

Tom Rojo Poller:

Music and Time-consciousness.

A phenomenological approach to the
intercultural dimension of time experience

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Music and Time-consciousness. A Phenomenological Approach

Abstract:

Music has essentially to do with time. In different times and different cultures different concepts and underlying notions of time in music have existed. So, how can we, when it comes to intercultural exchange, speak about musical time neither in imprecise metaphorical, nor in - regarding the richness of time experience - superficial traditional western terms of music theory? The aim of my paper is to propose some conceptual tools derived from a phenomenological approach to music in order to understand and describe musical temporality.

Because of its semantic limitations, music, in its modern autonomous meaning, can be characterized by the existence of one homogeneous level of time. Unlike in other arts, which are able to represent durations or stretches of time symbolically, in music, the experienced time itself predominates. That is the reason why a phenomenological approach, which tries to explain time not ontologically, but through a thorough analysis of the phenomena given in consciousness, seems to me attractive in order to understand musical time, though this approach is, admittedly, chosen pragmatically, since the epistemological presuppositions and hypotheses can, due to lack of time, not be discussed appropriately.

The starting point of my examination is Edmund Husserl's concept of the 'living present', which emphasizes, against the natural scientifically notion of the present as an infinite small, distinct time point on a directed time line, the coherence of time-experience in a continuous present-field consisting of past and future aspects. Having, paradigmatically for the complexity of the subject, established this notion of the present, I go on showing how the three dimensions of time, past, present and future, can be examined more closely. For the dimension of the past Husserl's fundamental differentiation between first and secondary memory or 'retention' and 'reproduction', applied to musical phenomena, can give important insights in how musical time-objects are constituted in consciousness. Additionally, I propose an analogous differentiation for the future dimension between first and secondary expectation or 'protention' (Husserl's term) and 'proproduction' (my own term). I argue, that retention and protention are substantial for the constitution of harmony and tonality whereas reproductions and proproductions play an important role in formal relationships and that they are the preconditions for musical significance. Giving musical examples, I finally demonstrate the applicability of the proposed terms, trying to reformulate traditional analytical categories from a phenomenological point of view.

Music is obviously to do with time. But, in which way? And what is it, musical time, and time-consciousness? Let me begin with a quote of St. Augustine, the great philosopher and theologian of early Christianity. In his famous *Confessions* he wrote: “For what is time? Who can easily and briefly explain it? Who can even comprehend it in thought or put the answer into words? Yet is it not true that in conversation we refer to nothing more familiarly or knowingly than time? And surely we understand it when we speak of it; we understand it also when we hear another speak of it. What, then, is time? If no one asks me, I know what it is. If I wish to explain it to him who asks me, I do not know.” I think, this last sentence exactly describes our daily experience as composers. We work with musical time all the time, we form musical time all the time, but seldom comes the time when we reflect or have to explain what this time is we compose with.

But maybe we should. For two reasons or, more precisely, from two perspectives.

As modern western composers we are used to question the very basics of our musical language. The history of 20th century music is full of evolutions and revolutions. Much has been written about the loss of tonality or – better – tonicality, about atonality and new forms of tonal organization, a lot has been written about the loss of form and new ways of compensating for it, but far too little attention was paid to a just as fundamental loss, the loss of time, i. e. of a temporal framework going hand in hand with the loss of the tonal framework. In traditional tonal music the temporal framework was guaranteed by a system of syntactical rules including a set of bars with a hierarchy of stressed beats, regular meters and divisible rhythms, to mention

just some important features. In the non-tonic music of the early 20th century music composers were challenged to find new ways of rhythmic organizations and, in doing that, they simultaneously were enabled to find new ways of forming new time experiences, as we see e. g. in the repetitive and cut-like music of Strawinsky or in the static canvas-like time-fields, the 'images' of Debussy's music. This exploration into new territories of time experience of which not only Debussy and Strawinsky, but also Ives, Messiaen, Stockhausen and others were protagonists, is musicologically still quite uncharted. So, reflectively dealing with it, gives us western composers on the one hand the possibility of insight into a neglected aspect of our own tradition and thus a better self-understanding, on the other hand, once the still unexplored history is rationally mapped, we might have better orientation to find new ways in our daily work dealing with time.

But there is another reason to study time experience and -consciousness, when it comes to intercultural exchange. I mentioned Debussy earlier. His innovations in creating new time experiences surely have to do with his reception of gamelan music and its circular time concept. I'm not an expert in it, but I maintain quite firmly that the experiences and concepts of time vary in different cultures significantly and that an exchange and mutual influence in this area could be very rich. But in order to learn, talk about and understand the unfamiliar conceptions of musical temporality it is not only important to know the culturally different conditions and circumstances of their genesis, but also to find, apart from pure intuition, a common ground and language. And that is the point where consciousness comes into play because time-con-

sciousness, I hold, is a universal condition for time experience. This claim is, admittedly, hypothetical, and I can't go into detail defending it, but that we *are* conscious of time and that we *are* conscious that music exists not without time is, I think, obvious. Furthermore music is particularly suitable for time-consciousness analysis because the semantic limitations of at least autonomous instrumental music don't allow to represent durations or stretches of time symbolically like a film or a theatre piece representing a plot with an independent temporal order. Since autonomous music is not able to represent such pre-ordered time structures in a denoting way, it relies exclusively on one homogeneous level of time, namely the experienced time itself.

So, where to start? Let me go back to Augustine. In the above quoted passage, having stated his paradoxical ignorance about the nature of time, he goes on: “Yet I say with confidence that I know that if nothing passed away, there would be no past time; and if nothing were still coming, there would be no future time; and if there were nothing at all, there would be no present time.” Apparently, Augustine refers here to the three dimensions of time-experience, the past, the present and the future. This temporal trinity is, I suppose, for everybody obvious and therefore a plausible starting point. But if we think about it more carefully it entails some problems as we see when Augustine, going on, writes: “But, then, how is it that there are the two times, past and future, when even the past is now no longer and the future is now not yet? But if the present were always present, and did not pass into past time, it obviously would not be time but eternity. If, then, time present – if it be time – comes into existence only because it passes into time past, how can we say that even this is, since the cause of

its being is that it will cease to be? Thus, can we not truly say that time is only as it tends toward nonbeing?” Augustine's intricate and seemingly paradoxical consideration about the nonbeing of time reflects a problem which arises when we think about time ontologically and metaphysically, i .e. when we ask what time in its essence really *is*. Let me take the classic natural scientific notion of time which originated in the 17th and dominated till the 20th century as an example. According to it, time is a objectively measurable unidirectional progression on a line which is made up of an infinite number of time points. Consequently, the present is represented by an infinitely small point on the time line defining the section left and right of it as past resp. future. Apart from the problem similar to Augustine's, namely the almost nonbeing of the infinitely small present, this model of time simply doesn't give an adequate picture of our time experience. György Ligeti, the great contemporary composer, once put it ironically: “Time is grey and flows from left to right.” One could apply this statement to the natural scientific, pseudo-objective time model, because the present we experience is much richer than a tiny grey point could suggest.

So, apparently we need a different approach to time-experience. I suggest a phenomenological one. Let me shortly explain its characteristics. The programme of the philosophical school of phenomenology founded by the German Edmund Husserl around 1900 was to leave explicitly metaphysical and ontological judgements about the nature of things and the outside world out of consideration, instead it aimed at concentrating on the phenomena as they appear to us. In our context that means, a phenomenological approach is not interested in what time really *is*, but in which ways

it is *given* to us in consciousness, in which ways we experience it and how we can talk about it sensibly being aware of the methodological limitations.

So, let me reformulate the initial question “What is time?” to “How appears time to us?”, “How do we experience time?”. A provisional, and both trivial and plausible answer could be: complex and rich. Complex and rich is, as I already hinted, especially our experience of the present. The present doesn't appear to us as a small distinct now-point, it could be better described as a diffuse field in the continuous flow of time. Husserl coins for this the term 'the living present' in order to mark the rich experiential content of the present-dimension. For him, in the 'living present' past and future aspects, the just-passed and the about-to-come, flow together into one time-field, the now. The now-point is just a so called 'ideal limit', a limit which exists only as an idea and not as a concrete experiential fact, but the surroundings of the now-point form, to put it metaphorically, the halo of the now, the 'living present'. But which aspects of the past and the future make up this surrounding. I fear, I have to go a little deeper into phenomenological terminology, nevertheless I try to keep this conceptual analysis not too abstract.

A fundamental differentiation Husserl makes in his *Lectures on Internal Time-Consciousness* from 1905 concerns the past. What we refer to as memory, he claims, is actually two different phenomena he calls 'primary' and 'secondary' memory or, denoting the forms of their appearance, 'retention' (the appearance form of primary memory) and 'reproduction' (the appearance form of secondary memory). Husserl de-

velops these two concepts in a mediation on a melody I'd like to paraphrase shortly: Imagine listening to a tone. The tone begins and lasts for a while, after some time it ends and we hear another tone. Now, when the second tone starts, the first tone is obviously passed, it belongs to the past-dimension, but simultaneously it is somehow still present as just-passed because we hear the second tone in relation to the first, even if there was a more or less small pause in between. We, in Husserl's terminology, 'retain' the first tone in our consciousness as still-present, it remains present though it has just passed. To be clearer, we do not remember the first tone like we would remember the fact that we heard a concert on Tuesday. In other words: The duration of the first tone is still present in retention whereas, in the concert case, the impressions are not present any more. Of course, we could remember the duration of, say, the concert's first piece, but then we would imagine in our recollection the passing of the piece, we would reproduce, in a slightly modified way perhaps, the same process of retaining durations we went actually through hearing the piece. But let's go back to the melody: After the first and second tone a third tone enters, and the second and still the first tone remain present as just passed, the phases of their passing are present in retention. We neither hear disconnected tone points, nor do we remember actively the first tones like past events, but we constitute in our consciousness one time object, i. e. the melody, and we are able to recognize the melody as a melody just because its components, the single tones, form a continuum in our retentional consciousness which is connected to the living present. As soon as the melody is over, the continuum doesn't necessarily stop, the melody might still be retentionally

present for us some time so that we, e. g., can easily repeat it in our minds. Of course, retentive consciousness is limited. Husserl compares it with the scope of our view which is also limited: A certain temporal scope is retentively present like a certain spacial scope of our view is present.

Now, we could carry on the example of the example to study not only the differences of primary and secondary memory, but also the transition from retention to reproduction. Imagine you want to learn the melody just by listening without any notating it, be it externally or internally. You repeat the melody inside or you sing it along as it is retentively present to you. You don't must wait to long, otherwise the melody has left your temporal scope, it is lost and irretrievably past. But if everything works fine, you get after some repetition so used to the melody's structure, to the durations and the sequence of its tones that you can remember it easily, but you don't have to reproduce it necessarily exactly how it passed, you can, so to speak, compress it like you do when you speak about a piece you heard in Tuesday's concert. The piece like the melody of our example has become a time object with a different temporal structure, you can reproduce it any time you like in its absence and it is even not attached to its passing neither in the living present nor in your imagination any more.

The example of the melody might have given you a first impression of the differences between retention resp. primary memory and reproduction resp. secondary memory, but you may ask, what does it mean for time and music? But before dealing in greater detail with the musical implications of this analysis, let me give a system-

atic summary of the retention-reproduction- resp. primary-memory-secondary-memory-differentiation in four points.

- 1) The content of primary memory is presentational whereas the content of secondary memory is representational, that means in primary memory we experience phenomena as they are present to us, in secondary memory we recollect phenomena as they were present to us.
- 2) The content of retentional consciousness is necessarily and non-detachably bound to the living present, it is in that sense continuous; contrastingly, the content of reproductional consciousness is separated from the now, it is necessarily discrete.
- 3) The durational structure of primary memory is fixed, durations can be experienced in only one temporal way whereas the durational structure of secondary memory is flexible, durations have become objects which can be, so to speak, seen from different perspectives.
- 4) Primary memory is fresh and passive, secondary memory is active and tends to be comparatively unclear, meaning that we cannot be mistaken by retentional consciousness and are passively affected by it whereas, as we all know from imprecise or incorrect recollections, we can be mistaken by reproductional consciousness and are able to actively recollect representations.

Now, up to this point, I've talked about the past-dimension, but what about the future?

Husserl uses a concept analogous to retention, namely protention to describe the future dimension as expectation. But he doesn't elaborate this conception in such a detailed way like the retentive conception, nor does he distinguish it from any other future aspects. In my view, it would be consequent and plausible to make a differentiation, analogous to that between primary and secondary memory, for the future dimension as well. Just consider these two simple examples. Imagine hearing a tone followed by another tone a half tone higher which is followed again by another tone a half tone higher and so forth. It is very likely that you expect after some repetitions, the number may vary individually, exactly what is going to happen, namely that a tone is followed by a tone a half tone higher, and you can't help expecting it because it happens passively and your consciousness can't be mistaken that it *does* have this particular expectation. Now the second example: I'm telling you that one piece of tomorrow's concert uses extensively upward chromatic scales. Probably, you imagine now the piece, you might even exactly imagine what you just imagined in the first example, a chromatic scale upward with certain durations, maybe the beginning of the piece, or you just form a general idea about the expression or the atmosphere of the piece, anyway, you actively engage in structuring the expectation with which you will actually hear the piece tomorrow. In this example we are not exactly dealing with expectation like in the first example where you expected the events which were about to come, but it's more about prospecting and forming an active and free attitude about the future. I call this mode of consciousness in analogy to reproduction proproduction, and this proproduction, I claim, is as significantly different from protention

which is passive and continuously bound to the present as retention is significantly different from protention.

But now to the music. Let's listen to a short example from a Bach piece, an excerpt from the famous Ciaccona in d-minor:

Violin

I'm referring in the following to the section we see in the score. What we hear is, though there is only one voice, the solo violin, a pseudo-polyphony, resulting from the leading of this voice. Polyphony, normally established in simultaneity, is here constituted in an illusionary way through splitting the different independent voices of the underlying polyphony into sequential alternating sections. E. g. we hear in the beginning the upward beamed notes as one voice and the downward beamed notes as another voice distinguished by its lower position and by its chromatic steps from the diatonic steps of the upper melodic line. In music theory this phenomenon is called latent polyphony, but its very possibility can sufficiently be explained in theory only

if its temporality is taken into consideration as well, and in this case we have to refer to the concept of retentionality to explain that we are able to constitute two coherent independent lines though not being simultaneously present acoustically, they are simultaneously present just in our consciousness: one as present, one as retentionally still present.

But retentional and protentional consciousness is not only, as this example shows, essentially involved in melodic or, more generally, diastematic relationships, but they play also a crucial part in constituting harmonic relationships. E. g. the for tonal music fundamental relation between dominant and tonic is only possible when we expect protentionally the resolution of the one into the other. But that is not enough to explain tonality, consider the following example: the slow introduction of Mozart's “Dissonance-Quartet” in C-Major:

The image shows a musical score for the slow introduction of Mozart's "Dissonance-Quartet" in C-Major. The score is in 3/4 time and marked "Adagio". It consists of two systems of staves. The first system shows the piano introduction with a treble and bass staff. The second system shows the violin and viola parts. The music is characterized by a slow, dissonant introduction that does not feature a C-Major chord in the fundamental position until the end.

In the whole introduction (only the last six bars which remain in G-Major are left out in the score) there is no C-Major chord in the fundamental position (only once on a transitional quaver) and there is no cadence, nevertheless, and at the latest when G-

Major is reached this is apparent, we are in a C-Major context. Obviously, retention which is responsible that we are able to hear the sequence of intervals and chords relationally doesn't suffice as a comprehensive explanation, because there *is* no C-Major chord which could be retained and related to, in the contrary we are led from the beginning C of the Cello into a harmonic labyrinth in which we mainly orientate by means of our expectation, our protention. We expect for instance the resolution of the retardation of the first violin in the first bar (the a') because of our internalised listening habits, as it were, automatically, and if our listening habits are disappointed like by the progression from the g-minor context of the third to the b-flat-minor/G-flat-Major context in the fourth bar, this has a strong conscious effect. But the expectation in this case is different from proproduction, as we can see when we consider the end of the introduction (which is not in the score anymore). After the harmonic confusions of the beginning we have reached a stable G-Major and it endures for a relatively long stretch of time (about 30 seconds). During this timespan the experienced listener of first movements expects the first theme which he knows is about to enter according to the rules of sonata-form. But this expectation is not protentional since it doesn't originate non-detachably from the living present, but it is in its content already established in the listener through knowing the principles of the sonata form. Therefore during the G-Major passage, the listener applies his knowledge and actively forms an expectation or even an imagination of the theme to come, maybe he even prefigures its motives deducing it from the already heard ones.

So, proproduction and also reproduction seem to be crucial for constituting musical

form and are responsible for recollecting and anticipating unities and identities of motives, themes or – more generally – recognizable melodic, harmonic and rhythmic structures.

I'd like to give you another example showing how intricately the different modes of time-consciousness are interwoven. At the end of the first movement's recapitulation of Beethoven's Third Symphony we hear the following:

The image displays two systems of musical notation for piano. The first system begins with a piano (*pp*) dynamic marking. The right hand features a tremolo pattern, while the left hand plays a steady bass line. The second system shows a dynamic shift to forte (*f*) and introduces a more complex melodic line in the right hand, characteristic of a horn's entry.

Because of the preceding context it will be at the beginning of this extract clear for the experienced listener that the development part of the sonata form will soon be over. The c-flat- resp. b-flat-a-flat-tremolo which, in this context, is clearly heard as part of the B-flat-Major dominant seventh chord signals to the listener that the recapitulation with the main theme is going to start soon, so both the listener's protentional consciousness awaiting the tonic and his proproductional consciousness awaiting the recapitulation are involved. Now, two bars later the horn enters actually with the main theme which is reproductionally recognized in its shape and retentionally located in the tonic, E-flat-Major, but the dominant tremolo is still playing, and not

till two bars later everything is resolved and the recapitulation really starts. The clash of the tonic main theme in the horn and the dominant layer of the background could be on the one hand simply interpreted as a joke, namely that the horn player enters too early, but under the time-consciousness perspective it is far more complex: The music induces the listener to recollect the main theme so to speak inside the prospect of it. The living present here doesn't simply flow plainly from left to right, no, it is an inextricably connected constellation of past and future aspects.

Let me now put the results so far in a larger context.

First I'd like to emphasize that though I chose only examples of tonal music, also non-tonic forms of harmonic organization can be described with the suggested conceptual tools. It is not difficult to explain e.g. simple ways of creating tonal gravity in atonic contexts, like with the help of dominating tones or chords. So, if a chord or central tone is prominent, we are able to relate everything to it, even when this fix point is not acoustically present all the time, only through our retentional and protentional capacities.

Secondly, I'd like to hint that the claimed roles of re- and pro-production on the one hand, namely recognizing formal unities and entities, and pro- and retention on the other hand, namely constituting the very basis of harmonic and rhythmic relationships, have to be considered if it comes to the question if music, and that means autonomous, instrumental music, is significant, so if it can denote or bear symbolic meaning. I hypothetically claim, that music *is* able to denote, though in comparably

narrow limits, but only if it employs re- or proproductional consciousness, because only then something, in semiotic term a signifiée, comes into existence which can be referred to, which can be recollected or prospected, be it intrinsically like motives and themes or strange harmonic progressions, be it extrinsically like imitations of bird-songs or references to musical topoi or expressive conventions.

I can't go into detail here because that would open a new field, namely musical semi-otics, so, let me stick to time-consciousness, but now in a larger context focussing on whole pieces and types of music. Paradigmatically, I'd like to look at the sort of music which is normally referred to as minimal music, i. e. the music of Terry Riley, Steve Reich, Phillip Glass, John Adams and the like. Minimal music is generally characterized by the minimal use of music material and the extensive use of repeating this material. Most pieces of minimal music evoke a kind of time experience fundamentally different from that of western classical music. The main reason for this is the simple technique of regular repetition because it establishes a stable situation in which re- and protentions dominate. The typical reactions to minimal music, either getting impatient or, as it were, loosing the feeling of time, show if the normal western listener is governed by his listening habits, namely expecting some kind of development and not too predictable changes, or if he is able to forget about these proproductions, simply listening to the music in the here and now. And it's no coincidence that this second listening attitude is often described as passive and meditating letting things just happen, because, as we remember, re- and protentions tend to work passively like affections.

So far about common minimalistic characteristics, but if we look at individual pieces more closely, we see inside the repetitive framework enormous differences. For instance, nearly all early pieces of Steve Reich work with highly predictable processes and constantly slightly modified material, thus totally eliminating any sense of pro- and reproductional expectation or recollection. Contrastingly, pieces of John Adams often work almost traditionally with motivic and thematic material and are therefore essentially dependent on reproduction, or consider the music of Michael Nyman whose pieces are often a kind of minimalistic recycling of traditional music, e. g. Purcell's. They not only employ reproductional consciousness intrinsically, but also refer extrinsically to the original pieces.

This variability of temporal structure within a limited framework, I hold, does not apply only for the special case of minimal music, but is characteristic for any kind of musical system, and musical systems, of course, comprise different music cultures and traditions. For instance, take the conception of time in African music, (we maybe going to hear more about it in Senyo's talk): it is essentially circular and this is responsible for a phenomenon, as I learned in Ghana, that a performance of the same piece piece could last ten minutes or ten hours without losing its identity or quality. And in this circular temporal framework it is possible that rhythmically highly complex drum music can share the same temporal principles with simple popular songs as

I don't know if my suggestions speaking about time-consciousness makes any sense

to you and especially to you who don't come from the western tradition, but anyway, I'm curious to hear from you to what extent you see any differences in the paradigms and habits of time experience between your own and the traditional western culture.

So, in order to give us the chance to discuss, I want to close and just return to the beginning of my talk. I said that music is obviously about time and that composing is about forming time. Next time when you compose, though you probably won't know much more about what time really is, you might remember that what you're essentially dealing with, time, is extremely rich and fascinating and, I think, worthwhile to reflect upon as well in order to consciously deal with it. Thank you for your attention.