

Beethoven's Theme of the Slow Movement of Piano Sonata Op. 13: Phrasing, Functional Cycles, Metre and Dramaturgy

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Abstract

In this article the author tackles the issues of phrasing, functional cycle, metric hierarchy, form and dramaturgy as related to the analysis of the second movement of Ludwig van Beethoven's Piano Sonata Op. 13. These elements are heterogeneous and, perhaps, would be better discussed separately. However, the author goes back to nineteenth-century music scholarship as an example of dealing with heterogeneity despite the incompatible character of its elements. Phrasing is thus related to tonal-functional cycles of various designs; these are both linked to the metric hierarchy on the local level (iambic unit) and on the level of the metric period, as suggested by Hugo Riemann. The author points to some parallels with the poetic structure of the four-foot iamb. Beethoven mixes and matches diverse patterns in a contemplative and reflective flow of ideas, appropriate for such a noble Adagio. The author then compares several editions of the Adagio with regard to articulation of phrasing. Finally, Beethoven's slow movement is analyzed in terms of musical dramaturgy – a category well researched in the Russian tradition by Viktor Tsukkerman and Viktor Bobrovsky. The ultimate goal of the article is to bring to the attention of the readers the complexity and perfection of Beethoven's musical poetics on the 250th anniversary of his birth.

Introduction

There are several very interesting and intellectually challenging concepts of Classical form in circulation today, mostly of North American origin. The clusters of new ideas are focused on the publications of two scholars, William E. Caplin and James Hepokoski. Somewhere down the road, there has been an intentional interruption of the tradition of nineteenth-century *Formenlehre*, which had a great influence on the teaching of Hugo Riemann. It has been widely discredited in the 1960s–80s; today however, the interest in this monumental figure is constantly growing, as may be seen in the references at the end of this article. Thus, recent collections such as *The Oxford Handbook of Neo-Riemannian Music Theories*, edited by Edward Gollin and Alexander Rehding (2011), and *The Cambridge History of Western Music Theory*, edited by Thomas Christensen (2002), dedicate much time and effort to a thorough and informed investigation of the oeuvre of Riemann. Monographs by Alexander Rehding (*Hugo Riemann and the Birth of Modern Musical Thought* (2003)) and Daniel Harrison (*Harmonic Function in Chromatic Music: A Renewed Dualist Theory*

and an Account of its Precedents (1994)) carefully approach and examine the extensive output of Riemann. William Caplin's discussion of metric accent in his "Theories of Musical Rhythm in the Eighteenth and Nineteenth Centuries" from the above-mentioned *The Cambridge History* of 2002, as well as his views on and applications of the category of the tonal-harmonic function present a steppingstone to understanding and restoring the status of nineteenth-century theory. The conceptual framework of this article is based upon several postulates that come from nineteenth-century theory and elaborations of its premises in the Soviet teaching of Classic-Romantic form.

I. From motif to dramaturgy

Soviet *Formenlehre*, like that proposed by Adolf Bernhard Marx and maintained in the 20th century by Arnold Schoenberg, is based upon an ascending hierarchy of the emergence type, one that begins with the motif, rises to the level of smaller and then larger forms, and, in the case of Soviet scholarship of the 1970–80s, attains the level of instrumental dramaturgy, akin to works for the dramatic stage.

II. Tonal-harmonic function in interaction with poetic metre

The idea of form in this tradition is based upon harmonic and tonal tension-relaxation patterns associated primarily with the tonal-harmonic functions of chords. While in the current North American tradition the chord is unanimously interpreted as a product of voice leading, nineteenth-century German and twentieth-century Russian scholarship maintains the constitutive role of the chord and harmony. One of the founding fathers of Soviet music theory, Boleslav Yavorski, expressed this attitude in his sketches for the seminal *Design of Musical Speech* (1908):

When they say that counterpoint preceded harmony, it is rubbish, since everything is preceded, followed by, and dominated by form, which is the rhythm of the *lad* [mode] in time, the latter being nothing but harmony.¹

Russian theorists consider the chord to be at the top of the hierarchy of musical elements. Its function occupies an even higher place. As the consequence of such treatments of the chord, Russian theorists recognize the three embedded qualities of chords: functional, linear, and sonoric (see Kholopov 1988: 46). The abstract idea of functional logic, the inference of Dominant to Tonic, as well as Subdominant to Tonic, and the possibility of the complete circled cycle T – S – D – T as a model for a variety of harmonic progressions is in itself the greatest achievement of European music theory. However, it becomes less clear and more complicated when applied to real music, and the reference cycle falls into a great number of versions. The primary Soviet pedagogic tool in harmony, the so-called *Brigadnyi Uchebnik* (the “Brigade Textbook”), written by four conservatory

professors Iosif Dubovsky, Igor Sposobin, Sergey Yevseyev and Vladimir Sokoloff before the Second World War (Dubovsky et al. 1984),² offers a thorough description of tonal-functional theory in Chapter 2. The relationships of T and S are called *plagal*; of T and D – *authentic*; the cycles that include all three functions, T, S, and D, are termed *full functional* cycles. Sposobin, following Yavorski, distinguishes full plagal (S – T) from semi-plagal cycle (T – S) (Dubovsky et al. 1984: 23–24). Yavorski, in his sketches for *Design of Musical Speech* (fund 146, archival unit 245), offers an even more detailed system of tonal-functional cycles, in which the move D – S is labelled as *interrupted*. All this becomes further enhanced when the secondary triads as other chords are added. This condition Sposobin et al. call the *full functional system* (chapter 17 of the “Brigade Textbook”, see Dubovsky et al. 1984).

There is a traditional view of chord function as a mere characteristic of verticality. Contrary to such a common misconception, European theorists of the 19th century maintained that tonal-harmonic function is not vertical; its action is horizontal and linear. The function of the dominant is directed, linearly, towards the tonic as the goal of the resolution. The tonal-harmonic function is not only not limited to verticality, but it is the only cause for longer linear projections to unfold in a larger form. There is also melodic linearity, contained in the concatenation of the non-chord tones of various types. However, these forces are weak and insufficient to create a larger form. The dissonant intervals exert a somewhat higher energy of resolution, but they are relatively weak for creating longer lines. Only the function of the chord, the product of the synthesis of many weaker forces, with the help of metric dissonance, is able to unleash the linear gravitation that spans

¹ Boleslav Yavorski, sketches for *Stroyeniye muzikal'noi rechi*, National Musical Museum, Moscow, fund 146, archival unit 4272, sheet 2.

² The most popular edition 8 of this textbook, published in 1984, is used here for the references. The first edition saw the light of day in 1937, as the development of the 1934 *Practical Course in Harmony*. The four authors form a rather unique combination of indigenous culture and cutting-edge Western knowledge. Iosif Dubovski published a multi-volume study of Russian folk songs, while his education at the Leipzig Conservatory included studies with Max Reger and, at the Moscow Conservatory, with Georgy Catoire. Sergey Yevseyev, a student of Sergey Taneyev and Catoire, created a course in harmony for the conservatories at the end of the 1920s. Vladimir Sokolov was a music theorist, a docent at the Moscow Conservatory. Igor Sposobin, the leader of the project, studied with Georgy Conjus. The “brigade” is the form of instruction at Russian conservatories: the leading professor gives one lecture each week; a group of colleagues takes over and teaches students in breakout rooms, in small groups and individually. The “Brigade Textbook” provided a refined model of harmonic style for the popular songs of various genres. The melodies for harmonization in Classical and Romantic styles from the “Brigade Textbook” present its most valuable component.

many measures. The musical line takes its root in and begins from the impetus generated by the specific aspects of a chord. Again, there are three such aspects: tonal-functional, linear and sonoric-coloristic.

The tonic function that often opens the progression is not the beginning of the line. The line would not have started if there was no first dominant (or first dissonant, first non-tonic function and the first light and unstable beat). Of course, there are cases in literature in which the initial tonic dwells endlessly in itself: for example, the Primary theme of the first movement of Beethoven's "Appassionata" or Richard Wagner's opening of the *Ring of the Nibelungen*. Then the question is, what forces the music to leave the comfort of the first tonic and to step into the unknown, to move into the first dominant? Why does music leave its *Ruhe* and trade it for the *Bewegung*? Perhaps there *has been* an anacrusis that is missing now. The trochée,³ proposed by many, including Caplin, as a valid alternative to the iamb, is not conducive of motion. It stops the motion. Strong-to-weak beat connection does not presuppose further development; it does not create the *motif*. Riemann, in *System der musikalischen Rhythmik und Metrik*, supports his idea of iambism on the concept of *Motiv*:

But these distinctions in the different weights of the measures (1st level: 1st, 3rd, 5th, 7th measure; 2nd level: 2nd, 6th measure; 3rd level: 4th measure; 4th level: 8th measure) result not once and for all in the same way from the simple succession of measures, but depend, as the determination of the single bars themselves, on the concrete content, on the thematic motifs.⁴

Obviously, Riemann does not compare iamb and chorée *in abstractio*; he gives preference to

iamb considering its *motivic capacity*. The musical time does not unfold from the sigh motif. The *Seufzer* interrupts and slows down the musical time, just as poetic trochée does. Russian poetry emphasizes rhyme and mono-metre. The four-foot iamb is by far the most common structure of the stanza in 19th century:

˘ – | ˘ – | ˘ – | ˘ – |
 Moi dyadya samykh chestnykh pravil,
 ˘ – | ˘ – | ˘ – | ˘ – |
 Kogda ne v shutku zanemog,
 ˘ – | ˘ – | ˘ – | ˘ – |
 On uvazhat' sebya zastavil,
 ˘ – | ˘ – | ˘ – | ˘ – |
 I lutshe vyumat' ne mog.⁵

This is an example of flying, *volante*, verse, so characteristic of Pushkin. This style is also labelled by Russian literary scholars as *light poetry*. Here Riemann is absolutely right when he suggests that prosodic structures (light and heavy beats) are related to and, practically, constituted by the specific content. *Eugene Onegin* moves by the force of motif, generated by iambic cells. The first two lines map exactly onto classical 8-measure period form; there is a caesura at the end of the first line, marked by the foot, opposite in structure to the iamb (in the old terminology, the "feminine ending"). The amphibrach – a trisyllable foot with the accent on the second syllable – stops the movement of the iamb and leaves the rhythm in an unstable condition, balancing two weak beats around the strong one. It generates an unstable interruption of the time flow. This is, perhaps, the most probable analogy (and even a prototype) for the Half Cadence (HC) in harmonic progression in the form of a period. The second line ends with an iamb, an affirmative case of landing on the

³ There are two terms that define the "strong-to-weak" (or long-to-short) foot: chorée and trochée. In the USA the latter is more common; in Russia, on the contrary, the chorée is more standard. In this article, both terms are used to refer to the same structure.

⁴ "Aber diese Unterscheidungen verschiedenen Gewichts der Takte (1. Stufe: 1., 3., 5., 7. Takt; 2. Stufe: 2., 6. Takt; 3. Stufe: 4. Takt; 4. Stufe: 8. Takt) ergeben sich nicht ein für alle Mal in gleicher Weise aus der einfachen Aufeinanderfolge der Takte, sonder hängen, wie ja schon die Bestimmung der Einzeltakte selbs, vom konkreten Inhalte ab, von den thematischen Motiven." (Riemann 1903: 13).

⁵ Alexander Pushkin, opening stanza of *Eugene Onegin* (1825–1833). Quoted from the first edition, *Works of Alexander Pushkin* (Pushkin 1838, vol. 1: 1).

tonic. The second pair of lines replicate the period form as well; the four-foot iamb stanza in poetry is, therefore, an analogue of the double period in music.

This analogy between a stanza in four-foot iamb and the period form is no coincidence. The period did appear, after all, before the grand reform of verbal syntax. The movement started with Antoine Arnauld and the school of Port Royal in Paris and, gradually, European languages became organized and received a tight-knit structure.⁶ And if the *Klang* in Johann Mattheson's interpretation was modelled after *Rede*, the latter was already thoroughly organized in both aspects of syntax and metre.

German and Russian poetry is filled with four-foot iambs. There are, of course, poems written fully in chorée (trochée):

- ∪ | - ∪ | - ∪ | - ∪ |
 Burya mgloyu nebo kroyet
 - ∪ | - ∪ | - ∪ | - ∪ |
 Vikhri snezhnuye krutya;
 - ∪ | - ∪ | - ∪ | - ∪ |
 To kak zver' ona zavoet,
 - ∪ | - ∪ | - ∪ | - ∪ |
 To zaplachet kak ditya.⁷

Again, just as Riemann suggested, in both music and poetry, the metric structure is not arbitrary; its choice reflects the *artistic creative content*. In this case, "the storm(...) covers(...) the heavens(...) in gloom, turns(...)around(...) the dust devils(...) of snow; whines(...) like a beast(...) and, suddenly(...), starts crying(...)"⁸ like a child." In stark contrast with the flying verse of *Eugene Onegin*, here the motion is burdened with obstacles; something gets in its way and slows it down. The *dynamic shading*⁹ curvature is inverted here (Fig. 1).

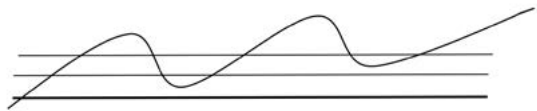
Figure 1. Trajectories of iamb and chorée.



Remarkably, the pattern of weak and strong cadences remains here as in a stanza in iambic metre. The foot, unlike – indeed, opposite to – the chorée, occurs here not at the ends of lines 1 and 3 but at the ends of lines 2 and 4. It is a single syllable with the accent – the pyrrhic. Thus the ends of lines 2 and 4 retain the decisive endings; they break the monotony of chorée and, surprisingly, add a little bit of forward motion.

The chorée syllable is single and isolated, it marks the end of movement and does not presuppose a continuation. It gains a high level of energy and then gradually dissolves it. The iamb, on the contrary, gains the energy gradually and then, as we discover, there is not enough time to dissolve it. As a result, the energy spills onto the next pattern using the residue of energy from the previous one.

Figure 2. Gaining the level of energy in iamb as the result of residue in each pattern.



The physical properties of these waves allow the creation of the residual impetus at the end of each wave, so that the second wave begins from a higher position than the first. This feature leads to a binary ascending hierarchy (Fig. 3).

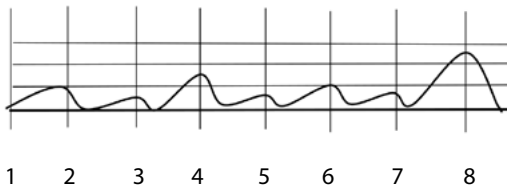
⁶ This connection is discussed in Khannanov 2021. It originated in Johann Mattheson's *Der vollkommene Capellmeister* (1739).

⁷ Alexander Pushkin, "Winter evening" (1925). Pushkin 1838, vol. 1: 102.

⁸ The three dots in parenthesis are used here to mark the slowing down of the metre after each unit of chorée. In a good Russian recitation of this poem one can feel how the movement dwindles after each foot, almost coming to a complete halt.

⁹ Riemann's term, discussed in Caplin 2002: 686.

Figure 3. The double-waves that generate a binary hierarchy.



This intricate wave process involves accumulation of energy from beat 2 to beat 4 and, finally, to beat 8. The wave subsides after the first rise – it rests on beat 3 before gathering even more power for the climax on beat 4; this double expenditure of energy requires an even longer period of recuperation – beats 5 and 7 are similar (with a slight overall gain) to beats 1 and 3; beat 6 is similar in level to beat 2. All this is done in preparation for the last climb – the highest point at beat 8.

This physical process, together with the strong cognitive mechanism that allows its perception, ensures the universality of the structure of the metric period:

weak-strong-weak-stronger-weak-strong-
weak-the strongest

Riemann, in contrast with preceding tradition, operated with a very specific, dynamic concept of metre and rhythm. While others were trying to understand the geometry of an abstract measure (4/4, 3/4) according to the simplest visual points (strong beat, weak beat, metric accent), in a general-scientific, quasi-mathematical, Pythagorean manner (with the purpose of measuring and calculating everything), Riemann seemed to have switched to a Heraclitan view of rhythm as something that proceeds in ebb and

flow (from Greek *ῥέω*, to flow). “For Riemann, the traditional measure, beginning with an accented event, is a fiction.” (Caplin 2002: 687). Perhaps, however, it is not reasonable to compare the two as they are based on entirely different premises. “He never permitted an event located on a metrically strong position to function as the first of a group.” (Ibid.). Here, perhaps, Caplin exaggerates the counterargument: neither Johann Philipp Kirnberger nor Mathis Lussy interpreted grouping in these terms; they were discussing different matters. As for the “events located on a metrically strong position,” this is worth further consideration. The opening of Johann Sebastian Bach’s Brandenburg Concerto No. 5 is quite clearly an event on a metrically strong position (Ex. 1).

Such a spectacular trochaic event should have led to a trochaic structure; in this case, the performers should have leaned on each first and third beat of the 4/4 measure. At least, that is what the hypermetric structure of these measures suggests. Yet, it does not happen. The first chord remains as such, isolated; by the end of the first measure, a different, contrary pattern is established:

It is, clearly, the iamb. The bass line – in Example 1 it is reduced to *basso fondamentale* – clearly establishes the iamb. This may lead to an interesting hypothesis: the strong beginning can happen only at the beginning. And even in such a case, it is not impossible to imagine the absent but implied anacrusis. Why is the first note of a composition often accented? All teachers of

Example 1. Bach, Brandenburg Concerto No. 5, BWV 1050, opening movement.

music know just how difficult it is to organize the performance, both for the student and for the listener. The first note should be marked, focused on, clearly stated. This applies on a much more dramatic level to the art of singing. The apparatus should be set and ready from the first note; if it is missed, the rest is difficult to salvage. Therefore, even if a composition begins with an anacrusis, this first weak beat must sound more assertively than, say, weak beats in the body of music. The opening tone of Beethoven's Adagio cantabile can be interpreted exactly in such a context.

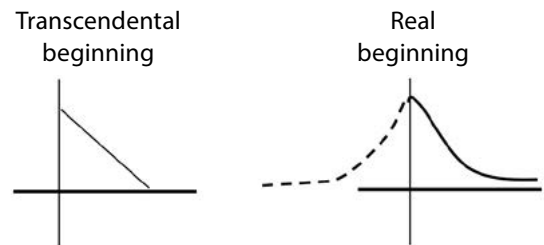
All this, however, cannot override the fact that there is no viable trochaic structure for large-scale designs. When music begins on the strong beat, it does not necessarily present the trochaic pattern. In fact, it is impossible to begin a composition right from the note on a strong beat. There is always an *Auftakt*: The wind instrument player has to take breath and get a good embouchure; a pianist must raise the hand before placing the fingers on the key; the conductor must know how to give the *Auftakt* in different ways for each group in the orchestra.

Perhaps, the critics of Riemann are misled by the compound ontology of rhythm. As Fred Lerdaahl and Ray Jackendoff suggested, there is a principal, ontological difference between metre (an abstract system of musical coordinates) and grouping (the musical material with its metric and rhythmic structure). A metric grid – an abstract, atemporal transcendental system – can be designed in both ways, with the hypermetric trunk either on the left or on the right (as shown by Lerdaahl and Jackendoff). The musical body, the corporeal, temporal flow, submits to the rules of physics (musicians physically move fingers, blow

air through the pipes) and psycho-physiology – everything that deals with inertia, acceleration, deceleration, changing the direction of motion, expenditure of energy in time. Unlike the metric grid, musical material cannot be rearranged mentally at the speed of thought and effortlessly, and, as such, it needs a weak, ascending dynamic *shade* to begin the movement. This preparatory stage can be hidden, compressed, implied, but without it it is impossible to reach the first peak of energy.

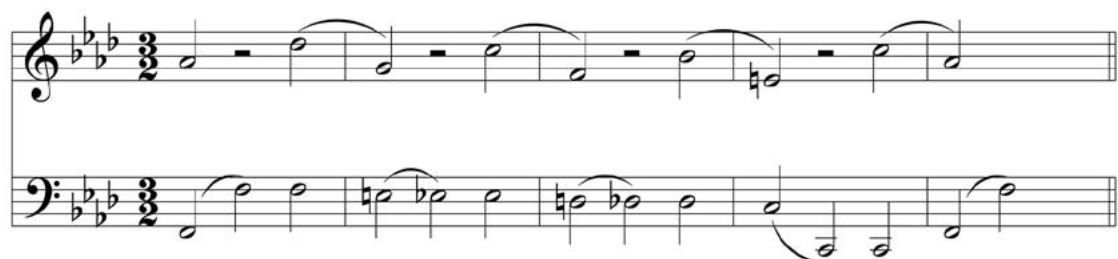
This line of reasoning may lead to an interesting distinction. Metric structure can be understood in a kind of Platonic, abstract geometry and optics, which we can label as transcendental. For such a view, any process can begin at once, without any preparation. In contrast with that, the perception and acquisition of metre as something real, based on the physics of acoustic materials and the plasticity of perception, cannot allow for any abstract beginnings, movement and endings.

Figure 4. Opening event in metre.



In another example, clearly intended for a trochaic mono-structure, the opening accent is supposed to rule the field.

Example 2. J. S. Bach, Cantata *Weinen, Klagen, Sorgen, Zagen*, BWV 12.



Indeed, the strong-weak patterns are retained here; they are not reinterpreted throughout the complete bass line.¹⁰ However, on the next hierarchical level, one may notice a different pattern building on the top of the surface:

Hypermetric level:
WEAK – STRONG, WEAK – STRONGER

Surface level:
strong – weak, strong – weak,
strong – weak, strong – weak

If we go back to Pushkin's trochaic poem, such hypermetric reorganization will become clear as well:

~ - ~ -
- ~ - ~ - ~ - ~
Burya mgloyu nebo kroyet

If one decides to follow the opening-accented model at all costs in reading this line, or in performing the opening of Bach's Brandenburg Concerto from our Example 1, the effect will, without a doubt, be nothing but comic.

Thus, the seemingly obvious beginning on the strong beat proves to be not such at all. William Caplin takes every precaution to balance the opposing views on this:

Even in cases where there is an obvious beginning on a strong beat, Riemann groups that beat back to some imaginary prior event. His dogmatism on this score has been, needless to say, the source of continual derision from the later theorists. (Caplin 2002: 687).

Caplin leaves the names of "later theorists" who derided Riemann in the shadow; however, the last laugh in this situation belongs to Riemann.

The deceiving simplicity of the relationship of weak and strong beats, or accented and unaccented events, does not allow some theorists, less sophisticated and less immersed in the culture of tonal music than Riemann, to discern the finer shades of meaning. Thus, the weak element before the strong is phenomenologically different from the weak element that is placed after the strong. If, in the first case, there is the relationship of gravitation, directedness, teleology, strong forces and energies, in the second case, the unstable element cannot be related, conjugated (to use Yavorski's term), to the strong and stable that has already happened. The second case presents a kind of decay, the slow demise of the status of the strong element. It does not establish the relation of inference, let alone the relationships with other elements down the road. The iambic pattern does, in fact, generate inference, potential energy directed toward the resolution. Moreover, the inertia, established with the first pattern, spills over to the next, thus giving life to motoric process (automatic, self-propelled motion). And, ultimately and naturally, the iambic pattern carries the capacity to create the hierarchy. It is so powerful that even in the overall trochaic structure, the iambic tendency takes over on the higher levels. Notice how in a line in trochée the hypermetric structure is not trochaic.

From the above examples of poetry and music, it is not difficult – indeed, it is natural – to assume that opening-accented events are appropriate

Example 3. J. S. Bach, Brandenburg Concerto No. 5, trochaic reading.

¹⁰ The upper voice adds the iamb, making the lower voice's chorée less substantial. The attention is split more or less evenly between the two.

for the beginnings and the endings of the form segments, in the pre-core and post-core stages. Boris Asafiev labelled these three stages as i-m-t (*initium – motus – terminus*) in his seminal *Musical Form as a Process* (vol. 1: 1930; vol. 2: 1947). When music or poetry gets into gear, into its *motus*, it is the domain of the iamb. Thus, in the stanza from *Eugene Onegin*, the cadences of contrasting feet are located at the end of the first and the third line (strong-weak patterns), while the strong cadences occur at the end of lines 2 and 4. In another example, from the "Winter evening," overall in chorée, the cadences of the iambic patterns are located at the ends of the same lines 2 and 4. The weak endings in both fragments are located at the ends of the same lines 1 and 3. As already mentioned, these are the equivalents of half cadences in music. Contrary to the "later theorists" mentioned by Caplin, the author of this article sides with Riemann with regard to the specificity of the introductory event and its reliance on the opening-accented pattern. One may notice that it is most often a *single chord*, i.e. as such it is neither iambic, nor trochaic. It dwells in itself and does not require a continuation – it is pyrrhic. The only hypothesis that can explain that there is a continuation is that this singularity implies the unstable, light event before it.¹¹ The energy gained by this pairing spills over to the next pattern and thus constitutes the second, the third, the fourth pair, as well as the hierarchy of pairs, of pairs of pairs, etc.

...

The first event after the initial pyrrhic chord is special; the first dominant stirs the system, forces it to exchange potential energy for kinetic energy and triggers the linear development. And the line cannot run endlessly; eventually, music runs out of energy and lands back onto the tonic. Hence, it makes sense to discuss not the *Urlinie*, but a number of tonal-functional cycles, expressed by curves and trajectories.

Since the tonal function presents a serious stumbling block for contemporary North American theory, it makes sense to digress at this juncture into the history of the question. The resentment towards function was very strong in the years 1970–80, so that even the word itself was banned from the professional vocabulary. In the last two decades, there has been a certain interest in function, though this did not go as far as the acceptance of Jean-Philippe Rameau and Riemann, but was reduced to specific goals (transformational theory's move toward some aspects of Riemann's late ideas on tone exchange). Daniel Harrison, in his *Harmonic Function in Chromatic Music*, seems to be puzzled by Riemann's interpretation of tonal-harmonic function. Alexander Rehding, perhaps the most informed expert on Riemann in the USA, dedicated most of the pages of his seminal *Hugo Riemann and the Birth of Modern Musical Thought* to the problem of harmonic dualism, as if this thought-provoking hypothesis¹² was his main achievement. On a side note, neither Sposobin nor any other practitioner of Riemann in Eastern Europe paid any attention to the dualism of major and minor. This tradition focused on tonal-functional syntax. Thus, the flaws of Riemann get exaggerated, while his main achievements are downplayed. Even when there is a chapter on Riemann or Rameau, such as Joel Lester's in *The Cambridge History of Western Music Theory*, the author normally retreats to an unnecessary apology:

Despite the belief that the chord is the essential unit of musical structure, Rameau was always aware of the voice leading that arises as the notes of one harmony move to the notes of the next. (Lester 2010: 761).

In other words, Joel Lester asks the community to forgive Rameau for his erroneous belief in the significance of chords: after all, he acknowledged the voice leading. North American theory is

¹¹ Or, as Yavorski puts it: "When the *tyagoteniye* is clear, a one-part *intonatsia* is possible, that which presents only one moment of sound *tyagoteniye*." Fund 146, archival unit 243, sheet 17. Russian National Museum of Music, Moscow.

¹² Needless to say, the triumphant victors over Riemann fail to mention that there is still no valid theory of the minor. As for the imaginary *undertones*, contemporary neo-Riemannian theory needs the downward direction (or the direction to the left side of the *Tonnetz*) as much as the upward one. Dmitri Tymoczko's geometry fits the dualism as an indispensable part, as does Rimski-Korsakov's inclusion of the minor subdominant into the diatonic major, all for the sake of the completion of the symmetry.

obsessed with voice leading and counterpoint. Evidently, in the absence of a tonal-functional harmonic syntax, these two remain parergonal. Yet, the tonal function haunts the theorists as if finding its deficiency leads to a better future for musical art. Brian Hyer seems to have found another speck in the eye of Riemann (who, by the way, introduced music theory as a university discipline). Hyer had to summon the witness of Gottlob Frege:

“Confusing the function with its value for an argument” – as we will see, this is the crux of the problem concerning the notion of a tonal function. [...] Kirsch read the functional equation as y is a function of x [...] expressing no discernable interest, in contrast, in the letter f . (Hyer 2011: 115).

This initial reference to Frege is a strange beginning. It would be more reasonable to start with Gottfried Leibniz, who introduced the notion of function into mathematics in *Acta Eruditorum* in 1694.¹³ Rameau followed this discovery and introduced a system that is *virtual and sub-audible*, in the words of Jean-Pierre Bartoli:

But it is not so much a theory of the generation of the chords by physical laws; neither is it the principle of inversions in addition to the fundamental of the perfect chord [...] that were the most important contributions; rather, it was their resultant logic [...] the bass line, virtual and sub-audible, that constitutes the foundation for the chords.¹⁴

Unlike scale steps, contrapuntal lines, sets, schemata – all visible and tangible as objects – tonal-harmonic function is invisible. Only a special sensation of function can be developed in a specialized system of training (it is not given by birth). The function is “virtuelle et sous-entendue,” as suggested by Bartoli. Émile Bréhier would label it as *incorporeal* (Bréhier 1928). Riemann’s *Tonvorstellung*, literally, *tone pre-image*, the idea

misunderstood and generally rejected by current theory, refers to this pre-ontological status. So, contrary to Hyer’s critique, Riemann’s function is exactly that f , not the objects (scale step, Roman numeral, collision of several lines) but what is happening to them; not the body but the action upon the body.

It was not Riemann who misinterpreted function, but rather all his critics beginning with Heinrich Schenker (Schenker 1979 [1935]). It is in this myopic critique that the theory of harmonic function is accused of “looking only at the verticals.” The notion of function, and the complete system of professional conservatory training before the Second World War, was based upon the fact that a chord carries the potentiality to start a line, to move forward. The lines take off from the chords, and not *vice versa*. The chord generates the energy of instability (*neystoi*, to use Yavorski’s term) that allows for the chord progression to move forward. Lester’s hope that Rameau noticed the “voice leading” that “arises” when the notes of one chord move into the notes of the other is, unfortunately, completely futile. Notes do not move by themselves; they manifest no intention to move unless they are placed in the larger context of chord and *lad* (tonality) formed by the systematic relationships of chords.

The fetishization of voice leading in intentional isolation from harmonic function reminds one of the discussion of the hole in a bagel in the absence of the bagel; the hole undoubtedly exists, but it cannot be separated from the bagel. Hence the Russian adage *poluchit’ dirku ot bublika* (to get the hole from the bagel). Or else, imagine that sugar disappears from the planet earth, and that scientists passionately discuss what makes sugar sweet, whether it is sweet, and, finally, question the existence of sugar as such. In this sense, the f does not exist without the y and the x . It cannot be completely abstracted from these objects (from the argument and value), and voice leading in the absence of the chord is impossible. The difficulty

¹³ For more information on the origins of the term function in mathematics and its gradual adoption into music theory, see Khannanov 2021.

¹⁴ “Mais ce n’est pas tant la théorie de la génération de l’accord par la nature physique, ni même le principe de renversements à partir de la position fondamentale de l’accord parfait [...] qui sont les apports plus révolutionnaires, mais plutôt leur résultante logique [...] ligne de basse, virtuelle et sous-entendue, qui est constituée de la fondamentale des accords.” (Bartoli 2001: 20).

of defining the tonal-harmonic function is the fact that it is not an abstract concept but rather a skill, a mode of perception, a kind of ablation (*Aufhebung* in Hegel's terms) that accompanies the existing musical objects.

Igor Sposobin and his colleagues – the brigade – suggest a tight-knit and eloquent definition of tonal-harmonic function:

Lad function, or simply, function, is the role of the sound or the chord in lad; in other words, it is the connection and mutual relationships of the sound or chord with other sounds and chords of a given lad. Such a connection is expressed not only in the consistency of the intervallic relationships among the sounds and chords, but also in the combination of tensions and resolutions, appropriate for the sequence of sounds and chords. (Dubovsky et al. 1984: 20).

Quite reasonably, Sposobin et al. put function in the context of tonality or mode (in Russian, *lad*). A separate sound can acquire a function only from the functional definition of the chord (this is thoroughly demonstrated in the "Brigade Textbook" in the subsequent chapters). There has been music "without chords", and melody can exist without a chordal accompaniment. However, the chords and functional logic underlie monodic presentation and make melodies harmonious. This explanation leads to the need for the complete mastering of the functional logic of the masterpieces of tonal music. Without such skills as hearing functions in chord progressions, improvising them at the keyboard, and harmonizing an unfigured melody of any length and complexity, the path to the profession, as least in Germany and Russia in the second half of the 19th century, was blocked.

The overall impression of a bystander is, therefore, that contemporary theory has lost the vital connection with the tradition of functional harmony and looks upon it as a strange foreign object. This vague object can be understood today only in terms of "counterpoint," "patterns," or "group theory," all in the style of highly advanced *Augentheorie*. In other words, this vital tool of composition (the cornerstone of the *Kompositionslehre*) and the path to understanding the musical process *by ear* has been lost. Students back then, in the functional period, did not

work on the "written realization of the figured bass": they harmonized advanced chromatic and modulating unfigured melodies. If today tonal music still exists in the areas of pop, film and media, any attempt to write, say, a symphony, will inevitably lead to piling up "very complex" chords that lack syntax and functional teleology. There is much music written in the 20th century that is labelled "neo-modal", for lack of a better definition. Fortunately, there is an interest in today's theory in the mechanisms that control, or rather, that generate the linear unfolding.

Unfolding is an act of explosive and urgent character: the chord has the urge to resolve; its potential energy is realized in the kinetic energy of a line. The energy of such an explosion is limited; it carries the line only so far, after which it fades and the line stops running (Schenker tries to stretch a line *ad infinitum*, but it works this way only on paper and in the graphic, visual domain). Music follows the laws of physics and cognition. Such is, in a nutshell, that famous connection between Nature and Music, praised by Gioseffo Zarlino, Rameau and Riemann. There are some arched connections, very long-range, that unite the large-scale form. However, the discovery of such connections is not the matter of connecting the dots on paper; they are intricate and more complex than the basic "voice leading." For the most part, musical functional cycles are limited to the size of a gesture, breath, thought, feeling – all these natural human time perceptions, within the normal length of approximately 7 to 8 units, in normal tempo. These are the limits for plastic, human, natural expression.

The fabric of linear unfolding is comprised of various types of functional cycles. Thus, there is a full functional cycle $\overbrace{T - S - D - T}$, which occurs less often than its shorter or longer versions. It is a prototype (a kind of *Ursatz*). The $\overbrace{T - D - T}$ and $\overbrace{T - S - D}$ are partial (authentic and plagal), $\overbrace{T - D}$, $\overbrace{T - S}$ and $\overbrace{S - D}$ are unresolved cycles, and $\overbrace{S - T}$ and $\overbrace{D - T}$ are incomplete (semi-plagal and semi-authentic, in Yavorski's terms). As seen in the additional shapes, each function has its own trajectory in virtual aural space. The dominant is "hot and dry": it has the tendency to ascend to the

tonic in a steep upward curve. The subdominant, on the contrary, is “wet and heavy,” and draws down in shallow curve. These metaphors are translations from the non-verbal language of sensations and skills. They are paradoxically common and communicable among musicians with a similar training.

The cycle that includes all available chords, including the secondary triads, seventh chords and other substitutes for primary functions, say, T (I – vi) – S (IV – ii) D (V7 – viidim7) – T can be called “a complete tonal-functional cycle.” We will add all local S – D – T cycles in the secondary keys and the possibility of several hierarchical levels, in which several cycles are included as sub-cycles into larger ones. In addition to this variety, cycles do not exist in abstract space (in graphic reduction); they exist in real time – within the horizon of time, in terms of Edmund Husserl¹⁵ – and they belong in a metric grid that depends on metric feet (iamb, chorée (aka trochée), dactyl, amphibrach and anapest). This unity of heterogeneous parameters is a discovery of Hugo Riemann, formulated as an ideal model of the metric period (*die achttaktige Periode*). Caplin (or, more precisely, some “later theorists in various quarters”) describes this achievement in the following way:

Though Riemann seemed to have established an abstract, a priori model, he actually took pains to justify his analyses in terms of specific harmonic criteria, such as harmonic rhythm and cadential action. His hypermetric interpretations, though roundly criticized in many quarters, were nonetheless highly influential, not only in German theory, but on some twentieth-century North American thinkers as well. (Caplin 2002: 688).

In the footnotes, Caplin discloses these “later theorists in their quarters” as “Viennese”; the ones who maintained the Riemannian idea of metric period (hypermetric structure), are marked as the “Princetonian tradition,” which includes the names of Roger Sessions, Edward T. Cone, Arthur

Komar, and many other distinguished musicians. Since William Caplin undoubtedly belongs to this Princetonian tradition, together with so many brilliant theorists, the author of this article subscribes to its premises without hesitation.

As for the “Viennese” tradition, it is not so Viennese as it presents itself. And as for the work with a hypermetric heterogeneous structure – that is, unique joining of parameters of very different origins, such as metre, grouping, harmonic progression, motivic-thematic structure and formal design – the Viennese group still has to offer something. The *Ursatz* is *homogeneous* and simply does not fit into this description.

Riemann’s invention stands on the shoulders of the giants. Thus, the idea of the reciprocal identification of elements of harmony and metre comes from Rameau’s idea of *l’accord parfait* as something that occurs only in special places in the form (primarily, at the cadences). François-Joseph Fétis underlines this specific marker of the perfect chord as the agency that generates the sense of tonality:

[...] by an ascending or descending progression on all the degrees of the scale, the mind, absorbed in the contemplation of the progressive series, momentarily loses the feeling of tonality, and does not find it again until the final cadence, where the normal order is re-established.¹⁶

In the examples related to this statement, Fétis insists that a continuous connection of chords does not generate tonality; only chords on scale steps one, four and five are called perfect chords, and they occur as such only at the cadences. This profound observation comes from Rameau, whom Fétis quotes as a good example of understanding of harmony and, consequently, tonality. Thus, the triad on scale step five does not necessarily generate tonality; in order to do so, it must be placed in the right position within the metric grid and formal design. Riemann’s metric period is one of the most important achievements

¹⁵ Husserl offers a view on time as limited by human perception, time-consciousness, as a kind of horizon (limited in its beginning and end by the limits of human life). He discusses this at length in his lectures on time-consciousness (Edmund Husserl, *On the Phenomenology of the Consciousness of Internal Time* (1893–1917); *Vorlesungen zur Phänomenologie des inneren Zeitbewußtseins*, Gesammelte Werke, vol. 10, Springer Verlag, 2012).

¹⁶ “[...] par une progression ascendante ou descendante sur tous les degrés de l’échelle, l’esprit, absorbé dans la contemplation de la série progressive, perd momentanément le sentiment de la tonalité, et ne le retrouve qu’à la cadence finale, où se rétablit l’ordre normal.” (Fétis 1867: 26).

in music theory in general, and in the theory of tonality and Classical form in particular. In most cases, the D – T is represented by the iamb; S – D – T by the anapest; T – D, so favoured by Wagner and Pyotr Tchaikovsky – by the chorée. Riemann pointed directly at the causal relationship between poetry (prosody) and tonal-harmonic functions in his dissertation *Musikalische Syntaxis*, as seen in quotation below.

Although Hugo Riemann maintained the prevalence of the iamb in the music of Beethoven, analysis reveals the presence of both disyllabic and trisyllabic patterns and all the wealth of Greek prosodic patterns. One can add the idea of *metrotectonism*,¹⁷ introduced by Russian theorist Georgy Conjus,¹⁸ as an interpretation of Beethoven's large-scale metric ideas. Consequently, it makes all the difference if, say, the chord progression T – D – T begins on a weak beat, on a strong beat or on the second beat. The meaning of the phrase will change significantly if one places this functional cycle on different beats in a measure. As will be shown in the analysis below, functional cycles play a form-building role when they interact (become conjugated, in Yavorski's terms) with the metric system of beats, durations and accents.

III. Metric period

German and Russian theories relied heavily on the idea of the interaction of tonal-harmonic function with the metric position in the temporal grid. Riemann pointed directly at the causal relationship between metre, poetry (prosody) and tonal-harmonic functions in his dissertation *Musikalische Syntaxis*:

It is therefore understandable that a thesis appears all the more easily understandable

when it brings the tonic to the good part of the measure; indirect theses will therefore like to begin with an upbeat and direct theses – full-time. Thus, for example, in Schumann's *Kreisleriana* No. 5, the third subject represents the anapaestic metre | ˘ ˘ ˘ | and consistently makes indirect theses.¹⁹

In this profound reference to the music of Schumann, Riemann provides his view on the origins of tonal-harmonic function. In the theme from Piece No. 5 of *Kreisleriana*, Op. 16, one can hear three functions, S – D – T. These chords acquire (underline, emphasize) the functional syntax by virtue of being placed in the pattern of the anapest, on the pattern of the weak, heavier, and heaviest elements. The teleological power of the anapest, its strong rush toward the goal, results from the fact that it contains not one (as in iamb) but two leading elements. So, the difference between iamb and anapest is the same as the difference between the incomplete tonal functional cycle D – T and the complete one, S – D – T (Ex. 4).

Anapest and the metric grid prepare the topology of syntax; the chords fill this with the flesh and bones that participate in the functional rush towards the tonic.

The power of the anapest is clearly heard in a poem from the Russian Silver Age, written by Alexander Blok:

˘ ˘ ˘ | ˘ ˘ ˘ | ˘ ˘ ˘ | ˘ ˘ ˘ |
Ya poslal tebe tchernuyu rozu v bokale
˘ ˘ ˘ | ˘ ˘ ˘ | ˘ ˘ ˘ |
Zolotogo kak nebo Ay[.]²⁰

Moisey Harlap, a prominent music theorists and literary scholar from Leningrad, created the foundation for the Russian understanding

¹⁷ Conjus 1933. This is an interesting precursor of many of the latest developments in North American theory (such as, for example, the excursions into metric block structures in Beethoven by Richard Cohn). Conjus has analysed a large corpus of Beethoven's compositions and has discovered a wealth of hypermetric uniform structures – architectonic “bricks,” multiples of four, that form pyramidal structures, underlying the surface elements.

¹⁸ Conjus was the teacher of Igor Vladimirovich Sposobin, the leading professor of harmony and form at Moscow Conservatory; this connection explains the unfading interest of Soviet music theorists in the idea of metric period and in the interaction of harmony with metre in musical form.

¹⁹ “Es ist daher begreiflich, dass eine These desto leichter verständlich erscheint, wenn sie die Tonika auf dem guten Takttheil bringt; es werden also gern mittelbare Thesen auftaktig beginnen und direkte These volltaktig. So hat z. B. bei Schumann, *Kreisleriana* No. 5 das dritte Thema anapästisches Metrum | ˘ ˘ ˘ | und macht durchweg mittelbare Thesen.” (Riemann 1998 [1877]: 76).

²⁰ “I have sent you a black rose in a goblet of the heavenly golden Ay.” From the verse “In a Restaurant”, first published in the journal *Russian Thought* (1910), volume XI: 2.

Example 4. Robert Schumann, *Kreisleriana*, Op. 16, Piece No. 5.

of rhythm, based upon Greek *rhythmopoeia*, adjusted to the 19th-century types of syllabic, tonic, and syllabic-tonic poetry. It has been widely accepted also because of the strong link to German 19th-century tradition. The poetic foot and the complete corpus of prosodic structures became common in Russian research and musical pedagogy. Boleslav Yavorski and Georgy Conjus, as well as Georgy Catoire, established a system of interaction of metre with harmonic function that inherits the basic ideas of Riemann and, in many aspects, exceeds and develops them further. In particular, Yavorski's idea of *intonatsia-oborot* [Russian *intonatsia*-turnabout] – the focal point of *Design of Musical Speech* of 1908 and later works such as *Exercises in Lad Rhythm* (1915) – as being principally a two-part structure comprised of *predictus* and *ictus*, replicates the theory of *iambism* of Riemann. Riemann's chapter in *Musiklexikon*, translated into Russian and published by Nikolai Findeisen in 1901 (Riemann 1900–1904), presented the idea and it became ubiquitous at the Soviet conservatories in courses in analysis of musical work. Valentina Kholopova wrote a Candidate dissertation *Questions of Rhythm in Music of Composers of the 20th Century* (Kholopova 1968), in which the Greek *rhythmopoeia* is applied to the music of Igor Stravinsky, Sergey Prokofiev and Dmitri Shostakovich.

Yuri Kholopov was one of the avid supporters of the theories of function and rhythm of Rameau and Riemann, which he called “classical European music theory.” He adhered to Riemann's *iambism* and interpreted it in the following terms:

The morphological law of music is revealed in that the logically light expresses the meaning of the unstable and forward directed, while the logically heavy is stable and conclusive. (Kholopov 2012: 65).

In his course in harmony at the Moscow Conservatory in 1982, Kholopov explained the iambic essence of classical music in a different way. Musical form as a process is perceived in real time, from left to right. While we hear the first measure, we are unable to conclude whether it is heavy or light. Kholopov referred here to Moritz Hauptmann. It is neutral and unmarked by default, and as such, cannot take the position of the heavy or marked until the second measure occurs. That makes the second measure heavy by logic of succession. William Caplin (2002: 688) describes these developments in Hauptmann and the “mature style of Riemann.” Of course, from the point of view of descriptive, historiographic method, there have always been cases of *chorée* (*trochée*) as opposite of *iamb*. The question is, however, whether *trochaic* structure is conducive of movement. It is helpful to refer to dance culture – including Classical dance, epitomized by the minuet. Any dance pas begins with the preparatory step (the so-called “position” in ballet). Very often, when music in triple metre begins on the strong beat, that beat remains de-emphasized, while the second receives all the weight. Such is the rhythm and consequent phrasing principle for the waltz and the minuet, as well as a number of Renaissance dances, such as the pavane, bransle, and bass dance. There is much to be discussed, perhaps, in terms of the phenomenology of time perception. For this article, it is sufficient to suggest that the *iamb* functions as a constitutive pattern for the creation of movement in music.

IV. Heterogeny

The fourth point, which comes from the previous one, is the further metric hierarchy of heterogeneous elements. Gravitation of unstable towards stable pitch (the key term of Yavorski

and of the whole Soviet tradition that followed) is immeasurable and abstract. It becomes real when it starts interacting with rhythm and an accented unfolding structure. The specificity of it is that accent is created not so much by the concatenation of beats with assigned patterns of heavy and weak, but by the interaction of functions of chords. It is the cognitive mechanism of implied resolution that dwells in the dominant (dominant seventh chord, more precisely) that, by virtue of its gravitational pull towards the tonic, generates temporal structure, durations, accents and, ultimately, metre. There is a *circulus in definiendo*: reciprocally, the dominant-ness of a chord is emphasized by its placement in the metric grid. In this sense, the discovery of the metric period by Riemann offers one of the most advanced tools for analysis and a method for the creation of music.

It is never too late to return to Riemann's metric period;²¹ it can be used in analysis and compared with other currently available approaches. In addition, the author is keen on conveying some ideas of Soviet *Beethoveniana*, those with the same sad fate as Riemann's. Ultimately, after synthesizing the ideas of phrasing, functional cycles in harmonic progression, metric concatenation and formal divisions into one wholistic paradigm, the further task of this paper will be, quite naturally, the discussion of musical narration and dramaturgy. All this has been done in the past and deserves reintegration in the wake of 2020, the 250th anniversary of Beethoven's birth.

V. Beethoven's unique forms

Beethoven's form is absolutely unique. It presents the ideas more clearly than, say, Joseph Haydn's

and Wolfgang Amadeus Mozart's masterpieces, which were still under the strong influence of Baroque styles and techniques. The watershed in the Classical period – the French revolution – streamlined harmonic progression and form. Just as architecture, painting and fashion became simpler in design, Beethoven's forms were cleared of Baroque obscurities. While Haydn's and Mozart's slow movements experienced the strong influence of Bach's sons, primarily that of Carl Phillip Emmanuel and Johann Christian Bach, and manifested adherence to Baroque binary forms and to the French rondo,²² Beethoven's andante and adagio forms have become clearly tripartite – just as described in A. B. Marx as the "Ruhe – Bewegung – Ruhe" principle. And the three-part design is not just an old-fashioned view of form, overridden by Schenker's two-part model (an *Ursatz* with an interruption). The difference between Marx and Schenker on this point is fundamental. The form of Classical and Romantic works is based not simply on a statement (*Satz*) but on the opposition of the statements (*Urgegensatz*). Thus Schenker was not the first theorist to write about the proto-structure; his perception of protostructure contradicts all the achievements of music theory in understanding the inner forces of the music of the 18th and 19th centuries. In this music, there are no two elements that are placed next to each other without some kind of contrast, tension, and opposition. As Marx defines it:

[...] So here again we encounter the original opposition [*Urgegensatz* – I. Kh.] and the basic form of all musical formation, rest, – movement, – rest, which we first [did] (Vol. 1, p. 23) in the opposition of tonic and scale, then

²¹ As already mentioned, the metric period became known to wider circles of Russian music teachers from the Russian translation of the *Musiklexikon* (Riemann 1900–1904). Conservatory professors were exposed to this idea by reading Riemann in the original, for example, the *System der Musikalischen Rhythmik und Metrik* (1903), his *Große Kompositionslehre* vol. 1 (Bd. 1), *Der homophone Satz* (1902) and his dissertation *Musikalische Syntaxis. Grundriss einer harmonischen Satzbildungslehre* (1877; see Riemann 1998 [1877]).

²² The term "French rondo" was common in German and Russian *Formenlehre* in the past two centuries. It refers, among others, to the 3rd *Rondoform* in A. B. Marx's classification of Five Rondo forms and presents the simplest structure of intermittent chain of refrain and couplet. Marx places it within the smaller forms (*kleine Formen*), which manifests a simple and non-hierarchical structure, which is perhaps not at all appropriate for the movement of a monumental symphonic cycle, except for the Finale.

²³ "[...] so tritt uns hier wieder der Urgegensatz und die Grundform aller musikalischen Gestaltung, Ruhe – Bewegung – Ruhe, entgegen, die wir zuerst (Th. 1, S. 23) im Gegensatze von Tonika und Tonleiter, dann von tonischer und dominatischer Harmonie, später im dreitheiligen Liede (so wie, unentwickelter, im zweitheiligen und jeder Periode) gefunden hatten." (Marx 1857: 103).

of tonic and dominant Harmony, later found in the three-part song (just as, undeveloped, is found in the two-part and every Period).²³

The lapidary motivic construction of Beethoven's primary themes, their inborn revolutionary and conflicting character, does not mesh with the idea of powdered wigs, and Robert Gjerdingen's description of the Classical style as "galant"²⁴ would have seemed ultimately inappropriate to the headstrong Northerner who was the first composer to break with a subservient role in society.

Looking through the primary themes of Beethoven's sonata allegri, one can notice significant preference given to sentence form. Unlike the slow and pedantic period, the sentence allows to create a powerful uninterrupted surge of harmonic tension. Quite regretfully, current theory ascribes the invention of sentence form to Schoenberg: pages 41 through 45 of the first volume of A. B. Marx's *Lehre* are dedicated to the detailed description of this form²⁵ and this great theorist, a younger contemporary of Beethoven, demonstrated the complete knowledge of its structure and application in composition. In the third volume Marx describes the forms of the themes of sonata allegri, and here one can find an exhaustive description of the sentence (*Satzform*) as the form of theme favoured by Beethoven. In general, Beethoven's sonata allegros work with unprecedented levels of *energy* (in Ernst Kurth's terms; Kurth 1968). This powerhouse uses the potential energy of the tonal-harmonic function – the term that has been repudiated by Schenker and his followers. The results of this tragic decision are seen, surprisingly, not in research but primarily in music theory pedagogy. Knowledge of harmony has become almost extinct. The goal of the author is to demonstrate the significance of the tonal-harmonic function for Beethoven's form building. The form-building role of harmony has been thoroughly and ubiquitously discussed in the German, Russian and, more generally, European musical-theoretical traditions of the 19th century.

Schenker (1979 [1935]) interpreted Classical form as a single tonal-harmonic cycle (uninterrupted or interrupted only once). He did not reject the ideas of initial tonic, terminal dominant and its resolution. In this, his theory did not depart from that of Rameau and Riemann, despite his claims. However, Schenker made two fundamental errors regarding the structure of the tonal-harmonic cycles in the body of the work. His first error was that he assumed that there is only one overarching cycle, while there are many cycles that form larger clusters, hierarchically related, yet irreducible to a single master cycle. His second error was the idea that the strong forces that move along Classical form are generated by separate tones by mere adjacency. Although stepwise motion is known to be a prominent characteristic of melody, adjacency alone cannot explain its structure in either static-crystalloid or dynamic-processual aspects. The tones are parts of the intervals; the intervals are parts of the chords; the chords emit stronger forces of tension and resolution, thus laying the ground for the interplay of tonal-harmonic functions. The functions are, in the end, the most powerful, and they are responsible for the linear unfolding of the Classical form. The tones do not predetermine or constitute the intervals; intervals cannot predetermine or constitute chords. This system does not work both ways: it is bottom-up oriented, and upper-level structures cannot be reduced to the function of the whole and to the lower-level components.

VI. Analysis of Adagio cantabile: tonal-functional cycles, metric period and phrasing

Due to the limited space of the article, the author suggests focusing on the analysis of a single theme. The theme of the Adagio cantabile, the slow movement of Piano Sonata Op. 13, has been analysed by many great theorists of the past. There are many editions of the sonata as a whole and of this theme in particular. Placement of the slurs is telling; it rarely follows the tonal-functional cycles. Paradoxically enough, the first edition is already very unorthodox in this respect (Ex. 5).

²⁴ Such is the definition of Classical style in his book *Music in the Galant Style* (2007).

²⁵ Marx 1857, vol. 1: 41 (the description of *Satz* and *Periode* form as such) and Marx 1857, vol. 3: 256 (*Satz* and *Periode* as the forms of the Primary theme in sonata allegro form, with numerous examples from the music of Beethoven).

Example 5. Phrasing of the theme in the first edition, Vienna: Eder, n.d. [1800].

Adagio cantabile



p

Example 6. Phrasing of the theme by Hans von Bülow, Sigmund Lebert and Immanuel Faisst.

Adagio cantabile



p

Example 7. Phrasing by Alfredo Casella in *bel canto* style.

Adagio cantabile



p

Example 8. The opening functional cycle of the theme.



This is rather peculiar: the D flat in m. 2 is, obviously, an anacrusis to C (Fa to Mi), yet it is torn away from it. The first slur ends on an anacrusis. The B flat at the end of m. 3 is also an anacrusis to E flat. Both are separated from the tones to which they lead. The phrasing here does not follow the tonal-functional cycles according to Riemann; neither does it use the idea of the fundamental bass of Rameau. Perhaps it conforms to the *regola dell'ottava*²⁶ or *basso continuo*. One way or the other, the result is "chopping music into chords and disregard for linear unfolding."

In the consequent, the phrasing becomes even more difficult. The run B flat – C – D flat that reaches the E flat is separated from the goal note. The E flat, A natural and D flat are connected by the slur. The D flat at the beginning of the penultimate measure is, in fact, a predominant (subdominant) function that is tied to the dominant (four sixteenth notes), but all three, predominant, dominant and tonic, are separated from each other. This strange phrasing has travelled, without any change, into Schenker's edition (see Beethoven 1918–1921).

An interesting alternative is offered by the instructive edition of Hans von Bülow, Sigmund Lebert and Immanuel Faisst. In the antecedent, they played with the slurs by connecting two of them end to end. The consequent is phrased by a longer slur from E flat to D flat that houses two smaller slurs. This interpretation is more linear and less abrupt. However, the long slur ends, unexpectedly, at the predominant that prepares a Perfect Authentic Cadence (Ex. 6).

The most radical of all is the phrasing suggested by Alfredo Casella in Ricordi's edition. He simply united all the notes of the theme under one long slur. This must have been the influence of the Italian tradition of singing, the *bel canto* at its best. Indeed, it makes sense not to divide the divine flow of Beethoven's *cantabile* (Ex. 7).

All three versions have valid reasons to exist. The first comes from the tradition of performance

on the instruments of the time (*Hammerklavier*), quite different from the modern piano in respect of the length of decay of the sound, which, perhaps, explains the placements of the slurs. The second is an attempt to deal with the elusive articulation of the consequent. The third offers a radical solution which, nevertheless, is rooted in the most important source for all Viennese Classical music, in the Italian vocal style. Still, it remains absolutely unclear how to phrase the theme and what criterion to choose. None of these editions takes into account the tonal-functional cycles and the rules of harmonic progression. Most of them separate the dominant from the cadential six-four!

It is appropriate to remember here that Leonard B. Meyer suggested *metric hierarchy as the sole determinant* of phrasing in his famous correction of the Leipzig editions of Mozart's Theme and variations from K. 331 (Meyer 1973). His contribution, however, did not make performances of Mozart's music more flexible and more organic. The secret of phrasing can be revealed in the combination of harmonic and metric approaches. Hugo Riemann provided a very elegant solution: a synthesis of tonal-functional cycles of tension and resolution with metric functions of the light and heavy measures in the eight-measure-long metric period.

From this perspective, it is not difficult to hear that the theme of the Adagio cantabile from the *Pathétique* presents five tonal-functional cycles. They generate the breathing curves and natural phrasing. The first cycle is partial, T – D – T. It is necessary to consider its metric placement immediately: the first tonic is weaker than the last, which fits into Riemann's idea of *iambism*. The first measure is weak in comparison with the second. Thus, this gesture may be represented as an anapest, weak-weak-strong, or in Riemann's terms, light-light-heavy (Ex. 8).

l – l – h²⁷
T – D – T

²⁶ The rule of the octave is used by the proponents of partimento, Robert Gjerdingen and Giorgio Sanguinetti as an opposite of Riemann's tonal-functional harmony and tonality, as well as an alternative to Schenker's graphic reductions. It remains to be seen how Beethoven's own placement of phrasing slurs can be explained in the language of this theory.

²⁷ I will use letters l – for light and h – for heavy, for the convenience of notation. They correspond to Riemann's *leicht und schwer*.

This cycle is rendered as a standard chord progression that was given the name “the leap of the fifth”²⁸ in the Russian “Brigade Textbook” in harmony, first published by Igor Sposobin and colleagues in 1937 (Dubovsky et al. 1984). The soprano of V4/2 has its fifth, and the soprano of I6 has the fifth. This resolution is not standard (the soprano could resolve down to A flat). Sposobin and the brigade placed special emphasis on leaps of fifths and leaps of thirds as means of artistic expression. The leap of the fifth is a standard harmonic progression, commonly known in Russia and studied at the early stages of musical training. Its voice leading advantages are well-known. This leap in Beethoven's Adagio is also a manifestation of the rhetorical figure *exclamatio*, from the vocabulary of figures that was common in the 17th to the early 19th centuries in European music.

The opening T – D – T is self-sufficient. It is a *circular expositional progression* (according to William Caplin²⁹) and *tonic prolongation* (according to Heinrich Schenker; Schenker 1979 [1935]). There is no necessity to add the fourth chord, especially because its soprano is shifted to the right and is given the melodic function of an eight-note anacrusis. There is a tradition of interpreting the initial statement in the theme of the Adagio as a “double neighbour” figure. In this case, the E flat and the tonic chord under it are reduced and eliminated. This is another clear example of how a pre-established idea does not fit into musical practice and square pegs are hammered into round holes. If this is a “double neighbour,” a figure that would satisfy graphic analysis, then the rugged edges of the leap of the fifth have to be “reduced” as well, in order to make the voice leading smooth. And if the prolongation dogma is accomplished – the first chord comes back as

the fifth chord – the question remains what to do next. If this is a prolongation, then landing on the tonic should be perceived as reaching the local goal. However, the fifth chord happens to be in the middle of an intensive development, unfolding, motion upward.

Here, perhaps, a pre-conceived and, virtually, dead-end doctrine of “voice-leading” that hovers above any analysis today, plays a foul joke on theorists. The “double-neighbour” may satisfy an office-based (Russian *kabinetnyi*) musical amateur, but musical practice can blow away all such artificial and shaky value judgments. It is impossible to imagine a singer who would not take a breath between the third and the fourth note in this magnificent melody. A true cinematographic gag will be created if a singer covers the first five notes in one breath and then, by quickly taking a damaging short gasp at the edge of the fifth note, continues with the second phrase. What would happen with the singer is not difficult to foresee: the third note, the high E flat, will be held as long as the appropriate agogic would allow. And each leap, in the upper voice and in the bass, will be savoured by singers far more than the boring succession of adjacencies.

Returning to first three chords of Adagio, one may notice that tradition has established this short yet eloquent chord progression as an isolated, self-sufficient musical phenomenon. In the *partimento* tradition such blocks or patterns form larger works; however, they exist as such; they are being learned and memorised and used as a *motto* (a kind of opening motivic gesture that initiates the development in the aria in Italian opera). Following this hermeneutic idea, without fear of becoming “less formal and scientific,” an analyst can gain a powerful understanding of the musical expression as a whole, of that finished

²⁸ Knowing that instruction in counterpoint and harmony suggests stepwise motion as the optimal way to lead voices, the authors of the “Brigade Textbook” anticipated the situations when the melodic voice leaps. These cases are not dismissed by them; chapters 7 (Leaps of the thirds) and 16 (Leaps from the dominant seventh chord) are dedicated to these special conditions. Such leaps happen to carry much weight in tonal compositions. When it is necessary to change the spacing from close to open, a leap in the upper voice can do the job. Leaps in melody are very expressive. “Dominant second chord (V4/2) at its resolution to tonic sixth chord allows for the leaps of the fifth of the V4/2 to the fifth of I6. Such a leap is used in the upper voice, contrary to the motion in the bass.” (Dubovsky 1984 [1937/38]: 105).

²⁹ In the opening chapter of his *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (1998), William Caplin provides his view on harmonic progressions in three categories: circular (prolongational), appropriate for the beginnings, sequential (used for the middle and development sections) and cadential. The opening three chords fit well into Caplin's first category.

musical speech as if it did not matter “for the unity of the whole.”

It is, of course, the analysis of the whole movement, aiming at covering “how the whole thing is put together.” However, the complete theme of the Adagio is reduced to three descending tones, obviously in complete disregard of its complex heterogeneous structure. There is no consideration of harmonic progression, nor is there any idea regarding metre and rhythm, let alone any traces of analysis of musical form. There had been counterpoint, a category in the history of European music theory. What is suggested in this graph is not related to any of the several manifestations of counterpoint in its real history from Mediaeval organum to the Baroque fugue. Voice-leading – a household term for composers and teachers of theory of the 19th century – is reinterpreted here beyond recognition. There are also some higher levels in the theme, those related to dramaturgy, semantics, and hermeneutics. None of these seem to matter to Schenker. The advantage of his system is obvious: it is wholesome, non-contradictory and clearly formulated as a theory. Any valid scientific theory must have one governing principle, to which all the elements are submitted by the power of logic. Schenker's system is non-eclectic. However, Schenker looks at music through the keyhole of his own amateur, fantastic gadget. All the most important aspects, Schoenberg's “favourite notes,” are, indeed, reduced.

This may lead to a larger question: is reduction a valid universal tool in music analysis? There is traditional harmonic reduction. It has been used in examples 1 through 5. Yet, such reduction eliminates only the figuration and textural effects but leaves the harmonic progression intact. Is it plausible to reduce music any further than that, even for analytical convenience? Can we eliminate the chords from a harmonic progression (i.e. can we eliminate the words from a sentence) without violating its meaning? What if, for the sake of balance, an analyst uses not the reduction, but *induction* – a method of acquiring more and more information in addition to the already existent notation? The product of such analysis will have not fewer but more features; the graph will not get smaller and smaller with each step but will grow larger and larger, gaining all the elements that did not fit into the original notation.

The normal and natural phrasing should match the tonal-functional cycles. Since the first three notes in the melody form a motif – *motto* – there is no necessity to connect them by means of a longer slur with the following group of eighth notes. The second cycle begins with the anacrusis in the second measure. The D flat, the anacrusis, is the dominant that resolves into the tonic; the cycle runs through a digression and leads into a full secondary cycle (S-D-T) in the key of the dominant. The poetic metric pattern here – the foot – is compound. It has three syllables of the anapest, each of which is subdivided into iambs.

Example 11. The second tonal-functional cycle of the theme.

L - L - H
 (D - T) - (D - Tp)
 S - D - T in Dominant
 l - h l - h l - h



Therefore, its functional distribution is more complex (Ex. 11).

So, metrically, it is the anapest (weak-weak-strong) with three iambs inscribed into a lower hierarchical level, and functionally it is a set of mini-cycles. As mentioned earlier, the iamb is prone to the creation of hierarchy. Here, on the smallest level, it created one that is realized in anapest, which is a more complex version of the iamb. The first iambic gesture resolves the dominant to the tonic; next, the dominant resolves deceptively into the submediant. That chord is reinterpreted as the subdominant, followed by dominant and tonic, all in the key of the dominant. Thus, within six eighth notes, the functional ear distinguishes three mini-cycles overlaid on a large-scale cycle. Even on this lower level, the heterogeneous elements, such as harmony, melodic shapes, metric conditions and rhythmic grouping, generate a perfect musical form, complete and irreducible to its elements.

The next gesture is a digression (*Ausweichung*) into the key of the subdominant. It happens after the unresolved dominant. The subdominant after the dominant is allowed only between the sentences of a period. Therefore, there is a break in the train of thought.³⁰ We will return to this unexpected leap in logic later, in the discussion of hermeneutic and musical dramaturgy. These smaller details and finer events matter no less than the overall arch that returns to the tonic at the end of the theme. In fact, this digression to the subdominant via its dominant is self-sufficient. We can mark it as a very small event, with a slur that unites only these two notes, E natural and F.

The next motif also consists of two notes. It is the familiar “leap of the fifth” that involves the dominant 4/2 resolving in to the tonic 6th. We have to isolate it as the reminder of the first leap of the fifth at the very beginning of the theme – this is how *motivische Arbeit* manifests itself as

Example 12. The first of two elements of fragmentation/continuation.

D – T in S

Example 13. The second element of fragmentation/continuation.

D – T

Beethoven’s compositional strategy. He placed a return – a reminiscence – of the initial motif, the motto of the movement, into the middle of a local unfolding, hiding it in the flow of fragmented elements. This second pronouncement proves our point that the initial motif – a thematic unit – was of three chords, not five. Yet, it is the famous feedback in Classical form, the element of strategy that is dubbed by Viktor Tsukkerman as “derived contrast.”³¹ If Schenker was looking for

³⁰ Another notable case of such a sudden break from dominant to subdominant between two phrases is found in Mozart’s slow movement of keyboard sonata K. 332. In contrast with the condition of full attention, controlled by short-term memory, here the composers (Mozart as well as Beethoven), lose the thread, become “spaced out,” completely immersed in meditation.

³¹ Viktor Tsukkerman’s book *Analysis of Musical Works. General Principles of Development and Form-building in Music. Simple Forms* (Moscow: Muzyka, 1980) deserves a special study, especially its opening section on principles of development. “Among the various types of contrast in music, one plays the important role of connecting themes and uniting the elements into one coherent whole. It is the birth of the new by means of processing the old. It is taking place mostly in sonata allegro, in which the Subsidiary theme is produced by means of recycling the elements of the Primary. Such type is called derived contrast.” (Tsukkerman 1980: 13).

Example 14. Cadential function of the theme.

I - h
 D - T in S
 S - D - T
 I - I - h



Example 15. Subdivisions within the terminal dominant and tonic.

I - I - h
 D - T
 (h - I) (h - I) (h - I)



unity (*Einheit*) he could have noticed this beautiful reminder of the head motif, this time without the initial tone (Ex. 13).

The two short gestures, both iambic resolutions of dominants in to tonics, move the form forward by means of fragmentation. If the initial motif was two measures long, and the following motif was of the same length, these two are twice as short. This idea has been known to German and Russian theorists for a long time. Igor

Sposobin in *Musical Form* (1984 [1947]), as well as Leo Mazel and Viktor Tsukkerman (1967), called it *drobniye* (fragmentation). This term was in use throughout the Soviet Union before the Second World War, several decades prior to the publication of Schoenberg's *Fundamentals of Musical Composition* (printed 1967). Two prominent Soviet theorists describe a great number of so-called "scale-structures within a theme"³² (*masshtabno-tematicheskie struktury*), among which *drobnie s*

³² "Musical work carries proportional segments, small and large. They form a rhythm in a general sense, the rhythm of a large plan. The regularities of elements of different scale are different in various cases [...]. In this chapter, we will discuss the relationships of segments of different scale within a single theme; scale-thematic structures." (Mazel, Tsukkerman 1967: 393).

Example 16. Complete theme: prosody, phrasing, functional cycles, figures, rhetorical disposition, dramaturgy and dynamic profile.

T D T; D T, D Tp, (D T)D, || (D T)S, D T, D/S S D T.

| | | | |
|--------------------------|---------------------------|-------------------------|------------|
| suspiratio exclamatio | interrogatio digressio | circulatio katabasis | pianto |
| INVENTIO | ELABORATIO | DIGRESSIO | CONCLUSIO |
| Exposition | Entanglement | Climax | Collision |
| | | | Dénouement |

zamykaniyem (fragmentation with circling) is the most common. The last tonal-functional cycle in the theme serves exactly such a formal function – circling, rounding up. It begins with the anacrusis A natural (the leading tone to the subdominant represented by the supertonic) and forms the last arch, a complete tonal functional cycle S-D-T, the cadence.

Since the last dominant is broken into 4 sixteenth notes and the last tonic is given with a suspension, the beat subdivisions form another metric segment, three subdivisions; the anapest consists of three groups of two, each rendered as the chorée that appeared for the first time in the theme. It mirrors the compound anapest in m. 3 with three iambs as subdivisions (Ex. 15).

The latter creates an additional pattern of symmetry with the similar anapest in segment 2. At the beginning of the theme of the Adagio there is an iamb, and at the end a chorée.

The complete theme thus receives an interpretation – phrasing and dynamic profile – that conforms with a number of heterogeneous parameters that interact and generate a synthetic structure (Ex. 16).

The dynamic profile reflects Riemann's interpretation of Beethoven's music as based primarily on iambic structures (either iamb or anapest). This is seen clearly in the complete phrasing model of the theme. With the exception of the first and the last gesture – the pyrrhic single-beat opening and the trochaic weak ending (the amphibrach), most of the motifs and phrases are built as movement towards the tonic, the resolution of the light function of the dominant in to the heavy function of the tonic. Again, in Asafiev's terms, *initium – motus – terminus*. The iamb here is not as monometric as in the allegro movements. It is rather irregular, following the turns of thought and meditation. The slurs and

forks mark real corporeal gestures and breathing curves. *The graphic induction* – that could be a working term for such all-out analysis – includes a multiplicity of heterogeneous parameters, diachronous and synchronous, paradigmatic and syntagmatic.³³

Unfortunately, these traditional symbolic graphic means cannot represent in earnest the musical events of a continuous and dynamic nature. Beethoven's Adagio cantabile is written for the keyboard, but it implies singing – a full S.A.T.B. texture. As mentioned earlier, harmonic progression deals here with energy in Kurthian terms and its level is already quite high at the first note in the melody and the first chord in the progression. The current is already at full speed. This background voltage is produced by the figuration in sixteenth notes, shared by alto and tenor. Wave-like continuous movement is unstoppable. The tension is created by cyclic repetitions and the change of voice (alto-tenor-alto-tenor) that join, *contrapuntally*, the metric, tonal-functional, prosodic, rhetorical and dramaturgic functions.

These manipulations of a contrapuntal melody in the middle of the texture are responsible for the background flow of the arabesque that pre-exists the functional cycles and voice leading accelerations and decelerations. Thus the voice-leading and harmonic-functional cycles are placed, from the very beginning, into the energy field. The resolution of the unstable functions (dominant or both subdominant and dominant) into the stable function (tonic) follows the trajectory of gaining more energy and releasing it.

VII. Fragmentation and metric-harmonic hierarchy

Of course, one can add to the model above some longer slurs, in compliance with Riemann's metric hierarchy. Thus, two longer slurs that end on the half cadence and on the last function of the perfect authentic cadence would mark larger sweeping gestures that rush toward their goal, fuelled by the higher-level functional cycles. And, on the third level of metric hierarchy, we can return to Casella's one uninterrupted slur.

The overall metric grid in this theme is a standard 2 + 2 + 1 + 1 + 2. By the way, this large-scale fragmentation with summation is self-similar to the smaller one that happens within the first four measures: the quarter notes move into fragmentation into eighth notes and the music ends on a longer note.

Each cycle is not simply a line (a curve) of two or three functional markers. It is the all-inclusive and complete heterogeneous and continuous heap or braid that is comprised of many strands. It is not discrete but analogue; it is rendered not as a form-crystal but as a form-process (to use Boris Asafiev's terms). Many factors take part in the creation of this meaningful movement forward: harmonic function, optimal voice-leading gestures, breathing curves of phrasing, motivic work and motivic extraction, rhythmic grouping, and metric elements, akin to poetic feet. All these interact in a very complex system of relationships that unfolds in time. To reduce all this complexity to several discrete elements (scale steps) that mark a single harmonic cycle, as Schenker suggests, is simply unacceptable. This analysis also suggests logical and communicable phrasing and interpretation of accents, without which articulation would look and sound as foreign to musical meaning. In fact, no pianist plays this theme following the interruptions between the slurs proposed by the editors. Fragmentation occupies an important place in the teaching of Arnold Schoenberg. We begin slowly, then start moving faster at fragmentation segment, but then, rather logically, slow down towards the end. Schoenberg would interpret this theme as written in a hybrid form. The 19th-century *Formenlehre* is much more diverse and inclusive than has been presented so far. It suggests many more structures, beyond sentence, period, and hybrid, and many substructures. Valentina Kholopova, the leading professor of analysis at Moscow Conservatory, counted 45 types of period form in her course in Analysis of Musical Works in 1970–80.

VIII. Voice-leading vs. tonal-harmonic function

The close kinship of melody to harmony (to tonal-functional harmonic progression) cannot

³³ For other examples of such hybrid analysis see Khannanov 2008.

be rejected. If Rameau suggested that “music is called melodious when each participating voice reflects the beauty of harmony” (Rameau 1722: xij), he wrote this in the Vocabulary of terms to his *Traité* not merely for intellectual amusement. Rather, it was – in the 18th century as today – the postulate, a maxim that explains the relationship of melody and harmony. We can add another metaphor: that harmony is frozen melody, and melody is melted harmony. And here, again, it is very difficult to agree with Schenker: he relied solely on an absolute preference for stepwise motion, on adjacency of tones in melody. This has been echoed in neo-Riemannian theory as the main criterion of voice-leading – its smooth, parsimonious character. Beethoven’s melody completely overturns these strange and superficial judgements. It contains 16 intervals, eight of which are steps, the other eight leaps. Schenker rather carelessly reduced in his graph the first leap in the melody (from B flat up to E flat); it did not fit into his idea of *Urlinie* (in this case, descending C – B flat – A flat line). Nobody managed to ask Schenker during his life about the sources for such an imaginary line. They cannot be found in any previous theoretical traditions. Considering leaps as something anti-melodic is rather naïve. The upward leap of a fourth at the beginning of the *Adagio cantabile* is more melodious than any step. In fact, the steps of minor or major second are rather neutral with regard to melodic tension. As for the bass line, Beethoven would rarely satisfy the aficionados of *basso continuo*. Despite their complaints about the crude character of Rameau’s invention, the bass does not always move stepwise. It is not in the character of the bass. Leaps of a fifth and a fourth are as aesthetically pleasing in the bass, more so than dragging it up and down in stepwise motion. The Baroque walking bass is a sign of mannerism; it hides in plain sight the fundamental nodes at the most important metric moments. Moreover, in the context of harmonic progression, bass motion is functionally distinct from the motion of soprano and alto and tenor; each voice must have its specific ways of unfolding. In Beethoven’s bass line, again, there are 16 intervals, eight of which are leaps. With all that, nobody, not even Schenker himself, can accuse Beethoven of “bad voice leading.” The term voice leading has been in use in many national traditions (*conduit de voix* in

France, *Stimmführung* in Germany, *golosovedeniye* in Russia, etc.). None of these traditions would maintain that voice leading is a generative agency that constitutes musical structure. Voice leading can be good or bad: it is the quality of the finished product, a polish, the icing on the cake and, from the standpoint of the musician, a sign of professionalism and talent. Each composer comes with his or her own specific voice leading strategies and each national and period tradition established its own predilections in this respect. Voice leading does not generate the structure; it completes it. Harmonic function in interaction with metric function generates the harmonic progression and a meaningful syntax.

Voice leading and tonal-functional cyclicity are heterogeneous with regard to each other. They represent different components that music synthesizes in harmonic progression. There is a dialectic relationship between the two. A progression may manifest ultimately smooth voice leading, but the tonal-functional syntaxes can be completely torn apart. Many linear descending chromatic progressions provide examples of this. Fryderyk Chopin’s Prelude No. 4, Op. 28, as well as the descending chromatic progressions in Mazurkas Op. 6, No. 1 and Op. 68, No. 4, Alexander Scriabin’s prelude No. 2, Op. 22 – all these examples are commonly interpreted as “non-functional.” There is nothing further from the truth: tonal functional cycles that hide beneath chromatic slides produce a number of elliptical, torn-apart cycles of tension-resolution. The unresolved dominants do not cease to be dominants. They point to the potential tonics. Functional harmony here exists, but it is not smooth. And, on the contrary, the progression may look absolutely fragmented; chords displaced and distributed in different octaves and the rules of voice leading for the seventh chords completely violated. Such is, for example, the opening of Chopin’s Scherzo No. 1, Op. 38. Not only is the predominant chord separated from the dominant by three octaves, but it is ii⁴/3 and the dominant is V⁶/5. They cannot connect properly; all the rules of voice leading are broken. Yet the tonal-functional syntax that underlies the chords is as smooth as it can get; it is, simply, the S – D – T. Levelling this magnificent dialectic and reducing all the angular and rugged aspects into one “smooth” geometric line would incur irreparable

damage to masterpieces in music, including Beethoven's Adagio.

If Beethoven started his melody with a step followed by a leap in the opposite direction, it means that such was his idea. It is not the subject for reduction. In the next segment, Beethoven introduced motion that is contrasting to the previous segment: it is an arpeggiation. Again, it is not the subject for the reduction. And it is not just an arpeggiation: it is accompanied with reharmonization; the arpeggio of the given triad ends up in a digression to the key of the dominant. Then Beethoven decided to give us an inverted sigh motif with a strong local leading tone. All these phenomena exist in the Classical style and cannot be reduced without damaging the idea of the composer. In general, analysis does not need reduction; rather, it requires induction – the acquisition and gathering of the elements that are not present in the score but implied by tradition and knowledge. For example, the tonal-harmonic functions are not present in notation; the analyst is obliged to apply them to notation as they became an important component of the training and thinking of composers and performers after 1722, and especially after beginning of the 19th century.

XI. Dramaturgy

The analysis of the first 8 measures of the Adagio cantabile would be considered incomplete if we failed to delve into the paradigmatic dimension of this music, the one that deals with images, symbols, references, with the domain of musical meaning. The syntagmatic – technical and endlessly complex – is just one of two components. The very existence of the syntagmatic dimension (both as a crystal and as a process) is destined to express – in this case, to ex-press – some important references to the extramusical domain. It is this domain that is of interest to many listeners for whom the discussion of music in technical terms lies beyond the economy of their interests. Beethoven's melodic and harmonic talent, his sense of form, brings music closer to expression in a natural language. The term *Klangrede* essentially

describes Beethoven's musical thought. What does the Adagio want to tell us?

First of all, there are various types and channels of expression. One distinction that was established in the Italian Baroque divided music into that for singing and that for playing on instruments, i.e. *cantare* vs. *sonare*. Beethoven wrote a sonata in which the slow movement is *cantabile*. One of the leading 19th-century pianists, Anton Rubinstein, suggested "singing on the piano." This thesis has been rejected in current early-music circles; they seem to object to it out of a sense of contradiction alone. The fact is that Beethoven has left a masterpiece – a *cantabile* for piano. Alfredo Casella, in his edition, put one long slur over all the notes of the melody. This strongly suggests that Rubinstein's testament was true. However, how it is possible to sing on the piano? It is a percussive instrument. There are some suggestions on sound production and touché that were promoted by the Soviet piano school of Konstantin Igumnov.³⁴ The hand has to be compact: the finger that plays should be in the centre of gravity of the palm. It should be lowered into the keyboard absolutely vertically. The descent on to the key should be smooth and in slow motion (comparable, say, to the lowering of the pickup arm on to the turntable). The finger should not hit the key; it has to immerse into the key as any extremely heavy object. The arms and shoulders should be absolutely relaxed (larger musculature) but the fingertip should be as hard as the diamond tip of a drill bit. The smaller musculature of the hand should be trained for that purpose. This unyielding yet free and flexible lowering of the finger into the key allows the pianist to achieve the most profound and resonant sound. The firm touch creates an effect similar to vocal resonance. Taken in such a way, the piano sound starts *singing*. It is easy to connect it to another sound – by dragging the hand on the keyboard without any attempt to lift it. Some motion of the finger that takes the next note, reminding one of an attempt to "get up," is also advised.

The first three songful notes of the Adagio are remarkable. There are three notes – it is a

³⁴ These postulates were given to the author in 1974–1982 by his professor in piano at the Specialized Music School of Ufa, Alexander Frank, a student of Konstantin Igumnov, Moscow Conservatory graduate of 1941. These are, however, rather standard requirements in the Soviet piano school.

number that symbolizes perfection. It is also a complex gesture. There are two types of gestures used in the theme: real gesture – a reflection of movements of the hand in the air, rhetorical in character; and metaphoric gesture, the one that is initiated by the images of the text (commonly – verbal; here – musical). The famous suggestion of the ancient teachers of rhetoric – to raise one’s hand to attract the attention of the listeners – is clearly expressed at the beginning of the theme. The second motif provides a contrast with the first (as it should in a period form). It contains a short elaboration on the topic suggested in the first. Notably, the first motif is static (anchored in the tonic); the second is moving. It creates the image of standing up and walking around or rushing forward. However, both the first and the second motif end on the same note, the E flat (the dominant). The speaker touched upon the same subject but did it in two different ways. Both motifs have the ending reminiscent of the question, with the rising tone of the voice, characteristic of verbal questions in many natural languages (including German). There is a speech-like logic (*Klangrede*). To follow this analogy, after the contrasting element with elaboration, the period asks for the repetition of the head motif. It is normal, after a digression, to return to the topic.

The intricate inner logic of Beethoven’s theme suggests a different path. As already mentioned, in William Caplin’s terms the form of the theme is the hybrid (the beginning as in a period and the ending as in a sentence). It remains to be explained, however, why the hybrid is used here. In the middle of his musical speech Beethoven seems to abandon the topic that he brought up at the beginning. He has left two questions unanswered. Perhaps, it was impossible to provide such an answer. Two short motifs of fragmentation seem to come from a different discussion, together with its own conclusion. The break that we have mentioned above, the sudden digression after the dominant of the half cadence on to the subdominant, must have meant something for Beethoven. In addition to one suggested earlier – being suddenly spaced out – another possible explanation is being overwhelmed by emotion, soaring on the waves of wide breath. The flux overpowers the normal course of events. It can be called “the ecstatic digression.” It is also the answer of a philosopher: if the direct answer is

impossible, the thinker provides a different one, with a pacifying idea, albeit unrelated to the question. Just as in a catechism, a student poses a difficult, tragic question (the follow-up of the *pathétique* character of the first movement); the teacher does not answer but leads the student away from it to the reconciliation by offering a general conclusion. The topic was local; the conclusion all-embracing and universal.

One aspect of the 19th-century tradition that had been inherited from earlier periods is the use of rhetoric in analysis. It is a great tool that helps to clarify the design of the musical work, just as it helps to understand the higher-level structure and meaning of a literary composition. In current theory, Warren Darcy and James Hepokoski have made a successful attempt to bring rhetoric back into the discussion of sonata form (Hepokoski, Darcy 2006). For the theme in question, the rhetorical disposition shows significant deviation from the common model:

Normative segments of rhetorical disposition:

expositio – elaboratio – confirmatio – conclusio

Licentious disposition of the theme of Adagio:

expositio – elaboratio – (digressio – conclusio)

Obviously, after the *elaboratio*, the theme does not come back but digresses, and the general conclusion does not seem to belong to that elaboration. This brings another possible interpretation: the theme as a narrative. Robert Hatten suggested that narrative occurs only in those places where composers take licenses.

The first concerns what I call *expressive genres* that coordinate larger scale organization of the expressive “plot” of a movement. Since expressive genres are negotiated with formal schemes such as sonata, they can help explain events and formal departures that might appear incompletely motivated from a purely formalist perspective. (Hatten 1991: 75).

He understands the narrative as an additional dramatic profile, ranging from abstract storytelling to the hidden programme.

Viktor Bobrovsky, in his *Functional Foundations of Musical Form*, introduced an interesting idea (Bobrovsky 1978). It was not accepted by many of his colleagues (Yuri Kholopov rejected it publicly in his lectures at the Moscow Conservatory in

the 1980s), but it opens a new perspective on musical form. According to Bobrovsky, form is not something set in stone; a composer may change the plan of the form in the process of its unfolding. There are famous examples, such as the Subsidiary of Tchaikovsky's *Romeo and Juliet*, the one that seems to begin as a small ternary but in the recapitulation suddenly expands into a large ternary form. Bobrovsky calls this "compositional modulation," by analogy with modulation in harmony. On a smaller scale, within the theme, we can suggest that after the HC, Beethoven decided to change the plan of the form and to lead it into something that granted it the status of an individual design.

Another innovation of Bobrovsky concerns the further development of the idea of formal function. Unlike the Schoenberg-Ratz-Caplin model presented in Caplin's book *Classical Form: A Theory of Formal Functions for Music of Haydn, Mozart, and Beethoven*, the Russian idea of formal function exceeds the limits of intra-thematic structure; most of the discussion of formal functions in Sposobin's *Musical Form* (1984 [1947]) and in Sergey Screbkov, Yuri Tyulin and a number of other theorists concerns extra-thematic elements, the functions of the themes and larger form segments. However, within the theme of the Adagio, we have discovered the basic idea, contrasting idea, fragmentation-continuation and cadential function. This distribution agrees with Caplin's model of a hybrid. Bobrovsky went further. He introduced *compositional functions*³⁵ (those that generate compositional modulation, as discussed above) and *dramaturgic functions*³⁶ (those that generate dramatic development). Indeed, even within the first eight measures of Beethoven's theme, one can hear more than just a familiar concatenation of patterns. There

is a short yet powerful drama. The first segment introduces the characters. The second segment plays the role of entanglement in its turning motion with acceleration. The two sigh-motifs work as antinomy, collision. The last segment – the long-awaited dénouement – concludes the theme with catharsis.

The music of the Adagio beyond the theme offers much to consider. Due to the limits of this article, it seems unreasonable to delve into a detailed discussion of the Adagio cantabile as a whole. It will suffice here to mention the main controversy: the problem of overall form definition. Caplin (1998: 233, 284 n. 4) offers two interpretations, as presented in pedagogical practice: rondo and large ternary. The same approach is taken by Valentina Kholopova:

The features of rondo appear in large ternary form in various aspects. Some forms allow for different interpretations. For example, the Adagio cantabile from Beethoven's sonata Op. 13 can be interpreted either as large ternary with truncated recapitulation,³⁷ A B A| C | A, or as five-part rondo, A| B| A| C| A. (Kholopova 2001: 92).

The five sections of the Adagio call for the idea of the French rondo. On the surface, the divisions make exactly such an impression. However, there is another interpretation, as a large ternary form with truncated recapitulation. The latter is less intuitive. However, it has merits based upon philosophical and cultural references appropriate for the time of the creation of the Sonata *Pathétique*.

In general, it is not uncommon to see the slow movement in the sonatas of Haydn, Mozart and Beethoven written in rondo form. However, closer

³⁵ "The functions of the first and all the following themes in a composition are different. [...] The function of a primary theme is general; it receives special values in different compositional designs. [...] The function of non-primary [themes] is dependent on the primary. This is often not the case. The introduction of the compositional function of a non-primary theme is associated with turning on or off the functions. The general logical function of the exposition of a theme is often combined with the general logical function of development." (Bobrovsky 1978: 139).

³⁶ "Every compositional function in a specific historic, stylistic and genre condition carries a certain expressive capacity. Their choice is provided by the artistic creative idea of the work. [...] If compositional functions answer the question of *how* the musical form is moving, the dramaturgical functions provide the answer to the question of *what* is moving." (Bobrovsky 1978: 56).

³⁷ Caplin follows the tradition when he admits that large ternary and rondo are interchangeable. The connection occurs when the recapitulation (the recapitulation of the A section in large ternary and the return of the last refrain in a five-part rondo) is truncated: "The final return of the refrain usually brings back the original structure of the main theme, although an abridged or incomplete version appears instead. [...] Here, as in the case of the third part of the large ternary, it is best perhaps to characterize the reappearance of the main theme as functional return rather than a full-fledged recapitulation." (Caplin 1998: 234).

to the second half of the Classical period, after the French revolution, the forms became more complex. The slow movements composed at this time and in later periods are normally written in large ternary form. The reason is the balance in size and hierarchical complexity with the first movement. The true counterpart of Classical and Romantic sonata allegro is large ternary. The French rondo is too light-weight. In the classification of form in the German style, with its division into *kleine und große Formen*, the French rondo is placed on the border line. In fact, the French rondo is too simple and too flat for a slow movement of a serious sonata-symphonic cycle. It is often used as a form of *Finale* with exactly this idea – simplification, resolution of all problems, dénouement.

The main difference between the 5-part French rondo and large ternary form is the quality and the character of the middle section. In large ternary we label it with an upper-case symbol (B) in order not to confuse it with the local small *b* section of the rounded binary or small ternary form. In the case of the Adagio, the second middle section, the one in G sharp minor, comes in great contrast with the first middle segment. If the first one, in F minor, sounds and looks like a traditional small *b* section, of the type “standing on the dominant,” in a key closely related to the main key and without significantly contrasting elements (definitely, without its own motivic-thematic content), the second middle section, in G-sharp minor, appears as completely self-sufficient. If the first middle section enters with a weak degree of contrast, the G sharp minor middle section generates what Viktor Tsukkerman would label as a conflict.

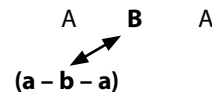
Conflictual opposition is the most powerful and deepest type of contrast; it bears serious consequences. The demonstration of the struggle of contradictory – even antagonistic – elements obviously requires a special sharpness, or even abruptness of contrast. (Tsukkerman 1980: 21).

A new key is introduced; a new theme based on a new motif is present; the texture changes from homophonic-harmonic to imitative polyphonic; the tempo and pulsation is entirely different from both *a* and the small *b* section in F minor. All these factors together lead the author to conclude

that the form of Adagio is not a French rondo, but is in fact large ternary. The main criterion is the relationship of the middle section to the expository section. In the French rondo each episode is related by opposition to the adjacent refrain, the C is built in relation to A:

$$A - B - A - C - A$$

In large ternary, the small *b* section is related to the *a* section only, but the large B is opposed to the whole smaller form A, to both *a*, and small *b*:



The large ternary form has two hierarchical levels; it is the hierarchy of emergence type, the most valuable in arts and in nature. There is also a connection to philosophy: to Hegel in particular. The small *a* interacts with the small *b* as thesis and antithesis, and it results in negation. The product of negation – *Aufhebung* – rises to the next level as large A, which, in its turn, comes into antithetical relation with the large B. The result of this interaction spills into the higher level of interaction of the three movements of sonata.

As for the recapitulation to the whole form, in large ternary form it normally represents the exposition as a whole; the *a* and the small *b* and the small recapitulation. However, the special design of Beethoven's Adagio cantabile may very well interfere with this common distribution. Referring again to Bobrovsky's compositional modulations and specialized dramaturgic functions, it is possible to justify the truncated recapitulation as a part of large ternary outline, as the *returning compositional modulation* (by analogy of the returning modulation in harmony). In other words, compositional modulation normally makes form larger and more complex toward the end; the opposite direction of compositional modulation makes it smaller and simpler.

One overarching aspect of this Adagio that can be seen in many of Beethoven's works is the sphere of the *pathétique*. It has also the name *appassionata*. This type of expression, often coupled with the Italian *bel canto* style, raises the level of interpretation. This results in unusual forms, specialized plans and unorthodox segmentation.

Conclusion

The model of the metric period explains how tonal music works. Exactly the same claim is made by the creator of graphic analysis Heinrich Schenker. So, what is the difference? Riemann does not prioritize a single parameter. He begins with harmonic progression, which in itself is the product of a synthesis of heterogeneous components. The functional design of harmonic progression is emphasized by the rhythmic progression of light and heavy elements, derived from Greek *rhythmopoeia*, the arsis-thesis principle. Metro-rhythmic and harmonic progressions interact and generate a hierarchy of at least three levels within the period form (akin to the three levels in Schenkerian theory). However, these harmonic and metric structures would have remained abstract geometric toys if they were not illuminated by considerations of musical content, expressed in the categories of motif and theme (as Riemann suggests in his *System of Musical Metric and Rhythmic*; Riemann 1903). Motivic work (*motivische Arbeit*) and derived contrast are some of the components that make the overall scheme very eclectic, yet they are absolutely necessary for the organic function of the coherent whole.

The philosophers of the 1980s, Gilles Deleuze and Félix Guattari in particular, came to the realization of the necessity of *heterogeneity* and *multiplicity*. These two terms have become keywords for postmodernism. It is very difficult to retain in one system the components of principally different origins. The major goal of the deconstruction of the previous tradition was its specific isolationism and exclusionism. French thinkers offered a different view of the world of

phenomena (objects, events and processes). It involves inclusivity, diversity, and equity. The purity of the system, its black-and-white quality, is sacrificed. Deleuze even suggested a more drastic step: to replace system with rhizome. It is a compromise, but a necessary one. Postmodernists have revised some aspects of Hegelian dialectic. In the triad thesis – antithesis – synthesis, the antithesis is not just the opposite of the thesis. It is a true Other. The real system – and music is the ultimate example of it – unites apples and oranges. This may bring back the mysterious definition of harmony in Heraclitus, but the musical meaning is coined not when black meets white, but when incompatible participants, such as harmony, metre, theme and form, interact. Tonal form and its epitome in the music of Beethoven, in this sense, stands alone, in contrast to some interesting intellectual affairs with music in the 20th century, based solely on a single isolated theoretical principle (12-tone, minimalist, spectralist etc.).

This brief analytical excursion into the theme of Beethoven's Adagio cantabile can serve as a demonstration of the capabilities of the traditional methods of analysis, established in the late 18th and in the 19th centuries, under the auspices of the conservatory movement. The purpose of this rather transient description is to bring the attention of the scholarly community to the beauty and effectiveness of this tradition. Today, when the name of Ludwig van Beethoven and his music experience new challenges, the analytical technology developed at his time and intended for use on his works, may present a viable solution.

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Lauseehitus ja selle seos funktsionaalharmoniaga, meetriline struktuur ja dramaturgia Beethoveni klaverisonaadi *op. 13* aeglase osa peateemas

Ildar D. Khannanov

Ludwig van Beethoveni muusikaline pärand on olnud korduva ümbertõlgendamise, muutuvate arusaamade ja ümberhindamise objektiks. See annab tunnistust tema muusika suurusest, mida saab ehk võrrelda J. S. Bachi ja vähemal määral teiste tänapäeval üldtunnustatud heliloojate saavutustega. Tema 250. sünniaastapäev on tunnistajaks veel ühele ümbertõlgendusele, mille eesmärgiks on kahjuks tema muusika väärtuse madaldamine. Siiski pole lõputud revolutsioonid ning täispöörded tema muusika retseptisoonis ja tõlgendamises viimase 250 aasta jooksul suutnud eirata tuuma – selle muusika arvestatavat panust tonaalsuse, harmoonia, meetrilise ja temaatilis-motiivilise struktuuri, vormi ning dramaturgia arengusse. Tema muusika tõuseb esile ka võrdluses kahe teise helilooja, Wolfgang Amadeus Mozarti ja Joseph Haydni loominguga, kellega koos temast tavaliselt räägitakse. Nende kahega võrreldes on Beethoveni muusikalised ideed kontsentreeritumad ja orgaanilisemad, sobivamad uuele, galantselt stiilist lähtunud komponeerimisviisile. Kõige hämmastavam on tema oskus ühendada funktsionaalharmonilisi järgnevusi klassikalise peateema range vormilise raamistikuga, suure lause ja perioodiga. Seda oskust on märgatud. Hugo Riemanni jambilisuse ja meetrilise perioodi ideed on Beethoveni stiili peegeldused. Selle artikli autori arvates on meetriline periood üks väheseid õnnestunud muusikaanalüütilisi tööriistu, mis võimaldab omavahel edukalt ühendada muus osas heterogeenseid elemente, nagu näiteks meetrum, rütmiline grupeerimine, funktsionaalharmonia järgnevused, vormifunktsioonid ja lõpuks ka vormistruktuur ja dramaturgia.

Beethoveni muusikalise mõtlemise terviklikkus ning tema kaasaegsete ja järgijate teoreetilised arutlused selle üle on hämmastavad. Ühtki seda muusikat moodustavast elemendist pole käsitletud isoleerituna, ükskõik kui erinevate või ühildamatutena need ka paista võivad. See sarnaneb poeesia rütmi- ja riimikäsitlusega. Neljajalaline jamb muutus luule üheks armastatumaks võtteks just umbkaudu Beethoveni eluajal. Võidakse muidugi väita, et analoogia põhjal prosoodiaga võib Beethoveni partituurides leida ka trohheilisi struktuure. Siiski ei taba need, kes Riemanni jambivalikut kritiseerivad, päriselt märki. Tema jamb ei peegelda otseselt teoses sisalduvat rütmi; pigem viitab ta mistahes tempo-raalses protsessis osaleva taju paratamatule loogikale. Mistahes muusikaline objekt, mistahes rütmi- või helikõrgusstruktuur peab olema mingil viisil ette valmistatud, umbes nii, nagu valmistatakse ette tantsusamm mõne tehnilise ja märkamatu sissejuhatava liigutusega. Tugev löök on sellisena identifitseeritav ainult võrdluses eelneva nõrga löögiga. Sedalaadi arutelu ei olegi nii abstraktne ja spekulatiivne, kui esmapilgul võib paista. Võrreldes Beethoveni *Adagio cantabile* (klaverisonaadi *op. 13* II osa) erinevaid väljaandeid võib märgata, kuivõrd mitmeplaaniline ja keerukas on fraseering ning kui erinevad, et mitte öelda konfliktised on agoogilised lahendused, mida väljapaistvad toimetajad on pakkunud. See viib omakorda olulise küsimuseni: mis üldse on fraseerimiskunst ning milliste kriteeriumide põhjal tuleks otsustada artikuleerimist puudutavate küsimuste üle? Ilmselt ei ole tegemist teisejärgulise küsimusega ja selle vastus(t)el on reaalne mõju analüüsile, kompositsioonile ja interpretatsioonile. Üks lihtsamaid ning samas ka veenvamaid lahendusi on fraseerimine lähtuvalt funktsionaalharmonia järgnevustest. Kuna need muusikat pingestavad ja lahendavad järgnevused on seotud tugevate kognitiivsete mehhanismidega, on nad üldiselt tajutavad erineva muusikalise ettevalmistusega kuulajale. On ülearune öelda, et neid järgnevusi on palju: väga harva moodustavad need tervikliku ja lõpetatud järgnevuse T-S-D-T. Kui neile lisada veel järgnevused lähisugulus- ja kaugematesse helistikesse, läheb pilt päris kirjuks. Teatavas mõttes panevad need järgnevused muusika hingama ja žestikuleerima. Üht põhimõtet ei saa siiski ignoreerida: funktsionaalsus põhineb hästi arendatud akordstruktuuril ning akordijärgnevust ei saa taandada isoleeritud intervallijärgnevusteks, mille tekitavad liine moodustavad helid. Ilmselt tuleks Jean-Philippe Rameau'1 ja Riemannil pidada Heinrich Schenkeriga maha veel üks tõsine virtuaalne arutelu.

Laiemas plaanis peaks seesugune arutelu liikuma edasi muusikalise struktuuri vahetult tajutatavelt elementidelt muusikaga kaudsemalt piirnevatele aladele. 19. sajandi muusikaesthetikas ning eriti

vene ja Ida-Euroopa 20. sajandi muusikaanalüüsis määratleti muusika kõrgemate tasandite poetikat muusika dramaturgiana. Viktor Tsukkerman ja Viktor Bobrovski on selle uduse idee oma töödes ka mõistena defineerinud. Puhtale instrumentaalmuusikale omane dramaturgia on ilmne ka Beethoveni meistritöödes, sealhulgas *Adagio cantabile's*. On veel palju teisi olulisi aspekte, milles kajab vastu Immanuel Kanti ja Georg Wilhelm Friedrich Hegeli klassikaline filosoofia ning mida ei saa analüüsis ignoreerida, kui eesmärgiks on muuta kuulaja teadlikuks ühest ajaloo kõige enam arenenud, ideaalsest ja täiuslikust kompositsioonimudelist, s.o. Beethoveni kompositsioonist tema „Pateetilise“ klaverisonaadi näitel.