

Pause and Silence – Symmetry and the General End-Pause in Beethoven

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Silence is the perfectest herald of joy. I were but little happy if I could say how much.

(Shakespeare, *Much Ado About Nothing*, II, i,303)

There is a peculiar feature of many of Beethoven's endings, particularly in his early works of 1795-1800, which can teach us about Beethoven's conception of pauses, about the special importance he ascribed to endings, and about his attitude towards periodic symmetry. In the following I shall describe this feature and its background, and suggest an explanation of its significance.

Three Notions of Pause

A musical work is an organized system of notes and of higher musical units such as motives, themes, harmonies, etc. We shall here confine ourselves to notes. A note is not just a physical event (an acoustic disturbance, a passage of wave energy), but a musical entity with functional properties sensitive to context.¹ Roughly, it can be described as an acoustic event under a particular description ("tonic", "dominant", "leading tone", "appoggiatura", "upper voice of a septachord", etc.). Are pauses **genuine notes** in this sense? Surely they are indicated by written signs in the score; but, is that sufficient for regarding them as notes? And are they audible notes? Although this may seem a strange, and, some would say plainly false, idea, we shall see in the sequel that there is much to be said in its favor.

Many philosophers define a musical work as a sort of a sound structure. On Goodman's view, for example, a work is a class of performances that are **sound** sequences complying with its score. Levinson finds it necessary to be on some points more meticulous: according to him, a musical work is a performed sound structure as indicated by a composer at a given time. This is a modified formulation of his earlier

one, couched in terms of “sound/performance means structure” instead of “performed sound structure”.²

How do pauses count in such conceptions? It seems that they are either ignored, which is really bad, or (more probably) taken as part of the “structure”, that is, not as elements in the structure (which are sounds) but as structural features of the sound-sequence.

But, as will be argued below, this conception of pauses as structural features is problematic and doubtful. In particular it is very hard to fit end-pauses into it, and the typical Beethovenian end-pause-bars (with a fermata), with which we shall be concerned, seem to be particularly reluctant here.

In talking of a pause here I shall confine myself to “general pause”, when no sound is heard. If there are several voices (as is usually the case), a general pause is a pause in all the voices.³ In a preliminary way a pause might be regarded as a time-interval between sounded notes, when the music is silent, when no note is sounded (the temporal duration of a pause depends on rhythmical values and on tempo). It might thus seem that a pause is not a genuine note, but a **part of a background silence** that becomes noticeable when sounds are quite, something like the white patches in a drawing on a white paper, or the empty spaces in a sculpture, or in an architectural construction.

The organization of notes in a structured system is of course a central feature of music, and we should (or so at least it seems) distinguish between the notes and structural features of their organization in music. On a third view of pauses, though pauses are not notes, they can (or perhaps should) be regarded as **features of this organized structure** – as parts of the system of relations between (sounded) notes. In order to somewhat clarify this idea let me use a simile. In the 17th century an important debate was held between the philosopher Leibniz and the physicist Newton (represented by his

devoted secretary Clark) on the nature of space (This revived an old debate on the nature of space that goes back to Aristotle). The debate became a central theme in the philosophy of physics up to the present day. Newton believed in absolute space, in which physical bodies move. On this conception one could imagine this space to be empty – with no bodies in it, or with only one, etc. It is, so to speak, a contingent fact that our space is populated with many bodies. Leibniz (with Aristotle) denied this and thought that space is nothing but a system of relations between bodies. In this sense, one could not speak of empty space, and it is doubtful even if talk of a space with only one body makes sense (one could give it a modal interpretation, but we shall leave that aside).

Analogously, one could think of musical notes (or of other musical units) in the “space of silence”. The absolutist conception would admit an absolute space of silence, which may be populated by notes and their sequences. When a note is sounded, it enters, so to speak, into this space, holds a certain position in it for a while, follows and is followed by other notes in it, and stand in various relations to other notes, which are also in this space. The relativist (the Leibnizean) on the other hand would hold that all we have here is a system of relations between sounded notes - relations of pitch, duration, volume, rhythm etc. Other relations may hold between higher musical units (motives, phrases, themes, harmonies etc.). A pause, on this conception, is not a musical entity, which stands to other notes (and pauses) in some relations – it is part of the relations in which (sounded) notes stand.

Which of the three views is the natural and adequate one with regards to pauses in music? Is a pause a genuine constituent of the music, or should it be regarded merely as the empty space between (sounded) notes? Is this empty space part of the surrounding space of silence in which the music lives, or is it rather a structural feature – a part of

the system of relations between the genuine musical constituents? I am not claiming that these are the only possible conceptions of pause – there are others. It is plausible that there are in fact different kinds of pause (sometimes in the same work), and that different kinds of music call for different conceptions of pause. It is my aim, however, to show that with regard to much of “classical” music, there are reasons to prefer the first view - that pauses are genuine constituents of the music, much like the (sounded) notes. In what follows I wish to support this view by appealing to a peculiar treatment of pauses – in particular end-pauses - in Beethoven, particularly in his piano sonatas. Let me say right away that though nothing of what I shall say seems to me decisive among these options, and each one of them, by some maneuvers, can cope with it, it does give some reasons to regard the former as the more natural and satisfactory. In any case, the Beethovenian phenomenon of end-pauses we shall discuss has great interest and significance independently of this question.

Internal and External Silence

Silence is of great concern for musicians. John Cage, for instance, was much impressed by the fact that we never encounter absolute silence, and that our notion of silence is therefore relative – it is relative to particular kinds of source of sound (or noise) and to their intensity. This was similar (and of course connected) to e.g. Rauschenberg’s observation that confronted with a white canvass we never see it as quite uniformly white. We need not go here into the significance of this, and the problems raised by it. We shall rather assume that in talking of silence we refer to the absence of musical sounds of the work concerned. The fact that we can still hear noises of our heartbeats and of our blood circulation, or even breaths of our neighbor, or a permanent noise of the air-condition machine, or of the sea, is of no relevance here.

Silence has two main faces in music: One is **external silence**, which surrounds the musical work, and serves as a background framework for it. This is the ambient silence before the beginning of the performance of a work, a minute before the first note is heard. And it is the silence after the last sounded note, the silence you are left with after the work – the sequence of notes – has passed off and vanished. It is the space into which the work, so to speak, enters at its beginning, holds a definite position in it while sounded, and leaves it by its termination. It is the silence so often disturbed in live concerts by a sudden cough just before the first note, or by over-enthusiastic clapping and “bravo” shouting immediately after the last one. In any case it may be important to have the feeling of sinking back into the surrounding space of silence, keeping an image or a memory of the palace of notes we have just encountered. The surrounding framework of silence is often needed for that, and without it, a full grasp of the work may be disturbed.

And there is of course **the internal silence** – the shorter or longer pauses in the work, in which there is no sounded note - no sound is heard. In general, an internal pause is silence **between** sounded notes, though we shall see in the sequel that this characterization is inaccurate in an important way. Such internal pauses are structured and measured units of the work – just like the sounded notes themselves. They are integral to the melodic, rhythmic and metric structure and organization of the work. Internal pauses have many features and a variety of meanings, depending on the specific musical contexts, in which they occur. Sometimes they are points of a hidden background, a sort of a negative to the sounded notes, which may glitter here and there in between them. And sometimes they are conspicuous elements, intensive and alive, which call for our attention, just like the sounded notes themselves.

Should we regard pauses as independent constituents of the work, like the sounded notes, or should we rather see them as parts of the space of silence, which happen to be at its portion occupied by the work. I wish to argue for the former view by considering what may seem to be its “hardest case” – pauses at the very ending of a work, at the point where they are not between sounded notes, but after the last one, the point where the work “vanishes” into the general silence that surrounds it, where the listener may find it difficult to distinguish between the pause and this ambient silence.

The notion of a musical work, which I presume here, is of course problematic. In talking of a work here I mean a self contained and independent musical composition. It is very difficult to define this sharply, but I mean to include not only complete sonatas, for instance, but also most individual movements of a sonata or a quartet, but not e.g. a variation in a set of variations, or a movement marked with an “attaca subito” to the following one, etc. There are debatable and border-line cases, but I hope the notion is clear enough for my purposes here.

External Silence and End-Pauses

It thus seems appropriate to distinguish between internal pauses and end-pauses.

Internal pauses – internal silences between sounded notes – may seem to be integral elements of the work. They may be very significant on all musical levels – from the smallest motive to the general structural features of the work. Composers are very meticulous in writing them, and a performer who is careless about them does not perform the work properly. This does not seem to be true of external silence. We may value external silence and be annoyed when it is disturbed, but it is not an integral part of the work, and a performance in which it is annoyingly disturbed may still be an excellent performance of the work. The external silence – before the beginning or after the end – is not structured, not measured, and in fact not written or indicated in the

notes at all.⁴ It may thus seem that external silence is, musically, of lesser importance; Internal pause is the musically significant silence. Our concern here is, however, with a very special case, which may be regarded as lying on the borderline between internal pause and external silence – the end-pause.

Many works end with a pause – a marked and measured silence after the last sounded note, until the last bar-line (the double line) at the end of the work. Such an end-pause is not a regular pause, in that it is not silence between sounded notes. End-pauses thus seem to have a double face: on the one hand they do not have any sounded note following them; they merge with the external silence and may seem to be a part of it. On the other, they are clearly indicated in the score; they are structural, measured and integral part of the work. In this sense they are not less important than the sounded notes themselves.

Less common are pauses at the beginning of a work. Some works begin with a written and measured pause, which, though an integral part of the work, verges on the external silence just before the beginning of the work. This is, for obvious reasons, a common phenomenon in contrapuntal works like Bach's fugues, canons, etc.⁵ In the corpus of Beethoven's piano sonatas, only one movement – the first movement of the sonata in G, op. 14/2 - begins with a written pause (of an eighth-note). Another famous example is the beginning of the fifth symphony (a point which is missed by many performances, in which the beginning sounds as a triola); also – the adagio of the ninth symphony. It is very rare in Mozart – an example is the third movement of the D minor piano concerto (again a syncopated eighth-note). In general, though this is not a strict rule, pauses at the beginning of a work are one-unit syncopated pauses, and in general, composers write a pause at the beginning of a work, when the phrase to which it belongs is not just an upbeat, but a longer and more substantial phrase (like in many of

Bach's organ preludes). Pauses at the end of a work are altogether different: they may be long, of several units, and besides their rhythmic function, they have a structural one, in a sense to be explained below.

One could think that this is not a genuine musical phenomenon, but a feature of the notational conventions of writing music: It is a convention of writing (classical western) music that it is written in complete bars with a fixed meter and length, so that each bar has a determined number of pulses or rhythmic units (quarters, eights, etc.). If the work (or the relevant section of it) is written, e.g. in 4/4, so must be also the last bar. Hence, the last bar, for being complete, must have 4 quarters, and if the last sounded note does not prolong to the end of the last bar, the bar must, by this convention, be filled in with pauses to its very end. The convention, in fact, is not that simple: First, if the first bar is not a complete one (as very often is the case) the last one should add up with the partial first to a complete measure. Thus, if a work in 4/4 begins in a quarter upbeat, the end bar will contain only 3 quarters, so that if it finishes with a minim (half-note), a pause of one quarter will be written after it. The reason for this is obvious when there is a repeat sign at the end, so that the piece (or a part of it) is repeated, but the convention is often observed even when there is none. Secondly, the meter need not be fixed all along the movement, and may change within it (multimetric rhythm); hence there is no reason of principle why the composer could not change it in the last bar, so that it will end with the last sounded note. The reason why this is never done is a musical one, not merely a feature of a notational convention.

The convention, in this simple form, does not apply to the beginning of a work. Many works begin with an upbeat or a partial bar. As mentioned above, sometimes the last bar adds up to this partial one at the beginning to a full measure; but often it does not. The last bar is often of full measure in itself, and yet the first one is partial, and not

filled up by pauses.⁶ Pauses at the very beginning of a work are not only rare (in comparison to pauses at the end) but have usually a local rhythmic function, like some sort of syncopation. Nevertheless, these pauses are grasped “in retrospect” as part of the beginning motive, often after the whole motive is sounded, or in the course of it. This is an example of the fact that perceiving music involves a complicated and sophisticated thought-process, which is not linear in time: it does not occur simultaneously with the linear sounding of the music. Often a note, a motive, a phrase and harmonic progression, etc. are grasped for what they are only in retrospect, after their sounding is terminated. A pause at the beginning is a good example, for it can be perceived only in retrospect. In an extreme way this is true of the work (or movement) as a whole.

Pauses at the end of the work, as noted above, are very common, and are integral to the work – they are elements of phrase, rhythmic and meter structures of the work. A sensitive listener must “hear” them and grasp them as part of the work, before the work ends and sinks into the external silence with which they may seem to merge. For such a listener, these end-pauses are constitutive of the phrase and periodic structures at the ending of the work.

One could expand much more on the significance of the phenomena described above, common and familiar as they are, but I shall not do it here. For, what I want to concentrate on here are some additional features of end-pauses in Beethoven – much less familiar, and, in fact, unprecedented.

End-Pauses in Beethoven

On this background I wish to draw attention to a special phenomenon in the music of Beethoven, which indicates the importance he ascribed to the silence at the ending of a

work – the pauses after the last sounded note. It may also indicate the manner in which Beethoven treated pauses as genuine constituents of the work, just like the notes. These, as we shall see, are connected in a peculiar way with aspects of periodic symmetry and phrase structure. The phenomenon I have in mind is manifested in three ways: 1) adding a fermata above an end-pause;⁷ 2) adding a whole bar of pauses (“the end-pause-bar”) after the bar of the last sounded note (which often itself ends with a pause); and 3) combining these two - adding a whole bar of pauses with a fermata. The last two are the characteristic Beethovenian phenomenon on which I want to focus, but let me say something on the first as well.

Many movements in Beethoven – particularly in the early piano sonatas (roughly of 1795-1800) - end not only in measured pauses that complete the last bar according to the convention described above, but in an **extension of the pause, marked by a fermata**. The limit of this extended pause, let us remember, is not clearly defined, and not audible (in the simple literal sense), because it verges on the external silence, with which it sort of merges. This is very common in Beethoven (particularly in the early works), and its profusion is an innovation of his; it is very rare in Haydn and Mozart. In itself, though the mildest of the three manifestations mentioned above, it indicates the special importance Beethoven ascribed to these end-pauses; he treated them just like (sounded) notes, or like internal pauses between sounded notes in the work, for these are where fermatas are usually written. There is an abundance of such examples in Beethoven’s early works. Its first occurrence is in the coda (!) to the scherzo of the first trio op. 1/1. It then suddenly occurs, as if it were a standard way of ending, in the first, second and fourth movements of the first piano sonata in f, op. 2/1 [See music example 1]. And since these very first works of an opus number, it becomes a quite common feature of Beethoven’s endings, though less so in the late works.⁸

However, the most interesting phenomenon here (which occurs mainly in the early piano sonatas) is where Beethoven not only writes a fermata above the end-pause, but adds a complete bar of pauses, usually with a fermata. This then is the clearest manifestation of the phenomenon we are alluding to: Beethoven often ends a work by a **complete bar of pauses** (added after the last bar of a sounded note) **with a fermata**. We can find this peculiar indication in almost each of the first nine piano sonatas and in three of the six string quartets op.18, all from the years 1795-1800:

The first movement of the sonata in A, op. 2/2 (1795)

The first movement of the sonata in E-flat op. 7

The first movement of the sonata in c op. 10/1

The second movement of the sonata in F op. 10/2

The third movement of the sonata in F op. 10/2

The first movement of the sonata in D op. 10/3

The first movement of the sonata in c (Pathetique) op. 13

The third movement of the sonata in E op. 14/1

The first movement of the sonata in G op. 31/1 (1801)

The first movement of the second sonata for cello and piano in g op. 5/2 (1796)

The first movement of the second sonata for piano and violin in A, op. 12 (1798)

Last movement of string quartet in G op. 18/2 (1798-1800)

Last movement of string quartet in D op. 18/3 (1798-1800)

Last movement of string quartet in c, op. 18/4 (1798-1800)

First and last movement of Trio for violin, viola and cello in D, op. 9/2 (1796-8)

Last movement of Trio for violin viola and cello in c op. 9/3 (1796-8)

Allegretto for piano in c (in HS ix, p. 17, without an opus number)

We have here about 18 examples, all in Beethoven's works of 1795-1800 of a phenomenon, which, as far as I know (with the exception of one case in Haydn's string quartets, and one in Mozart piano sonatas to be discussed below), is unprecedented in the music of Haydn and Mozart. Even in Beethoven's own works it actually disappears after the examples we mentioned.⁹ It is also rare in the music after Beethoven (with the exception of Schubert).¹⁰

This seems to be an interesting historical fact in itself¹¹: Suddenly, without precedent and with no obvious reason, we find many cases of this special and original way of ending a movement in Beethoven works of the years 1795-1800. It cries for explanation, and admittedly, I am not sure I have any satisfactory one. Several possibilities could be suggested here; I shall mention one later on.

The phenomenon, I believe, is of great interest. It manifests how important the endings of works were for Beethoven, and what acute attention he paid to them – he evidently regarded the end pauses as constitutive elements of the composition. In order to appreciate this, we should look closer at the end pauses in general, and then at the particular way Beethoven treats them. In many of his endings we hear strong dominant cadence, for instance, which could have ended the work perfectly well (with the last sounded chord); but the work doesn't end there – after the last sounded chord there is a sequence of pauses, to the end of the bar. These pauses are not between one sound and another, for there is not any other. The silence that follows the last sounded note might be naturally perceived as belonging to the external silence, which environs the work.

But it is not; it is a sequence of pauses, marked in the notes, definite and measured, to the end of the bar.

This, of course, is quite common, but although with many composers, including Haydn and Mozart, this could just be complying with the rhythmical convention mentioned above, it is not so with Beethoven: In his music these pauses are not just the result of the rhythmical convention; rather, they are constitutive elements of the end-phrase, and they must be “heard” as such. And the proof for this is the fact that Beethoven, as we have seen, often (but definitely not always) **writes a fermata above these pauses**, as if they were genuine notes, whose sound should be prolonged. This is definitely not part of any convention; certainly not in Haydn and Mozart, in whose works, as far as I know, it is not found.

In Haydn and Mozart there are very few examples where we find a partial bar of end-pauses. And in all of these cases, it is required because of a repeat sign (as in the first movement of Haydn’s quartet op. 33/5, and the last movement of op. 50/2, or the end of the last movement of Mozart’s symphony 39 in E-flat K.543). Hence, these should not be regarded as clear-cut cases of end pauses. There is a seeming precedent to the Beethovenian phenomenon we are talking about in the first movement of Mozart’s symphony in E-flat, K.184 (from 1773). The first movement (in E-flat major) ends with a complete pause-bar with a fermata. However, this, besides being, so far as I know, the only instance of this in Mozart, is not a real ending: It seems obvious that Mozart intended the pause just as a sort of suspension of the G major chords preceding it, which are really a dominant preparation to the second movement that must be played immediately after the pause. Therefore the pause-bar here (after the G major chords) is not a real ending but an internal pause. With Beethoven, however, we are suddenly flooded with examples of genuine end-pauses; it becomes almost the standard: Most of

his endings, since the first movement of the trio op. 1/1, whether with a repeat sign or not, are pauses with fermata (sometimes over a pause of an eighth-note!).

All this may be interesting and significant. However, as remarked above, the most striking feature here is that in Beethoven this is still not the end of the story. Beethoven often adds a **complete bar of pauses** (usually with a fermata) at the very end of a work (or a movement). This, I believe, is unprecedented: we hardly find it in Haydn or Mozart. An earlier exception is Haydn's string quartet in f op. 55/2, whose second movement (Allegro) ends with a general pause of a whole bar [See music example 3]. This is perhaps the first case of the end pause-bar, and the only one in Haydn. In some ways this is indeed similar to the phenomenon we have found in Beethoven. There are, however, features that tell this case apart from the Beethovenian phenomenon we are talking about: First, it must be noted that this, besides being a single example, occurs in a work, which is in many ways unique even in the corpus of Haydn's works (Haydn, according to the famous "razor story", considered it his best). In Beethoven it is a systematic phenomenon, which has many examples. Secondly, the general pause here (in Haydn) is an echo of the general pause (of two bars!) in the exposition, which has a harmonic function, more than a rhythmical one: It comes "instead" of a modulation to a quite shocking G-flat major, which immediately follows. The shocking G-flat occurs here as a genuine tonality and not as a neapolitan sixth chord (though it may be related to the occurrence of G-flat in the neapolitan cadences of the first movement). Thirdly, the ending in this movement (which is a fast allegro alla breve) is shockingly abrupt. This is connected to the previous point, which makes the assimilation of the general pauses in the ending and in the middle of the movement even more significant. But these differences notwithstanding, this may be regarded as a genuine precedent of the end-pause-bar, and it is possible that Beethoven got the idea from this movement.

To come back to the Beethovenian end-pause-bar, let us note that the pauses in the ending bar of pauses do not separate notes and do not come in between notes. They do not even separate a sound from the external silence that comes after it. They separate a pause from the ambient external silence! Therefore, these pauses cannot be regarded, as might be suggested on the relativist conception of pauses, as features of a simple relation between (sounded) notes. They should rather be taken, as I said, as constitutive elements of the work, just like the sounded notes themselves.

A question may be naturally raised here, in what sense can we say that these pauses can be heard at all? The notion of hearing in music, and of what is heard, is not as simple as it is often conceived. It is conceptually loaded to the point that makes any feature of the music part of what is, or can and should be heard. And these pauses are important features of the music. We may thus naturally stretch this notion of hearing so as to include pauses – they are elements of what is heard, just like the notes - and they are heard as parts of the rhythmic, melodic and phrase structures. But this stretching of the notion of hearing might seem to break down when it comes to the end-pauses that we consider here, for these do not have a sounded limit and seem to merge with the external silence. And yet, as the previous discussion shows, the end-pauses can (and should) be heard as constitutive elements of the work.

This can teach us that the kind of hearing that is relevant to hearing music involves a sophisticated “projections” of what went on before. We hear these end-pauses by projecting rhythmic and phrase structures that we have encountered and grasped in the work before the end. In fact, this should not surprise us. Musical hearing is replete with such projections – backwards and forwards. In fact it consists of them – there is no hearing music without them. The phenomenon of Beethoven’s end-pauses we are considering displays this – it is inexplicable without such projections. If sounded notes

and regular internal pauses between notes are the basis for rhythmic and phrase structures, these end-pauses take previous phrase structures as their basis, and are grasped as projections from them.

A rough, provisional idea for explaining the Beethovenian phenomenon of end-pauses we are talking about may be this: As we shall see below the phenomenon in question probably has to do with periodic symmetry of the end phrase of a work. The typically classical interest in symmetry, combined with Beethoven's fondness of breaking symmetries, may give a clue to an explanation: Breaking symmetries was a significant compositional move for Beethoven, and usually served dramatic purposes. However, with all his fondness for breaking symmetries in the course of a work, it was still important for Beethoven at that time (1795-1800) to restore symmetry at the very end of a work (or a movement) – to make the very ending symmetrical. He often felt that for the sake of symmetry another bar was needed after the last sounded bar, so he added a complete pause-bar for that. The fact that he added a fermata there, shows that these end-pauses served not justly a rhythmical purpose (to this end the fermata would be a bizarre addition), but as genuine constituents of the music. Ending a work with a symmetric period was not the standard, as we shall see, in Haydn and Mozart at the time; most of their endings are periodically not symmetric. Hence, if the above suggestion is correct, it may manifest a feature of Beethoven's shaping his own way to end-periods. This can also explain the profusion of our phenomenon in the years 1795-1780, which were crucial years of his shaping his individual style.

Periodic Structure, Symmetry and End-Pause

We shall exemplify this abstract feature by considering some cases of our phenomenon and their possible explanations. But some preliminary remarks are in order. It is well known that symmetrical periodic structure of relatively short, well-defined phrases, is

one of the characteristic marks of the classical style. This was echoed also in the theoretic works of the time: “In the mid-18th century, the attention of theorists became focused on the minutiae of periodic structure. On every level [...] the musical period was thoroughly investigated”.¹² In speaking of periodic structure here I refer to the rhythmic pattern of a phrase. A phrase, a complete musical sentence, is marked usually by a cadence (or half cadence) and by other melodic and harmonic features, into which we shall not go here. Sometimes the exact limits of a phrase are not evident and are a matter for deep analysis, but in most of the examples mentioned in the sequel they are, I believe, relatively clear. A phrase usually contains some periods of a basic rhythmic pattern, usually marked, in classical music, by bars. There are complications here, for periods (or groupings, as they are sometimes called) may (and often do) overlap, where the last (several) beat of a group may be the first of the following one; it may also not parallel the bar-division. A period, or a grouping may be further divided to smaller units (sub-periods or sub groupings) and several of them may be meaningfully combined to higher groupings paralleling musical units higher than the basic phrase. We shall not dwell here on exact definitions of these important concepts, for in practice they are fairly clear, and for our main concern this should suffice.

Symmetry in music may be considered from many points of view (rhythm, harmony, registration, coloring and orchestration, dynamics, etc.) and as pertaining to various musical levels of organization (a motive, a phrase, a theme, a subject, a section, a movement). In many discussions of theorists, from the 18th century to the present, the term is often left undefined and vague, as being more or less synonymous to balance – another vague term. I shall not try to offer a definition here, and shall only give some explanatory remarks. I shall confine myself to periodic symmetry, that is, to symmetry pertaining to the rhythmic structure of a phrase. By periodic symmetry I mean primarily

that a phrase is meaningfully (that is, in a musically meaningful way) divided into two (sometimes more) equal periods (2+2, 3+3, 4+4 bars etc.). The most common are structures of 4+4. Less common, but quite abundant are symmetries of three units, like 2+2+2. These are rough indications; the number of bars being even is neither necessary nor sufficient for a phrase being symmetrical, but it is a fairly reliable starting point. A typically non-symmetrical phrase would be one that significantly divides into periods of, say, 4+7 bars. These, admittedly, are rough explanations, but they should suffice, I believe, for looking into some of the examples of the Beethovenian end-pause bars, to which we shall turn now.

An example of the connection between general end-pause bar and symmetry in Mozart (the only one I can recall in Mozart) is the ending of the piano sonata in G, K. 283 (music example*). This example is a limiting case of the phenomenon I am talking about, mainly because it consists just of the cadence chords after a repeat sign. And yet, the end-bar is obviously required here just for symmetrical reasons: it makes the ending cadence of 4 (2+2) bars rather than what would be, without the end pause bar, 3 bars. In order to appreciate this, just consider a slightly distorted version of the ending period - something like this: (music example*; I have actually heard once a pianist playing it like this). Here there would be no place for the additional pause-end-bar. But Mozart actual period does require it. This, as I said, is a limiting case example because it is so short and obvious, but it can exemplify the general kind of consideration that becomes much more elaborate and sophisticated in the Beethoven examples to be discussed below.

Some Examples

1) The first movement of the A major sonata op. 2 no. 2 is in 2/4, and it ends, like the ending of the exposition, with the closing theme of the first subject. The last phrase

begins at 320 and consists of 8 + 6 bars (It is thus indicated, e.g. by Schnabel, in his edition of the Beethoven sonatas, following strictly Beethoven's slur markings). The last bar of the 6 is a pause-bar (with a fermata), and it lacks an eighth-note, in accordance with the convention mentioned above of adding the upbeat of the beginning to the last bar. This perhaps is not a clear-cut case of the phenomenon I am talking about, for we have here a repeat indication, which seems, in light of the parallel passage at the end of the exposition, to make this rhythm of the last bar obligatory. In light of this parallel passage in the exposition, it may seem more reasonable to take the last 6 bars as 2+4, but this is a minor point. The main point is that the pause-bar at the end of the movement seems to be required for no other reason than making this ending phrase rhythmically symmetrical.

2) The first fully fledged occurrence of the phenomenon we are talking about is perhaps in the first movement of the sonata in E-flat op. 7.¹³ [See music example 2]. It is in 6/8 and it ends in a strong dominant cadence in fortissimo. The last sounded bar ends with 3+1 eighth-notes pauses, which conventionally could easily end the movement; but it does not, and we then have a complete pause-bar with a fermata. Here there is no repeat, so the ending is a clear-cut one – perhaps the first instance of the phenomenon we are talking about.

In the coda, Beethoven breaks the symmetrical ease of the first subject, and begins a forte rush of E-flat chords to the final dominant cadence. In terms of phrase and periodic structure this coda is most interesting. On the face of it, a natural analysis would have the coda begin, just as the beginning of the movement, on the full chord of 352, which would make the ending phrase utterly non-symmetrical. This may appear to fit the intentional non-symmetrical character of the E-flat chords' rush from 355 (The

reader may feel it by imagining the E-flat chords rush to begin on the first beat of 356). This may seem to be a natural and quite convincing reading.

The coda, however, could be read differently. Schnabel, for instance, begins the coda at 351, which, quite oddly, unlike the beginning, postpones the E-flat chord of the entering first theme to the second, weak bar of the phrase. On this analysis, the last sounded chord (E-flat) is the first quarter of the 7th bar of the last phrase (from 355), and the last bar, which is a pause-bar, thus completes the last phrase into a “symmetrical” 8 bar period.

I believe that the second analysis is the correct one, and there are interesting features hidden in it. The obvious indication for its correctness is the last pause-bar itself, which completes a symmetrical period on the second analysis, but not on the first one (on which it would be, in fact, unmotivated).

But there are additional reasons to prefer it. The movement as a whole is periodically symmetrical. The prevailing symmetry of the phrases is shaken here and there by characteristic sforzandi on the weak beat, like, for instance, that of bar 10, or the rhythmically parallel pattern of the second subject (second beat of 65, which forms a higher level symmetry between first and second subject). To these may be associated also the left-hand sforzandi of the bridge subject (41), or the closing subject of the exposition (111 ff.). These are slight jerks inside what may be regarded as a calm, flowing and symmetrical period.

If we follow the second analysis, this characteristic feature of the movement is, in a way, the point of the coda. It is periodically symmetrical, but there are surprising shakes of symmetry inside the phrase. The main theme comes, unlike its occurrences throughout the movement, on the weak bars (352, 354, which are the 2nd and the 4th),

where the low E-flat at the bass, unlike all the other occurrences in the movement, comes with the second, short chord. And then the E-flat chord that begins the rush to the cadence comes in forte on the weak beat of the bar (355). These are jerks of symmetry within a generally symmetrical period, and though different from the syncopated sforzandi mentioned above, are on a more abstract level in line with them: In both cases these are shakes within a symmetrical phrase; they do not constitute breaks in the periodical symmetry.

This can explain the importance of the periodic symmetry of the coda. On this analysis the end-pause-bar, as mentioned above, is needed for this symmetry – it completes the symmetrical 8-bar phrase from 355. Without it the phrase would be a 7-bar asymmetrical phrase, which would spoil much of its point on this analysis.

3) Another kind of periodic tension is evident also in the ending of the first movement of the sonata in c op. 10/1. It ends again with a strong dominant cadence, which is one bar more than the expected 8-bars period, in which the same theme occurs in the exposition. But here, at the end of the movement, Beethoven truncates the period by one bar, and then adds the two final chords, which makes the ending a non-symmetrical 7 (5+2) bars period. Once again, the last pause-bar (with a fermata) “compensates” for that, and makes the ending period a more symmetrical 8 bars one.

4) The second movement of the sonata in F op. 10/2 displays the same typical feature of Beethoven’s periodic style: A seemingly symmetrical theme (of e.g. 4+4) is truncated at the end and turns into e.g. a 4+3 one. This is exactly what happens in the end of the A section (the movement is an A-B-A’ structure), which is repeated with slight variation at the end of the movement. Here the last pause-bar is a completion of the last group of 4 bars – it is simply the fourth bar of the group, after the truncated

cadence. (In the first A section the same pause-bar appears without the last pause, because of the repeat).

5) Serving as a completion of a basically symmetrical period, which is truncated at the end by a strong cadence, is also the function of the ending pause-bar of the first movement of the sonata in D op. 10/3. The last period is $(4+4)+(2+2)$, where the last bar of the last couple is the ending pause-bar, which the listener hears as a surrogate for a final (“missing”) D chord.

6) In the first movement of the "sonata pathétique" (op. 13, c minor) the coda repeats the main theme in a truncated form, which builds up to the final strong cadential chords. After the last chord, there are pauses to the end of the bar, and then a complete bar of pauses with fermata. The truncated part “spoils” the symmetry of the main theme $(8+8)$ and turns it into a $8+4$ period, and then into a $8+2$, where the last bar of the 2 is the end-pause-bar. Again, the pause-bar compensates for the conspicuous change of the period’s length and for the resulting disturbance of the original theme's symmetry.

7) Keeping the periodic symmetry is also the obvious reason for the end-pause-bar at the first movement of the sonata in G op. 31/1 of 1801, which is the last instance of our phenomenon of an end-pause-bar in the corpus of Beethoven piano sonatas. This witty movement begins, quite surprisingly, with a non-symmetrical theme of $3+8$. The coda (from 295) consists of a sequence of short phrases of 4 bars, the last of each is a pause-bar (the music is wittingly a sixteenth-note off beat). It ends with a double two-bar clause, the last of each is a pause-bar. The first is offbeat, as before; the second (in which the movement terminates) is strictly on beat, as a sort of a wink to the previous offbeat joke.

8) We thus see many instances of our phenomenon in the early piano sonatas, and none in the later ones. We also find our phenomenon in two out of the three early string trios op. 9 - no. 2 and no 3, written probably in our period - between 1796 and 1798: A pause bar is added in a way that makes the ending periodically symmetrical.

9) A similar phenomenon occurs in the string quartets. We find a general end-pause-bar (with fermata) in three of the six quartets op. 18, and in none of the later ones. The dates and order of the op 18 quartets is debatable, but they were not written later than 1799-1800, and they definitely belong to our period – 1795-1800. The function of the general end-bar-pause here is similar to the one in the piano sonatas. For instance, the last phrase of the last movement of op 18/2 is a 14 (8+6) bars period, where the last bar is a pause-bar (with fermata). Without this bar the phrase would end non-symmetrically on the 5th bar; the end pause-bar completes it to a symmetrical 6 bars period.

The Background – Haydn and Mozart – and a Direction for Explanation

We thus see that with all the originality and peculiar nature of these end-pause-bars in Beethoven, they have a quite conservative inner reason - usually, though not always, to restore symmetry to end-phrases, which, without it, would lack it. Often these end-phrases seem to be lacking in symmetry because of characteristic Beethovenian breaks, which serve dramatic and compositional purposes.

A symmetrical period, of say, 4+4 or 8+8 was the classical convention. It may thus appear that for a classical conventionalist restoring symmetry in the end-phrases of a work was not an acutely felt need, for it was usually there anyhow.

This, though it may be true of much of the music written at the time, is not true of Haydn and Mozart, who are the relevant foci of comparison here. Haydn, besides often

breaking symmetry by extension of themes (as in op. 55/2, first movement, bars 21-2), was fond of ending a movement with a non-symmetrical phrase, even when, as was almost always the case, the main theme was perfectly symmetrical. This is true particularly of the mature quartets; in the symphonies, which may have been written for a wider audience, there are more symmetrical endings.

In order to highlight the significance of the Beethovenian phenomenon we are talking about, let me mention that in Haydn's works of the same period (1795-1800), for instance, the string quartets op. 74 (from 1793), 76 (from 1796), 77, it is almost the rule that a movement ends in a non-symmetrical phrase, even though the main theme is usually symmetrical¹⁴.

Examples of non-symmetrical endings, as I have said, abound in these works, and they are almost the rule.¹⁵

We thus see that almost without exception Haydn's endings (mainly of sonata-form movements) in these quartets are non-symmetrical on the basic phrase level. And this is true even when (as is almost always the case) the basic theme is a symmetrical phrase, and when symmetry reigns over most of the movement.

We find a somewhat similar treatment of symmetry in the endings of sonata-form movements in Mozart. Here we shall focus on the piano sonatas: See, for instance, the endings of the first movements of the sonata in C K. 279, the sonata in F K.280, the sonata in B-flat K.281, the sonata in a K. 310, the sonata in C K.545. In all these the endings are non-symmetrical.

We have said that concern with periodic symmetry was a characteristic feature of the classical style. It should be remarked however that with the high classical style of late Haydn and Mozart, breaking symmetry was not less of a concern. Mozart's

development sections are often non-symmetrical. This is true also of first subjects in sonata-form movements, which are often non-symmetrical beyond the presentation of the main theme. To a lesser degree this is true also of Haydn. Late in the 18th century there were even theoretical textbooks that gave instructions for extending periods asymmetrically and for breaking symmetries in other ways.¹⁶

In Mozart the asymmetry of the endings may be less conspicuous than in Haydn because periodic symmetry is broken in his music, particularly in the early period, on every turn. One of the secrets of Mozart's writing is that it gives an impression of perfect balance, even though it is generally not symmetrical (on the phrase level). Although many of his main themes are paradigms of symmetry, Mozart very often breaks the symmetry quite soon. Examples for this abound even in his piano sonatas. See for instance the closing phrase to the first subject of the first movement of the sonata in G K.283; the closing phrase to the first subject of the first movement of the sonata in C K.330 (16-18). In general, Mozart's writing, in contrast to a wide spread conception, is utterly non-symmetrical.

This is true also of some of his main themes themselves. Many of these are non-symmetrical. This is related to the fact that the first subject in a Mozart sonata is usually exceedingly rich in musical material and texture. See for instance the first movement of the sonata in F K.280, in which the periodic structure of the first theme is 4+5+3 bars, and consists of about six kinds of musical texture; also, the first movement of the C major sonata for piano K. 309, whose first theme is a 7-bars theme; also, the sonata in C, K. 330: The first subject here may be divided into a part consisting of 3 groups of 4 bars. The last bar of this part overlaps with the first bar of the second part (bar 12) which consists of a group of 4 and then of 3 bars. This multifarious and non-

symmetrical periodic structure is typically combined with a wealth of musical material with a variety of textures.

Unlike the endings in Haydn and Mozart, most of the endings in Beethoven are symmetrical. This in itself is worth observing – symmetrical ending was of special importance to Beethoven. This, as we noted, may suggest a direction for explaining the sudden outburst of end-pause-bars in his early music. The end-pause-bars make symmetrical even those endings that without them seem non-symmetrical. This may even seem to be their main function. For Beethoven, breaking symmetry was always a significant issue. Whereas Haydn, and especially Mozart could move easily from a symmetrical phrase to non-symmetrical one, and the transition would be natural and almost unnoticeable, for Beethoven this was an intense and intentional move that had a particular significance for the dramatic drive of the music. And whereas many, if not most, of the ending phrases in Haydn and Mozart were non-symmetrical, Beethoven often felt a need for a symmetrical period at the end, and achieved this, if necessary, by inserting a whole bar of pauses at the end. Thus periodic symmetry was a real issue for him: On the one hand, it was not just a conventional rule taken for granted; on the other, it was not something the breaking of which was a regular, almost unnoticed move. At the early period in which we find all the examples of the phenomenon in question (roughly 1795-1800), Beethoven shaped some of the characteristic features of his style, such as his concern with periodic symmetry. This concern with symmetries may have weakened with the mature and late writings, as the classical symmetrical background became less predominant.

Conclusion

We have noticed a peculiar and unprecedented feature in Beethoven's music of the crucial period of 1795-1800: an excessive use of fermatas over end-pauses, and

particularly of complete end-pause-bars (with a fermata). We have then proposed explaining this seemingly strange phenomenon in terms of Beethoven's special concern with periodic symmetry at the ends of his works (movements). Breaking symmetry was a standard move in the high classical style of Haydn, Mozart and Beethoven. But unlike Haydn and Mozart, Beethoven was much more concerned with ending a movement symmetrically. This may have to do with the shift in emphasis from the beginning of a sonata-form movement (the exposition) in Mozart, to the ending of the movement in Beethoven, which has to do with the special dramatic character of his music. If this is even roughly true, it would enable us to understand Beethoven's treatment of end-pauses, and of the phenomenon we were alluding to, not as a merely anecdotal curiosity, but as a manifestation of basic features of his style.

Philosophically, Beethoven's end-pauses, and the end-pause-bars in particular, seem to support the view that pauses, at least sometimes, are not just glitters of the ambient silence on the background of which the music is heard; neither should they be regarded as features of the rhythmic structure of a phrase. They are rather constitutive elements of the music, just like the sounded notes themselves.

Notes

- ¹ See G. Bar-Elli: "A Note on the Substitutivity of Notes", *Analysis* 41/1, 1981, 27-32. In more detail: R. Scruton: *The Aesthetics of Music*, Oxford: Clarendon press, 1996, chs. 1-2.
- ² See N. Goodman: *Languages of Art*, Hackett, 1976, ch. IV. J. Levinson: "What a Musical Work Is, Again", in his: *Music, Art and Metaphysics*, Cornell, 1990). See also S. Davies: *Musical Works and Their Performance*, Oxford, 2001, p.71,

where other variants are also considered; On Davies' own view a musical work is a “rhythmically articulated strings of tones with named pitches”, p.51.

³ Technically the term “general pause” is used somewhat more restrictively, but this is of no moment for our discussion)

⁴ This last point may be debated – there are written indications of the beginning and end of a work, and thus of the external silence which environs it. But I shall leave that aside here.

⁵ It is instructive, for instance, that, though many of the fugues of the Well Tempered Clavier begin with a pause – which is natural enough – none of the preludes so begins.

⁶ See for instance, the first movement of Beethoven sonata in f op. 57, “Appassionata”; Cf. for instance the first and last movements of Beethoven’s sonata in G op. 31/1; sometimes, it is not clear why Beethoven doesn’t complete the end-bar, as for instance in the end of the sonata op.101, where an eighth-note pause seems to be missing.

⁷ A fermata is a special sign signifying an extension or prolongation of a note (or a pause).

⁸ Some other early examples are:

The first, third and fourth movements of the sonata in C, op. 2/3

The second and fourth movements of the sonata in E-flat op. 7

The third movement of the sonata in c op. 10/1

The first movement of the sonata in F op. 10/2

The fourth movement of the sonata in D op. 10/3

The third movement of the sonata Pathetique in c op. 13 (1798)

The two movements of the first sonata for Piano and Cello op 5/1 (1796)

⁹ The last appearance I know of is in the Bagatelle no 2 in C of op. 33, of 1802.

This however is not a clear case of an ending, for Beethoven probably meant the Bagatelles to be played in succession.

¹⁰ One of the rare examples in Schubert's piano repertoire is the end of the last sonata in B-flat. There are, however many such examples in Schubert's symphonies and string quartets: In the symphonies, see the ending of the 4th, in c minor, the 5th in B-flat, the 6th, in C, which ends in a general pause of 3 bars (!), and the 7th, the "great", in C; in the last two, the first movements also end in General pause. All Schubert's 15 string quartets, except for the first two, the 4th and the 15th (the last one in G) end in a general pause bar (in the 6th, in D, it is the first movement that so ends. Schubert, writing as he did in the wings of Beethoven, may have been influenced by Beethoven in these end-pauses as well.

¹¹ If indeed a fact it is; I haven't done a systematic research, and the generalizations here are based on works I happen to know.

¹² Ratner, L. "Eighteenth Century Theories of Musical Period Structure", *Musical Quarterly*, 1956, p.440.

¹³ Let me mention, in passing, that the second movement of this sonata displays some of the nicest Beethovenian use of internal pauses.

¹⁴ There are, though, many non-symmetrical themes in Haydn, like the third movement (menuetto) of the "Quinten Quartet" op. 76/2, which is a non-symmetrical theme of 11 bars.

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- ¹⁵ See for instance op. 74/1, first movement; op. 74/2 last movement; op. 74/3, first and last movements; op. 76/1, first movement; First and last movements of op. 76/2 (“Quinten”), op. 76/3 in C (“Emperor”), op. 76/4, op 76/5, op. 77/2.
- ¹⁶ See Ratner’s survey of e.g. Koch’s *Versuch einer Anleitung zu Composition*, published in Leipzig 1782-93.