

Phrasing in Contention

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This article is written by a performer, primarily for performers. I suggest here that how we customarily interpret phrase-marks in classical music makes a bigger difference to our performance than we think, and that we should work towards a deeper and more general understanding of the issue.

I hope to show how a small constellation of abstract ideas about phrasing may significantly illuminate the performance of classical music. Though I know that most performers are happier to avoid abstractions, I think we have more power and flexibility if we can be aware of the background to our expressive choices.

The basic idea could be put in a nutshell by saying: 'A classical phrase must begin!' — though it is more complex than that. A fuller version might be: 'A classical phrase must have the power to *contend* both with the metre and with harmony, as a rhythmic structure in its own right.' Hence one meaning of the title of this article.

Writing about how to play music is not particularly easy. The author of an instrumental treatise has to spend a lot of time saying things that seem the opposite of what he or she said before in a different context, because there is a delicate balance in excellent, stylish playing that cannot be captured prescriptively. Leopold Mozart and others were trying to do an impossible job, a job that remains impossible today. Good performers approach the letter of Leopold Mozart less pedantically than musicologists perhaps because they think of him as a colleague, and therefore wink sometimes at what they recognize as his (unavoidable) attempt to give an instruction that should not really live in the world of instruction. (For example, his 'small if barely audible softness' that should occur at the beginning and end of a bow.)

This article sidesteps the problem. The idea is to give players a more general context, and an opening in one particular area, that may be of more use to them than an often inconsistent collection of details of staccato-lengths, or how legato "legato" should be. So I am not primarily concerned with the historical evidence, though at times I may seem to invoke it. Indeed, one large part of the thrust of the argument is drawn from much more general considerations to do with how our ears and brain process sound.

An eminent musicologist and conductor responded to an earlier draft of this article by saying that for him, what would be even more interesting than the article itself would be the discussion and correspondence it would provoke. But though I would be happy if the article were noticed in this way, I want to be clear that discussion and correspondence is not primarily what I am after. I want the response to be in the creative register of today's performers. I am suggesting that they first

consider, and then investigate, the implications of changing one aspect of the way they think about the music. I don't necessarily want to persuade them to try to copy the details of what some performer of a previous era said they did, or what they said other performers should do. In fact — and this is crucial — what may be more important for us is what performers of the time took for granted, and therefore did not say. In this spirit, I suggest that reading Leopold Mozart (for example) is different, and probably more useful, if we read it against the background of the simple structure I propose.

But of course, in a way reading Leopold Mozart is a minor issue. As a pedagogue, Leopold Mozart — perhaps more able than some of us, perhaps more important as a composer and musician — is nevertheless, like us, hogtied by his particular task. Much more to the point is the effect on how we read, and therefore play, the 'other' Mozart — Wolfgang Amadeus.

Why phrasing is important

Musical performance today is at a fascinating stage. Anyone who plays across the full range of musical groupings in London (say), including symphony orchestras and period ensembles, is probably involved in as wide a range of styles as has co-existed at any time in the history of music. True, styles were much more marked in previous decades, and the dilution of the national identity of our European orchestras has been much regretted in many quarters. But I am speaking of the differences on one particular shop floor, as it were; I am a performing musician, and I now find in the profession a very large variety of assumptions about what we should do when confronted with musical scores of different periods and nationalities. Of course, many directors have highly individual ideas, and the ability of a great conductor to have an orchestra serve his intentions is impressive even when we might disagree with his taste. There is always a thrill associated with the extraordinary assemblage of skills, acquired and refined over generations of composers, performers and instrument makers, that goes to make a performance; when it seems that this unfolds as a coherent personal utterance the magic is complete.

But what of the identity of an orchestra independent of its director? Can an orchestra produce a performance that is stylistically unified regardless of who is on the podium? Can there be a 'house style'? Should there be?

As we begin to consider these matters, and consider styles and stylistic differences, our attention is directed toward the dimensions in which such differences operate. We know that the Berlin Philharmonic Orchestra sounds different from, say, the Orchestra of the Age of Enlightenment, and we might choose many ways in which to characterize this difference. The sound is different, clearly, and we could put some of this down to the instruments themselves, and the abilities and backgrounds of the players. But there is a more fundamental way of looking at the situation. What sort of thing is it that, if the BPO tried to do that thing, would make them sound more like the OAE (or vice versa)? Moreover, can we imagine that the one orchestra would continue to sound progressively more like the other as time went on? Even more fundamentally, what is the set of distinctions that we require in order to describe that thing?

In my opinion, the most important set of distinctions, and at any rate the one I want to examine, is that set we call *phrasing*. The purpose of this article is to begin the examination of the techniques that

allow phrasing to be shown. The gradual development of instruments, from those used by the OAE to those used by the BPO, is closely connected with the change of attitude towards phrasing between the classical and romantic periods, the focus for the two orchestras. And it would not be too much to say that performances by the OAE and the BPO are excellent, each in its own way, largely when the orchestras and their conductors have attained mastery of how to phrase the music they are playing.

Phrasing as connection

But then, what is phrasing?

A first answer, for any music, is as follows: given individual notes of varying lengths, phrasing is grouping at the next structural level up; phrasing deals with groups of notes, and how they are shown to belong to a group.

Though I shall consider later what we might mean by implicit phrasing, I want to talk first about explicitly notated phrases. So by a *phrase* I shall mean a group of notes that *lies under a slur written by the composer*. It is important that this be understood, because performers often use the term 'phrasing' to refer to structures that are *applied* to the written music by themselves or other performers or editors. These structures are usually of larger dimensions than the composer's slurs, though sometimes they are shorter, particularly when written in by string players. Part of the argument will be that thinking of phrasing in this second way often obscures an important character of the music. If we begin with what is actually written, we have a better chance of avoiding the error.

For a sequence of notes to belong to a phrase, the notes must have at least some properties in common. The fact that phrases in 20th-century music have been divided (sometimes note by note) between instruments, looked at from the point of view of the performer, only serves to underline this truth; faced with the problem of making such a phrase evident to the listener, each player must take the utmost care with control of dynamic and attack, especially at the moment of changeover. *Something* must stay the same, or at least change continuously, for the notes to appear to belong together. Notice, however, that the opposite is not true: the presence of such a continuous change does not guarantee that we will perceive a simple, unified structure. On a calmish sea far from shore, for example, non-breaking waves are perceived as entities in their own right even though the change of water level over a whole group of waves is continuous. *Perceptual* groupings may arise without there necessarily being a physical discontinuity involved.

The middle period of classical music is the arena in which phrasing is most important. In particular, Mozart at the height of his stylistic development brought to his music a concentration on the notation of phrasing that overshadows his interest in dynamics. Much of what I have to say is intended to apply particularly to his music. (I shall often use his name in the discussion even where the argument would apply equally well to the music of other classical composers.) Reading a Mozart score with this in mind, we may well be struck by how little of anything, apart from the slurs, he bothers to write. But it is also striking that many later editors and performers of Mozart have found it necessary to add copious dynamic markings in order to make the music function according to their lights, in marked contrast to Mozart's own practice — and he was nothing if not a working professional.

The reason is that 'modern' phrasing no longer functions as a natural influence on balance and grammar. The developments of musical language have obscured the logic of the classical style, which allowed the majority of the affective and balancing functions that are nowadays indicated by written dynamics to be controlled instead by the phrasing. For this to be possible, classical phrasing had to be a structure that was at least as important as the metrical structure of the bar, or the harmonic rhythm.

The metrical structure of the bar had a more powerful part to play in the classical period, too. The notion that a classical bar of common time normally had a two-level rhythmic hierarchy (being a strong/weak structure of a pair of 2/4 bars, each with a strong/weak structure of its own) goes unappreciated by most modern orchestras. This is partly because in the avant-garde world both phrase-structure and bar-structure are effectively non-existent: a note is specified by its position, duration and dynamic, remaining unchanged for its duration unless a change is specified. To make a classical contrapuntal texture audible in these circumstances requires considerable dynamic tinkering.

Our notation does this rather badly. As any sensitive conductor or director knows, orchestral material larded with hairpins, changes of dynamic and *ffs* may help achieve superficially immediate and energetic results; but it seldom leads to really stylish or deep performances.

Phrasing as shape, and 'paraphrases'

I wish to develop the notion that the fundamental idea behind phrasing in 18th-century and much 19th-century music is that each individual written phrase is an individual, perceptible dynamic or timbral *shape*. A phrase consists of notes, but these notes, and their joins, conform to the dynamic or timbral shape. This seems relatively uncontroversial, given that phrasing is a grouping; I have already drawn the analogy with a wave, a mass of water in some ways similar to a musical grouping, that is also a perceptible shape.

But in making this analogy I have already parted company from quite a large number of performing musicians. They believe, and play in the belief, that the most important character of what they call the phrasing is its association with structures that are different from the composer's slurs, and that have an end-oriented character — that is, they want to *go* somewhere — and, moreover, that this is the natural character of music. These structures are commonly chosen by the performer as part of his or her interpretation, and as they proceed from point of departure to point of arrival, they almost always have the effect of obliterating perception of the composer's slurs. The implication is that perception of the composer's slurs just isn't very important; this is a mistake.

Consequently, the composer's slurs are quite often replaced by other slurs. This can occur as a result of an editor's changes, or from a performer's personal penciling. These new slurs are a representation of the performer's ideas of how the music moves from one point to another (usually from one point of reference in harmony-space to another), and have a different character: they could be imagined to have forward-pointing arrows on them. They are *paraphrases* of phrases, since writing them into the parts clearly presents the phrasing, and therefore the music, in a new form. We might with justification, hijacking the word, agree to call them, simply *paraphrases*. Arrogance seldom plays a part in this process; the intention is usually to make the composer's music speak more clearly, though the effect is often the opposite.

Such 'paraphrases' appear all over 19th-century editions, and are often also penciled by today's players even into those editions that carefully follow the composer's manuscript. Finding paraphrases, and altering what is written, can start to be the main business of arriving at an interpretation. This is clearly to put the cart before the horse. Moreover, when we have the habit of looking for paraphrases, even if we don't write them in, there is a danger that we may become slur-blind, because mostly we tend to follow other structures (usually harmonic) that are present in the music. And the fact is *that the written slurs often don't fit in with other structures that are present in the music*. In these circumstances the most we ever get to say to ourselves is, 'That's a funny way of writing it' and then we pass on.

In particular, there is an almost universal tendency for what I am calling paraphrases to be *carried over bar-lines* even when the composer's slurs stop (and restart) precisely at those bar-lines. This tendency is actually very suggestive. A paraphrase *cannot* coincide with the bar, because a bar is not an end-oriented structure (quite the opposite, in fact). So the slurs are simply altered.

Thinking in this way involves accepting a view of music based fundamentally on crescendo. Moreover, and more alarmingly, when the paraphrases are written in, they make use of the very notation that the composer had previously used to indicate his phrases. Just as I hijacked the word 'paraphrase', the 19th century hijacked the notation 'slur'! If performers accept this 19th-century interpretation of the notation, they unthinkingly block consideration of what a classical composer could possibly mean by slurs. A classical slur that performers with this particular bias *don't* alter is just one they can interpret *their* way.

Such performers are almost always naturally expressive musicians. But the question, 'where does it go *to?*' is often the wrong one to ask of a phrase in classical music. Later, I shall try to unask it in a way that avoids throwing out the baby with the bathwater: we have to acknowledge that sometimes the natural impulse that prompts the question is justified. For the moment, though, let us continue to explore the idea of a phrase as representing an autonomous object or *Gestalt* one level above that of the note.

On instruments such as the organ or harpsichord, the situation is rather awkward; one might think that phrasing that is not already made by the pattern of the notes must be indicated by detachment. A group of four high notes followed by a group of four low notes is readily perceived as two objects or *Gestalten*, but to create the effect in performance of a division of eight notes of comparable tessitura into two equal groups may require a gap after the first four. A successfully written piece for such an instrument must allow for this fact; an unsuccessful piece will either lose its phrase structure or be continually interrupted. But organists also use ornamentation, registration and rhythmic modulation to make phrases evident. (It is interesting that Mozart was an expert organist; he was particularly proud of his ability to make the instrument sound musically natural and expressive.)

On instruments that allow the player to control dynamic and timbre, though, phrasing is, as I have said, mostly the creation of dynamic or timbral envelopes: shapes that allow (though do not require) continuity of sound between them, and yet make possible groupings of notes into higher-level objects. Such shapes are the stock-in-trade of performing musicians.

Yet even performers who are committed to following the notation don't always control the precise details of the shapes they create; often their shapes inadvertently create additional groupings that

obscure those prescribed by the composer, and can even be dictated by the individual quirks of their instruments or personal technical abilities or habits. Moreover, at the present state of performance practice, there is a wide variety of preferred shapes. If each player responds instinctively regardless of what his colleagues are doing, the results are far from the sort of organized balance that a Mozart score demands. We have too many possible responses to the phrase-marks, including the tendency to paraphrase.

Mozart, putting the parts of an unrehearsed concerto before an orchestra, is said to have told them, 'You play well; I shall play well; it will go well!' Nowadays an inspired and inspiring director, given time, can adjust what the players do so that they don't get in each other's way and yet are still allowed for the most part to play as they individually feel is relevant to their particular parts — but this wouldn't often have been possible in the conditions Mozart encountered. A notation indicating the shape relevant to a particular situation would seem to offer the easiest practical solution, but composers didn't even try to use dynamics to show the shapes until the time of Beethoven, when the nature of music itself began to undergo a change.

Mozart's music keeps pianists sitting for hours at the keyboard in the search for perfect simplicity — and they have an overall control. How is it possible that his larger-scale music, which today requires such careful rehearsal, and which is made or marred by the balancing of individual parts, could be launched into the world unaccompanied by any of the instructions that might have prevented it from being mangled? especially since, by all accounts, it could be played more or less successfully, with very little rehearsal?

The requirement of a tradition

It seems inevitable, given the lack of precise prescription, that phrasing was understood by performers as part of a received style, and that shapes or envelopes didn't need to be spelt out in the music because they were a part of the performers' natural response to the phrase-marks. Balance and coherence were guaranteed by this natural response. If this is true, more was implied by the notation than appears to our 20th-century eyes.

A similar situation exists today in popular music writing. An unspoken convention governs how a notation superficially similar to classical notation is to be interpreted — yet in this age of print, there are few if any books or tutors spelling out the convention in detail. In fact, it is very difficult to spell it out. (18th-century treatises were faced with similar problems.) Rather, you learn it by playing with others who understand, and catch on as best you can. As they say, you have to *feel* it. We have an easier time catching on than they did in the 18th century; we can listen to radio broadcasts and discs made by excellent performers.

A background set of assumptions of this sort is often called a *tradition*. Mostly it's something that develops over time, and is not perceived to be assumed, or even to exist, by those working within it. R. G. Collingwood said that a true history of ideas involves not so much clarifying the explicit theories of an epoch, but rather identifying the unexamined assumptions that give rise to those theories. And in the realm of the philosophy of science Popper and others have insisted that recognizing the 'problem situation' of a scientist is the key to understanding of scientific development. It is our own unexamined but different 'problem situation' that creates the division between us and the thinkers of the past.

The notion I want to convey is that any group of performers playing classical music needs to create what I shall continue for the moment to call a 'traditional' way of reading phrasing. Different candidates for such a 'tradition' will obviously compete, not least because individual players would like their own ideas to be adopted, but something like a tradition is necessary. And it is necessary because music, and classical music in particular, is partly about the relationship between what we are constrained to do and what we are free to do: between what is normal and what stretches that norm. This is a much more self-conscious idea than would have been necessary for 18th-century performers who would not have thought of themselves as 'constrained'; their instincts would simply have conformed to the prevailing stylistic requirements. But it is inevitable that the idea should arise in our century, just as it is inevitable that it arises in science and philosophy. Its proper sphere, moreover, is the practical, because it is only here that the effect of competing 'traditions' may be evaluated. Here debate seems inevitable.

Performers are bound to be threatened by such debates, because they call into question the unconscious components of their performance. Art, as 'a part of Man's quest for Grace', involves a subtle relationship between conscious intellect and unconscious affect; and it can be uncomfortable to call into question an already established trust of one's instincts.

Perhaps this is an area in which a computer program might be of interest; although it is extremely unlikely that any computer simulation at this stage of the art would be able to mimic at all well the processes of phrasing — well enough to fool a human ear for longer than a few seconds, say — the purpose of the process would be to use the more subtle skills of a musician to evaluate the varying success or effect of different rules of phrasing. I shall take up briefly the question of how this might be done towards the end of the article.

So for now we have two questions: how could we possibly obey rules of phrasing? and, what would those rules be?

Rules versus invitations

The first question is important because the very notion of a rule is a sensitive one for performers. For one thing, it seems to be impossible to announce rules of this sort in such a way as to be immediately convincing, whatever audience we are addressing. This is a consequence not of our inability to be clear about what we can say, but rather of the nature of the situation. It is like trying to communicate the rules of riding a bicycle to someone who has never ridden one. What it takes to play music well cannot be captured by prescriptive instructions. Music can be created in the context of rules, but this requires the open acceptance of those rules as that context.

As an illustration, consider the following statement: it is a rule of automobile management that to make the car go forward you need to press the accelerator (gas) pedal. Though this statement is true, no-one thinks of the matter in this way. In fact novices adopting this tactic are more likely to stall the car than anything else. A more realistic description of what we do is that we imagine the car going down the road, and then we watch, feel and hear it do so (and incidentally push the pedal). Clearly, such instruction might leave a novice baffled.

Yet a novice called upon to assess the truth of the 'push-and-go' assertion might well say, after the car stalled, that 'It didn't work.' It takes some experience to see that the low level (push it) and the high level (imagine it) are both true, and are complementary.

This is also my dilemma. If I am addressing an academic audience I am likely to appear trivial; and if I am addressing performers I am likely to appear wrong, irrelevant or threatening.

At first sight, it might seem that for performers to have a set of rules applying to anything as fluid and expressive as their own response to music would kill their spontaneity. Many aspects of musicology are held by performing musicians to be irrelevant; indeed, much of the resentment that many performers today feel towards the current vogue for so-called 'authentic' performance probably arises from the feeling that theory has now made an incursion into an area that they had formerly felt to be inviolate.

It must be admitted that, on the whole, theory has been most usefully regarded as a discipline that follows on the heels of creation or re-creation. The opposite situation, when art has been judged according to its conformity with rules, has been less productive. The pedantry of pronouncements on what is and is not permissible in art has rightly drawn the scorn particularly of creative artists; especially after the event, when it can often be clearly seen that the pronouncers were well wide of the mark about the value of the experiments they were denigrating. This is not the sort of theory I wish to propose.

Rather, I wish to argue for a notion that is more personal and that has more of the quality of an invitation. As a performer I have been much exercised by the relationship of other people's scholarship to my own ideas. Though initially resistant to attempts to 'tell me what to do', I have found myself gradually more willing to consider (and more crucially, to try out) new ideas, and even to begin to build my isolated responses into what I hope is a more coherent whole. The process is necessarily a gradual one in its details, but it seems it must begin with acceptance of at least a part of what is being approached, and 'living within' the proposed attitude so that it can be alive and expressive. Its quality is that of a self-imposed apprenticeship.

Such a vision can be seen to have little in common with academic debate. It just isn't possible to convince anyone of the rightness of any particular approach unless that rightness is created by the person being 'convinced'. (This is well known to malicious orchestral players, who are capable of following the letter of a conductor's instructions while negating his intentions.) This fits in with the personal quality of the 'rightness' of art as well as with the self-discipline and effort needed to attain it. We shouldn't be surprised that simply 'what we like' is not enough for us as an artistic basis any more than we are surprised (to use a famous analogy) that tennis is less fun without the net.

Perhaps this analogy could be extended. Mozart and all those others were playing a game (and his was sophisticated and called for 'good play' more than most). Some of the rules of this game have been forgotten. We have to put in arbitrary dynamics to have the music function well, and Mozart himself didn't. Also, phrasing is an aspect of Mozart's notation that many performers pass over, perhaps because exactly the same notation is used with different intentions in later music, and with shallower meaning.

We are therefore in the position of trying to find out the rules of the game. Part of this search may be informed by musicological enquiry. But it's worth noticing that we are looking for something that *allows* expressive performance rather than looking for something that *creates* expressive performance. After all, the rules of a game don't determine the artistry that we as players might bring to it. Nor do we find ourselves worried by the experience of changing from one game to another. Additionally, in music there is always the possibility of stretching, or even disobeying the rules; we can't normally do this in a game, and still continue to play it.

So, what are the rules?

Phrasing as rhythm

Independent of the historical evidence, we already have an expressive and flexible model for some rules on which to base our notions of classical phrasing. It is the model of *speech*.

Speech as a model possesses not only the notion of the phrase, but also the notion that phrases are constructed out of words, which are themselves constructed out of syllables in a hierarchically organized structure. Music has a similarly organized structure. Moreover, the sort of subtlety that variety of harmony and interval lend to the inflection of musical melody has its counterpart in the shaping force that meaning or semantics exerts upon the standard syntactical and rhythmical forms embodied in our speech. The spoken word has the power to move us, beyond its actual content; it is one of the richest mediums in which to express relationship; and the rules governing it can never be prescriptive, as the existence of poetry makes plain.

But speech is important for a much more immediate reason. The fundamental character of speech is its responsibility to be intelligible, which presupposes that it be clearly audible, even against background noise. For this to be the case, it is important that the constantly changing vowels and consonants at the beginnings of syllables be clearly differentiated from the sounds that immediately precede them. In other words, *the beginnings have more energy*. This is a natural character of everyday spoken language. It is one reason why we can understand a conversation even in a crowded party, where there is not only background noise but also the conversation of others to distract and confuse us. It is also why we can switch our attention from one conversation to another, if we hear something gripping in it (like our name, for example).

Speech has evolved subject to the constraints of our perceptual systems. The character of speech is a clue to the character of our perceptual systems, including those we bring to our perception of music. It is therefore to be expected that a music consisting of individual lines, all separately audible yet nevertheless blending in an overall effect, should have those lines share some of the characters of speech. In my view, the best classical music is such music. What other music might benefit from such an approach is an open but, I think, highly suggestive question.

Since we want to be clear, we take advantage of how our perceptual system works and 'speak' the music. Then the musical phrases are like the syllables of words: each phrase begins clearly and then gives way to allow the next to do the same. Moreover — and this is crucial — if there is more than one line, this 'giving way' also makes room for the beginnings of other phrases in the sequences that are simultaneously in progress in the other parts.

We see too that in classical music the phrasing is rhythmic, in that phrasing creates a patterning that falls sometimes with and sometimes against the rhythms of the bar, and thereby creates balanced tensions. Such patterning may also meaningfully fall with or against harmonic tension and resolution. We should be wary of following emotional affect alone as a guide to how to phrase. It is tempting to do this in classical music because affect and harmony are more strongly related in romantic music, and we read the harmony in a less detached way because we also play romantic music. But classical harmony can look after itself better than we think. Harmony is a very strong rhythmic structure, and though we must be sensitive to the context, mostly it is the phrase marks that need our support.

I mentioned earlier how what I called 'paraphrases' had interfered with our ability to see a classical composer's slurs as individual shapes that it is our responsibility to make evident. Now, though, we see how they have interfered with our ability to view the slurs as rhythms, which is more fundamentally damaging.

Nineteenth-century editors thought (if they thought about it at all) that the written slurs were a weak structure that deferred in performance to other aspects of the music. They assumed performers should group notes following the harmony, or even their momentary emotional whims. If following either of these meant a crescendo (and it often did), these editors wrote in the crescendo and altered the slurs to match in length. But the idea that phrasing is the notation of an autonomous structure needs to occur to a performer *before* he or she can ask: 'What sort of a structure?' Therefore, when an editor changes existing phrase markings so as to conform with some other structure of the music, particularly when the conformity is with some arbitrary dynamics added by the editor himself (*his* momentary 'inspiration'), he disables us very deeply. Worse, as we already noted, this disability can persist even when we are subsequently exposed to the original manuscript, when the written slurs seem merely a somewhat quirky articulation.

So it is not merely a question of editors having imposed on us alternative versions of the phrasing. The truth is that such editions have had the effect of destroying the grounds of performers' deeper understanding of the rhythmic nature of the notation *by preventing them from asking themselves why the music was written that way in the first place.*

To set this right, then, we are led finally to what may seem a very insignificant rule, but one that can be very substantial in its effect when multiplied by the number of performers often involved and the number of phrases they encounter. Leaving the precise details for later discussion, the rule is that phrases in classical music, by default, were intended to begin more or less clearly, or weightily; and to lighten, more or less, towards their end.

The basic model

The first question for the practising performer is, what does 'more or less' mean? The encouraging answer is that, in answering the question for oneself, one suddenly has access to a wide range of expressive devices. The 'lightest' application of the rule leads to a *sostenuto*, a sung phrase elegantly begun and ended (haven't we all struggled to express this verbally in some way to our students?), while the heaviest results in a powerful accent with the maximum space created for other material to be audible. Most of the time something in between will be required, from smooth elegance and tranquility, say, to a bouncy *giocoso*.

It is worth noticing that, for a performer, to require the answer to such a question is a powerful musical stimulus. The open-endedness of the demand is actually an advantage. One way to characterize excellent performance is as a sequence of flexible answers to a series of context-driven questions. Without this quality, playing becomes mechanical.

When we consider a sequence of phrases, the advantage of the model becomes more apparent. We may range across the spectrum from separation, through contiguity and into *sostenuto*, while still retaining the autonomy of the individual phrases, just as we can with words when we speak. Our ability to do this is very important. Any method of showing phrasing that does not allow both separation and *sostenuto* as limiting cases is bound to fail in classical music of any subtlety, because the simultaneous and delicately balanced expression of both unity and diversity is fundamental. We need to be able to show both the sea and the waves, from storm to calm, with all the infinite variety in between.

The wave/sea analogy is a good one for many purposes. It doesn't quite capture the structure of the model, though, because it doesn't yet include the idea that a phrase generally has the property of being *beginning-oriented*. (I choose this terminology to point up the distinction between phrases and 19th-century paraphrases, which, it will be remembered, are end-oriented.) Another pictorial analogy may help us: it is important to make sure we understand how the rule constrains in one sense, but yet offers sufficient flexibility, with the added advantage of clarity and structural similarity on different time-scales.

The analogy is between the possible shapes of a phrase and the possible shapes of a simple leaf. Such a leaf is almost always broader near its base than at its tip, and there are many different shapes of leaf. Some are long and thin, some are broad and short. But some are broad and long, too, while others are thin and short. There is a variation in how broad the base of a leaf is, and also, passing along the leaf, there is a variation in how quickly the broadness at the base yields to the delicacy of the tip. Phrases have this same quality as they develop in time. They begin and end elegantly, and have a variety of possible shapes within a general conformity.

What in the phrase corresponds to greater breadth in the leaf, though, may be more complex, and it is unwise to attempt to characterize it in detail. Warmer, more energetic, brighter, louder, more insistent or more stroked are a few ideas to be going on with, but by no means all of these would be appropriate to any one particular phrase.

Looking at a sequence of phrases, and the corresponding sequence of leaves in the analogy, there is no natural way of joining one leaf to another, allowing a modeling of the sequence of phrases that represents simultaneously both continuity of sound and beginning-oriented shape. This is because the 'leaf' analogy is missing the important idea that a phrase can occur at different basic dynamic levels, or different brightnesses of basic timbre. After all, a leaf begins and ends with nothing. On the other hand, waves on a calmish sea don't begin and end with nothing, because they can occur on deeper or shallower seas. So they have shape and continuity; but unfortunately not necessarily the leaf-like, beginning-oriented shape we require!

We have to combine the two pictures, and imagine a wave whose profile is like one side of a simple leaf, occurring on a sea whose depth may vary. This analogy has the advantage that the phrase structure is explicitly yet not crudely represented. In particular, such a wave would embody naturally

Leopold Mozart's 'small if barely audible softness' just like speech, which is in general continuous, yet perceptually segmented.

For those who prefer a non-visual metaphor, a highly suggestive tactile analogy of a beginning-oriented structure in our constant experience is that of *taking a step*. The changing sensation of pressure or weight on each foot as we take slow steps has just the structure I have been describing. And of course, music, especially classical music, is often said to dance, or need to dance. When it dances, *phrasing is one of the (three) drums it dances to*.

It is exactly because the shape of a simple leaf is recognizable as an example of one basic structure, regardless of its scale or type, that it is a useful analogy for a simple phrase. Simple, normal phrase-structure needs to be unambiguous, so that a sequence of phrases may be recognized as a rhythm. If *everything* is a special case, there is no perceptible rhythm. Moreover, only thus does a more radical, non-rhythmic variation of form have meaning. This is merely a special case of a general principle that applies to all the arts.

Structures containing the same shape repeated at different scales, and being transformed in other ways, were discussed in D'Arcy Thompson's famous book *On growth and form*. He showed that the situation occurs in nature to an extent that makes it surely unsurprising to us that it should be a powerful expressive device in art. Moreover, it constitutes a very natural background against which events of a different shape, should they be required, may be set in relief.

A very suggestive way of looking at the situation for players is that when the music has a particular character, and there are phrases of different length that constitute a particular line of it, all the phrases may easily have the same shape: we allow the short ones to change from weight to lightness faster, because their time-scale is shorter. This is like having leaves of different sizes, but all from the same plant, and not surprisingly has the effect of retaining the same character throughout the passage. This character can then change immediately or progressively, at choice, to another character appropriate to the next passage. (Of course, such a unified character may not always be what is required — but it often is.) This way of playing also gives a natural variety of attack and emphasis that may mean that we don't need to do any more (by making, say, one phrase heavier or lighter than the next). The varying rhythms are already sufficient.

The setting of shorter phrase shapes against longer ones in different lines is then *inter alia* a device to allow both to be heard. Also, making the shapes by adding sound at the beginnings of each of a sequence of shorter phrases increases the energy of a passage, while the contrary process of lightening the ends has the opposite effect. We can think of having deeper or shallower waves of the same length. Alternatively the following analogy might help: if we imagine beginning with a horizontal cylindrical rod, the length of the phrase, we can sculpt it into a phrase-like shape by carefully adding clay, mostly towards the left-hand end. On the other hand, we *could* create a leaner version of the same shape by cutting away material from the rod itself.

The traditional wind markings (pencilings) in modern performances (*fortepianos* on all held chords) also become redundant. A wind or brass section will naturally regard a long note as a simple or degenerate phrase, and lighten it to allow the melody to be heard. The melodies themselves are better heard anyway. It doesn't take much investigation of a Mozart opera to realize that many vocal entries are organized to take advantage of the ends of phrases in the orchestra, when there will be

less substance to the sound. 'Difficult' pieces for balance such as the *Grand Partita* for winds and double bass, where the basset horns often need special consideration, yield simply to the formula that all the members of the group habitually phrase in this way.

The technique often employed by Mozart of writing different phrasings for different instruments in one passage, which later editions often 'rationalize', is seen as a subtle textural variety (analogous to brush-strokes in a painting) that is much more appropriate to the music than the modern tendency to add surface interest using vibrato.

Different levels

What about the crescendos, though? What I have been saying seems to preclude the idea that any classical phrase can make a natural crescendo, and to throw away this possibility seems too extreme.

I think the answer begins with a well-known move: it all depends on what you mean by a crescendo, as well as what you mean by a phrase. To see the force of this, we must deepen the analysis, and consider *implicit phrasing*, which is phrasing that *isn't* written.

We have to understand that usually there are a number of what we would want to call phrases, on different levels, simultaneously in progress even in any one line in a piece of music. These create a hierarchy of forms, a rhythmic structure that has much in common with the prosodic. To articulate this type of structure in the work as a whole is a large part of the conductor or director's responsibility.

Consider again the analogy with speech. A group of syllables constituting a word has a substructure that defines the stressed and the less stressed syllables. This sort of microstructure exists as a property of that particular word of the language, and is not spelled out explicitly in the notation (the written form of the word in question) unless we look at a pronunciation dictionary that makes the matter plain. We may, of course, make a good guess at the pronunciation of a word we have not seen before, but equally we may be mistaken. Above and beyond this substructure there is a pattern of stress of one word over others that is sometimes notated, by punctuation and the like, but that can also be governed by semantic issues and may be largely a matter of choice for the speaker. Beyond even this, there is the pacing of the whole discourse of the speaker, so that a syllable that is stressed on the level of the word can be part of an unstressed word at the level of the phrase, and yet belong at the same time to a stressed passage. Such a situation also occurs frequently in music.

When we examine a particular point in a piece of music, all these levels are present, but not all can be spelled out. The level that is spelled out is the one that it was most important for the composer to make explicit at that moment. It is as though there is a window over the music that can move up and down the various levels on which we consider that phrasing operates; we see the phrasing written in that window at the level on which there may be misunderstanding.

What is the lowest level of all? My suggestion is that *it is the level on which a crescendo is undesirable*. In a spoken word this corresponds to the level of the syllable groups that constitute it. In classical music the most clearly 'uncrescendable' unit is the appoggiatura. This is because the appoggiatura is a structure where harmonic rhythm coincides unequivocally with phrase rhythm (and often with metrical rhythm). When composers want to indicate such small units, they use the customary slur,

which can extend to a few more than two notes without apparent ambiguity. But when the slur is longer, substructure usually becomes more evident, and then there is an ambiguity. We are no longer sure whether to treat the slur as an indication of shape or merely as a corrective instruction to consider the notes under it more as a unit on the next architectonic level; that is, not to show the subphrases too much. I shall say more about this problem later.

For the moment, if we decide that the slur does mean a shape, i.e. a default phrase, then the notes are subordinate to that shape and merely participate in its unity. They behave as though they all belong to one long syllable; perhaps we might think of it as a super-diphthong. The phrase begins, and lightens as it progresses.

If we decide not, then the phrase is not at the lowest level, and a crescendo within the phrase is possible; but this crescendo must not in general violate the integrity of the lower-level emergent syllables. These are now the rhythms, and are what gives clarity and cogency to the rhythmic architecture. The effect of a crescendo is created without obscuring this clarity. In this way we recover the idea of a phrase *going somewhere*, but without losing the clarity of its internal structure. (Notice also that we have not subverted how we read the notation of a slur. Simple phrasing retains its beginning-oriented character.)

All this becomes obvious when we consider how vocal music naturally operates. It amounts to a statement of the fact that both the sound and rhythm of the words have their own musical life in a good setting, and play a significant part in the musical argument. If many words are present in a phrase, the higher levels of organization do allow such rhetorical devices as crescendo (though the *necessity* of these may be more apparent than real), but if only one occurs, we follow the pattern of the word. Any crescendos are 'stepped', and the articulation is not obscured.

Think of speaking or singing the phrase 'Louder, *louder, louder!*'. You will notice that each '-er' is *not* louder than the preceding 'loud', although evidently there is a crescendo. If you listen carefully to yourself, you will hear that the effect of the overall crescendo is to 'flatten out' the natural lightening of the '-er'. In the wave/leaf analogy we can imagine the sequence of shapes tilted so as to go uphill from left to right. The 'troughs' become horizontal, but the 'beginning' crests are preserved. The shape of the complete sequence is more like a staircase (without sharp edges, of course). Taken with a pinch of salt, this can be a helpful approach to bring to more complicated phrase-sequences.

Local crescendos and architecture

All this can be summed up by saying that what we are doing is avoiding the 'local crescendo' in classical music. Why, exactly? Why not accept the local crescendo as a basic phrase shape? (Some so-called 'authentic' performers do exactly this!) We have noted that beginning-orientation is required in order to give the clarity appropriate to the character of the music, and phrasing is written often in contention with the metrical structure of the bar, which is itself beginning-accented. For me this is a knock-down argument — but there is yet another reason. It is that the structure of classical music is fundamentally architectural. Commonly we find the feature that organization on the large scale is mirrored by the organization lower down, and that such larger structures are articulated by rhythms rather than a surface feature like a crescendo. 'Articulation' itself is a word that carries the dual connotation both of dividing and joining (as in the articulation of a human elbow, or the phrase

'articulated lorry'), and phrasing as beginning-oriented shape makes possible the manifestation of both of these attributes. Thus it is possible to show the unity of a work by reflecting these rhythms in all their aspects and dimensions.

One consequence of taking this attitude is that we may be less tempted to regard a sequence of bars as end-oriented. Instead, we can give what we might call the *superphrasing* a beginning-oriented structure, just like the structure of a single bar, or a single phrase. This may have its disadvantages in a particular context; but quite often, particularly in Beethoven, we find that the composer writes a crescendo a few bars later, perhaps even applied to the same or similar material. If we have already unthinkingly used crescendo, its currency is devalued. Indeed, it is difficult to see the point of the composer's writing it in, if it occurs naturally in our playing. The fact that he wrote a crescendo is some degree of evidence that he might not have expected his performers to provide one as a matter of course.

The trouble with phrasing that depends on crescendo at too low a level is that 'it doesn't build'. Contrast this with the fact that we may easily build a higher-level crescendo from a sequence of beginning-oriented phrases. So the decision as to which level manifests the undesirability of crescendo is truly an issue that decides the nature of the interpretation. We certainly have to look at the whole movement, and not infrequently the entire piece, to answer the question. It may be that we have to lose a tempting expressive gesture in order to find a powerful vision of the work as a whole.

Phrasing as correction

If rules of phrasing are important, why do none of the classical treatises on violin playing spell them out? I have suggested that it is because it had the status of a background assumption. Perhaps we could make a guess at how this assumption arose. One striking feature of instruments of the period, particularly the bows of the string instruments, is that the lightness of construction has the effect of lightening the sound. Also the way in which a simple, short phrase emerges from a light bowstroke conforms naturally to the shape I have been describing. Longer phrases could sometimes be executed in one bow, but after a certain point this would not have been possible. It seems a natural assumption that in phrases that were a bit too long for a bow, and which had to be broken, the marking by extension indicated that the player show a shape that conformed to the norm for the shorter ones. Then the really long slurs indicated only the connected, cantabile property of notes within the phrase, and an indication that the rhythms on the next lower level (those of the bar-structure, say, or the natural note-patterns) were not to be exaggerated. We know that at the time Mozart was writing, the cantabile style was becoming more fashionable. This fits in with the idea of the phrasing occurring simultaneously at many levels, the equilibrium between the levels being adjusted by the composer with usually only one slur (though Mozart does sometimes nest slurs).

Phrasing may often usefully be thought of as an adjustment, or, more forcefully, as a *correction* of how we might normally play. The latter situation can arise particularly if the composer wishes to indicate that the patterning differs from that created by the rhythmic structure of the bar and its time-signature. In these cases, the phrasing takes precedence over the normal accents of the bar, often suppressing even the accentuation of the first beat. It is as though a new bar-line is created by the phrasing.

From this viewpoint it becomes easier to see one reason why 'modern' phrasing changed its character. As the bar-line became less and less important, there was a parallel weakening of the notation that had often been used to shift it. On the other hand, the phrasing of a composer like Brahms, whose music relies on much the same sort of rhythmic tension as earlier classical music, is sometimes called into service in order to *support* the bar-structure. (Incidentally, it also supports the interpretation of the slur as a rhythmic device. As we saw, slurs written over each of a sequence of individual bars *cannot be paraphrases*. See the opening of Brahms's Second Symphony, or the main theme of the Clarinet Sonata in F minor, first movement. Schubert did a similar thing with his controversial diminuendo/accent notation: for example at the beginning of the Ninth Symphony. The correction in these cases works against the increasingly prevalent sostenuto tendency in the playing of the period, and must be read as rhythmic modulation rather than as detachment or excessive weakening towards the end of a phrase. In the Schubert case, it is easy to overdo the diminuendo, particularly on modern instruments.)

Brahms, in fact, is an outstanding candidate for re-evaluation in the light of this attitude to phrasing. He has been misrepresented for far too long as a thickly scored romantic composer, buried under luscious vibrato. His phrase-markings deserve to be taken seriously, because examination of how they are used shows a subtlety and intelligence that often goes for nothing in performance. It is irritating, for example, to hear the members of a string quartet laying into a passage that contains a calculated asynchronous variety of phrases in their individual parts, and reducing it to an amorphous celebration of how expensive their instruments are (see ex.1).

Ex.1 Brahms, Clarinet Quintet, op. 115, 1st movement, bars 36-43

The image displays a musical score for Brahms' Clarinet Quintet, op. 115, 1st movement, bars 36-43. The score is arranged in two systems. The first system (bars 36-39) includes parts for Clarinet in A, Violin I, Violin II, Viola, and Violoncello. The second system (bars 40-43) includes parts for Violin I, Violin II, Viola, and Violoncello. The music features fast semiquaver passages with slurs and 'espress.' markings.

The notion of correction also goes some way towards explaining the occasions on which Mozart doesn't bother to write *any* slur above a fast running passage — and not because he simply forgot; he sometimes *does* write a slur or two later even in the same bar. This situation is usually interpreted by string players as meaning that the unslurred passage is bowed out, but in the wind music it cannot always have meant staccato. The absence of a slur in these cases is often best thought of as the absence of anything to correct—the bar structure or the note groupings are sufficient to show the phrase-rhythm, but the passage may nevertheless be played legato. (See the discussions of exx.2 and 3.)

In fact there is a sort of symmetry of implication between long string passages with one slur over them and long wind passages of fast semiquavers without a slur. The fact that the string player couldn't have played the long passage in one bow means that a slur can't always have meant a bowing, just as the fact that the wind player would have been uncomfortable playing the long unslurred passage all staccato means that a slur can't always have been simply an indication of legato.

In passing, I would like to say that we have nowadays an exaggerated concern with uniform bowings that can reduce our sensitivity to what is written. When a slur in a string part cannot be executed in one bow, a decision is made as to how to divide it, and everyone does the same. To remind ourselves how to do it, we obliterate the original slur with two or more others, and read those. It is quite common to see a string part with very few of the composer's slurs surviving. All this may occur quite as a matter of course. After all, they're *only bowings*, aren't they?

Categories, prototypes, dashes and dots

It is instructive to rephrase the argument using a concept borrowed from linguistic theory. If we forget for the moment about the very long phrases, which might be thought of as tantamount to the written instruction 'sostenuto', then we may say that the category of classical phrasing has a structure in which an appoggiatura is more prototypical than a sostenuto.

A member of a category is said to be *prototypical* if it is in some sense a 'best example' of the category in question. Categories that we draw from our experience often have members with this sort of property. For example, in the category 'bird', a robin would be prototypical, whereas a chicken or penguin would be less so. This doesn't mean, of course, that chickens and penguins aren't birds. But if I said, 'He opened the door, and saw a bird on the porch,' you would be surprised to learn later that I had been talking about a chicken, and perhaps even more surprised had it been a penguin! A 'bird' is more likely to be a robin than either of the other two.

Such surprise is clearly context-dependent. One can imagine that a member of an Inuit community might have a different reaction. But this is precisely the point. In the case of phrasing, what was considered a prototype phrase in the 18th century differed from what we normally consider a prototype phrase, and therefore the structure of their category 'phrase' differed from ours.

In modern times the way we usually interpret a slur is to consider that its primary function is to indicate connection. Other qualities of the notation, such as shape, are considered as secondary. But we don't want to throw away the idea that phrase-marks may be written to indicate connection; we merely want to consider that in classical music the indication of beginning-oriented shape is primary or prototypical, and that of connection is secondary or derived. The structure of speech renders more plausible the idea that this is the correct decision, though there is also some independent evidence that this was the case in the 18th century. Mozart, for example, once said of a singer that 'he is too inclined to drop into the cantabile'.

We can profitably extend this viewpoint to other aspects of notation. For example, there has been much debate about the meaning of Mozart's vertical dashes. There is a way of looking at the difficulty, connected with the idea of prototype phrases, which I find both natural and suggestive.

Mostly isolated notes function as degenerate phrases — they are not particularly part of a larger structure, and so, as I have said, they lighten towards their end. A composer might well want to apply a correction in the direction of indicating that a note had *more* importance — it was to be considered *as a phrase*, and have the same potency as the neighbouring groups of notes. Where we might misunderstand, and play it, say, as a mere pendant to the previous group or an introduction to the subsequent group, a phrase mark that could stand over *just the one note* would be useful. In particular (to choose a common Mozartean case), if we want to indicate that four crotchets in

sequence in a common-time bar are all to be regarded as autonomous and equal, standing on the same level as each other, we would like to apply four such phrase marks, one to each note, *in contention with* and in this case *defeating* the natural hierarchy of the bar. A natural notation for such a phrase mark would be a small hoop, like a foreshortened slur, standing above the note in question; or, more conveniently, further contracting the hoop — a vertical dash.

I am not suggesting that this is the true genesis of the notation. All I can say is that I find nothing to count against it, and it has illuminated several passages of Mozart's music for me. Its use is then to point up a relationship between the beginning-oriented structure of slurred groups of notes and adjacent (beginning-oriented) single notes. Such a relationship often makes sense in the context in which we find the notation used.

If we think of the dashes in this way, it follows that they may mean a variety of things. We have seen that a phrase-mark can be used to indicate a beginning-oriented shape that can be more or less heavy; if this interpretation is correct, a vertical dash will have a similar variety of interpretation. On occasion its effect may not be very far from that of a dot; but its origin is different. A dash would say something about the importance of a note in the context of other phrases (which, as it turns out, are often appoggiaturas), whereas a dot is a more local instruction, usually speaking of separation. We may need to ponder more deeply in order to divine the meaning of a dash, perhaps sometimes because the composer was thinking more about showing compositional importance than giving the performer an unequivocal indication of how to play. If there is a *corrective* function associated with musical notation, then we have to know what is being corrected before we can interpret the notation. A dash may serve to tweak a note in order to move it to a different, higher phrase-level. Clearly, if we have a good idea of what the function of the notation is, we have a better chance of finding the stroke we require: whether it is a shortening, or a heaviness, or a faster shape. The decision between such possibilities will depend, among other things, on our idea of the nature of the neighbouring slurs. As in the case of phrasing, it is asking the question of ourselves that is the most productive move. The variety of uses to which Mozart puts the sign makes it clear that a unique definition of what the sign means is not possible.

This is not really surprising. Wittgenstein was perhaps the first to point out that a category we find wholly natural may not easily be captured by a definition. His example was the category 'game'. He pointed out that games form a family, and that we find no difficulty in understanding that something is a game. Yet we do find it difficult to define exactly what constitutes a game. (In passing, we may note that the category 'game' also has a structure in which some games are more prototypical than others.)

I think that I have said enough to indicate that there is no danger of performances becoming stereotyped by the acceptance of this attitude towards phrasing. Those who feel that phrasing is mostly something different for them may at least reflect that rehearsal time can more profitably be spent in the subtleties of execution if the grosser considerations of workable balance and coherence of style are already established. What one might call (after Glenn Gould) the 'quirk quotient' can be as high as one likes, provided only that it is considered as that, and does not displace the fundamental structure.

Indeed, the perceptive reader will already have noticed that the structure I have been describing can theoretically accommodate *anything*. If we choose the extreme of completely flat phrase-shapes,

stepped crescendos turn into normal crescendos! The difficulty of appreciating the value of the fundamental structure is that our notions of this structure have always been drawn from the performances we experience, and performances reflect the idiosyncrasies of their directors. It is very hard for a director (or, indeed, the author of a violin treatise) to represent both context and content, which is why players in orchestras and chamber groups need to understand these issues.

The technique of showing phrasing

We know from experience that a group of string players who naturally include portamentos in their playing (for whom non-portamento is the exception rather than the rule) sounds very different from a group in which the same proportion of portamento has been achieved from the other direction, i.e. by adding portamentos to a style that does not include it. This can create difficulties when we try to follow the portamento indications of a composer like Mahler. Likewise, a performance in which the players automatically make space for others by allowing wind chords to lighten because that is what they take to be the way to read such chords, is different from a performance in which such events occur as special cases of organizing a satisfactory balance.

Not all performers possess this bias towards lightening and clarification of textures. Many choruses, professional and amateur, resist the very technique that makes them sound at their best; they want to be allowed to *sing*, and it seems that the words get in the way! A very particular technique is required to bring the two requirements into balance, and not every vocalist or, indeed, instrumentalist is equipped, or willing to become equipped, for the task. The voice and its training is a complicated minefield that I shall not presume to negotiate; but in the case of wind playing the required technique is known as *support*, and it allows the precise control of phrase shapes without compromise of sound control and expressivity. In this respect classical music is the most demanding of musical styles for the performer, but this is only because any failure is that much more obvious. In fact any music requires such control for its full realization.

There is another side to this problem. We know that the details of how phrasing is shown by a performer are not generally perceived by an audience. The audience is aware of the character of the performance, though not how it is achieved. But, surprisingly, the same is true of many players. The notion that we have a choice of how we phrase, and that a director is mostly trying to establish a consistency of approach, may not enter a player's awareness. He or she simply finds what the director is asking for either natural or unnatural.

We use the word 'technique' to apply to an ability over which we have a conscious control, so a player who can only respond to a phrasing instruction instinctively, and has no choice, would not normally be said to possess a technique for phrasing. This is a delicate issue, because when we do things in a self-conscious, technical way we often lack grace. Normally the solution is to learn the technique, and then to concentrate on the context, which gives meaning to its application. The *use* of the technique thus becomes unconscious. But in the case we are considering, the performance of music not of our own time, with different directors, it is important not to skip the conscious stage. Only then will we be able to judge whether our actual physical technique is producing the results we require.

The process of 'sinking' technique below the level of consciousness becomes complete when we can hear the music before we play it as a choice of possibilities, and find ourselves producing one of

them naturally. We are then in a position to approach the next problem, which is to judge whether what we have produced is appropriate to the rest of the music. As I said before, this is mostly a question of judging whether we have found an equilibrium between the three fundamental rhythmic structures, bearing in mind the notated dynamics, which evidently also have a role to play.

The main difficulty in the classical style seems to be that it is easy to overphrase, and chop up too much what wants to be a line on the next higher level, in order to show a substructure. Sometimes this doesn't matter, because the music 'bounces' anyway; but sometimes it does matter, and finding the degree to which we show the waves relative to the sea, and an appropriate technique for doing so, can be tricky. In the most magical passages of the most profound pieces, the delicacy of the compromise is extreme. (These are always the moments about which every performer is most sensitive.) In these cases the problem can be mainly one of being able to *imagine* the right equilibrium — everyone recognizes a success, but sometimes it can be difficult to 'hear' it before it happens. It may also be that such a moment is one that requires a departure from the basic structure we have been considering, and there is disagreement about the desirability of that very move.

In rehearsal, where it is often a matter of persuading colleagues to invest time in an only hazily imagined idea, it would be nice to have a way of experimenting, if only approximately, with the various options at our disposal. It is too much to hope that the simple computer implementation I am about to outline would resolve the difficulties, but it would be interesting to try to capture the essence of the matter and also to see to what extent 'naturalness' might be phrase-rule governed.

A computer model

The following is no more than a sketch of a possibility. The notion is based on the idea that once we have specified a dynamic and timbral envelope that is to govern the progression of a phrase, it would be possible to apply it at several levels in a given passage to each independent line. Thus the substructure would be represented, and also the way in which the phrases in a polyphonic texture yielded to each other. (It might then be possible to add different envelopes at local points, much in the way that a style can be used to control the overall appearance of a page of text in a word processor, and local effects, like *italics*, applied where needed.) The score could then be played, and the result of the default shape evaluated.

At the moment, this is not a natural way to represent a score in MIDI terms. The MIDI system deals with notes, which are captured by their duration, dynamic and envelope. The possibility of applying a suitable function at one level to *grouped* notes, and then being able to reapply it at another level to the group consisting of the union of those modulated groups, and so on, to whatever degree of complexity seems appropriate, is as far as I know as yet unrealized. Probably only about three levels are necessary, though it would be unwise to underestimate the difficulty of designing an envelope adequate to make a variety of even simple one-level phrases sound natural to our ears.

It may be that the size of the intervals in a phrase changes what is required to achieve a particular perceptual shape, and perhaps even the note density is involved we know, for example, that a passage of semiquavers demands a different (brighter) basic timbre to be effective in any one acoustic compared with the optimum for a slower moving passage of minims and crotchets. Perhaps this means that the bipolarity weight/lightness (a dynamic envelope) dominates the shaping of faster music, and the bipolarity bright/dark (a timbral envelope) dominates the shaping of slower music. It

is also possible that we need variety in some other dimension. (One that springs to mind is the degree of transient attack on each semiquaver in a running passage, which is something that we often do vary as we play.) It is notoriously difficult to characterize precisely the physical parameters that allow our perceptual systems to segment a continuous chunk of speech into recognizable syllables. It would not be surprising if a similar subtlety were required to represent fully the analogous situation in music.

This all adds up to the realization that there is work to be done, and several layers of subtlety to contend with. All the same, it may be that even the partial development of a language that allowed the application of multi-level envelopes to a stored representation of a score would extend the possibilities of creating more easily and naturally a particular sort of electronic music. The idea that speech is implicated in our organization of musical sounds suggests that electronic music conforming to some speech-like properties may in some sense be richer. I mentioned before that the phenomenon of scaling may lie at the heart of our appreciation of an object as natural. Musical masterpieces sometimes seem to have the quality of always having existed — as though they too are natural objects. Perhaps one reason is that the composer has set in motion a structure that is scaled multidimensionally.

Any analysis of how *that* is done, despite much effort by intelligent and sensitive minds, is a long way from completion — nor do I presume to have added to it here. My only thesis is that composers work with the abilities of performers as their raw material, and that as performers we add to or subtract from their genius. This is a small attempt to suggest one way in which we may begin better in our endeavour to do the former rather than the latter.

Some examples

There is a fundamental difficulty involved in giving written examples of what I have been talking about, which is why the computer implementation is an interesting project. The difficulty is that a convincing demonstration of the validity of the approach lies necessarily in the realm of successful performance. I have taken a lot of space explaining why, so I need not labour the point further. However, it has been suggested to me that some degree of illustration would be helpful, and so I have chosen some passages (of Mozart's clarinet music, since I am a clarinettist) in order to make clear some of the ways in which I regard this attitude towards phrasing helpful, suggestive and illuminating. The examples are pieces of music examined through 'beginning-oriented-phrasing' spectacles.

Although we possess the autograph of neither of the works from which I have drawn examples, I think it unlikely that the first edition of either differs significantly from what Mozart wrote in the matter of phrasing (the Winterthur fragment offers some evidence for this assertion), although notoriously there is a very significant difference in places with regard to the actual notes. In any case, the purpose of the examples is to demonstrate the sort of considerations involved in examining music through such 'spectacles'.

1. The beginning of Mozart's Clarinet Quintet (ex.2) shows a rhythmic phrase structure in which the phrases consistently halve their period as the music proceeds. It consists of an initial two-bar phrase, two one-bar phrases and then two half-bar phrases, after which the accompaniment becomes even more choppy and the first violin melody yields to the clarinet

after a cadential trill. The effect is one of precisely increasing division and fragmentation, the texture becoming always lighter, phrase by phrase, ending with the clarinet, which applies the same formula (of phrase-length division by two) to an arpeggio figure, which also incidentally doubles the speed of its constituent notes as it descends and the phrase length halves.

Ex.2 Mozart, Clarinet Quintet, K581, first movement, opening

In fact, we do have a choice here: we can think of bar 7 in the clarinet part as containing either two phrases or 'objects', or as containing one phrase only — namely, the sounding A major arpeggio. Later in the development section, however, we see that this arpeggio is divided at the half-bar, so most likely it is correct to decide that there are two objects. By analogy with the string passage also, it seems more natural to have the clarinet phrase-length halve rather than divide by four between bars 7 and 8. In either case, I suggest that the object or objects were intended to be played legato, as were the four groups of semiquavers in the subsequent bar, following both beaming and grouping.

Bar 5 also contains an example of phrasing as correction: Mozart could have written two slurs in the first violin part, but the division into two is already sufficiently established both by the shape of the melody and the nature of the fragmented accompaniment. Further slurs

would exaggerate the effect.

After the double bar the rhythmic process is reversed: the initial four repeated crotchets of the two violins are accompanied and sewn together by the two half-bar phrases of the clarinet, become a one-bar phrase supported by a semibreve chord and return to the two-bar phrase of the opening, which then begins its return journey once more (ex.3). Both effects rely upon similarity of phrase shape, which is determined by the shape of the shortest phrase, and is thus clearly beginning-oriented. There is no slur over the first three clarinet quavers, but again I suggest that it is more natural to play them legato. (The rhythmic viewpoint suggests that the reason that Mozart bothers to write the slur over the second half is that he intends to prevent our reading the phrasing of the clarinet part as four quavers followed by three, as might be indicated by the change from arpeggio to chromatic scale over the final three quavers of the bar.)

Ex.3 Mozart, Clarinet Quintet, K581, first movement, bars 80-84

Notice that there are no dots on the violin crotchets in the second bar of the example. We do not have the autograph of this piece, but the discussion of the difference between dots and dashes predicts that the original of the first bar would be likely to contain dashes! Their purpose would be to insist on the four equal strokes that begin the period-doubling return.

Mozart helps the beginning orientation of the first phrase of the movement by his scoring; the layout of the first two chords is striking enough to cause severe difficulty to any string quartet attempting to float in and crescendo. The 'fighting' of each pair of distantly spaced 3rds in the first and second chords; their contraction inwards; the descent of the leading voice and the opening out of the spacing of the inner parts as they reach the interrupted cadence at the end of the second bar, all combine to create a phrase that relaxes away from its beginning without need of particular guidance on the part of the performers. However, they can ruin it by trying to 'go somewhere', or by using vibrato to minimize the character of the part writing. If they avoid doing this, little more is required of them than to play each phrase legato and to allow the phrases to develop and lighten faster as they shorten. The whole music lightens naturally.

Such a description is far from capturing the magic of this opening. However, it makes explicit an aspect of the music that is often obscured in performance. The degree to which the phrasing is shown — how 'flat' the leaf-shape is, in the 'leaf' analogy — is an important decision that will determine the nature of the subsequent interpretation. There is also the possibility that the shapes of the leaves may change as the passage progresses, becoming perhaps less flat and more energetic; and how the phrases are joined is an important issue too. Clearly there is also a 'long line' to be represented, so how much we show 'waves' relative to 'sea' will make a difference.

It is easy to spot the rhythmic intention in this case, because the phrasing in each part contributes to the one synchronous rhythmic progression. Usually Mozart has several different rhythms operating simultaneously in any one passage.

2. In the development section (ex.4), where the strings initially take up a contrapuntal treatment of the ascending clarinet arpeggio and elaborated descent, it is important for the players to maintain the rhythmic formula by 'speaking' the phrases. Only in this way is the juxtaposition of the syncopated accompaniment and the period-halving solo line rendered clear. Many players have a tendency to begin with a sostenuto crescendo on the upward arpeggio, obliterating both main and half-bar rhythm.

Ex.4 Mozart, Clarinet Quintet, K581, first movement, bars 89–98

89

Cl. in A

Vln. I

Vln. II

Vla.

Vc.

92

Vln. I

Vln. II

Vla.

Vc.

95

Vln. I

Vln. II

Vla.

Vc.

In addition, the players of the syncopations must resist the temptation to phrase towards the bar-line, even where the harmony seems to them to ask it. The increasing harmonic tension can either look after itself, or be represented on the next higher structural level by an overall, stepped increase in intensity.

It will be seen that the phrase beginnings of one instrument are always given space by the

phrase endings of the others. Also, in the first edition, there is a variety of phrasing in the accompanying instruments: bars 94 and 96 are slurred between minim and crotchet only in the second violin, whereas the other instruments phrase away on each note. (This is obscured by editorial 'rationalization' even in the *Neue Mozart Ausgabe!*) The transition from bar 97 to 98 is slurred only in the cello, and bar 98 itself is unslurred and 'squarer', both in keeping with the transition to the more dramatic passage to follow.

These few bars have always been felt to be problematic. One reason may be that a fundamental aspect of the character of the music often goes unrepresented: the solo line must be rhythmically clear and heard to phrase against the accompaniment and with the bar. When this is done the subsequent entry of the clarinet and the effect of the whole group phrasing with the bar becomes more dramatic, insistent and meaningful.


3. A beautiful example of phrasing to balance occurs in Trio 1 of the third movement of the Clarinet Quintet (ex.5). Each two-note phrase (particularly when the first violin and viola are in canon in the second part of the trio, not shown) is expressive, eloquent and *heard* if all players enter clearly and lighten clearly. It is also arguable that the whole Minuet and Trio exhibits tension between phrases beginning on the third beat (weakening the bar-line) and phrases beginning on the first beat (strengthening the bar-line).

Ex.5 Mozart, Clarinet Quintet, K581, third movement, opening

4. Beginning at bar 85 of the Clarinet Concerto (ex.6), there is a passage, often badly mangled in 19th-century editions, in which Mozart's intentions are particularly apparent. In this case, we do not need to worry that there might have been editorial interference with the clarinet phrasing in the first edition, because we possess the passage in Mozart's hand in the shape of the Winterthur fragment.

Ex.6 Mozart, Clarinet Concerto, K622, first movement, bars 85-94

The written *bb''* (sounding *g''*) in bar 87 is the beginning of a phrase, and since it is also the highest note, it is commonly played lovingly and intensely by all players, regardless of their attitude to the notation. Bar 88 repeats bar 86, but this time the internal syncopated rhythm of the subsequent bar, 89, is suppressed by the phrase mark, so the main stress falls around the first three notes, since it is a slower stress appropriate to a bar-length phrase. (I shall stick to concert pitch from here on.) Less attention is therefore called to the *g''* (which will wane in importance over the four bars 87_90) and correspondingly more attention to the initial *c''*. The change of emphasis is maintained in bar 90, as the progression downwards continues, the main stressed note falling to *b'* and finally *a#'*. The added accompaniment of second violins and violas in bar 89, playing a sustained (two-bar) phrase over bars 89 and 90 serves to slow down the perceived rhythm of the music, which had at the beginning been accompanied by rocking quavers in only the first violins.

When we reach bar 91 there is an abrupt change of character: the slowing rhythm breaks up into crotchet, minim; crotchet, crotchet. This is suddenly a four or eight times faster shape, depending whether you have been playing the clarinet or a string instrument. (The insistent and separated rhythm  is often ruined by being slurred over in later editions.) At the moment of changeover the harmony is diminished, the clarinet leaps down almost two

octaves to reiterate a faster version of the previous descent (this time *a#-B-A#*) while the violins make a return journey upwards (*a#'-b'-c#''*), and finally the clarinet returns over almost three octaves to reclaim the *g''* at the beginning of a phrase starting on the second beat of bar 92. The *g''* here is intense for several reasons: it is at the beginning of a three-beat-long phrase; it is accompanied by the most richly scored chord yet in the passage (added cellos and contrabasses); we recognize its occupancy of the second beat because of its three previous progressively weakening appearances there, and so its reappearance after the startling effect of bar 91 has an added potency; and there is a psychological tension engendered by the distance the clarinet has to traverse to reach it.

My reason for describing all this is to show that if we take a rhythmic viewpoint of the phrasing, all this variety of character simply falls out of the notation without added dynamics. Also the striking thematic unity of this wonderful passage is preserved — indeed, heightened.

There is a final detail: just looking at the clarinet part, it seems to most players more natural to make a crescendo over bars 89 and 90. The reason I would say bars 89 and 90 weaken is that the long second violin and viola slur lightens naturally. You *could* do it the other way, but you would probably have to write in a crescendo for the second violins and violas. The rhythmic mini-shock at bar 91 would thus be a prepared one.

In either case, it is a matter for fine judgment exactly how steeply the beginning-oriented structure of the first beat of bar 91 should be played. It's 'make or break' for the player, though not for the rule. And this is what I have said all along. I think Mozart's contemporaries would have agreed.

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