing away, a dying off, a "negative development" (see Example 21.11). That the crescendo and decrescendo notations were meant as actual indications of tone intensity is obvious from much of Riemann's discussion; thus his, like Lussy's, is clearly a theory of musical performance, one rooted in a Romantic aesthetic of ultra-expressivity. That Riemann intended dynamic shading to be a theory of meter also becomes evident when he indicates in a number of statements, and in many examples throughout his treatise, that the dynamic climax of a metrical motive normally occurs at the tone immediately following the bar line.

Yet a closer examination reveals that his theory fails to function as a genuine metrical theory, for in a number of significant ways, the experiential phenomena embraced by the traditional concept of metrical accentuation finds no direct expression in Riemann's account.⁹⁰ For example, the primary metrical accent at the beginning of a 4/4 or 6/8 meter is realized by the dynamic climax, but in some cases, the *secondary* accents of traditional theory (e.g., the third quarter note in 4/4, the fourth eighth note in 6/8) may have the least intensity and thus function instead as the dynamic *nadir* (*Nullpunkt*) at the boundary between two motives (see Example 21.12).⁹¹ In other instances, Riemann refers to the "displacement of the dynamics" without suggesting that the prevailing meter is at all disrupted, such as the syncopation shown in Example 21.13. Other examples of a displaced dynamic climax arise when Riemann brings melodic and harmonic issues into consideration, such as in Example 21.14, where the dynamic climax (as indicated by Riemann's addition of crescendo and decrescendo

89 Riemann's theory of musical dynamics is discussed by Seidel, *Rhythmustheorien*, pp. 161–67; Smithers, "Theories of Rhythm," pp. 187–229. 90 See Caplin, "Dynamic Shading."

91 Riemann unconventionally uses the time signatures 2/3 and 3/2 to represent 6/8 and 3/4 respectively (see *Musikalische Dynamik*, pp. 28–29).

Example 21.12 Dynamic shading from Riemann, *Musikalische Dynamik*, pp. 26, 29



Example 21.13 Displaced dynamic climax from Riemann, *Musikalische Dynamik*, p. 52



Example 21.14 Displaced dynamic climax from Riemann, *Musikalische Dynamik*, p. 188 (from Beethoven, Piano Sonata in D, Op. 10, No. 3, second movement, mm. 84–86)



signs) is shifted back to the last eighth note in the measures, presumably because of the intensity imparted by the diminished-seventh chords at these points. In these cases, the dynamic climax would seem to mark what traditional theories would recognize as nonmetrical accents (especially Lussy's expressive accents).

Riemann's theory is inadequate as an account of musical meter in another important respect: the dynamic shading of a metrical motive can reflect just a single structural level. In recognition of this limitation, Riemann introduces the concept of *agogic* accent – the minute durational extension of an individual note – to differentiate, for example, a 3/4 meter from a 6/8 meter (as shown by the carets in Example 21.15). But since an agogic accent is applicable to a single note only, it cannot be used to differentiate events at higher levels of metrical structure. Thus for a variety of reasons, the theory of musical dynamics failed to provide the basis for a comprehensive theory of meter. It is not surprising, therefore, that when Riemann turned his attention more to issues of higher-level rhythm in his mature theories, he proposed a revised model of

Example 21.15 Agogic accents from Riemann, *Musikalische Dynamik*, pp. 31–32

The image shows two systems of musical notation. Each system consists of two staves. The top staff is in 2/3 time and the bottom staff is in 3/4 time. The music features agogic accents (marked with ^) and unaccents (marked with v) at multiple levels of structure. The word "und" appears to the right of each system.

alternating accents and unaccents at multiple levels of structure, in other words, a kind of *Akzenttheorie*.

The mature theory. By the end of the nineteenth century, Riemann's theories of rhythm and meter had crystallized into a relatively unified view, one that found fairly consistent expression in a wide range of theoretical and pedagogical publications.⁹² He continued to build upon many of his ideas of musical dynamics, but reformulated them in such a way that they could function as a framework for providing metrical (especially, hypermetrical) interpretations of musical content, from the simplest motive to the full eight-measure period. The new model finds various representations, but features essentially the same principles (see Example 21.16 for one such version).

For Riemann, the experience of music involves a mode of *active* listening (*Tonvorstellung*) whereby an initial musical idea is presented as a kind of *question*, which demands, and thus leads to, a concluding *answer*. This incessant progression toward a goal, which represents a moment of metrical strength (Riemann generally avoided

⁹² Such as *Rhythmik und Metrik*, *Große Kompositionslehre*, and *Vademecum der Phrasierung*. In addition to presenting his ideas in theoretical treatises, Riemann advanced his views in analytical studies on Bach's *Well-Tempered Clavier* and the piano sonatas of Mozart and Beethoven. Moreover, he produced the infamous "phrasing editions" (*Phrasierungsausgaben*) of these piano sonatas, in which the original phrase markings by Mozart and Beethoven are entirely replaced by those conforming to his own principles. Riemann's mature theory is discussed in Seidel, *Rhythmustheorien*, pp. 180–99; Smithers, "Theories of Rhythm," pp. 229–48; Apfel and Dahlhaus, *Studien*, vol. 1; and Waldbauer, "Riemann's Periodization."

Example 21.16 Metrical analysis of an eight-measure period from Riemann, "Neue Beiträge," p. 11

= 8 Takte
= 4 Zweitaktgruppen
= 2 Halbsätze

Vordersatz Nachsatz

speaking of "accents"), characterizes rhythmical and metrical motion at all levels of formal structure. The elementary *metrical unit* is two-part, beginning with an upbeat (*Auftakt*) and leading to a downbeat.⁹³ (For Riemann, the traditional measure, beginning with an accented event, is a fiction.) The metrical unit replicates itself at successive levels in the hierarchy to the eight-measure period.⁹⁴ Like the *Akzenttheorie*, Riemann's model consists of alternating accented and unaccented events at multiple levels. But whereas the traditional scheme suggests beginning-accented groupings, Riemann's units are exclusively end-accented.⁹⁵ He never permits an event located on a metrically strong position to function as the first of a group. Even in cases where there is an obvious beginning on a strong beat, Riemann groups that beat back to some imaginary prior event. His dogmatism on this score has been, needless to say, the source of continual derision from later theorists.

In Riemann's mature theory, the general nineteenth-century tendency to interpret higher-level rhythms as hypermetrical achieved its most explicit formulation and extensive analytical application. His fundamental requirement that groupings be end-accented resulted in his analyzing the eight-measure normative period such that the even-numbered measures, the cadential ideas, and the consequent phrase are seen as the logical goals, and thus metrically stronger, in relation to preceding odd-numbered measures, initiating ideas, and antecedent phrase. Though Riemann seemed to have established an abstract, a priori model, he actually took pains to justify his analyses in terms of specific harmonic criteria, such as harmonic rhythm and *cadential action* (*Schlußwirkung*).⁹⁶ His hypermetrical interpretations, though roundly criticized in

93 Triple meters arise when the downbeat is doubled (*Musik-Lexikon*, pp. 936–37).

94 Example 21.16 shows a hierarchy consisting of eight one-measure units (*Takte*), four two-measure groups (*Zweitaktgruppen*), and two phrases (*Halbsätze*), consisting of antecedent (*Vordersatz*) and consequent (*Nachsatz*). The term *Vierhebigkeit*, originally referring to a "four-foot" metrical verse of German text, has been often been associated with Riemann's insistence on the four-square organization of musical meter (see Smithers, "Theories of Rhythm," p. 232). He uses the term rarely, however, in connection with his model of the eight-measure period and its analytical application for tonal music.

95 Riemann acknowledges that his views in this respect were anticipated by Momigny, who, as mentioned earlier, found an upbeat–downbeat progression at the basis of all rhythmic motion.

96 See Caplin, "Harmonic–Metric Relationships," pp. 348–72.

many quarters,⁹⁷ were nonetheless highly influential, not only on German theory, but on some twentieth-century North American thinkers as well.⁹⁸

Riemann's "analytical sketch" of the slow movement ("Introduzione") of Beethoven's "Waldstein" Sonata, Op. 53, illustrates well his general approach to meter and phrasing (see Example 21.17). Riemann recognizes at the basis of the movement three eight-measure periods, whose beginnings he indicates with Roman numerals in mm. 1 (I), 10 (II), and 17 (III). Within each period, he identifies which measures relate to his abstract model using arabic numerals in parentheses (below the music, mixed in with the letter symbols for the harmonic functions).⁹⁹ He normally identifies only the even-numbered, metrically strong measures. But for the first and third periods, he also specifies m. 7, because in both periods, this "ideal" measure actually embraces two successive measures, labeled (—7) and (7—) (for mm. 7–8 and 27–28 respectively). This seventh measure initially brings a deceptive cadence and thus groups backwards (as indicated by the "—" sign) as weak in relation to the preceding m. 6. But then the following measure, with its cadential preparation, also functions as a "seventh" measure, which groups forward (more in conformance with the model) with the following strong m. 8 containing the cadential arrival. As a result of this "doubling" of m. 7, the first normative 8-measure period is extended to nine measures.¹⁰⁰ The third period is likewise elongated because of a doubled m. 7, but in addition, this period is subjected to an even greater extension owing to the stretching out of the dominant of C major (mm. 21–26). Riemann understands this extension to create a repetition of mm. 5 and 6 of the normative period, as indicated in the analytical sketch with "6a" (at m. 24) and "6b" (m. 26).¹⁰¹ This third period concludes at the very beginning of the following movement, thus creating an elided cadence when m. 8 of the period becomes m. 1 of the Rondo finale (8 = 1). A similar cadential elision occurs at the end of the second period (m. 27), which otherwise conforms to the eight-measure model.

As for the phrasing of the motivic material making up these periods, Riemann's "end-accented" approach is followed through obsessively: not a single collection of

97 His general approach is diametrically opposed to a more typically Viennese tradition (revealed in the metrical analyses of Bruckner and Schenker), in which the beginning-accented notated measure provides the model for the grouping of measures at higher levels. Theodore Wiehmayr's *Musikalische Rhythmik und Metrik* is the most significant German study to oppose Riemann's hypermetrical interpretations.

98 A distinctly "Princetonian" tradition, expressed in the writings of Roger Sessions, Edward T. Cone, and many of their students (Arthur J. Komar, William E. Benjamin, Robert P. Morgan, and Joel Lester), seems to have been significantly influenced by Riemann's notion that cadential articulation is a significant rhythmic goal, often with metrical qualities of strength or accent.

99 For a discussion and explanation of Riemann's harmonic analysis of this very movement, see Chapter 25, pp. 799–800. For a related analysis of another Beethoven sonata movement (in this case, the allegro from Op. 10, No. 1), see Examples 28.1 and 28.2, pp. 894–97.

100 Riemann acknowledges that this type of measure doubling is a "rare phenomenon" (*Beethovens Klavier-Solosonaten*, vol. III, p. 31).

101 In the accompanying text, Riemann explicitly refers to mm. 5a–6a and mm. 5b–6b (*ibid.*).

Example 21.17 Analytical sketch of Beethoven, “Waldstein” Sonata, second movement, from Riemann, *Beethovens Klavier-Solosonaten*, vol. III, pp. 32–33

Introduzione.

I. *Adagio molto.*

The image shows a musical score for the introduction of the second movement of Beethoven's "Waldstein" Sonata. The score is divided into two main sections, I and II. Section I is marked "Adagio molto" and consists of three staves of music. Section II consists of three staves of music. The score includes various musical notations such as notes, rests, and dynamic markings. Below the staves, there are analytical annotations in the form of letters and numbers, indicating rhythmic patterns and structural elements. These annotations include: T, =⁰Sp, D, (2), D, ..⁰=⁰S, D, (4), D, ..⁰=⁰D, D¹, (6), D, ..⁰(7)Tp, ..⁰(7)Sp, D, (8)T, .., (2), (4)T, .., (14), ^, D, T, (6).

Example 21.17 (cont.)

15

\hat{F} D T Sp D (8=1)T
III.

20

D ..^{3>}_{=⁰S} .. D^7 .. D^7 .. D^7 .. D^7 .. D^7 .. (6)

27

(6b)^{1<}₌(D^7) (7)

3

3

pitches is conceived to begin with an accented element. Thus both the opening bass F on the downbeat of m. 1 and the initial note in the melody C in the following eighth are grouped backwards to some imaginary event prior to the beginning of the piece. The subsequent motive begins with the upbeat thirty-second note and concludes with the first eighth-note E in the following measure (on the second eighth-note beat).¹⁰² As a result, the motive “bridges over the rest” on the downbeat of m. 2. This mode of phrasing, which prohibits beginning-accented groups, is, of course, entirely discredited today. In fact, many performers, especially those influenced by the “historical performance practice” movement, tend to place high value on the composers’ actual phrasing notations, which, in the case of the Baroque and Classical styles, tend to begin metrical units. Yet, just as the post-modern “new musicology” of recent years has revived the hermeneutic models of the nineteenth-century *fin-de-siècle*, so perhaps might a Riemann-like phrasing become fashionable again among performers.

The theoretical writings of Riemann stand at the end of an era in the history of rhythmic thought. The major issues that preoccupied theorists for two centuries received their most comprehensive and systematic exposition in his voluminous output. Those theorists at the beginning of the twentieth century who chose to continue pursuing issues of rhythm were inevitably drawn into continual debate with Riemann’s ideas, even if the leading figures of that period (Schenker, Kurth, Tovey) generally eschewed the search for a systematic theory of rhythm (although each nonetheless had suggestive and rich ideas to contribute on the topic). Still other theorists found inspiration from new ideas on gestalt psychology, philosophy, and linguistics. But these are developments that constitute a separate chapter in the history of rhythmic theory.

102 Riemann notes that since the thirty-second-note figure becomes a clear motive in its own right in mm. 24–25, it should be indicated as originating at the beginning of the movement (*ibid.*, p. 30).

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