

CHAPTER IV RHYTHM AND MEASURE

Tempo, Meter and the Measure

Demnach geben Bewegung, Takt und Rhythmus dem Gesange sein Leben und seine Kraft. Die Bewegung bestimmt den Grad der Geschwindigkeit [...] der Takt setzt die Accente nebst der Länge und Kürze der Töne, und dem leichtern oder nachdrücklichen Vortrag fest, und bildet die Töne gleichsam in Wörter, der Rhythmus aber giebt dem Gehör die aus den Wörtern gebildeten einzelnen Sätze, und die aus mehreren Sätzen zusammen geordneten Perioden zu vernehmen.

Accordingly it is movement ('Bewegung'), the measure ('Takt') and rhythm ('Rhythmus') which give life and energy to a melody ('Gesang'). The movement determines the rate of speed [...] the measure establishes the accents and the length or brevity of the notes, as well as the lighter or more emphatic delivery, and forms the tones, as it were, into words; rhythm, however, makes audible the individual sentences which have been formed from the words and the periods which have been put together from several sentences.

This quote, from Kirnberger's *Die Kunst des reinen Satzes in der Musik* of 1774 (Part II, p. 105), provides us with a concise resumé of the later 18th-century view regarding the different components of what we would call rhythm. It also reflects the enormous influence of Riepel's teachings, since the word, 'rhythm', itself, is now reserved for the combination into longer melodic entities of the smaller measure-units introduced by him and subsequently called 'Rhythms' (see above, chapter II). The attempt to differentiate between the first two aspects, measure and movement, in contrast, is much older. Mattheson, for example, had suggested the following distinction (*Capellmeister*, p. 171: "Von der Zeit=Maasse"):

Die Rhythmic ist [...] eine Abmessung und ordentliche Einrichtung der Zeit und Bewegung in der melodischen Wissenschaft, wie langsam oder geschwind solche seyn soll; da hingegen die Rhythmopöie nur die Länge und Kürtze der Klänge untersucht. Mit einem Worte, es ist der Tact.

'Rhythm' is [...] the measurement and proper arrangement of time and movement within the science of melody, how slow or fast it should be; 'Rhythmopoeie', on the other hand, deals only with the length and shortness of the sounds. In a word it is the measure.¹

¹ As examples of the former he lists: *allegro*, *grave*, *lento*, *adagio* or *vivace*, emphasizing, however, that these are only approximate indications of the composer's wishes and dependent ultimately on the performer as well. See also Rousseau, *Dictionnaire*, 1768, 'mouvement'. Many subsequent theorists give long lists of Tempo indications, e.g. Riepel, Vol. I, p. 78.

Kirnberger goes on to give a more thorough explanation of what is meant by movement, the most general of the three terms (*Kunst des reinen Satzes*, Vol. II, pp. 111 and 107):

Jedes [der oben aufgeführten] Beispiele unterscheidet sich von den übrigen durch eine charakterisirte Bewegung, die erstlich durch die Verschiedenheit des Tempo und der Taktart, und bey denen die von einerley Tempo und Taktart sind, durch die Verschiedenheit der Notengattungen, aus denen die Melodie zusammengesetzt ist, fühlbar wird (p. 111).

[...] so kann auch die Bewegung in der Melodie bey dem nemlichen Grad der Geschwindigkeit oder Langsamkeit heftig oder sanft, hüpfend oder gleichförmig, feurig oder matt seyn, nachdem die Art der Notengattungen, aus denen die Melodie zusammengesetzt ist, gewählet wird (p. 107).

Each [of the examples which he has given] differs from the others by virtue of a characteristic movement, which is perceptible first, in the difference in tempo and the type of meter, and for those which have the same tempo and meter, in the difference in the kinds of notes which make up the melody.

[...] thus the movement in the melody can, by the same degree of swiftness or slowness, be vigorous or gentle, leaping or uniform, fiery or languid, according to the type of notes from which it is formed.

The measure, and the different aspects and problems associated with it, is discussed in detail by Marpurg in a letter directed to Georg Benda from 15 September 1759.² Although he proposes to treat all three of the components listed above, he actually confines his remarks to the measure, its accents and the different meters. As stated by many other theorists as well, he emphasizes that there are only two basic types of measure, namely duple and triple, or even and uneven, but the specific meter is still dependent on the type of movement (*Kritische Briefe*, Vol. I, p. 100):³

[...] die Bewegung, die eine Tactart haben soll, [muß] die Wahl dieser Notenfiguren bestimmen, und zu dem Ende eine langsamere gerade Tactart mit $2/2$, und eine geschwindere mit $2/4$ geschrieben werden [...]

The movement which a specific meter should have must determine the choice of the notes and their figures; thus a slower even measure is written as $2/2$, a faster as $2/4$.

And the same applies to the uneven measures, $3/2$ and $3/4$.⁴ The inner structure of the measure was the object of much comment and discussion, particularly with

² See Marpurg, *Kritische Briefe*, Vol. I, 1760, pp. 97 ff.

³ For Marpurg's relationship to Mattheson in this regard see Markus Waldura, "Marpurg, Koch und die Neubegründung des Taktbegriffs."

⁴ For an exhaustive list of the different notes and meters see especially Scheibe, *Ueber die Musikalische Composition*, 1773, Part I, pp. 193–224: "Vom Takte und dessen verschiedenen Arten."

regard to accent. Although it was generally agreed that each type of measure consisted of two main parts, there was some confusion as to their names and the distribution of accents within them. Here, too, the literary arts, in particular poetry and its meters, provided the model. As Marpurg states (*Kritische Briefe*, Vol. I, p. 106):

Was in der Poesie ein Tonfuß ist, das ist in der Musik der Tact; und so wie jeder Tonfuß aus mehr als Einer Syllbe bestehet: so bestehet auch jeder Tact aus mehr als Einem Haupttheile [...] Jeder Tact muß also einen Niederschlag und einen Aufschlag haben [...]

What the metric foot is to poetry, the measure is to music; and just as every foot in poetry consists of more than one syllable, so every measure consists of more than one main part [...] Every measure, then, must have a downbeat and an upbeat [...]

The use of the Greek terms ‘Thesis’ and ‘Arsis’ for these two parts was not, however, always consistent. As Georg Friedrich Wolf explains in his *Lexikon* of 1787 (p. 109):

Niederschlag, thesis, ist die erste Zeit oder der Anfang des Tactes. Der Name kommt daher, daß die Neuern beim Tactschlagen den Anfang jedes Tactes mit Niederschlagen der Hand oder des Fußes bezeichnen. Die Alten thaten dasselbe mit Aufheben des Fusses, daher bei ihnen der Anfang des Tactes arsis, der Aufschlag, genannt wurde.

Downbeat, thesis, is the first part or the beginning of the measure. The name comes from the fact that, when beating the measure, the moderns indicate the beginning of the measure with a downward stroke of the hand or the foot. The older ones, however, did the same by lifting their foot, so that they called the beginning of the measure arsis, or upbeat.

The fact that the measure was thought to possess an inherent hierarchy of strong and weak beats was of the utmost importance for the music of the 18th century. The theorists attempted to explain this phenomenon in a rather roundabout fashion by referring to the difference between the intrinsic and extrinsic values of the notes, as early even as Walther’s *Lexicon* (1732, p. 507):

Quantitas Notarum extrinseca, & intrinseca [...] die äusserliche und innerliche Geltung der Noten; nach jener Art ist jede Note mit ihres gleichen in der execution von gleicher; nach dieser aber, von ungleicher Länge: da nemlich der ungerade Tact=Theil lang, und der gerade Tact=Theil kurz ist.

Quantitas notarum extrinseca and intrinseca [...] The outer and inner duration of the notes; according to the former every similarly-formed note is executed with the same, according to the latter, however, with different length: since, namely, the uneven part of the measure is long, the even part short.

Theorists from the 1760s gave much more detailed explanations of this phenomenon. As Marpurg states (*Kritische Briefe*, Vol. I, p. 99):

Die Erfahrung lehret, daß wenn zwei Noten von einer ähnlichen Gattung, z. E. zwei Viertelnoten, obgleich in gleichem abgemeßnen Zeitraume, hinter einander gesungen werden, dennoch die eine etwas länger als die andere vom Gehör vernommen wird. Ist die erste die längere, so ist die zweyte die kürzere, und umgekehrt. Diese Verschiedenheit zwischen der Figur einer Note, und zwischen ihrer Ausmessung zu bemerken, wird der Wehrt, der eine Note von ihrer Figur erhält, der äußerliche Wehrt oder Verhalt; derjenige aber, den sie von ihrer Abmessung erhält, der innere Wehrt oder Verhalt dieser Note genennet.

Experience teaches that when two notes of the same value, e. g. two quarter notes, are sung one after the other, although in the same measured interval, nonetheless the one is heard as longer than the other. If the first is longer, then the second is shorter, and vice versa. This difference between the figure of a note and its duration is called the value; that which the note obtains through its figure, the external value or condition; that, however, which it receives from its duration, the internal value or condition of this note.

In his treatise of 1773 Scheibe also devotes a long discussion to this question in the section, "Concerning the inner structure of the large and small parts of the measure" (*Musikalische Composition*, p. 225):

[...] die natürliche oder innerliche Größe oder Länge und Kürze der einzelnen Takttheile [...] weil solches in der Ausübung so wohl in Ansehung der Melodie als auch in Ansehung der Harmonie von großer Wichtigkeit, ja ganz unentbehrlich ist [...] Unsere eigene Empfindung lehret uns, wenn wir singen oder spielen, oder nur eine Musik anhören, daß die Noten, wenn sie schon [...] der äußerlichen Größe nach [...] gleich groß oder klein zu seyn scheinen, gleichwohl niemals von einerley oder einander ganz ähnlichen Größe, Länge oder Kürze sind oder seyn können [...]

[T]he natural or inner size or Long and Short duration of the individual parts of the measure [must be mentioned] because this is of great importance, even vital to performance with respect to both melody and harmony [...] Our own experience teaches us, when we sing or play an instrument, or even just listen to a work of music, that the notes, although they seem to be [...] as far as their outer form is concerned [...] of equal duration, can never actually be of a single or completely similar size, as long and short values.

In attempting to define these differences he proposes various names, such as 'virtualiter' long and short, or striking and passing ('anschlagende und durchgehende') or even good and bad ('gute und schlimme') notes, finally deciding on 'accented and unaccented', "because this designation [...] demonstrates most clearly why the one note is preferred over the other, or receives more inner length than the other."⁵ And this inner length is, of course, determined by the natural accents

⁵ "denn dieser Beyname [...] am deutlichsten zu erkennen giebt, warum die eine Note einen Vorzug von der andern, oder mehr innerliche Größe als die andere erhält" (Scheibe, *Musikalische Composition*, p. 230).

of the measure, which in turn had a direct effect on cadences, the use of consonance and dissonance, and so on.

Whereas it was generally agreed that the main accent always coincided with the beginning of the measure, there remained some differences of opinion with regard to a secondary accent in common time and the division of the second two beats of triple meter between downbeat and upbeat. Many writers consider the first and third beat of common time equal in this respect, i.e. it is the half-measure which serves as the unit.⁶ This division of the 4/4 measure into two equal halves is readily evident from the melodic configuration itself. It is reflected not only in examples from the theorists but also in many *Allegro* movements of the earlier symphonies, where, for example, a theme may begin on the first beat but then return on the third at a later point, as in the following example:⁷

Ex. 4: Johann Stamitz, *Symphony in G Major*,
Wolf G 3 (ca. 1745), 1st. mvt., mm. 28 f. and 35 f.

Others, however, differentiate between the two, giving the third beat only a secondary accent. To the former belong Marpurge (*Kritische Briefe*, Vol. I, p. 102) and

⁶ Riepel's attempts to form new groupings within a notated passage (Vol. I, pp. 52 ff.) are explored still further by Koch (*Versuch*, Vol. III, pp. 223 f.). They raise difficult questions of interpretation. For recent discussions of the problem see Waldura, "Marpurge, Koch und die Neubegründung des Taktbegriffs," pp. 250 f. (with example from Koch) and Claus Bockmaier, *Die instrumentale Gestalt des Taktes*, pp. 244 ff. (with example from Riepel).

⁷ See also Ex. 19, below p. 121 (Riepel, mm. 1 ff. and 28 ff.).

Scheibe (*Critischer Musicus*, Vol. II, p. 87), to the latter Kirnberger (*Kunst des reinen Satzes*, Vol. II, p. 124) and the Italian theorist, Giovenale Sacchi (*Della divisione*, p. 21): “[I]n una serie di Battute quadruple l’uno accento è maggiore, l’altro è minore.”

The division between downbeat and upbeat in triple time was generally thought to be two plus one, but several theorists accepted one plus two as well, e. g. Marpurg (*Kritische Briefe*, Vol. I, p. 102), who, however, slightly later changed his mind in favor of the more usual view. Scheibe likewise prefers two to one (*Musikalische Composition*, p. 238):

[...] die ersten beyden Takttheile [gehören] zum Niederschlage [...] daher denn [ist] der erste Theil lang, der zweyte Theil kurz, der dritte Theil ebenfalls kurz [...] denn der zweyte Theil wird zum Niederschlage gerechnet, der dritte Theil aber ganz allein zum Aufschlage.

The first two parts of the measure belong to the downbeat [...] therefore the first part is long, the second short, the third part, however, likewise short [...] for the second part is attributed to the downbeat, but the third part all by itself to the upbeat.

This view of accentuation as inherent to the measure had a direct effect on the music itself, as summarized by Marpurg in his *Anleitung zur Musik* of 1763 (pp. 76 f.):⁸

Die guten Tacttheile, die auch innerlich lange, anschlagende, ungerade oder accentuirte &c. genennet werden, dienen in jeder Tactart, geraden und ungeraden, überhaupt gesprochen, 1) zum Gesang der langen Sylben; 2) zum Anschlage der Dissonanzen, und 3) zur Bemerkung des rhythmischen Tactgewichts, und der dahin gehörigen Einschnitte [...] Die schlechten Tacttheile, die auch innerlich kurze, durchgehende, gerade, oder unaccentuirte &c. genennet werden, dienen [...] 1) zum Gesang der kurzen Sylben; 2) zur Vorbereitung und Auflösung der Dissonanzen, und 3) zur Vorbereitung des rhythmischen Tactgewichts.

The good parts of the measure, also called inner long, striking, uneven, or accented, etc., serve in every type of meter both even and uneven [i. e. duple and triple], in every circumstance: 1) for the long syllables in vocal music; 2) for the striking of a dissonance, and 3) for the recognition of the rhythmic weight of the measure, and the pauses which belong there [...] The inferior parts of the measure, also called inner short, passing, even, or unaccented, serve [...] 1) for the short syllables in vocal music; 2) for the preparation and resolution of dissonances, and 3) as preparation for the rhythmic weight of the measure.

Whereas these aspects of accentuation and weight are discussed by most of the theorists, Riepel had included one more interesting possibility in the first book of his treatise, namely that of a brief change of accent within a notated meter

⁸ For a modern view of the placement of accent as intrinsic to the measure and its effect on the music of the Classic see Thrasybulos Georgiades, “Aus der Musiksprache des Mozart-Theaters”, reprinted in *Kleine Schriften*, pp. 18 ff.

(Vol. I, pp. 52 ff.). Although this is devoted mainly to the imposition of what he calls the Allebreve-Art or Allabreve Tempo into common time (see fn. 6 above), he also gives examples of “la confusione”, or the intrusion of a few measures of duple time into triple, and vice versa (pp. 59 ff.):

Du wirst hoffentlich merken, daß bey dem Zeichen * der 2/4 Tact eingeflochten ist, z. E.

Ex. 5: Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst*, Vol. I (1752), p. 59.

Similarly, 3/4 and 6/8 can be interchanged, producing a Menuet out of a Larghetto, simply by altering the notational groupings and the tempo:

Auflösung in einen Menuet:

Ex. 6: Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst*, Vol. I (1752), p. 61.

The deliberate intrusion of a different accent pattern into a clearly established meter was often exploited in the works of the mature Classic.⁹ Since the interchange of 2/4 and 4/4, as well as 3/4 and 6/8, can be found frequently even in earlier works, the question has considerable practical significance, as in the following example. While the oboes appear to be in 6/8 time, the strings punctuate with forte chords the second beat of the 3/4 measure:

⁹ Ibid.

Ex. 7: Joseph Haydn, Symphony in G Major, Hoboken I: 23 (1764),
1st. mvt., mm. 7–13.¹⁰

Rhythm as Measure Groupings

It was, in any case, Riepel who established the basic guidelines of rhythm in its more specific sense as the combination of smaller units into larger ones. As we have seen above (chapter II), he introduced the measure units at the very beginning of his work, *De Rhythmopoeia Oder von der Tactordnung*, published as the first part of his treatise on composition in 1752. Subsequently actually called ‘Rhythmen’, these units and their combination provided the basis of the art of composition for the amateur throughout the entire century. For their combination was by no means haphazard, but could rather, in the eyes of the theorists, be determined, and thus taught, according to specific rules. Again it was the dance movements, however, and not the longer Allegro movements which became the model, so that symmetry and even-numbered measure-units were set up as the ideal. Riepel’s principles were accepted and repeated by most of the later theorists (*Anfangsgründe*, Vol. I, p. 23):

Praec. Denn 4, 8, 16, und wohl auch 32 Tacte sind diejenigen, welche unserer Natur dergestalt eingepflanzt, daß es uns schwer scheineth, eine andere Ordnung (mit Vergnügen) anzuhören. Und ich gesteheth nun, daß 2. beysammen stehende Zweyer nichts anders seyen als ein Vierer.

Praec. For 4, 8 16 and perhaps even 32 measures are the ones which are planted so deeply in our nature, that we find it difficult to listen (with pleasure) to any other arrangement. And I admit now that two successive ‘Zweyer’ are the same as a ‘Vierer’.

The problem of uneven measure units, on the other hand, disagreeable in themselves, can be simply resolved through repetition (Vol. I, p. 27):

¹⁰ Modern edition by Horst Walter in *Joseph Haydn Werke* I, 4, München 1964, p. 31.

Praec. [...] Was die Wiederholungen anlangt, so verhindern sie die gute Ordnung keineswegs, sondern befördern dieselbe vielmehr, ja sogar die Dreyer, Fünfer, Siebener und Neuner können dadurch genehm gemacht werden.

Praec. [...] As for repetitions, they in no way disturb the proper order, indeed they enhance it, for even the three-, five-, seven- and nine-measure units can be made acceptable in this way.

Of these it is, of course, the ‘Dreyer’ which is most likely to be found, and the instructor gives the following suggestions for its employment (Vol. I, p. 30):

Mercke, ein Dreyer rühret wegen seiner Ungleichheit der Tacte unser Gehör ganz unvermuthlich und ausserordentlich [...] Daher scheint er durchdringend, ausnehmend, artig und scherzhaft zu seyn. Er muß aber allezeit von seinem Gespane begleitet werden. Welche 2. Dreyer sodann nach Belieben als ein Sechser können angesehen werden [...]

Note that a ‘Dreyer’, because of its inequality of measures, affects our ear as unexpected and exceptional. As a result it seems penetrating, different, individual and humorous. It must, however, always be accompanied by its companion. Then two ‘Dreyer’ can, as you wish, be viewed as a ‘Sechser’ [...]

Denn zwey Dreyer können am Anfange eines jeden musikalischen Stückes gesetzt werden, es muß aber unmittelbar ein Vierer darauf folgen, um derselben unnatürliches Wesen zu verdecken, und sie dem Gehöre erträglich zu machen [...] welchen Vierer man auch wohl wiederholen kann [...]

For two ‘Dreyer’ can be placed at the beginning of any musical piece, but a ‘Vierer’ must follow immediately, in order to conceal their unnatural character and to make them tolerable to the ear [...] and this ‘Vierer’ can also be repeated [...]

When the student asks, “Is it not sometimes possible to place three ‘Dreyer’ next to each other?”, the instructor answers (Vol. I, p. 31):

Meines Erachtens, lieber vier als drey. Denn ein Dreyer ist, den Tacten nach, ungleich: drey Dreyer sind ihrer Zahl nach ebenfalls ungleich, mithin ist die Ungleichheit verdoppelt, und ohne Zweifel widerwärtig.

Better four than three in my opinion. For a ‘Dreyer’ is, with respect to its measures, unequal: three ‘Dreyer’ are, according to their number, likewise unequal, that is, the inequality is then doubled and without doubt offensive.

The superiority of even-numbered measure groupings is advocated by most subsequent theorists. Symmetry, and thus repetition of similar measure-units, are important. Hiller’s anonymous author, for example, writes (*Wöchentliche Nachrichten*, Vol. III, p. 352):

Unter der Tactordnung versteht man die Art und Weise, wie musikalische Gedanken eingekleidet werden, um das Ebenmaaß in der Melodie zu bestimmen [...] Von welcher Art nun der Gedanke seyn mag, so ist aus-

Under ‘Taktordnung’ (measure arrangement) we understand the manner in which musical ideas are ordered, to determine the symmetry of the melody [...] Whatever an idea’s character [i.e. number of measures]

gemacht, daß der antwortende Gedanke, zur Erhaltung eines richtigen Ebenmaßes, von eben derselben Art seyn muß.

may be, it is essential that the answering idea, in order to preserve the proper symmetry, should be of the same kind.¹¹

A preference for symmetry of phrasing and for two- and four-measure units is likewise apparent in the Allegro movements of the early Classic composers. Only Haydn rebels against it, beginning, for example, his Symphony No. 23 with three three-measure units:

Ex. 8: Joseph Haydn, Symphony in G Major, Hoboken I: 23 (1764), beginning.

A series of two-measure units, as they occur so frequently in early Allegro movements, does not, however, necessarily mean symmetry of phrasing, or what we understand as “periodic” correspondence between two similar phrases, differentiated by their endings. On the contrary, as Thrasybulos Georgiades has stressed,¹² the more usual combination, particularly in the first movements of symphonies, is an open-ended succession of two- or four-measure units which begin on the tonic and end on the dominant. These serve as the catalysts for continuous movement, often producing an overlapping between the motifs of the upper voices, whose phrases continue into the following tonic, and the bass (i. e. harmony), which begins a new unit at that point (the so-called ‘Takterstickung’, see below). Compare, for example, the following two excerpts:¹³

¹¹ See also Marpurg, *Handbuch*, 21762, p. 222 or, for a more detailed account of the various measure units, Koch, *Versuch*, Vol. II, pp. 366–383.

¹² For a thorough discussion of this practice (‘Gerüstbau’), see particularly Georgiades, *Schubert. Musik und Lyrik*, pp. 70 ff. Carl Dahlhaus devoted much of his article, “Zum Taktbegriff der Wiener Klassik” to a critical discussion of this theory.

¹³ Concerning Mozart, see below, chapter V, fn. 11, concerning Van Maldere, see above, chapter III, fn. 15.

Allegro

Violino I

Violino II
Viola
Basso

6

Ex. 9: Wolfgang Amadeus Mozart, Symphony in D Major, KV 133 (1772), beginning.

21

(vns) (oboes)

(vns) (oboes)

42
(49)

vn1

vn2

vc

Ex. 10: Pierre Van Maldere, Symphony in B-flat Major, Op. 4/3, mm. 21–26 and 42–55.

Van Maldere's movement consists almost exclusively of such brief motifs, whose immediate repetition makes them easily identifiable. Similar passages can be found in many of the early symphonies. Mozart's use of a symmetrical "periodic" first theme for the beginning Allegro of a symphony is actually more unusual.

It was not until late in the century that the theorists began to question the applicability of these rules on symmetry to all musical genres and to realize their true origin in the dance movements. Thus Kirnberger writes (*Kunst des reinen Satzes*, p. 101):

Es giebt Tonsetzer, die eine Schönheit darin suchen, daß sie auf jeden zweyten Takt, oder wol gar auf jeden Takt eine Cadenz anbringen. Wo der Ausdruck des Texts dieses erfordert, da ist nichts dagegen zu erinnern; aber da, wo man gar nicht gebunden ist, wird diese Schreibart sehr bald platt und langweilig. In der Musik muß man wie in der Rede allemal lieber längere, als kürzere Perioden machen, und dieselben nach Beschaffenheit ihrer Länge durch schwächere, halbe und abgebrochene Cadenzen in Abschnitte und Einschnitte eintheilen.

There are composers who look for beauty by setting a cadence at every other measure or even at every measure. If the expression of the text demands this, there is nothing to be said against it; but in those works where one is not bound [by a text], this style very soon becomes insipid and boring. In music, as in speech, it is always preferable to use longer rather than shorter Periods, and to divide them according to their length into longer and shorter phrases ('Abschnitte und Einschnitte') by means of weaker, half and interrupted cadences.¹⁴

Johann Georg Albrechtsberger puts the matter most succinctly in his treatise of 1790, where he clearly identifies "musical rhythm" and "rhythmic music" with Riepel's symmetrical measure-units (*Gründliche Anweisung*, p. 377):

Hier sollte und könnte ich von der rhythmischen Music eine Erklärung machen; da aber der Rhythmus (welcher in der Music aus Einschnitten von gleich vielen Tacten z. B. zwey nach zweyen, drey nach dreyen und vier nach vieren, besteht) nur mehr in National-Stücken, z. B. in Menuetten, Trio, Allemanden, Sarabanden, Gavotten, Curanten, Rigadonen, Giquen, Balletten und Liederchen beobachtet werden muß, so verweise ich meine Leser an Herrn Riepels Lehrbuch, und sage nur: daß der musicalische Rhythmus in langen Stücken, als Arien, Simphonien, Terzetten, Quartetten &c. als Regel, keinen Platz mehr finde: man würde durch dessen Zwang sehr oft der besten Laune und den schönsten Gedanken einen Abbruch verursachen, oder sie gar zernichten.

At this point I should and could give an explanation of rhythmic music; since, however, this rhythm (which consists in music of phrases of equal numbers of measures, e. g. two plus two, three plus three, four plus four) can now be observed only in national pieces, such as Menuets, Trios, Allemandes, Sarabandes, Gavottes, Courantes, Rigadons, Giques, Ballets and little songs, I refer the reader to Riepel's instruction book and say only: that musical rhythm as a rule has no place any more in long works, such as arias, symphonies, tercetts, quartetts, etc.: under its compulsion one would often undermine or even destroy the best humour and the most pleasing ideas.

Koch, in contrast, still adopted Riepel's ideas completely in his *Versuch*, admitting that this series of equal phrases could become tiresome only later in his article on 'Taktordnung' in the *Lexikon* of 1802 (pp. 1490 f. with fn.):

[...] unser Ohr [würde] sehr bald ermüdet werden, wenn die Melodie aus lauter gleichartigen Theilen, z. E. aus lauter Zweyern, Dreyern oder Vierern zusammengesetzt würde.

[...] our ear [would] very soon become weary, if the melody were put together of nothing but 'Zweyer', 'Dreyer', or 'Vierer'.

¹⁴ See also Daube, *Anleitung*, 1797, Vol. I, p. 12 and Sacchi, *Della divisione*, 1770, pp. 46 f.

Es gibt zwar Tonstücke, die diese Folge gleichartiger Theile lieben [...] z. B. die Polonaise, die sich mit der steten Folge von Abschnitten, die immer auf den zweyten Takt fallen, sehr gut verträgt. Dieses ist aber genau genommen weiter nichts, als eine Ausnahme von der Regel. Bey ausgeführten Tonstücken, z. E. in dem ersten Allegro der Sinfonie, oder in der Arie und im Chore würde das Unangenehme und Ermüdende der steten Folge solcher gleichartigen Theile sehr auffallend und widerlich für unser Gefühl werden.

There are, to be sure, musical works which prefer this series of similar phrases [...] for example, the Polonaise, which tolerates very well the continuing succession of phrases which always cadence in the second measure. This is, however, strictly speaking, nothing more than an exception to the rule. For more extensive works, for example, the first Allegro of a symphony, or an aria or chorus, the unpleasant and tiresome effect of a constant series of similar phrases would be very conspicuous and offensive to our taste.

Symmetry and Variety

There were, to be sure, several ways in which variety could be introduced into this scheme, ways which also served to lengthen the melody; and these, too, are first explained by Riepel and later expanded, but not substantially altered, by Koch. The first, and by far the most important, consisted in simple repetition: of a phrase, either immediately or following an intervening segment, or of a cadence (*Anfangsgründe*, Vol. II, p. 57):

Disc. Und dieses zwar nicht nur allein so am Anfange eines musicalischen Stückes, sondern man kann, meines Erachtens durchgehends, wann, wo, wie und so oft man immer will, kurze oder lange Wiederholungen machen [...]

Disc. And this can occur not only at the beginning of a musical work, but you can, in my opinion, make use of short or long repetitions when, where, how and as often as you please [...]

The other means which he illustrates are: expansion, lengthening or shortening of the phrases, doubling of a cadence, and interpolation of measures within the phrase.¹⁵

Koch begins his discussion of the ways of expanding a melody in a similar fashion (*Versuch*, Vol. III, p. 153):

Die unmittelbare Wiederholung eines melodischen Theils, oder eines Gliedes desselben, ist unstreitig dasjenige Verlängerungsmittel der Melodie, dessen man sich unter allen am öftersten bedient.

The immediate repetition of a melodic phrase, or one of its segments, is unquestionably the most frequently found way of expanding a melody.

¹⁵ For further discussion and clarification of these possibilities see Eugene K. Wolf, *The Symphonies of Johann Stamitz*, p. 115.

—an observation which is confirmed many times over in the early symphonies themselves (see Ex. 10 above). From Koch's exhaustive discussion of the many variants and other possibilities we choose only a few summarizing comments.

Repetition (*Versuch*, Vol. III, pp. 174 f.):

Weit öfterer, als die [...] Wiederholung eines einzigen Tactes, oder als die Ausdehnung der Tacttheile zu ungeraden Gliedern, bedient man sich entweder der Wiederholung zweyer Tacte, die einen Einschnitt ausmachen, oder der Wiederholung ganzer vollständiger Sätze.

Ein vollkommener Einschnitt kann jederzeit, ohne Rücksicht auf die Einschnitte der übrigen melodischen Theile des Perioden, sowohl mit, als auch ohne Variation wiederholt werden [...]

Much more often than [...] repeating a single measure or expanding parts of the measure into uneven units, we repeat either two measures which form a segment ('Einschnitt') or an entire phrase.

A complete melodic segment ('Einschnitt') can at any point, without regard for the segments of the remaining parts of the Period, be repeated with or without variation [...]

Doubling or extension of end formulae (*Versuch*, Vol. III, pp. 191 and 194):

Einem Satze, der an sich schon vollständig ist, wird oft noch ein Anhang beygefüget [...] Dieser Anhang findet sowohl bey denjenigen melodischen Theilen statt, die mit einem Absatze schließen, als auch bey denjenigen, die sich mit einer Cadenz endigen. Bey den Absätzen kömmt dadurch eine Vervielfältigung der Absatzformeln auf einem und eben demselben Dreyklange, bey den Schlußsätzen aber eine Vervielfältigung der Cadenzen in eben derselben Tonart zum Vorscheine [...] (p. 191).

Hierbey ist noch zu merken, daß man [...] die Verzierung der Cäsur, oder den Ueberhang derselben, nicht eher die Octave des Grundtones des [...] Dreyklanges erreichen läßt, bis der Satz die höchste Vollständigkeit [...] erreicht hat (p. 194).

Frequently an appendage is attached to a phrase ('Satz') which is already complete in itself [...] This appendage can be found as well in melodic parts which close with a caesura as in those which end with a cadence. In the former there results a duplication of the caesura formulae on one and the same triad, in the latter, that of the cadences in the same key [...]

Here we must remark that [...] the embellishment of the caesura or its extension should not reach the octave of the main tone of [...] the triad until the phrase has been fully completed.

See, for example, the following cadential passage, which contains both repetition and extension:

This, too, can be found in many early symphonies, as in the example by Carl Ditters von Dittersdorf (see mm. 32–35 of Ex. 13, p. 77).

Ex. 12: Joseph Haydn, Symphony in G Major, Hoboken I: 47 (1772),
1st. mvt., transition to reprise, mm. 106 ff.¹⁶

In a footnote to his account Koch stresses the purely mechanical character of these repetitions as a means of lengthening the melody, warning the on-going composer to make sure that they are aesthetically suitable in context and adding suggestions for variation (*Versuch*, Vol. III, pp. 155 f.):

- 1) by increasing or decreasing the dynamics,
- 2) by changing the figures with which the main melodic notes are ornamented,
- 3) by altering the accompanying parts,
- 4) by increasing or decreasing instrumentation,
- 5) by a combination of the above.

Rhythmic Figures and ‘Takterstickung’

Two practices which affect the phrases and their combination need to be further examined, since they occur with great frequency in the symphonies themselves and especially in the Allegro movements. That is, on the one hand, the manifold repetition of a single rhythmic figure, and on the other the so-called ‘Takterstickung’, where a new phrase begins on the final note of the previous phrase. Since both of these tactics frequently interfered with the smooth flow of even-numbered measure-units, they were difficult to reconcile with the main theories

¹⁶ Modern edition by C. G. Stellan Mörner in *Joseph Haydn Werke* I, 6, München 1966.

30

oboi

corni
in re

vn1

vn2

vla

vc

35

Ex. 13: Carl Ditters von Dittersdorf, *Symphony in D Major*, 1st. mvt., mm. 30–39.¹⁷

of symmetry, and were consequently often not mentioned at all. Riepel does, however, refer to repeated rhythmic groupings which he calls 'Clauseln' (*Anfangsgründe*, Vol. I, p. 9):¹⁸

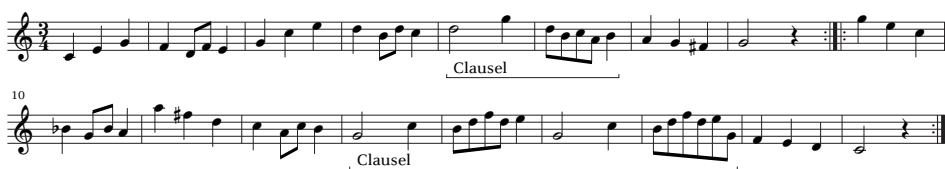
¹⁷ Modern edition by Walter Lebermann, Mainz 1970.

¹⁸ The noun changes its case: either feminine, 'die Clausel', or, sometimes in immediate succession, 'das Clausel'.

Praec. [...] Es kann ja ein sonderlicher Gedanken zuweilen wiederholt werden, oder es kann solchen Gedanken die Wiederholung selbst nachdrücklich und angenehm machen [...] Welche Wiederholung von vielen bald ein schöner, ein spitzfindiger Einfall, ein herziger Gedanke, bald eine gute Clausel, oder wohl gar ein niedliches Clausel pflegt genennt zu werden.

Praec. [...] A special idea can also sometimes be repeated, or repetition itself may make such ideas vigorous and pleasing [...] and this repetition is frequently called an attractive, an ingenious invention, a charming idea, or a good 'Clausel' or even a pretty 'Clausel'.

Repetition is such an integral part of such figures that Riepel refers to the example which he provides as a 'süsse Wiederholungs-Clausel':



Ex. 14: Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst*, Vol. I (1752), p. 9.

Although he here presents the 'Clausel' as a two-measure melodic motif which can be repeated, he later discusses more instrumentally conceived figurations, often 16th notes, giving them the descriptive names 'Rauscher' (repeated 16th notes), 'Lauffer' (runs of 16th notes), 'Springer' (broken chords) or 'Singer' (more melodious forms). These also, to be sure, are illustrated in two-measure groupings in the first volume (pp. 39 f.).¹⁹ Much later, towards the end of Volume IV, he gives the following, more inclusive, explanation (*Anfangsgründe*, Vol. IV, p. 59):

Es wäre Schade, wenn unter andern, z. Ex. eine gute Clausel in einem Stück nicht öfter als einmal zu hören käme [...] Es ist auch ein Unterschied zwischen kurzen und langen Clauseln. Eine kurtze Clausel kann z. Ex. in einem Allegro u. s. f. vielmal mit durchschlupfen und angehört werden [...] Es ist [...] ein Unterschied, nämlich wo, wie, und wann eine Clausel wohl angebracht wird. Zuweilen wird eine Clausel [...] bey einer oder andrer Wiederholung ein wenig geändert. Eine Clausel besteht gemeiniglich selbst

It would be a shame if, for instance, a good 'Clausel' were not to be heard more than once in a piece [...] There is also a difference between short and long 'Clauseln'. A brief 'Clausel' can, for example, in an Allegro movement often slip through and be heard with the rest [...] There is [...] namely, a difference as to where, how and when a 'Clausel' can be properly introduced. Sometimes it can [...] by one or the other repetition, be slightly varied. A 'Clausel' is generally by definition a repetition. It usually consists of

¹⁹ See above, chapter II, Ex. 1.

in einer Wiederholung. Eine Clausel bestehet gemeinlich in zwey Gliedern deren das zweyte fällt, oder steigt, oder dem ersten ganz gleich ist, oder auch ein wenig variiert wird. Auch Rauscher, Lauffer u. s. m. werden oft, so wie eine singende Clausel, gut wiederholt und gleichsam selbst zu Clauseln. Unterweilen hört man in einem Allegro, Adagio, u. s. w. zwey ganz unterschiedene Clauseln. Es mögen einem Componisten dann und wann [...] auch wohl gar drey unterschiedene entwischen; ich dächte aber dießfalls Lieber sparsam zu seyn [...] wovon ich aber die Wiederholungen der Zergliederung des Thema ausnehme.

Whereas this explanation, then, never does differentiate clearly between a two-measure melodic unit and strictly rhythmic configurations, Daube, who assimilates these ideas into his late treatise of 1797, clearly posits the latter as brief motifs which can form the basis of an entire movement (*Anleitung zur Erfindung der Melodie*, Vol. I, pp. 8–11):

Wenn aber eine Melodie aus einem oder zweyen Taktten bestehet, worinnen mehrere Notengeltungen vorkommen; so können diese in gewisse von einander abgesonderte Figuren eingetheilet werden.

Eine Figur ist ein ganz kurzer Gesang: er kann aus zwey Vierteln, drey Achteln oder vier Sechszehnteln bestehen; ingleichen aus einem halben oder ganzen Takt von verschiedener Notengeltung (p. 8).

Durch öftere Wiederholung und Transponirung einer jeden Figur für sich besonders, kann sodann eine solche Melodie von ein oder zwey Taktten, zu einer Melodie von hundert und mehr Taktten anwachsen [...] (p. 9).

two parts, of which the second descends, or ascends, or is the same as the first, or is perhaps slightly different. Similarly, 'Rauscher', 'Lauffer' and so on, are frequently, like the singing 'Clausel', easily repeated and thus become themselves 'Clauseln'. Occasionally one hears two completely different 'Clauseln' in an Allegro or Adagio, or sometimes even three; I would prefer, however, to use them sparingly [...] from which recommendation, however, I except the repetitions of the fragmentation of the theme.

When, however, a melody consists of one or two measures, wherein several different note values occur; then these can be divided into certain 'Figures' which are separated from one another.

A 'Figure' is a very brief melodic motif: it can consist of two quarter notes, three eighth notes or four sixteenth notes; similarly, of a half or a whole measure with varying note values.

By means of frequent repetition and transposition of each figure by itself, then, a melody of one or two measures can be expanded into a melody of a hundred or more measures [...]

Ex. 15: Johann Friedrich Daube, *Anleitung zur Erfindung der Melodie*, Vol. I (1797), p. 9.

Hier sind vierley Figuren, die durch Ziffern angedeutet worden. Und diese sind in den dreyen Anfangs=Takten eingeschlossen. Wenn eine jede Figur durchs Wiederholen und Versetzen verlängert, und in die nächsten verwandten Tonarten geführt wird; – wie lang kann ein solches Stück werden? – Das Singbare, das Rauschende oder Brillante, nebst dem Vermischten ist da (pp. 9 f.).

Es kömmt demnach nur darauf an, einen Gesang von ein zwey oder drey Takten [...] zu erfinden; diese in Stücke oder Figuren zu zertheilen, und eine jede Figur [...] besonders auszuführen, nämlich durch die Wiederholung, Versetzung und Vermischung. – Ist das Stück fertig, dann kann die Melodie noch durch kurze Zierrathen, Vorschläge, Triller, Schleifungen oder Stoßen wieder verändert vielleicht auch verbessert werden (p. 11).

The second practice commonly found in the Allegro movements is that of avoiding clear cadences and thus pauses within a major section by beginning a new phrase on the final note of the previous one. Since this combines two measures, one of the two phrases has lost a measure, and the succession of even-numbered units is disturbed. An explanation thus had to be found.²¹ Riepel considers the final measure of the first phrase to have been suppressed, illustrating the phenomenon with examples from the first movement of a symphony (*Anfangsgründe*, Vol. I, pp. 52 and 55):

Disc. Ich sehe von weiten, daß die Endnote [...] ersticket und anstatt derselben der Anfang [des Satzes] wiederholet ist worden (p. 52).

[An dieser Stelle] habe ich durch die Wiederholung des Anfangs den vierten Tact unsichtbar gemacht [...] (p. 55).

Here are various 'Figures', indicated by numbers. And these are contained in the first three measures.

When each of these 'Figures' is extended through repetition and transposition and is carried over into closely related keys;—how long can such a piece then become? The Lyric, the Rushing or Brilliant is present along with mixed forms.

It is thus simply a question of inventing a melody of two or three measures; of dividing these into motifs or 'Figures' and of developing each of these in a special way, namely through repetition, sequence and combination.—When the work is finished, the Melody can again be varied, perhaps even improved by means of brief embellishments, appoggiaturas, trills, slurs or accents.²⁰

Disc. I see that here the final note [...] has been suppressed and in its place the beginning is repeated [...]

[At this point] I have made the fourth measure invisible through repetition of the beginning [...]

²⁰ Although the specific terms are not employed, this description comes close to the three stages advocated by earlier theorists as the best way to compose a work: invention of the ideas; combination, repetition, etc.; and final ornamentation in performance. See below, chapter VI.

²¹ Georgiades, *Schubert. Musik und Lyrik*, pp. 70 ff., stresses that this overlapping is simply the natural result of the succession of two- or four-measure units which begin on the tonic and end on the dominant (see above, p. 70).

In determining where the first solo section of a concerto should enter after the beginning *ritornello*, i. e. on the final note of the latter or after a pause, the instructor recommends combining the two sections. Although the solo can enter on the upbeat, it is still preferable to overlap, "so that the final note doesn't just lie there dead" (p. 58). In commenting on the example the instructor adds (p. 66):

<p>Muß du nothwendig merken, daß ich [...] die mittlern zwey (End und Anfang) zusammenschweißte, so daß der vierte Tact wegblieb.</p>	<p>Be sure to note that here I [...] welded the two (end and beginning) together, so that the fourth measure was omitted.</p>
---	---

In his *Handbuch* of 1758 Marpurg explains the problem in more detail. Whereas Riepel, however, clearly favored the beginning of the new phrase over the ending of the prior one, Marpurg concludes that the measure in question must be counted twice (Vol. III, p. 222):

<p>Wenn man die Anzahl der Tacte einer gewissen Section oder Clausel in einem Stücke durchzählet: So findet es sich öfters, daß, in Ansehung der verlangten rhythmischen Ordnung, ein Tact zu wenig oder zu viel darinnen zu seyn scheint [...] Dieser vermeinte Defect oder Exceß aber kömmt daher, weil in dem Stücke auf der Cäsar einer gewissen Section ein neuer Rhythmus wieder angehoben worden, wodurch es alsdenn geschieht, daß derjenige Tact, wobey dieser Umstand Statt findet, zweymahl gezählet werden muß, nemlich einmahl als der letzte Tact der vorhergehenden Section, und einmahl als der erste der folgenden. Es wird dieses Verfahren eine Tacterstickung (<i>suppressio mensurae</i>) genennet, und ist solches in Concerten, Trios, besonders aber in ordentlichen Fugen und Kirchenchören sehr gebräuchlich und nothwendig.</p>	<p>When you count the number of measures in a certain section or 'Clausel'²² of a work, you often find that, with respect to the necessary rhythmic arrangement, there appears to be one measure too few or too many [...] This apparent defect or excess, however, results from the fact that somewhere in the piece a new 'Rhythm' began on the Caesura of a certain section, with the result that the measure where this occurs must be counted twice, namely once as the final measure of the preceding section and once as the first of the following one. This procedure is called 'Takterstickung' (<i>suppressio mensurae</i>) and is very common and indeed necessary in Concertos and Trios, but particularly in well-composed fugues and sacred choruses.</p>
--	---

In his *Versuch* Koch, while still favoring the beginning of the new phrase, also adopts the view that the measure should be counted twice (Vol. II, p. 454 and III, p. 356). In his *Lexikon* of 1802, however, he offers a more thorough explanation of the term 'Takterstickung', based on the actual suppression of the final measure of the first phrase (pp. 1486 f.):

²² Note the different meaning of the word here.

Allegro
tr

Oboi
f tr

Corni
Es hoch
f

Corni
Es tief
f *p*

Violino I
f tr *p*

Violino II
f tr *p*

Viola
f *p*

Violoncello e
Basso
f *p*

6 *tr*
f tr *f*

f *f* *f*

f tr *p* *f*

f tr *p* *f*

f *p* *f*

f *p* *f*

Ex. 16: Wolfgang Amadeus Mozart, Symphony in E-flat Major,
KV 132 (1772), beginning.

Takterstickung, oder Taktunterdrückung, ist derjenige Prozeß, vermittelt dessen zwey vollständige melodische Theile oder zwey sogenannte Absätze, bey welchen die Cäsur des ersten und der Anfangston des zweyten Satzes eine und ebendieselbe Harmonie zum Grunde hat, durch Auslassung des Cäsurtaktes des ersten Satzes zusammengeschohen und in die Form eines einzigen Satzes gebracht werden [...] Weil nun auf diese Art der Cäsurtakt des ersten Satzes unterdrückt worden ist, so ist man gewohnt, dieses Verfahren eine Takterstickung zu nennen.

The suppression of a measure ('Takterstickung oder Taktunterdrückung') is that procedure whereby two complete melodic parts or two so-called segments ('Absätze'), in which the caesura of the first and the beginning tone of the second phrase have one and the same harmony as their basis, through omission of the concluding measure of the first phrase are pushed together and formed into a single phrase [...] Since in this manner the cadencing measure of the first phrase has been suppressed, this procedure is called 'Takterstickung'.

Whereas these explanations still rely on the idea of a single "melodic" line built of successive phrases, the reality, as evidenced in Allegro movements of the symphonies, more often consisted in the alternation of groups of instruments and dynamics, as in Ex. 16.²³

²³ For modern edition and further information see below, p. 94 and fn. 11.

