

Obfuscation and Clarification: Reflections on Post-tonal Teleology

Abstract. Music composed within the framework of functional tonality is generally conceived of as goal-directed, with goals of musical motion given a priori and usually known in advance. Conversely, nontonal music defines its goals and goal-reaching procedures contextually, or the sense of directed motion is obliterated. From the point of view of teleological strategies, compositions that combine tonal and nontonal procedures pose specific analytical challenges. Such compositions may follow a double agenda: while observing tonal goal-defining and goal-reaching procedures, they can also initially create situations where the principles of pitch organization are obfuscated; this lack of clarity creates tension and the clarification of the initial ambiguity is projected as the goal of musical motion. The tension is released, hence the goal reached, at the point (or a larger segment of the composition) at which one of the principles ultimately prevails. In the Second Symphony by Shostakovich, it is particularly interesting to observe how elements of tonality gradually gain ground, with moments of “tactical retreat”, when they recede into the background again. Ultimately, they prevail, thus fulfilling the goal of clarification.

The interplay between opacity and clarity can unfold in a number of different ways. Thus, in the example taken from Ligeti’s Ten Pieces for Wind Quintet, the goal-projecting strategy of aggregate completion is manifest analytically, but inaccessible to the listener. In an excerpt from Britten’s *War Requiem*, the principles of pitch organization are relatively clear, yet the direction of musical motion remains obfuscated. Finally, in vertical teleology (ultimately traceable to Schenkerian analysis), the purpose of the fundamental layer is fulfilled with the generation of musical surface through the elaboration of successive layers. In *Echoes* by Vasilije Mokranjac, we observe how the principles of pitch organization change with each successive layer, making the surface unpredictable from and irreducible to deeper layers.

Keywords: teleology, post-tonality, Shostakovich, Ligeti, Britten, Mokranjac.

Music creates ambiguities in order to clarify them; contradictions to be united; music creates tension in order to release it. The archetype of such processes can be seen, for instance, in the Schenkerian fundamental structure. It is not an exclusive privilege of music: classical narratology, for instance, has long since established the pattern equilibrium – disequilibrium – equilibrium as the ultimate structure of any narrative; the final equilibrium, at that, being different from the initial one. There are deep psychological reasons why listeners (or readers, or viewers) somehow favor this scenario: this is a fascinating topic, but we must leave it for some other occasion.

Very simply, but with significant ramifications, the Russian musicologist Boris Asaf’ev formulated this idea as “leap – filling in,” *скачок* and *заполнение*. It is “a natural law governing musical motion” says Asaf’ev, that “each elision is filled up or balanced after a while...” (Асафьев 1962: 124).¹ I draw attention to this “after a while”. The resolution does not always follow immediately, and this makes possible long-range processes. Now another question arises. What exactly do we mean by “elision?” We will take it in a broad sense: any deficiency, anything that might be expected to be there, but is missing. This includes also a lack of clarity, absence of clues as to the compositional system, musical language or principles of organization. In such cases, the goal toward which the musical motion is propelled is to clarify the initial ambiguity. Let me put it this way: there are compositions that from the outset reveal their principles of organization. To quote Asaf’ev again: “The immediate goal of each first moment of intoning is to draw the listener into the sphere of musical setting based on the system of sound relationships specific to a given epoch and social context” (Асафьев 1962: 63). Such is virtually every composition written within the framework of common practice tonality, but it is possible also with some other external systems: whole-tone, octatonic, twelve-tone. In that case, there is nothing to clarify.

There are, however, compositions in which these principles are less clear and by no means unequivocal. This is often the case with music written over the last hundred years. Contrary to Asaf’ev’s proposition, the listener is not drawn into a recognizable system of sound relationships. While it is perfectly legitimate that no such system will be established, there are situations in which certain recognizable principles emerge as the composition unfolds, or one of the multiple systems indicated at the beginning eventually prevails.

Before we proceed to concrete examples, two possible misunderstandings must be forestalled. First, the present paper focuses almost exclusively on the parameter of pitch. I do not undervalue other parameters by any means. Moreover, it would be illuminating to discuss the present issues in terms of the correlation between pitch and rhythm, for instance, or to include other aspects of music – texture, orchestration etc.

¹ Translations from Russian are mine.

Yet, throughout the history of European music pitch has been the most structural parameter, the one that has been the principle target of systematic organization. To bring it under the limelight is, I believe, justifiable, even if it does somewhat impoverish the overall understanding of the music that is to be analyzed.

The second caveat concerns the very idea of post-tonal teleology. Post-tonal, or indeed any other music, is not *obliged* to be goal-directed. This is clearly evidenced by a large number of compositions written after World War II, and for that matter a great deal of traditional, ritual and non-Western music. Jonathan Kramer uses the term *vertical time*, “a single present stretched out into an enormous duration, an infinite ‘now’” (Kramer 1988: 55–56). Compositions such as Eric Satie’s *Vexations* or *Bohor I* by Iannis Xenakis are cases in point. Besides, orientation towards a goal is not, or not only something that exists *in* music as its intrinsic property: it is also a mode of listening. Even a tonal piece could be listened to with “non-teleological ears”. However, the mode of thinking in Western civilization is pervaded by teleology: we listen in terms of beginnings and ends, expectations and fulfillments (Kramer 1988: 20). It is part of our listening strategies, indeed of our culture. Our very language is linear.²

The analyses that follow demonstrate that the interplay between opacity and clarity can unfold in a variety of ways. Our first example, the Second Symphony by Dmitri Shostakovich, comes from a somewhat older repertoire, but is extremely vivid and paradigmatic. It draws us into a combat between tonality and atonality; now one prevails, now the other, and occasionally the battle is undecided, and we are stranded on no man’s land between the two sides. The inevitable outcome as prescribed by the poetics of socialist realism is the optimistic triumph of progressive tonality over the chaos and murk of decadent atonality. Indeed, the B major at the end is confirmed as forcefully as, say, C major in Beethoven’s Fifth. However, when a composition begins as shown in Example 1, we realize that long and fierce battles ensue before we reach that goal. This means that we must provide an answer to two related questions. First, how after the tonal confusion at the beginning we reach this particular key of B major; second, how functional tonality as a principle is imposed, what *tonalizing* – if I be allowed this neologism – strategies are applied to transform all these atonal or tonally vague situations into a music flow which adheres to the laws of harmonic functionality.

Example 1. Dmitri Shostakovich, Second Symphony, beginning (reduced score)

² Note also Susanne Langer’s very pertinent observations on the linearity of language (Langer 1958: 77).

Four basic procedures can be identified: 1) promoting intonational footholds, but outside of any harmonic functional context (pitch centrality); 2) introducing chords which belong to the relatively recognizable arsenal of tonal music; in other words, chords to which some kind of harmonic function could be ascribed, but still detached from a proper tonal context; 3) introducing harmonic progressions that imply continuation in a certain direction (emergent functionality); and 4) cadential confirmation of tonality. To a certain extent, these are also the phases of the process; however, the process does not unfold in a straightforward manner. There are moments of “tactical retreat”: functional relations begin to crystallize, but then a tonal “dimming” ensues: a segment which is again tonally disorientating. Even when the structural cadence is reached at rehearsal number 84, a tonally obfuscated segment will follow.

A closer inspection of Example 1 reveals the first of the aforementioned procedures. The note E recurring in the bass, often on downbeats, indicates some kind of weak intonational center. There is even a feeble attempt to go beyond that: the frequency of note B in the bass hints at the dominant-tonic relation (albeit in the sub-dominant key). The overall content of this segment, however, precludes any functional tonal interpretation.

In order to further elucidate procedures of establishing tonal relationships, I have attempted to construct a prolongational graph, as shown in Example 2.

Example 2. Shostakovich, Second Symphony, prolongational reduction

This post-Schenkerian graph is rendered from the vantage point of tonality, and it must be admitted that some solutions are rather strained, and where even such strained solutions do not seem to work, I have put question marks. As we have seen, the initial phases of the composition are marked by pitch centrality, weakly projected at that. It is in such a context, however, that a chord occurs with at least a potential for functional interpretation.

Example 3. Shostakovich, Second Symphony, No. 19 (reduced score)

The immediate surroundings of this chord do not indicate tonality. Besides, in the actual score (Example 3 omits certain parts), we can see that the chord is “contaminated” with added notes in other instruments. This notwithstanding, harmonic functionality is beginning to emerge: a procedure listed above as number 2.

At rehearsal 24, the Symphony is still in a relatively early stage, so the emphatic G_b major chord occurring at that point is already a considerable advancement toward tonality. Enharmonically interpreted as $F\sharp$ it is the dominant of the future B major, although at this point the listener has no way of knowing it.

There are situations in which Shostakovich emphasizes melodic tones that somehow seek harmonic support. Example 4 (rehearsal 20) shows the tone B_b which will – precisely at the point presented in the previous example – become part of a recognizable chord.

Example 4. Shostakovich, Second Symphony, No. 20

Only later, at No. 24, will this B_b become part of the G_b major chord mentioned above. Later still, it will be reinterpreted as $A\sharp$, and ascribed the function of the leading note. At this moment, it is merely a melodic note whose harmonic meaning we are unable to grasp. Likewise at No. 54, where melody reaches the hitherto most convincing tonic, but it is not supported by any chord that could lend it a corresponding harmonic functional meaning.

There are certain moments in which we obtain an impression of hesitation, “reluctance” to embark on a “serious” harmonic progression. If a chord with a functional meaning is established – I have in mind primarily the dominant function – a retreat to subdominant ensues; thus, the dominant behaves as if it were a neighbor to the subdominant (labeled with N in Example 2). Tonal-functional landmarks are established, but they are followed by tonal disorientation. A particularly striking example is the atonal fugato occurring at rehearsal number 32, the more so since it appears just a few bars after we have experienced a situation that could well be considered functionally tonal.

The prolongational graph also indicates that we have reached the structural cadence at number 84: an impeccable, perfect authentic cadence. Admittedly, not even that seals the victory of tonality: Shostakovich is still going to play with our expectations for a while, although at least, the events after this point can plausibly be explained as the prolongation of the final tonic.

The Shostakovich piece is illustrative of what I call a double agenda. One agenda is tonal: the flow of music is directed towards an a priori defined point of resolution. At the same time, it follows another agenda, namely, the clarification of the initial ambivalence. Thus, in the Second Symphony, the process is directed towards the final confirmation of B major, just like in any other tonal composition. However, in order for this confirmation to be viable, it is necessary to confirm tonality itself as a mode of tonal organization.

This example also indicates that ambivalence between functional tonality and some other system is productive particularly when resolved in favor of tonality. When this is the case, the initially disoriented listener seeks some kind of intonational anchor, and such an anchor will be readily recognized once tonal functional relations are established. We have to bear in mind, though, that we can speak of the teleological character of such procedures only if we can provide evidence of a process that promotes the tonal language. If such a process is lacking, then the situation resembles the one in *Polymorphia* by Krzysztof Penderecki. The piece is patently non-tonal, and the C major at its end is but a witticism of sorts – very effective and also carrying an important message at the time it was written – but it by no means furnishes the resolution of anything that went on in the preceding music flow.

The reverse process – when the dilemma tonality/atonality resolves in favor of atonality – appears to be less effective. I am not making the claim that humans are somehow hard-wired for tonality, but I would contend that the majority of listeners will much more readily recognize the signposts of functional harmony, and the ultimate tonic resolution seems to be more acceptable as the goal of musical motion.

Let us now consider an altogether different case. One of the well-rehearsed strategies that enable non-tonal music to project goals is the completion of the twelve-tone aggregate. The first of the Ten Pieces for Wind Quintet by György Ligeti is a straightforward example of that procedure: by Bar 7 (the reader is advised to have the score at hand), the composer has introduced eleven pitch classes; the last one, C \sharp is deferred until Bar 16. Its appearance is, accordingly, expected as an important event, and as an important event it is treated. Apart from its emphatic presentation (general unison, *fff* dynamics, an abrupt change of register), it is located near the point of the golden section. We are somehow aware that the music flow is directed toward this climactic point. However, whether we expect precisely this event and whether our expectation is grounded in pitch is highly debatable. Perceptually, it is out of bounds, so to speak, and only analysis can reveal the nature of the whole process. Similar to the Shostakovich example, there is opacity and there is clarity, but unlike in Shostakovich, they are distributed so that clarity is all for the composer, the opacity for the listener. In semiotic parlance, the esthetic level is rather at odds with the poetic and neutral ones.

Yet another possibility will be illustrated by the seemingly unassuming example from Benjamin Britten's *War Requiem* presented in Example 5.

Boys' choir

Te de - cet hy - mnus, hy - mnus, De - us in - Si - on

Organ C D Eb C \sharp min E F \sharp

Strings C F \sharp

Te de - cet hym nus, hy - mnus, De - us in - Si - on

Organ B min A min G \sharp min Bb G min C

Strings F \sharp C

Example 5. Benjamin Britten, *War Requiem*, Te Decet

The overall profile of the melody, and in particular the absence of overt chromaticism, suggest tonality or modality as the basis for pitch organization; the melody does not project clear tonal-functional relationships, so the modal interpretation would be more plausible. As the pitches follow one another, we soon realize that they do not repeat, and that we are dealing with a twelve-tone row. Well, not exactly. The second and third pitches but last are repetitions of the pitches already stated, and the phrase stops short of completing the full row (the missing tone is G); however, on the whole, the idea of a twelve-tone row has already been driven home. This twelve-tone idea is reinforced in the next phrase: it is a transposed inversion of the first and thus conforms to the standard repertoire of dodecapronic procedures. However, contrary to the original purpose of the twelve-tone method to be a means of obliterating pitch hierarchy, in the present case, since the initial and final pitches are the same tone C, there is at least a hint at pitch centrality. Next, the structure of this example clearly follows the antecedent-consequent pattern of the classical tonal syntax. But the stock harmonic progression T–D D–T is replaced with the tritone relationship (C–F \sharp F \sharp –C). The analogy between tritonal and dominant-tonic relations is associated sometimes with Bartók, and most commonly with Scriabin, as

suggested by the Russian musicologist Leo Mazel' (Мазель 1972: 493). Scriabin, however, tends to use it in octatonic contexts, of which there is not as much as a hint in the present example. All this we have inferred from the melody alone. Will the accompanying chords clarify the situation? The string chords seem to reinforce the harmonic profile of a departure from the quasi-tonic to the polar, quasi-dominant chord, and a return to the tonic, whereas the organ provides a touch of bitonality. What conclusions about the pitch organization can we reach based on this account? A fair conclusion would be that it is extraordinary how all these diverse principles effortlessly blend. Zatkalik and Kantić (2015) argue that music's predilection for such blending reveals isomorphism between musical structures and processes, and structures and processes unfolding in the unconscious mind. For the present paper, however, it is crucial that complexity notwithstanding, the organization of this excerpt is rather transparent. Yet, the fusion of all these organizing principles effectively thwarts any meaningful expectation, so in that sense, the example is quite opaque. The listener has no clue to the direction of musical motion.

When we speak of musical teleology, we chiefly think of the diachronic, horizontal dimension; we think of music as moving in time toward a certain event recognized as the goal of that motion. I would now like to briefly engage with what I call vertical teleology. This concept is inherent in such analytical approaches that presuppose the existence of structural layers or levels, *Schichten*, as in Schenkerian analysis. For Schenker, let us be reminded, every tonal composition is derived from *Ursatz*, fundamental structure, which generates, through *Auskomponierung*/composing out, more elaborate levels, which in turn generate musical surface, the composition as we actually experience it. Thus, in the horizontal dimension, the goal of musical motion is fulfilled with the final tonic resolution. At the same time, the purpose of *Ursatz* is fulfilled when it has generated the surface layer: this constitutes the vertical aspect of musical teleology. Whether such a concept is applicable in the post-tonal repertoire has been hotly debated,³ but let us allow that if not proper prolongation, then at least some kind of structural depth can be identified even in music written outside the tonal functional system. From that perspective, in Britten's example, we have witnessed a collusion of different principles, but we have said nothing about structural layers. In Schenkerian analysis, we are concerned with structural layers, but the uniformity of principles across these layers is something of a dogma. I contend that it is possible to have it both ways: structural depth, even prolongation, but with different organizing principles distributed across structural layers. I will provide an outline of this idea in the following – shamefully brief – account of a masterpiece of Serbian piano music, the twelve-movement suite *Odjeci* (Echoes) by Vasilije Mokranjac.⁴ It is similar to the Britten example in the sense that it is governed by various systems of pitch organization simultaneously. There are certain portions of the composition where one can legitimately apply the rules of functional tonality. Yet, it also contains non-resolving dissonances for which there is no plausible functional explanation; vertical sonorities even collapse into clusters (Ex. 6).

The image shows a musical score for two staves. The top staff is in bass clef and the bottom staff is in treble clef. Measure 8 is marked with a dotted line above it, indicating a specific harmonic or melodic structure. Measure 9 shows a melodic line in the right hand and a bass line in the left hand, with dynamic markings 'fp' and 'f'.

Example 6. Vasilije Mokranjac, *Echoes*, VI movement, bb. 8–12

³ See, for instance, anti-prolongational arguments put forward by Joseph Straus, and his association model as a suggested alternative (Straus 1987).

⁴ Vasilije Mokranjac (1923–1984), one of the most prominent figures in the history of Serbian music, a long-time professor of composition at the Faculty of Music in Belgrade.

The coloring of harmonies with added notes is redolent of impressionism (Ex. 7).

Example 7. Mokranjac, I, 8–10

At the same time, evocations of ancient past also play a significant role, whether it be a mediaeval organum (Ex. 8a) or a quotation from the Byzantine chant (8b).

a)

b)

Example 8. Mokranjac: a) IV, 5–11; b) I, 14–22

Yet, as I have argued elsewhere (Zatkalik & Mihajlović 2016: 277–284), the analysis of the piece – and on this occasion I can only present the bare conclusions – suggests that at the deepest background there is a tritonal *Bassbrechung*, a departure from the pitch center B to F and a return to B. It pushes to the surface at a critical structural junction, before the return of the Byzantine chant and the apotheosis thereof (Ex. 9). It is the point of ultimate condensation, the whole composition “squeezed” into these few bars, as it were.

Example 9. Mokranjac, X, 11–20

The middleground layer, as I understand it, is governed by the rules of functional tonality. The surface presents itself as a complex mixture of tonality, modality, local tritonal relationships, coloristic harmonies from the impressionist stock, and sharply dissonant atonal sonorities. A lower level not only generates a higher one: it also generates new rules for the proximate level.

In this last statement lies a potential for a completely new area of study. Let us regard the above analytic approach in the following manner. We believe we have defined the fundamental level, and the procedures whereby the next level is generated. However, this supervening level displays properties considerably different from those of the generating level. The same relation replicates on subsequent levels. Thus, the properties of higher levels are derived from, but not reducible to, or predictable from the lower ones. I have just described what in some other disciplines⁵ is known as emergence, an area of study that seems to have gained considerable traction over the past couple of decades. Apparently, music can offer a great deal to the study of emergent phenomena, and the related fields of the complexity theory, theory of chaos and nonlinear dynamic systems. While this leads us far beyond the aims and scope of this paper, I conjecture that the study of music along these lines will prove to be illuminating.

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⁵ Notably biology, but applicable virtually to any other field: from the formation of snow crystals, to human consciousness, to philosophy.

Užmaskavimas ir išskaidrinimas: pamąstymai apie posttonalią teleologiją

Santrauka

Muzika, sukurta pagal tonalią sistemą, paprastai yra suvokiama kaip nukreipta link tam tikro tikslo, kai muzikinės tėkmės galutiniai taškai pateikiami *a priori*, kaip žinomi savaime ir (bent jau teoriškai) identifikuojami kaip tokie, kai yra pasiekiami. Nors netonalioje muzikoje kryptingo judėjimo pojūtis kartais būna pažabojamas, teleologiniai dėsniai ir čia reikšmingi, nes juos sąlygoja Vakarų kultūroje giliai įsišaknijęs linearus klausymas (ar netgi mąstymas). Taip pat svarbu pažymėti, kad Vakarų muzikos kanono tradicijoje garso aukščio parametras visada atliko kertinį struktūrinį vaidmenį, taigi jis yra ir šio straipsnio dėmesio objektas.

Kompozicijos, kuriose derinami tonalios ir netonalios sistemų principai, kelia specifinius analitinius iššūkius. Tokiose kompozicijose gali būti laikomasi dvigubos strategijos: pastebimas tonaliai muzikai būdingas, į tam tikrą tikslą nukreiptas ir jo siekiantis komponavimas; kartu gali būti kuriamos situacijos, kai garso aukščių organizavimo principai yra sunkiai suvokiami – tokio pirminio dviprasmiškumo išskaidrinimas gali būti projektuojamas kaip muzikinio judėjimo tikslas. Tai gali būti siejama su labai paprastu, bet efektyviu „šulio užpildymo“ modeliu, pasiūlytu rusų muzikologo Boriso Asafjevo, pagal kurį „kiekviena elizija tam tikru metu yra užpildoma arba subalansuojama“. „Elizija“ gali būti suprantama plačiąja prasme, pvz., kaip aiškumo nebuvimas ar nepakankamas konstruktyvių kūrinių principų atskleidimas. Šią idėją iliustruoja Dmitrijaus Šostakovičiaus Simfonija Nr. 2. Įdomu stebėti, kaip po pradinės atonalios atkarpos ryškėja tonalūs elementai su „taktinio atsitraukimo“ momentais, kai jie tarsi nutolsta į antrą planą prieš pasiekdami finalinį triumfą.

Kitame pavyzdyje, pirmoje iš György Ligeti „Dešimties pjesių“ pučiamųjų kvintetui, į tikslą nukreipta strategija remiasi sąmoningai kontroliuojamu chromatinės visumos išbaigimo procesu. Vis dėlto šis teleologinis aspektas yra sunkiai apčiuopiamas klausytojo; tai visų pirma yra poetinė kompozitoriaus priemonė, tad aiškumas gali būti pasiekiamas tik analize. Kitokia potencija yra būdinga Benjamino Britteno „Karo requiem“. Čia garso aukščių organizacija yra pakankamai aiški, tačiau lygiagrečiai pasitelkti kiti principai pažaboja bet kokius prasminius lūkesčius, ir muzikinės tėkmės kryptis tampa neaiški.

Kalbant apie serbų kompozitorių Vasilije'ų Mokranjacą pasitelkiamas vertikalios teleologijos konceptas. Jis suponuoja tęstinumo ir struktūrinių sluoksnių idėją (akivaizdžią Schenkerio analizėje), pagal kurią fundamentinis sluoksnis išbaigiamas tada, kai muzikinio paviršiaus kilmė remiasi hierarchinių sluoksnių išplėtojimu. Kiekvienas kompozicijos „Echoes“ („Atoaidžiai“) sluoksnis atskleidžia naujus organizavimo principus. Vadinasi, paviršinis sluoksnis kyla iš gilesnių, nors ir negali būti nuspėjamas ar visiškai redukuojamas iki jų. Jų savybės išryškėja eigoje, tad reikalingi tolesni muzikos tyrimai pasitelkiant kompleksiško teorijas ir nelinearios dinamikos sistemas.