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4 | Metre, phrase structure and manipulations of musical beginnings

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Changing metre

In the eighteenth century the constancy of notated metre was taken for granted by both composers and listeners. Virtually every piece or movement was written with one time signature from the beginning to the end. Exceptions to this rule occur in movements preceded by a slow introduction, which normally differs from the following main part of a movement not only as regards tempo but metre as well. However, within the same notated metre, the composed metre could change. One class of changes consisted in varying the period or phase of a composed metre. The former could be caused by *imbroglio* and hemiolas, the latter by syncopations.[1] In contemporaneous music theory such metric changes were described as 'confusions' (*Verwirrungen*) by Joseph Riepel and 'shifts' (*Rückungen*) by Heinrich Christoph Koch.[2] Because they referred to the mechanism of metric perception, they were accessible to all attentive listeners including less cultivated ones (*Liebhaber*). Another class of eighteenth-century metric manipulations relied upon the theoretical knowledge of the listener and hence could be appreciated only by *Kenner* able to properly interpret cues provided by the composer. Such manipulations involve a change of the level of the metrical hierarchy corresponding with the so-called 'parts of the measure' (*Taktteile*).

The most important cues used by eighteenth-century composers to indicate the metrical level of *Taktteile* are ending formulas represented by *Einschnitte*, *Absätze* and *Kadenze*.[3] As repeatedly emphasized by authors of composition handbooks, caesura notes of these formulas must fall on a strong *Taktteil* (downbeat).[4] Friedrich Wilhelm Marpurg and Koch explicitly refer to the location of caesuras as the criterion that allows one to distinguish between simple and compound metres characterized by the same size of notated measures but different rhythmical values of *Taktteile*. In the late eighteenth century this distinction pertains primarily to two pairs of metres: on the one hand, compound 4/4 (**c**) with crotchet *Taktteil*, versus simple 2/2 or alla breve (**¢**) with minim *Taktteil*; on the other hand, compound 6/8 with quaver *Taktteil*, versus simple 6/8 with dotted-crotchet *Taktteil*. Because

Example 4.1 Riepel, *De Rhythmopoeia*, 52

measures of simple metres contain only one downbeat, in these metres a
caesura can fall only at the beginning of a notated measure. Not so in com-
pound metres. As Koch explains,

> because every measure of a compound [4/4 or 6/8] meter consists of two measures
> of a simple [2/4 or 3/8] meter, it must necessarily contain two strong and also two
> weak *Taktteile*, and hence the caesuras of the resting points of the spirit [*Ruhepuncte
> des Geistes*] in every compound meter must be allowed to fall both on the first and on
> the second half of the measure; and this last [location] is particularly the indication
> which beginners must follow in order to distinguish compound meters from simple
> ones.[5]

From the fact that the level of *Taktteile* is indicated by the metrical location
of the caesura note, it follows that the change of this location makes it possible
to recognize a change of metre between compound and simple. Such changes
occur frequently in the course of eighteenth-century compositions and are
acknowledged by authors of composition handbooks. The earliest examples
of switching between 4/4 and 2/2 in the course of a piece are shown by Riepel.
Although Riepel does not explicitly refer to the location of caesuras, it may be
observed that the *Absatz* of the first melodic section in Example 4.1 falls in the
middle of bar 4, indicating compound 4/4 metre (**c**). The *Kadenz* falling at
the beginning of bar 12 and elided with the subsequent section (*NB*) testifies
to the change from 4/4 to 2/2 metre (**¢**). After the return to 4/4, the *Absatz*
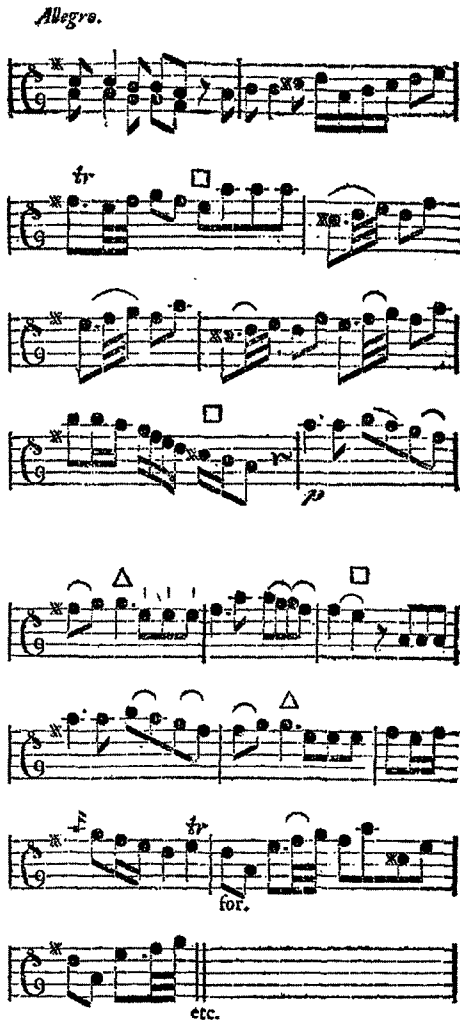
Example 4.2 Koch, *Versuch*, vol. 3 (Leipzig:
Adam Friedrich Böhme, 1793), 224–5

in bar 15 falls again in the middle of the notated measure.[6] Koch mentions
changes of metre occasioned by changes of the metrical level of *Taktteile* as
one type of interpolation (*Parenthese*) consisting in 'the insertion of melodic
sections of a simple meter in a piece composed in a compound meter'.[7] His
example, reproduced above (Example 4.2), also demonstrates a switch from
4/4, indicated by the time signature c, to 2/2. Caesura notes of *Absätze* and
Einschnitte are marked by Koch with squares and triangles respectively. In
bars 1–6, composed in 4/4 metre, *Absätze* fall in the middle of measures. In

the phrase beginning at bar 7, however, *Einschnitte* (triangles) and *Absätze* (squares) occur at the beginnings of bars 8, 10 and 12, with their caesura notes apparently shifted to weak positions by appoggiaturas. In bar 14 the caesura note of the *Kadenz*, falling similarly on the first beat, is elided with the beginning of the subsequent phrase. Elsewhere in his handbook Koch admits that the direction of metrical change can be reversed so that a piece can start in simple metre and change to compound metre.[8] It is worth noting that Koch's objective in discussing this example is not so much to identify metrical change but to explain its consequences for phrase structure. He emphasizes that 'one must be careful not to take sections of an even number of measures for those of uneven number, nor simple meters for compound, nor incomplete segments or incises (*Einschnitte*) for phrases (*Absätze*)'.[9] The same objective stands behind Riepel's example. By means of small and large numerals, he demonstrates that the shift of *Taktteile* from crotchets to minims has consequences for counting measures.[10]

Changes of the metrical level of *Taktteile* discussed by Riepel and Koch have only seldom been recognized by modern scholars. The first to address this issue was Wye J. Allanbrook.[11] According to her, such changes often accompany changes of musical topoi. She demonstrates this in the finale of Mozart's String Quartet in G major, κ387, in which the metre 4/2 should properly be assigned to the opening fugal section, and 2/4 to the swift con-tredanse. The time signature ₵, which Mozart actually uses in the score, lies half way between these extremes and relates to the alla breve metre of the closing idea identified by Allanbrook as a bourrée.[12] More recently, Claudia Maurer Zenck found changes of the metrical level of *Taktteile* in several pieces by Mozart, Beethoven and Schubert.[13] Her most extensive example comes from the opening movement of Mozart's D minor Quartet, κ421, where the principal theme (bars 1–8) is set in 2/2 (₵) and the subsidiary theme (bars 24–32) in 4/4 metre. Although Maurer Zenck does not attempt to identify their topics, the former theme represents what Allanbrook would call 'exalted march' while the latter is an example of 'singing style'. As the author convincingly demonstrates, sophisticated decorations obliterate the location of *Absätze* and *Einschnitte* in the course of the transition section, thereby allowing Mozart to shape a sort of metric modulation parallel to the harmonic modulation between the themes.[14] Common to the examples analysed by Allanbrook and Maurer Zenck is that metrical changes take place between longer sections. In this way metrical changes participate in the articulation of musical form. By contrast, in this essay I discuss changes of the metrical level of *Taktteile* that take place at the very beginning of a given piece or movement, inside its main theme. Such changes have not been

Example 4.3   Haydn, String Quartet in B flat major, Op. 50 No. 1/ii, bars 1–6

investigated until now. My examples come from Haydn and Mozart's chamber music for strings. Because a change of metre entails an adjustment in the counting of measures, every instance is of consequence for phrase structure.

Changes of *Taktteile* in compound measures

Two particularly obvious examples of such changes can be found in slow movements of Haydn's String Quartets in B flat major, Op. 50 No. 1 and in D major Op. 50 No. 6. As in the examples shown by Riepel and Koch, the change of metre between compound and simple can be recognized after the location of caesuras. In Op. 50 No. 1 (Example 4.3), the 6/8 metre is simple at first, with *Einschnitt* and *Absatz* falling, respectively, at the beginning of notated bars 2 and 4. In either case the caesura note is followed by a feminine ending, or overhang (*Überhang*), which reaches to the following weak beat. In bars 5–6 the metre changes to compound 6/8, so that the *Absatz* at the end of the first reprise arrives in the middle of bar 6, after four measures of the composed 3/8 metre. The change of metre makes the theme curiously asymmetrical; yet, in fact, both phrases are four measures long, having been realized at two different metrical scales.[15] A reverse succession of metres takes place in the slow movement of Op. 50 No. 6 (Example 4.4). In the two regular four-bar phrases which make up its theme, the *Absätze – Quintabsatz* on the dominant and *Grundabsatz* on the tonic – fall clearly in the middle of notated bars 2 and 4, indicating compound 6/8. The phrase starting in bar 5, which seems at first to be a repetition of the theme in the higher octave, then takes a different course and reaches the *Quintabsatz* on the downbeat of the notated bar 8, thus after four measures of simple 6/8. The length of two

Example 4.4 Haydn, String Quartet in D major, Op. 50 No. 6/ii, bars 1–10

four-bar phrases in 3/8, notated as compound 6/8 metre, is thus balanced by one phrase in simple 6/8 metre. Even so, the number of measures in these two melodic sections is not equal (8+4). Interestingly, the third phrase is extended beyond the caesura note by means of a two-measure overhang. As will be explained below, Koch considered an overhang of this size to be incorrect. It represents Haydn's further manipulation of the phrase structure beyond the change of metre.

Even more intriguing is the opening movement of the String Quartet in E flat major, Op. 64 No. 6 (Example 4.5). In this example the level of

Example 4.5 Haydn, String Quartet in E flat major, Op. 64 No. 6/i, bars 1–8

Taktteile can be determined by a knowledgeable listener already before the caesura on the basis of another criterion derived from the eighteenth-century principle concerning the articulation of *Taktteile* at the musical surface.[16] This principle, systematically elaborated by Koch, was related to his concept of *Metrum*. According to Koch, the *Metrum* of a given piece is always based on a certain metrical level.[17] This level is normally that of *Taktteile*, although in slow tempo *Metrum* is often based on the lower metrical level of *Taktglieder*. In either case, all beats of the metrical level constitutive of *Metrum* must be consistently articulated by attacks:

When the melody of the main part does not preserve the accepted *Metrum* perceptibly enough or deviates from its movement too much, then either the bass or one of the subsidiary parts present can and must maintain the similarity of this movement.[18]

Because at the beginning of Example 4.5 the lowest metrical level consistently articulated by attacks is represented by minims, these rhythmical values are to be interpreted as *Taktteile* of 2/2 or alla breve metre in compliance with Haydn's time signature, ¢. Metrical interpretation in the compound 4/4 metre (c) is not possible because in bar 1 crotchets are not articulated. When they occur in bar 2 and following, they do so only as *Taktglieder*. But in alla breve, caesuras of *Absätze* and *Kadenze* are allowed to fall exclusively on the beginnings of notated measures. Instead, the *Quintabsatz* occurs in the middle of bar 4, and the same is true of the *Kadenz* in bar 8. What happens here is a sort of metric modulation, which Haydn carries out in the course of the first phrase, and then again in the course of the second phrase, from simple 2/2 to compound 4/4 metre. As a result of this modulation, the

(a)

(b)

Example 4.6 Haydn, String Quartet in B minor, Op. 64 No. 2/i, (a) bars 1–4 (b) recomposition

crotchets are advanced from the initial role of *Taktglieder* to that of *Takt-teile*, and the minims, originally taken for *Taktteile*, turn out to represent the metrical level corresponding with real 2/4 measures (*Takte*) contained in every notated measure of 4/4. The shift of *Taktteile* to a lower metrical level is clearly perceivable not only because of the diminution of rhythmical values at the musical surface but also because of the gradual acceleration of the harmonic rhythm.

Note that articulation by attacks as a criterion for the identification of *Taktteile* in the above example allows for 'metric modulation' only from simple to compound metre. It is not effective for metrical change in the other direction. This is because the level of *Taktteile* in a simple metre is higher than in its equivalent compound metre. If *Taktteile* of the compound metre are articulated consistently by attacks, so are also *Taktteile* of the simple metre. In such cases, interpretation of a given passage in both metres 2/2 or 4/4 is equally possible and the caesura, rather than changing the metre, clarifies it in the first place.[19] In light of these remarks one can better

appreciate the exceptionality of the manipulation accomplished by Haydn in his B minor Quartet, Op. 64 No. 2 (Example 4.6a), in which the first phrase begins in compound 4/4 metre but ends in simple alla breve (2/2). Haydn is able to realize this direction of metric modulation because he takes his cue from the phrase structure. After the opening D, whose function remains at first unclear for the listener, the repeated quaver motive (indicated by the brackets) will be most naturally understood as an imperfect incise. One of the most popular types of four-bar phrase in eighteenth-century compositions starts precisely with a repetition – exact or varied – of an imperfect incise (*unvollkommener Einschnitt*) of one measure followed by a perfect incise (*vollkommener Einschnitt*) of two measures.[20] If this scenario was realized by Haydn, the phrase could likely receive a continuation similar to that shown in Example 4.6b. The size of the incomplete incises allows a knowledgeable listener to determine the metre as 2/4 which can be notated as compound 4/4 in keeping with the time signature ¢ Haydn used in the score.

Yet the actual continuation of the phrase takes a different course and forces the listener to revise his conjecture concerning the metre. The *Quintabsatz* of bar 4, with the appoggiatura falling on the first half of the measure and its resolution reaching to the second half, clearly indicates alla breve metre. Further cues pointing to the change of metre in the course of the phrase are the two minim values in bars 3 and 4, which interrupt the articulation of crotchets as alleged *Taktteile* of the compound ¢ metre. (Note that, in and of themselves, these interruptions would not testify to the change of metre because the articulation of crotchets at the beginning of the phrase does not unequivocally indicate 4/4. Rather, as explained above, it admits of either 2/2 or 4/4.) It is interesting to observe that the articulation of minims was initiated already by the opening D before the articulation of crotchets. Whereas, in the context of the two following incises, they were interpreted as spanning entire measures of the 2/4 metre, in 2/2 metre minims represent the level of *Taktteile* ultimately explained only at the end of the phrase by its *Absatz*. As a further consequence, the change of metre attested to by the *Absatz* clarifies also the role of the opening note D as the actual beginning of a four-bar phrase in 2/2 metre. (The fact that this clarification comes only in retrospect is indicated by left-pointing arrows in Example 4.6a.) The structure of this phrase, highly unusual by eighteenth-century standards, serves the purpose of the metric modulation and therefore can be understood only in that light.[21]

Another peculiarity of this phrase is the change of key from D major, suggested at its beginning, to B minor at the end. Whereas this tonal

Example 4.7 Haydn, String Quartet in B flat major, Op. 55 No. 3/iv, bars 1–8

manipulation has been recognized by many authors writing about Haydn's string quartets, the metrical change from 4/4 to 2/2 apparently escaped their attention. In point of fact, these two manipulations constitute two sides of the same trick executed by Haydn in the opening movement of Op. 64 No. 2, which aims at producing a surprising twist in the expressive character of the theme: from its humorous opening in D major and 2/4 – announcing a thematic idea proper for a quick finale rather than an opening movement – to the grave reflective ending in B minor and 2/2. The moment of this twist can be precisely indicated. It happens with the entrance of the dominant seventh in the middle of the phrase (bars 2/3), which interrupts the realization of the scenario reconstructed in Example 4.6b at once in its metrical and tonal dimension. The effect of this chord is enhanced by the sudden change from solo to tutti and from *piano* to *forte* as well as the drastic interruption of *Metrum*, previously established on the level of quavers as *Taktglieder* of the alleged 2/4 metre.

A particularly complex manipulation takes place in the finale of Haydn's String Quartet in B flat major, Op. 55 No. 3 (Example 4.7). The movement

starts from a typical *Verwirrung* which yields the phase of the metrical struc-
ture shifted in perception by a quaver in comparison with the notated metre.
After the perceived metrical structure is aligned with the notation in bar 2,
Haydn takes advantage of the *Quintabsatz* in bar 4 in order to playfully shift
the level of *Taktteile*. Because this *Absatz* is felt as the closure of a regular
four-bar phrase (*Vierer*) initiated by the D in the middle of the notated bar 2,
it reveals that the 6/8 metre is compound, each of its notated measures com-
prising two real measures of simple 3/8. That the caesura note of this *Absatz*
falls on the first half of the notated measure and not on the second half, as
normally is the case with regular phrases in compound metres, has to do
with the fact that the *Vierer* begins in the middle of bar 2, being preceded
by a huge anacrusis of more than three real measures of 3/8, which is not
counted to its length and whose function remains unclear for the listener at
this stage of his understanding.

This understanding is immediately challenged, however, by the material
following the caesura. Whereas one would expect a single stroke of the
dominant chord in bar 4, this chord is repeated many times and, in the course
of these repetitions, provided with a double appoggiatura which ultimately
resolves to the plain dominant on the second half of the notated measure.
If the real metre were 3/8, this resolution would fall on the subsequent
downbeat after the deleted barline. This means, in turn, that the size of the
material following the caesura would go beyond the limit of one measure
permitted for an overhang. According to Koch,

it is beyond doubt that the caesura of an *Absatz* must fall only on one strong *Taktteil*.
Although the *Absatz* itself can end with a feminine ending, that means, be prolonged
until the weak *Taktteil*, . . . the ending of an *Absatz* can never take two measures, that
is, two strong and two weak *Taktteile*.[22]

The manipulation performed by Haydn corresponds, in fact, to an example
of incorrect notation provided by Koch (Example 4.8a). The conclusion
he draws is that this example is not really in 3/8, but rather in (simple) 6/8
derived from 2/4 through triple subdivision of *Taktteile* into *Taktglieder*, and
its correct notation should appear as in Example 4.8b. The same conclusion
also applies to Haydn, who, however, does not commit a notational mistake.
Although the 3/8 metre, which the listener recognizes at first on the basis
of the caesura, must be corrected to 6/8 in the face of its overhang, the
composer writes the whole passage in 6/8, which provides a comfortable
framework for both metres.

Observe that the caesura falls not only in the fourth bar of 3/8, counting
from the D in bar 2, but also in the fourth bar of the simple 6/8 counted from

fig. 1.

(a)   *Allegro.*

(b)   *fig. 3.*

Example 4.8 Koch, *Versuch*, vol. 2 (a) 320 (b) 324

the beginning of the theme. Because of the revision of metre forced by the overhang, the entire first phrase of the theme turns into a *Vierer* aligned with the notated barlines in the score and incorporating in its structure the initial semiquaver runs. (As in the previous example, the retrospective character of this recognition is indicated by leftward-pointing arrows.) From this point of view it is a true stroke of genius which, in the end, brings all the puzzles of this peculiar beginning into a logical pattern. Again, as in Op. 64 No. 2, the complexity of this pattern reflects the complexity of the process through which the phrase comes into being. But this is not yet the end of Haydn's play with the listener's expectations. The final stage of this game takes place during the repetition of the phrase in bars 5–8. Because this time the phrase ends not with the *Quintabsatz* but with a *Kadenz*, it includes one more chord – the tonic – which falls in the middle of bar 8, in this way unequivocally attesting to 3/8 metre notated in compound 6/8. Simple 6/8 does not arise here at all. The entire second phrase, starting with the D in bar 6, is five bars long (*Fünfer*), and is preceded by an eccentric three-bar anacrusis which does not count in its length.

Changes of *Taktteile* in double measures

In all the examples analysed thus far, the metre characterized by the smaller rhythmical value of *Taktteile* is notated in compound measures of 4/4 (**c**) or 6/8. Because the size of such measures is identical with that of equivalent simple metres characterized by larger *Taktteile*, switches from one of them to the other do not change the location of bar lines. Metric notation is correct in either case. Yet changes of the metrical level of *Taktteile* can also take place in pieces in which the metre characterized by the smaller rhythmical value of *Taktteile* is notated as simple, for instance 2/4 or 3/8. Such changes result in switches between 2/4 and 2/2 or 3/8 and 6/8. Because the size of notated measures in every pair of metres is different, each measure of the 'larger' metre must be notated as two measures of the 'smaller' metre. This type of notation, labelled by Maurer Zenck as 'double measures' (*Doppeltakte*),[23] was considered incorrect by theorists of the time. Riepel points out that it is a mistake to notate 6/8 as 3/8 or 2/2 as 2/4.[24] Koch subjects double measures to an extended critique in many passages of his treatise. The primary reason for his critique is that this notation misrepresents the relationship of strong and weak beats and in this way contradicts the nature of metre. It does so because 'both main parts of each measure, thesis and arsis, are separated from each other by the barline and occur in the outer form of two bars'.[25] What can be seen between two barlines on the score of such incorrectly notated pieces is not a measure (*Takt*) but only *Taktteil* of the composed metre. Yet, when every *Taktteil* is notated as *Takt*, all beats are downbeats and the differences between them are eliminated. As a further consequence, the notation in double measures misrepresents the phrase structure. Because the caesura note of *Kadenz* or *Absatz* indicates the last measure of the phrase, a regular four-bar phrase, such as that in Example 4.9a, appears irregular in this notation, its length being expressed in an uneven number of measures. Koch illustrates this in Example 4.9b. In order to achieve a four-measure phrase, it is necessary to notate the weak beat of the fourth measure as a quaver bar following the caesura. While not to be counted in the preceding phrase, this bar does not yet start a new phrase. In the melody it is thus either empty or, as in Example 4.9a, filled with an incorrect overhang exceeding the length of one bar.

    The phenomena of the empty bar and incorrect overhang can serve as indicators of double measures in eighteenth-century compositions. They are related to the criterion of caesura because an empty bar or incorrect overhang always arises as a result of the location of the caesura note of the *Kadenz* or *Absatz* in the preceding notated measure. Referring to this criterion, Maurer

Example 4.9 Koch, *Versuch*, vol. 2, 398, (a) Figure 13 (b)
Figure 14

Zenck finds double measures in numerous pieces by Mozart and Beethoven. Even if, for Koch, notation in double measures is always a mistake – 'a mistake which one encounters almost daily in modern compositions, and which is promoted by the tyranny of habit, but which remains a mistake, whether committed by a beginner or by an already trained composer'[26] – it certainly does not occur by mistake in the pieces of masters. Observe that Koch's examples of double measures concern exclusively an improper use of time signatures 2/4 for alla breve and 3/8 for simple 6/8 metre. In either case, the time signature of the composed metre was available and could be used in the properly rewritten versions of such examples. Instead, the double measures identified by Maurer Zenck result from the use of old metres whose time signatures had already been dropped from the notational conventions of the late eighteenth century. They occur mostly in minuets and scherzos, which are often composed in 6/4, although notated in 3/4. In certain cases composed 6/4 and 3/4 metres alternate, resulting in changes of the level of *Taktteile* between the crotchet and the dotted minim.

Two particularly curious examples of such changes, not discussed by Maurer Zenck, can be found in minuets from Mozart's String Quintets к515 (Example 4.10) and к614 (Example 4.11). In к515 the caesura arrives with the dominant at the beginning of bar 3, although the accompaniment enters only one crotchet later. The tonic occurring on the last beat of bar 3 forms an auxiliary chord within the prolongation of the dominant. According to Koch, such auxiliary chords are introduced 'for more harmonic variety' and

Example 4.10 Mozart, String Quintet in C major, κ515/iii, bars 1–10

result in an 'improper' harmonization of ending formulas.[27] In his example (quoted in Example 4.12), the structural tonic of the *Grundabsatz* is varied by means of the auxiliary dominant. The squares indicate that the position of the caesura remains unchanged. In Example 4.10 the auxiliary tonic arises from an improper harmonization of the melodic tone E in the overhang following the structural dominant. The incorrect size of this overhang, reaching over the barline to bar 4, betrays the fact that the composed metre is 6/4. An analogous situation can be observed in κ614 (Example 4.11). There too, the caesura arrives in bar 3 and is followed by an overhang reaching to bar 4. The prolongation of the dominant is even more evident due to the ties in the middle voices. Because these voices do not move, the Eb played by the second viola – corresponding with the C of the cello in Example 4.10 – does not result in an improper harmonization but merely constitutes an auxiliary note in the bass. In both examples the 6/4 metre subsequently changes to 3/4. In Example 4.10 this is evidenced by the *Kadenz* in bar 10, closing the regular four-bar phrase initiated in bar 7. (If the 6/4 metre continued until the end of the first reprise, the caesura note of this *Kadenz* would fall incorrectly in the middle of a composed measure.) Similarly, in Example 4.11 the 3/4 metre is confirmed by the *Kadenz* in bar 12.

As a result of the metrical change, the phrase structure becomes highly complicated. In both examples the first four notated measures are to be

Example 4.11 Mozart, String Quintet in E flat major, K614/iii, bars 1–12

understood as a perfect incise in the composed 6/4 metre. However, in both
of them the listener achieves this understanding in retrospect. On the one
hand, the 6/4 metre is explained only at the end of the incise by its caesura. In
this way the caesura determines the size of composed measures to be counted
by the listener. On the other hand, it determines the moment when counting
should start. Because it arrives at the end of the incise as its second measure,
it renders the foregoing passage in parallel thirds as the first measure, even
if the listener would have originally been inclined to hear an unaccompa-
nied melody as an 'elongated upbeat' or anacrusis, such as that seen earlier

(a)

(b)

Example 4.12 Koch, *Versuch*, vol. 2, 400

in Example 4.7, which does not count in the length of the phrase.[28] The understanding of the first melodic section, achieved at the caesura, guides the listener's interpretation of the melodic section after the caesura. Since in both examples this section begins in an analogous way, the listener will count it analogously by taking bars 5–6 for the first measure of a new incise. Yet this interpretation must be revised in light of the different continuation containing the change of metre. The revision concerns not only the size of measures but also the identification of measures to be counted as first. In K515 the notated bars 5–6, containing the unaccompanied melody, turn out to be an elongated upbeat to a regular *Vierer* in 3/4 started at bar 7, and hence not to be counted as part of its length. The introductory function of this melody, belied in the first instance, is thus confirmed in the second. In this way Mozart dupes his listener twice by means of one and the same musical device. He plays out this trick once again in K614, with the sole difference that the structure of the following phrase (bars 7–12) is more complicated due to the internal repetition of bars 7–8 in bars 9–10. Although the phrase is six bars long, the repetition determines that it is not a *Sechser* but rather an expanded *Vierer*. Repetitions were a standard means of phrase expansion in the eighteenth century and expanded phrases (*erweiterter Sätze*)

starting with repeated perfect incises of two measures were most common of all. Koch's statement that 'such a four-measure phrase, which has been extended to six measures by the repetition of two, is always considered as a four-measure unit with respect to the rhythmic relations of phrases'[29] implies that the repeated measures are supposed to be counted by the listener with repeated numerals. This is why, in Example 4.11, bars 9–10 are numbered once again as the first and the second.

Change of *Taktteile* and perceptual factors

It is worth noting that, in the minuets from K515 and K614, the change of metre from 6/4 to 3/4 is signalled to the listener already before the caesura by the change of the harmonic rhythm. In K515 the acceleration of the harmonic rhythm takes place from bar 7, in K614 from bar 10. In both examples the effect of the metrical change is confirmed by caesuras, but not produced by them. A similar observation can be made in reference to the earlier examples. In all of them changes of metre are accompanied by changes of the harmonic rhythm. In some of them the changes are additionally enhanced by other factors including prevalent rhythmical values, the size of melodic sections, and the lowest metrical level consistently articulated by attacks (Koch's level of *Metrum*). Although these factors do not represent absolutely reliable criteria for the identification of *Taktteile*, and their changes often take place without any metrical changes, they are indispensable if metrical changes are to be perceived by the listener rather than merely recognized.[30] Furthermore, perceptual factors play an important role in indicating changes of *Taktteile* in the course of phrases that do not display any subdivision into incises or in which such a subdivision is not unequivocal. The position of *Absätze* at the end of such phrases does not necessarily determine the metre at the beginning if this metre is not confirmed by an earlier *Einschnitt*.

That it is not always possible to unequivocally identify *Einschnitte* in the course of phrases has to do with two different problems. The first is related to decorations of ending formulas, which may obliterate the position of caesuras. While these decorations, divided by Koch into appoggiaturas, overhangs and lead-ins,[31] are unproblematic insofar as the harmonic goal is achieved in a straightforward way, they may cause problems when receiving an 'improper' harmonization. Since Koch offers no criteria to distinguish chords resulting from an improper harmonization and prolonging the harmonic goal of a given melodic section from structural chords preceding

Example 4.13 Koch, *Versuch*, vol. 2, 408

such a goal, in certain cases the position of the caesura is not easily determined. While this problem is less evident in Example 4.12 – which shows an improper harmonization of an overhang – because of its triple metre, it becomes critically important in another example, kept in duple metre, with which Koch illustrates an improper harmonization of an appoggiatura (Example 4.13). As observed by Maurer Zenck, if the size of measures and rhythmical values in this example were doubled, it would be difficult to decide whether it illustrates an improper harmonization of an appoggiatura in simple 2/2 or, rather, an undecorated caesura in compound 4/4 metre.[32] The second problem concerning the identification of *Einschnitte* is that such caesuras, or 'resting points of the spirit' (*Ruhepunkte des Geistes*), are marked by several different formulas which can otherwise occur in the course of melodic sections without any closing effect. As Koch remarks,

the ending formulas of these sections are so various and can be formed in such manifold ways that it would be very questionable to decide, by means of these figures, where resting points are present in the melody; not to mention that such figures in the melody also can be used where there is no resting point. In short, nothing concrete can determine the places where they are in the melody.[33]

Both problems are illustrated in Example 4.14 from the minuet of Haydn's String Quartet in E flat major, Op. 64 No. 6. The *Absatz*, falling in bar 6, indicates that the metre at the end of the first phrase is 3/4. But what is the metre at the beginning? If the answer to this question were to be given on the basis of a caesura occurring earlier in the course of the phrase, it would not

Example 4.14 Haydn, String Quartet in E flat major, Op. 64 No. 6/iii, bars 1–14

be unequivocal. Is there any caesura here at all? And if so, does it fall in bar 3 or 4? Theoretically, both interpretations are possible. Provided the caesura is achieved with the subdominant in bar 4, the metre is 3/4 throughout the phrase and the chord of bar 3 has a structural function of an applied dominant. In this case, however, the caesura does not represent an *Einschnitt* but an *Absatz*. This is because, by arriving in the fourth measure, it closes a four-measure phrase.[34] The two following measures (bars 5–6) are to be taken for an appendix (*Anhang*) closed with another *Absatz* on the tonic. Although not quite common, appendices closing on a different harmony than the proper phrase are discussed by Koch as an available compositional option.[35] Yet it is also possible to interpret the first four notated measures as a perfect incise in 6/4. In this interpretation the caesura falls in bar 3 and is decorated by an appoggiatura which delays the proper caesura note C to bar 4. The chord in bar 3 is auxiliary, resulting from an 'improper harmonization' of the appoggiatura note B in the melody accompanied by another appoggiatura G in the bass. The evidence for the auxiliary status of this chord – arising from the superposition of two appoggiaturas within the underlying subdominant harmony – is the common tone Eb in the middle

Example 4.15 Haydn, String Quartet in F major, Op. 50 No. 5/iv, bars 1–12

voice (bars 3–4). Of these two theoretically possible interpretations, only the latter is supported by perceptual factors. Between bars 4 and 5 of the first phrase the harmonic rhythm, the rate of bass attacks, and the shortest rhythmical values in the melody all shift downward in the metrical hierarchy. This clearly suggests a switch from 6/4, notated in double measures, to 3/4 metre. The same switch happens in the second phrase between bars 10 and 11, even if not marked by any caesura. As a result, both phrases are asymmetrical (4+2) and have an irregular length of six measures. If the change of metre is taken into account, however, each of them counts as four measures long.

Another example of a perceived metrical change not unequivocally endorsed by a caesura occurs in the finale of Op. 50 No. 5 (Example 4.15). At the beginning of the theme every composed measure embraces two notated measures, each of them filled with a homogeneous motivic substance. This suggests that the metre is 12/8 as a tripled version of alla breve.[36] Even in this composed metre, harmonic changes are very slow because they take place only every second bar. In the notation, one harmony covers four measures, which make up a perfect incise. Although this incise is clearly separated from the next one, the location of the caesura is not clear because

Example 4.16 Haydn, String Quartet in E flat major, Op. 50 No. 3/iv, bars 1–12

no harmonic changes take place within the incises. The harmonic rhythm is drastically accelerated in bars 9–12, where harmony changes with every notated measure. At the same time the size of melodic units is reduced to one measure. The unit of bars 1–2, which formed half of the perfect incise in 12/8, corresponds to twice the shorter unit of bar 9 as an imperfect incise in 6/8. This last metre, reflected in notation, is ultimately confirmed by the caesura in bar 12. Again, the change of metre in the course of the phrase results in its irregular length of twelve measures and in the asymmetry of its component elements (8+4) apparent in the notation. If the change of metre is considered, the phrase turns out to be eight measures long and perfectly symmetrical, containing four measures of 12/8 and four measures of 6/8.

It is precisely the outer irregularity and asymmetry of phrase structure that most eloquently speaks for the change of metre in the two above examples. When phrase structure is regular, the change of *Taktteile* may be less evident. For example, consider the theme of the finale of Op. 50 No. 3, shown in Example 4.16. At the beginning of the theme (bars 1–4) one harmony covers two notated measures and delineates the size of incises, thus suggesting double measures. This suggestion is confirmed by the *Absatz* which falls in bar 11 but reaches over the bar line to bar 12 containing the resolution of the

appoggiatura. This means that the phrase starts and ends in 2/2 metre. But does it stay in this metre the whole time? From bar 5 on harmony changes every notated bar, and the size of motives, indicated by slurs, is contracted accordingly. This might suggest a switch to 2/4, the metre Haydn indicates in the time signature. Even so, this change does not cause any outer asymmetry. One perfect incise in 2/4 (bars 5–6) equals the length of one imperfect incise in 2/2 (bars 1–2). Together with its repetition in bars 7–8, it takes the same amount of time as the repetition of the imperfect incise of bars 1–2 in bars 3–4. But a reading of bars 5–8 in 2/2 metre is possible as well, since the caesuras in bars 5 and 7 are not unequivocal. If the only caesuras fall in bars 6 and 8, the melodic units of bars 5–6 and 7–8 can be considered as imperfect incises in 2/2.[37] The acceleration of harmonic rhythm is in itself no firm proof of a metrical change. It acquires greater weight from bar 9, where the harmonic rhythm is even more accelerated. Although one might not be inclined to assume that the metre changes twice in the course of this phrase from 2/2 to 2/4 and from 2/4 to 2/8 – in the late eighteenth century this last metre is 'not in use' even according to the conservative Kirnberger[38] – at least one change from 2/2 to 2/4 is likely to have taken place because the harmonic rhythm in bars 9–10 is uncharacteristically fast for alla breve.

Playing with metre

The manipulations of metre and phrase structure analysed in this essay stand out in the repertory of late eighteenth-century music as examples of the highest sophistication. The most obvious difference between them and the metrical changes in κ387 and κ421, discussed by Allanbrook and Maurer Zenck, is that they serve a different purpose. Rather than enhancing the articulation of the formal structure, they obscure this structure by yielding asymmetrical or otherwise hybrid phrases.

Furthermore, metrical changes observed in these examples display no consistent correlation with changes of topics. The only example in which such correlation can be clearly observed is Op. 64 No. 2 (Example 4.6), where the change from 2/4 and D major to 2/2 and B minor results in a twist from contredanse to 'exalted march'. The change of metre and key is thus semanticized, inviting the listener to develop expressive associations along the lines of eighteenth-century conventions. Even so, after the light-hearted contredanse, the 'exalted march' does not really evoke an exalted expression, as it otherwise would, if firmly assigned to an entire theme or section. Rather, it appears like a buffoon in eighteenth-century opera, whose

exaggerated seriousness is one aspect of his overall clownery. Somewhat less definite semanticization of the metrical change takes place in the example from the first movement of Op. 64 No. 6 (Example 4.5). The white-note rhythm and the chordal texture in 2/2 suggest a chorale, whereas short chords and dotted rhythms in 4/4 arouse associations with the march. In the slow movements of Op. 50 No. 1 (Example 4.3) and Op. 50 No. 6 (Example 4.4) the original topic of siciliano is dissolved after the change of metre, when its characteristic accompaniment and rhythm disappear.[39] In other examples the original topic does *not* seem to change. In the finales of Op. 55 No. 3 (Example 4.7) and Op. 50 No. 3 (Example 4.16) it can be identified as a quick contredanse in, respectively, triple and duple metre; in Op. 50 No. 5 (Example 4.15) it is a tarantella. In the minuets of κ515 (Example 4.10), κ614 (Example 4.11) and Op. 64 No. 6 (Example 4.14) the topic is determined by the movement type.[40] In these last examples the introduction of the church style, customarily associated with 6/4 as tripled alla breve, is not only not observed but would even be improper. The composer's main aim lies apparently in playing with metre by shifting the gear of *Taktteile*.

The fact that changes of metre do not always go together with changes of topics testifies to the new status of metre in the late eighteenth century. In the *Affektenlehre* of the early part of the century, every metre was ascribed a unique affect, which belonged to its very nature and defined its expressive quality by association with a specific musical genre or style.[41] The high or low status of an affect was indicated by the rhythmical values of *Taktteile*. Consequently, changes of the metrical level of *Taktteile* resulted in changes of *Affekte*. Toward the end of the eighteenth century these associations between metres and *Affekte* are progressively dissolved. To be sure, they continue to be described by conservative theorists, most notably by Kirnberger, and form an important part of the musical tradition, yet they are increasingly ignored by composers. As a result of this process – observed with disapproval by some eighteenth-century authors, with sympathy by others – metre emerges gradually as an independent dimension of musical compositions orthogonal to expression.[42] This new status of metre is reflected in Koch's writings. For Koch the rhythmical values of *Taktteile* do not matter because metre is nothing more than a grid ordering the temporal course of a piece.[43] Clearly, topics are determined not only by metre but, above all, by the character of musical material. If this character does not change, the play with metre remains a purely intellectual exercise appealing to the listener's abstract sense of humour rather than to his expressive associations. Indeed, as suggested in the course of the analyses, the above examples represent complex games between composers and listeners played upon the compositional rules of the time.

To be sure, these games are not limited to metrical tricks at the beginnings of movements. Charles Rosen's general remark about the beginnings of Haydn's compositions, that 'they express an immediate conflict, and the full play and resolution of the conflict is the work',[44] proves particularly illuminating in reference to beginnings containing a conflict of metres. Such metrical manipulations are never left without consequences by the composers (not only by Haydn, for that matter, but also by Mozart, even if this last introduces them far more seldom). Rather, they form announcements of more or less elaborated metrical strategies realized throughout the rest of the movements, during which the same conflict is usually exposed more clearly. While the analysis of the further course of strategies announced by the earlier analysed examples goes beyond the scope of this essay, one general observation concerning such an undertaking may be made: although metrical strategies can be analysed for their own sake, they are not isolated from other aspects of eighteenth-century compositions but bear some relation to the musical form on the one hand and its topical decorum on the other. To disclose the nature of this relation is vital for their understanding.

Notes

1 In the recent theory of metrical dissonance by Harald Krebs, *Fantasy Pieces: Metrical Dissonance in the Music of Robert Schumann* (New York: Oxford University Press, 1999), these phenomena are called, respectively, 'grouping dissonance' and 'displacement dissonance'. The connection between metrical dissonance and the eighteenth-century concept of *imbroglio* was drawn by Floyd K. Grave, 'Metrical Dissonance in Haydn', *Journal of Musicology* 13 (1995), 168–202. The term 'hemiola' did not exist in the late eighteenth century.

2 Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst*, 5 vols., vol. 1: *De Rhythmopoeia oder von der Tactordnung* (Regensburg and Vienna: Emerich Felix Bader, 1752); Heinrich Christoph Koch, *Musikalisches Lexikon* (Frankfurt-am-Main: August Hermann der Jüngere, 1802; reprinted Hildesheim: Olms, 1964).

3 Although equivalent English terms exist, in this essay I retain the original German terms for ending formulas. It is worth noting that, in eighteenth-century German terminology, an ending formula and a section closed with such a formula are denoted by the same word. *Absatz* refers to an internal phrase and its ending. *Einschnitt* or incise denotes a component part of a phrase and its ending formula. *Kadenz* is an ending formula of a closing phrase (*Schlusssatz*) and hence of an entire period (*Periode*).

4 This rule is exposed, among others, in Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg: Herold, 1739); Riepel, *De Rhythmopoeia*; Friedrich Wilhelm Marpurg, *Kritische Briefe über die Tonkunst*, 2 vols. (Berlin: Friedrich

Wilhelm Birnstiel, 1759–1764; reprinted Hildesheim: Olms, 1974); Johann Philipp Kirnberger, *Die Kunst des reinen Satzes*, vol. 2 part 1 (Berlin and Königsberg: Decker und Hartung, 1776); included in Kirnberger, *The Art of Strict Musical Composition*, trans. David Beach and Jurgen Thym (New Haven: Yale University Press, 1982); Heinrich Christoph Koch, *Versuch einer Anleitung zur Composition*, vol. 2 (Leipzig: Adam Friedrich Böhme, 1787; reprinted Hildesheim: Olms, 1969); partly included in Koch, *Introductory Essay on Composition*, trans. Nancy Kovaleff Baker (New Haven: Yale University Press, 1983). The term *Taktteile*, as well as *Taktglieder*, referring to subdivisions of *Taktteile*, is characteristic of Marpurg and Koch. Other eighteenth-century authors refer to *Taktteile* with a number of equivalent terms such as *Zeiten*, *Zahlzeiten*, *Hauptzeiten* or *Schläge*. For the sake of uniformity, throughout this chapter I follow Koch's terminology. This also concerns terminology related to melodic sections and ending formulas, discussed in the previous note.

5 Koch, *Versuch*, vol. 2, 333. In this passage Koch retraces the argument used earlier by Marpurg, *Kritische Briefe*, vol. 1, 108.

6 A longer example of a similar phenomenon follows on pages 53–4 of Riepel's treatise. Locations of caesuras in sections of 4/4 and 2/2 metre correspond to those in Example 4.1.

7 Koch, *Introductory Essay*, 162–3.

8 Ibid., 19.

9 Ibid., 162.

10 While Riepel and Koch describe the counting of measures by the composer, I deal, instead, with the counting of measures by listeners. In the late eighteenth century this issue was addressed only by Kirnberger, *Art*, 408: 'Just as the ear soon perceives the meter (*Takt*) in every composition and wants it to be retained for the entire piece, the ear is also soon influenced by the rhythmic organization (*Rhythmus*) and is always inclined to count the same number of measures for each phrase (*Einschnitt*); it is actually somewhat offended if this uniformity is broken.' The fact that Kirnberger writes about 'the ear', not about 'the listener', suggests that he takes the mechanism of counting to be unconscious. Even so, metric manipulations described below do involve consciousness since they refer to the theoretical knowledge of the listener.

11 Wye J. Allanbrook, *Rhythmic Gesture in Mozart: Le Nozze di Figaro and Don Giovanni* (Chicago: University of Chicago Press, 1983).

12 Allanbrook, *Rhythmic Gesture*, 24–5. The state of affairs described by Allanbrook is more complicated than it might seem from this short summary due to the fact that individual time signatures should be realized in different tempos.

13 Claudia Maurer Zenck, *Vom Takt: Überlegungen zur Theorie und kompositorischen Praxis im ausgehenden 18. und beginnenden 19. Jahrhundert* (Vienna: Böhlau, 2001).

14 Maurer Zenck, *Vom Takt*, 251–3.

15 William Caplin, in *Classical Form: A Theory of Formal Functions for the Instru-
mental Music of Haydn, Mozart, and Beethoven* (New York: Oxford University
Press), 48, interprets it as an example of what he calls 'compression of the con-
tinuation phrase'. More properly, one should speak here about *compression of
measures* in the continuation phrase.

16 This principle is already implied by Riepel. As he emphasizes, *De Rhythmopoeia*,
17, 'in music motion must be continuously heard, that is, when one or two
voices rest, the others must move' ('in der Musik muss stehts eine Bewegung
vernommen werden, das ist: wenn eine oder zwei Stimmen ruhen, so müssen
sich die übrige rühren'). In examples with which Riepel illustrates his remark
the regular motion takes place on the metrical level corresponding either with
Taktteile or *Taktglieder*. Because the latter are subdivisions of the former, all
Taktteile are articulated by attacks in either case.

17 In the eighteenth century *Metrum* was traditionally related to poetic feet (*Füsse*)
and their musical equivalents (*Klangfüsse*). Continuity of *Metrum* was consid-
ered necessary to secure the aesthetic unity of a composition. Koch follows this
tradition but reinterprets the idea of continuity. Rather than *repetitions* of a
given foot, he describes it as a consistent articulation of a given metrical level.

18 Koch, *Introductory Essay*, 70. I have amended the translation by retaining the
original term *Metrum*, which Nancy Kovaleff Baker renders as 'metre', thus
blurring the distinction drawn between *Metrum* and *Takt* in eighteenth-century
German music theory.

19 This is confirmed by Koch, *Versuch*, vol. 2, 294, who shows an example contain-
ing four crotchets in every notated measure. In the commentary he points out
that these rhythmical values can be interpreted either as *Taktteile* of compound
4/4 metre or as *Taktglieder* of simple 2/2 metre.

20 See Koch, *Introductory Essay*, 14. Kovaleff Baker translates *vollkommener Ein-
schnitt* as 'complete incise'. This translation is not only linguistically imprecise
but it also obliterates the fact that, for Koch, all incises are by definition incom-
plete (*unvollständig*).

21 This is why the otherwise valuable analysis by William Rothstein, *Phrase Rhythm
in Tonal Music* (New York: Schirmer Books, 1989), 170, remains incomplete.

22 Koch, *Versuch*, vol. 2, 305–6.

23 Maurer Zenck, *Vom Takt*, 43–4.

24 Joseph Riepel, *Anfangsgründe zur musicalischen Setzkunst*, vol. 4: *Erläuterung
der betrüglichen Tonordnung* (Augsburg: Johann Jacob Lotter, 1765), 77–8. In
De Rhythmopoeia, 66, Riepel shows a passage in alla breve notated in 2/4 without
any critical commentary.

25 Koch, *Versuch*, vol. 2, 302.

26 Ibid., 319.

27 Koch, *Introductory Essay*, 28.

28 The term 'elongated upbeat' was introduced by Rothstein, *Phrase Rhythm*, 39–
40. In his example from the trio of the minuet from Mozart's String Quartet

in D major, K575, the elongated upbeat is represented by an unaccompanied melody played by two violins. In the minuets of K515 and K614 the situation is further complicated by the fact that the melody offers no perceptual cues that would allow the listener to infer the grouping of crotchets. Also this grouping must be inferred in retrospect on the basis of the following caesura.

29 Koch, *Introductory Essay*, 43.

30 In terms of Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music* (Cambridge, MA: The MIT Press, 1983), perceived changes of metre resulting from changes of the metrical level of *Taktteile* can be described as changes of tactus.

31 Koch, *Introductory Essay*, 19–34.

32 See Maurer Zenck, *Vom Takt*, 187. Koch's example is problematic because the dominant chord is introduced for the first time only on the downbeat. In most examples from the musical literature, the dominant used for the 'improper harmonization' of a *Grundabsatz* is reached already on the upbeat of the preceding bar and repeated on the subsequent downbeat. Because such a repetition was otherwise prohibited in the *Harmonielehre* of the time – see, for instance, Kirnberger, *Art*, 307 – it indicates clearly that the second dominant counts as a harmonic appoggiatura to the tonic.

33 Koch, *Introductory Essay*, 4.

34 In Koch's theory the distinction between incises (*Einschnitte*) and phrases (*Sätze*) is based upon length. A given melodic section is a phrase if it is at least four measures long. (But length alone does not suffice to determine a phrase's completeness. While most phrases are complete melodic sections, a phrase can be incomplete if, for instance, it closes with a dissonant sonority. I am grateful to William Rothstein for a thorough critical discussion of this aspect of Koch's theory.) Although caesuras of phrases (*Absätze*) are made usually on the dominant (*Quintabsatz*) or the tonic (*Grundabsatz*), phrases ending on the subdominant are not entirely uncommon. See Koch, *Introductory Essay*, 36.

35 See ibid., 47–8.

36 Triple subdivision applies here not to *Taktteile* but to *Taktglieder* of the alla breve metre. The resulting 12/8 metre was not known in eighteenth-century theory. For Koch, 12/8 is always a compound metre derived from 4/4. Riepel speaks, likewise, about 12/8 as tripled *gemeiner Takt* (4/4). Nevertheless, simple 12/8 derived from 2/2 occurs frequently in eighteenth-century compositions. Compare the discussion of Beethoven's 'Appassionata' by Maurer Zenck, *Vom Takt*, 47–8.

37 These caesuras are secured by repetition. As observed independently by Maury Yeston, *The Stratification of Musical Rhythm* (New Haven: Yale University Press, 1976), 15, and Wolfgang Budday, *Grundlagen musikalischer Formen der Wiener Klassik: An Hand der zeitgenössischen Theorie von Joseph Riepel und Heinrich Christoph Koch dargestellt an Menuetten und Sonatensätzen (1750–1790)* (Kassel: Bärenreiter, 1983), 37, repetitions unequivocally delineate the size of melodic

units even in the absence of pauses or longer rhythmical values, which otherwise make caesuras more noticeable.

38 Kirnberger, *Art*, 387.

39 Apparently, siciliano could be either in simple or in compound 6/8 metre. Accents to be observed in Examples 4.3 and 4.4 seem characteristic of this topic. Compare the theme of the first movement of κ331, in compound 6/8 metre, analysed by Wye Allanbrook elsewhere in this volume. Allanbrook offers a more specific explanation of the function performed by the two *sf* in bars 4 and 7.

40 Leonard Ratner, in *Classic Music: Expression, Form, and Style* (New York: Schirmer Books, 1980), 9, defines types as topics that 'appear as fully worked-out pieces'.

41 For a useful survey, see Allanbrook, *Rhythmic Gesture*, 13–23.

42 Directly related to *Affekte* was the manner of execution and the tempo proper for a given metre: the so-called *tempo giusto*. For more information about the tradition of *tempo giusto* and its gradual dissolution in the course of the eighteenth century, see Maurer Zenck, *Vom Takt*, 14–16.

43 See Koch, *Versuch*, vol. 2, 291–3, 311–13.

44 Charles Rosen, *The Classical Style: Haydn, Mozart, Beethoven* (New York: Norton, 1971), 120.