On the Problem of Succession and Continuity in Twentieth-Century Music

Christopher F. Hasty

With the disappearance of the rhythmic continuity of pulse, measure, and periodic phrase structure, and the abandonment of the organizing force of a single tonal center, twentieth-century music has raised fundamental issues of musical form. There have been many attempts to come to terms with the radical musical developments of our era, but as yet no consensus has been reached. Some musicians affirm the old order, generally finding new music deficient; even when made apparently in good faith, attempts to hear a "new tonality" or vestiges of tonal forms can only end in the deprecation of a music which can realize only imperfectly the structural and formal procedures of earlier styles. Unwilling to perform such obeisance, others have sought to denigrate the tradition as coercive, finding in new music a liberation from linearity, teleology, closure, and even temporality itself. Unfortunately, this criticism has largely failed to rise above the surface of its slogans. Its predominately negative character is quite understandable, coming as it does from composers who may have rather mixed feelings about a tradition which remains so powerfully alive in the concert halls, eclipsing for the vast majority of music lovers many remarkable artistic products of our century. A third alternative has been to point to the systematic (possibly serial) pitch organization of whatever music will bear such scrutiny in order to show a unity akin to the "organic unity" ascribed to the older music. Such an approach, however, rarely engages problems of temporality and the perception of musical form.

I believe that these three viewpoints (here rather crudely sketched) can offer important insights if released from polemical isolation. The "radical" questions of musical temporality which are clearly fruits of twentieth-century thought may in fact open new horizons in our understanding of musical form in general. These are questions which were not so pointedly asked by traditional theories, but which obviously pertain to tonal music. Although formulated in the absence of a critical temporal framework, ideas of pitch structure developed in recent analytic theory may prove useful in the attempt to understand temporal organization.

In the first part of this essay I wish to examine some of the ideas which are frequently encountered in discussions of new music in the hope of shedding some light on problems of temporality in relation to musical form. I shall then turn to an analysis of the opening of Stravinsky's *Symphonies of Wind Instruments* in order to bring this general discussion into closer contact with specific questions of musical organization.

Since new music is often either condemned or lauded for its alleged discontinuities, I will begin by considering the issue of continuous and discontinous change. We are accustomed to thinking of a continuous change as one involving no internal articulation, no discrete stages. Thus the continuity of a glissando may be opposed to the discontinuity of scale steps, or a continuous decrescendo opposed to a sudden reduction in volume. But when we begin thinking of the complex connections of appar-

ently discrete units, connections that, for example, give rise to melody, phrase, rhythmic pattern, or the prolongation of a tone through diminutions, then the question of continuity and discontinuity becomes quite complicated. In these cases the mark of continuity does not reside in the absence of internal articulation, but in the unification of events. If we allow continuity to encompass distinct elements or parts then we must conceive discontinuity as the absence of connection—a genuine hiatus in the relationship of consecutive events. But once we permit the definition of discontinuity to extend beyond its reference to articulation and to take on the meaning of a complete lack of connection between successive events, this term becomes difficult to understand in its relation to temporal phenomena.

Perhaps this difficulty is responsible for the numerous references to the "spatialization of time" which for many writers characterizes new music. Ligeti, for example, criticizes Schoenberg for using "developmental forms, delaying considerably the process which we shall refer to as the 'spatialization of the flow of time.' " He continues,

> Webern's music brought about the projection of the time flow into an imaginary space by means of the interchangeability of temporal directions provoked by the constant reciprocity of the motivic shapes and their retrogrades . . . This projection was further strengthened by [here he quotes Eimert] the "grouping around a central axis, which implies a conception of the time-continuum as 'space'," and by the fusion of the successive and the simultaneous in a unifying structure . . . Webern's structures seem, if not to move forward in one direction, at least to circle continuously in their illusory space.[1]

I believe that underlying Ligeti's statement here is the notion that the successive events in Webern's music are not connected as successive. Quite rightly recognizing succession as the basis of temporal order, Ligeti chooses space as an order which is free from the restraints of sequence. The accuracy of Ligeti's view of this music is, I think, open to question. One can easily find retrogrades and registral symmetries in Webern, but this does not mean that a deeper analysis could not reveal other connections which contribute to a lyrical continuity which can be felt in much of this music. Of course, Darmstadt had its own uses for Webern. Ligeti goes on to speak of stasis and the "paralysis of the flow of time" in works of Messiaen, Goeyvaerts and Boulez.

Another composer who has written much more extensively on the spatialization of new music is George Rochberg. In Rochberg's analysis it is again the isolation of the individual event which calls forth the spatial order. Rochberg, perhaps following Leonard Meyer, often identifies connection or continuity with predictability. The perception of musical time is the perception of the directedness of events toward goals. Events follow one another in a patently causal chain. Such directedness is supplied by tonal relationships and meter—resources which have been renounced by modern music. Thus Rochberg believes that the pseudo-continuity of Schoenberg's melodic lines is produced by contour, not by the relationships of tones and that therefore directionality is specious. Similarly, according to Rochberg, in Webern's music genuine metrical qualities are characteristically eschewed.

> The beat and meter is now a frame, not a process—a frame on which to construct symmetries of pitch and rhythm . . . uniform, discrete, individual units of time which have no more relation to each other than the seconds which a clock ticks off.[2]

Temporal duration, characterized by the process of change, having become frozen as a static "now," is assimilated into space.

> By subordinating duration to space, music no longer exists in its

[1]György Ligeti, "Metamorphoses of Musical Form," *Die Reihe* 7, *Form-Space,* trans. Cornelius Cardew (Bryn Mawr: Theodore Presser, 1965), 16.

[2]Rochberg, "The Concepts of Musical Time and Space," in *The Aesthetics of Survival* (Ann Arbor: The University of Michigan Press, 1984), 111–112.

former state of anticipation of the future. It projects itself as a series of present moments, holding up to aural perception each spatial image as the self-sufficient object of perception as it occurs, not as it will realize itself in some future event.[3]

Rochberg often refers to this new form of duration as "durational proportion," so presumably such durations can be related or compared in the spatial category of magnitude or length. For Rochberg the final and positive result of this new musical perception is the attainment of a pure presence. Freed from its connection with past and future events, the present moment places us in the realm of eternity. The notion that discontinuity, lack of connection or a static, unchanging duration is necessary for the liberation of the present, finds expression in numerous accounts of modern music. For example, Barney Childs writes that "the concern is with breaking the now loose from its traditional capacity as sequential ordering apparatus, to free it from obvious past associations and gestures, and to make it thus ever unique and freshly felt."[4] An earlier and highly influential statement of this position appears in Stockhausen's definition of moment form.

> In recent years musical forms have been composed to which one cannot from the present predict with certainty the direction of development; forms in which either every present counts or nothing counts at all; forms in which each now is not regarded untiringly as a mere result of the immediately preceding one or as the prelude to the one that is approaching, that one expects; but rather as something personal, autonomous, centered, independent, absolute; forms in which an instant need not be a segment of a timeline nor a moment a particle of a measured duration. Forms in which the concentration on the now—on each now—makes, as it were, vertical slices which cut across horizontal time experience into the timelessness which I call eternity: an eternity that does not begin at the end of time, but that is attainable in every moment. I speak of musical forms in which manifestly nothing less is being attempted than to explode, yes, to overcome the concept of time or more precisely the concept of duration.[5]

I cannot hope to engage all the issues brought up in these quotations, but I shall attempt to address a central assertion that runs through all of them, namely, that extreme contrast or the absence of predictability can negate temporal succession and thus create an absolute discontinuity. In order to carry this out it will be useful to consider briefly some pertinent characteristics of temporal relations.

It is customary to regard time as a "medium" in which events may take place or to identify time with the process of change. Thus we speak of "a span of time," "a point in time," and the "flow" or "passage of time;" we say that "time moves quickly" or "slowly," and that events "take time." These expressions either exclude events from time in such a way that time might pass or flow forward if nothing were to happen, or they mistake time for events, forgetting that it is *events* that occur quickly and not time itself. Time is neither a substance independent from events, nor itself change or process. It is rather a form of relationship between events. And this relationship or order is expressed in the terms *before* and *after*. But the apprehension of difference, far from separating discrete events, requires that we bring events together into a relation, otherwise we could not be aware of difference. This bringing together is the mark of continuity and always involves some sort of overlap since the terms of a relation are mutually dependent and together create a context which could not arise apart from their relation. Succession, the fundamental temporal relation, is continuous in this sense for we cannot isolate *before* and *after*. Neither one has any meaning apart from the other; thus succession requires a duration which encompasses both. To mark a division be-

[3]Rochberg, *Aesthetics*, 132.

[4]Barney Childs, "Time and Music: A Composer's View," *Perspectives of New Music* 15/2 (1977): 215.

[5]Karlheinz Stockhausen, *Texte zur elektronischen und instrumentalen Musik*, vol. 1, *Aufsätze 1952–1962 zur Theorie des Komponierens* (Cologne: M. Du Mont Schauberg, 1963), 198–199.

tween before and after, we might abstract from the phenomenon of succession a durationless instant, a "point" of time akin to the extensionless point of mathematical space, but since it is without duration, such an abstraction is non-temporal. Zeno's paradox of the flying arrow which never reaches its destination, points to the contradictions of introducing the discontinuity of the durationless instant into the continuous structure of time by requiring an infinite number of such instants to constitute a finite duration.

While I am dwelling here on the continuous character of temporal succession, by no means do I wish to deny the obvious fact that changes or events may themselves be qualitatively distinct and in this sense discontinuous as, for example, the sound of a tone following silence. I am however asserting that there is no break in the temporal series that relates silence and tone as a succession. There is no bare "now" of the onset of the tone divorced from what precedes and follows it. Here I might add that this sequential connection necessarily brings the qualities of sound and silence into relation and so makes it impossible to speak of a pure discontinuity. The relation of events may be more or less comprehensible depending on our experience, the level of our attention, the type and degree of organization we are presented with, or, more accurately, the interaction of all these factors. But, in principle, the possibility for making connections is always there, whether we are listening to traffic or for the hundredth time to a Mozart minuet as a new experience.

A great deal is hidden in the phrase "type and degree of organization." When we later turn to a musical analysis it will be possible to consider such organization more specifically. In order to lay some groundwork for that discussion I would like to touch briefly on the problem of temporal whole and part. I have used the term *event* to refer to any change in a series of changes that constitute a process. This sense of connectedness is consonant with the word's origin in *ēuenīre*—to come or issue from. It is of course quite problematic to *locate* the events of a musical composition. We might point to a tone as an event, the interval it forms with another tone as another event. Again, each of these tones might belong to different, more elaborate structural constituents which could also be regarded as events. Furthermore, we may ask *when,* exactly, all these different events occur and how long they endure. This complex density of events is characteristic of the temporal whole in which relations result in an overlapping or interpenetration of terms. Attempts to locate the specific now-points of the beginning and end of events and to measure the distance between these points—we find such attempts in all schematic representations of musical form—are, I believe, dubious importations from the realm of spatial relations. Analytically, we can point to discrete units—individual tones, clearly demarcated phrases and sections, and so forth—but if these units are indeed parts, they are parts of a process in which they cohere. Speaking of temporal process in general, Errol Harris explains how such a unification can come about. I should preface this quote by saying that for Harris, as well as for Whitehead, Čapek, and many other philosophers, every process is a development generating a totality. Harris writes,

> A structured whole revealing itself seriatim must somehow preserve the earlier stages as it progresses and amalgamate them with those subsequently appearing; otherwise no structure or order comes to light. Single instantaneous events present no order—even if they are not simple but have internal complexity. If each as it passes were utterly obliterated, no order could ever emerge. In some manner, therefore, for an order to be constituted, the earlier elements must be retained sublated in the succeeding events.[6]

The perspective which I have been developing contradicts Rochberg's belief that events can be truly isolated. It also contradicts the correlate that in a temporal process *direction* can be annihilated. That the irreversible relations of before and after

[6]Errol Harris, *The Foundations of Metaphysics in Science* (London: George Allen and Unwin, 1965), 464. I am also indebted to Harris for much of the preceding analysis of the problems of temporal succession.

guarantee directionality has been convincingly demonstrated by Husserl in his account of present consciousness as a continuous manifold of protensions and retentions. For some theorists, particularly those committed to models taken from information theory, directionality in music arises only through our ability to predict the future course of events. In tonal music a leading tone or passing dissonance implies an expected resolution. This predictive connection of present and future is held to be the essential feature of causality.[7] Such expectations, whether realized or not, constitute in our imagination goals toward which the music is directed. Where we cannot sense goals, where we cannot foresee possible outcomes, direction is forfeited—a situation said to apply to much twentieth-century music. Taking the extreme case of music in which chance operations are employed in composition or performance, Leonard Meyer writes, "The music is without tendency or direction. Tones do not imply other tones; they simply exist. Such music seems timeless . . . in the sense that one experiences no awareness of motion through time in hearing it."[8] Meyer's identification of implication and prediction places very severe restrictions on our ability to sense temporal direction. However, instead of regarding expectation as a determination of what can be, we may understand it as an openness to the possibility of relating events. Thus for Husserl, protension is not the projection of particular outcomes, but a reaching forward in the expectation that features of the object other than those already given will reveal themselves. Once revealed, these features permit us to reinterpret what was previously given. In this way the temporal phases of present, past, and future are necessarily implicated in one another in a progressive development toward completion and wholeness. We may judge the relation of events to be more or less satisfying or interesting but this sort of judgment cannot suspend time and the essential directionality of events.

In order to see how such wholeness and direction can arise in a post-tonal composition, I will consider the opening of the *Symphonies of Wind Instruments,* first published in 1920, and then substantially revised in 1947. I have chosen this piece because of its characteristically Stravinskian lucidity and because it has generated a body of analytic interpretations which address many of the issues of temporality and form that I have raised thus far. Laszlo Somfai, in a detailed study, courageously attempts to show the "organic unity" of the *Symphonies.*[9] His work contains many excellent observations and represents a serious and sympathetic attempt to understand the coherence of this music. However, after following the conventional motivic analysis and numerous schematic diagrams, the reader is likely to be left with the impression that if there is an organic unity here, it is a sadly impoverished one compared to those of the tonal masters.

In a much more influential analysis of the *Symphonies,* Edward Cone, taking a quite unconventional approach to musical form, argues that the various sections of the piece constitute discrete "layers of sound." Instances of such layers are given in Examples 1, 3, 7, and 9 which, following Cone, are labeled A^1, B^1, A^2, and B^2. The interruptions caused by the alternation of these discrete, immediately discontinuous segments create a "stratification" of the music. Since Cone's position here has much in common with the statements of composers quoted earlier, I would like to quote him at length.

[7]Much evidence against the connection of predictability and the principle of causality is presented by Ernst Cassirer in *Determinism and Indeterminism in Modern Physics* (New Haven: Yale University Press, 1956).

[8]Leonard B. Meyer, *Music the Arts and Ideas* (Chicago: The University of Chicago Press, 1967), 52.

[9]Laszlo Somfai, "Symphonies of Wind Instruments (1920): Observations on Stravinsky's Organic Construction," *Studia Musicologica* 14 (1972): 355–383.

By stratification I mean the separation in musical space of ideas—or better, of musical areas—juxtaposed in time; the interruption is the mark of this separation. Since the musical areas are usually incomplete and often fragmentary, stratification sets up a tension between successive time segments. When the action in one area is suspended, the listener looks forward to its eventual resumption and completion; meanwhile action in another has begun, which in turn will demand fulfillment after its own suspension . . . one musical line will run through A^1, A^2, A^3; another will correspondingly unite the appearances of B. Although heard in the alternation, each line will continue to exert its influence even when silent. As a result, the effect is analogous to that of polyphonic strands of a melody: the successive time-segments are as it were counterpointed agains tone another.[10]

In Cone's analysis this is a "polyphony" of quite independent voices. While he permits the connection of separate sections, Cone sees a radical discontinuity in the succession of these events. Perhaps this view inspires his spatial imagery.

Arguing for a stronger sense of discontinuity in this music, Jonathan Kramer presents the *Symphonies* as an early example of *moment form.* Kramer defines moments as

self-contained entities, capable of standing on their own, yet in some sense belonging to the composition. They may comprise a static entity, such as a harmony, that lasts throughout the moment, or they may contain a process that completes itself within the moment. If a static state or process defines the self-containment of the moment, the order of moments should not matter.[11]

He also writes:

Since there is no linear logic that connects moments, their order of succession *seems* arbitrary. Actually, the order may or may not *be* arbitrary, but it must seem so if the piece is to be heard in moment time.[12]

For Kramer, form in such music arises not from the connections of moments, which are by definition disconnected, but from the proportional structure of the durations of moments. In the following analysis I hope to show that, in the case of the *Symphonies,* it is possible to relate these clearly delineated sections and thereby to sense a progressive development which, while perhaps not predictable, nevertheless exhibits coherence and direction.

In the first section, A^1 (Example 1), I have labeled several constituents. The first of these, X^1, can be heard to comprise two parts or phases. This articulation arises when D descends to B♮ in the clarinets and B♭ replaces F as the lowest sounding pitch. Actually this "when" is somewhat ambiguous since the upper voices contradict the notated meter, accenting the third D in relation to the following B. The change in sonority is quite striking as an open, rather "fifthy" form of set class 3–7 contracts to a particularly acrid form of 3–3 (or 4–17 if D is included) emphasizing the interval B♭ to B♮.[13] Constituent X^2 begins as an abbreviation or compression of X^1. This alteration is made by omitting from X^2 the bracketed segment labeled Q in X^1. X^2 is then extended by new material, Y, which is a development of the clarinet line. We may sense a closure in the clarinet line which reiterates the minor third descent from D to B in the return to D from F. But this closure is to some extent mitigated by the return in X^3 to the initial phase of X^1 and X^2.

This section sounds much more continuous and fluid than an extraction of its components might suggest. Fluidity is achieved by complex cross accents which keep meter in constant

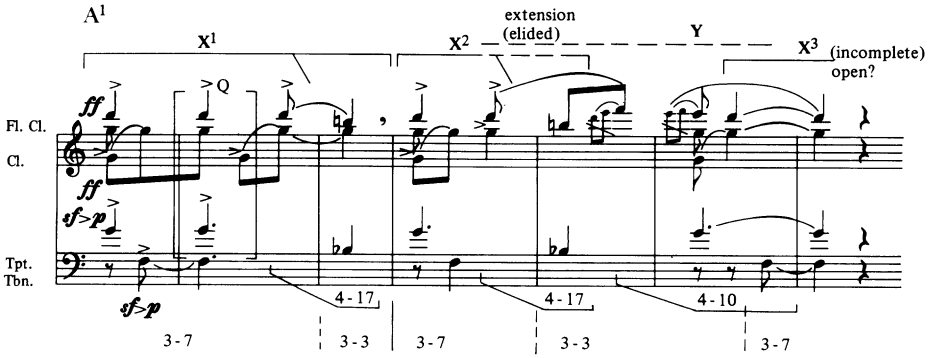
[10]Edward T. Cone, "Stravinsky: The Progress of a Method," *Perspectives of New Music* 1/1: 19.

[11]Jonathan Kramer, "Moment Form in Twentieth Century Music," *The Musical Quarterly* 64/2 (1978): 181.

[12]Jonathan Kramer, "New Temporalities in Music," *Critical Inquiry,* Spring 1981: 547.

[13]Set class numbers refer to the classification in Allen Forte, *The Structure of Atonal Music* (New Haven, Yale University Press, 1973), Appendix 1.

Example 1. Mm. 1–6

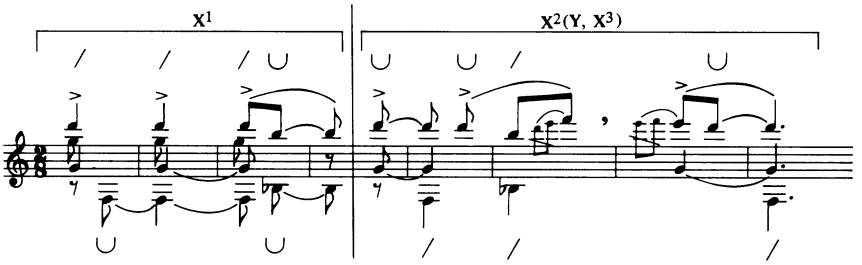


suspension—every possible downbeat is contested by an accent in another voice. In this way the metrical qualities of arsis and thesis are elided to prevent rhythmic closure. Such a technique is perhaps necessitated by Stravinsky's use of a relatively static pitch material (compared to his Viennese contemporaries), or conversely, the technique permits the use of such pitch material. While the rhythmic complexity of this passage is open to many interpretations, I would like to describe one which Peter Van den Toorn has pointed out to me. In Example 2 a duple meter established in the first three measures by the upper voices is maintained throughout the section. Here the opposing accents of the upper and lower voices in X^1 are reversed in the complementary segment. In this hearing the final F in the bass contributes to a sense of closure, sounding now as a downbeat. In support of this interpretation one has only to add or subtract an eighth in the third measure of Example 1 to deaden the entire passage.

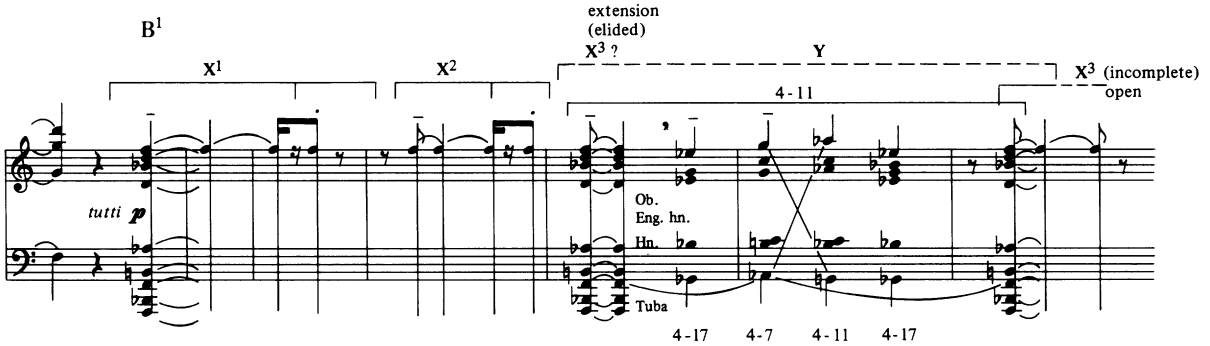
The second section, B^1 (Example 3), enters without a mediating transition as a striking contrast to A^1. There is nothing in A^1 which could lead us to predict B^1, and yet this continuation does not, I think, sound inappropriate. Kramer maintains that the "formal balance" of these two sections arises from a durational proportion approximating 3:2 which, as he has convincingly shown, pervades the first half of the *Symphonies*.[14] There are, I believe, two problems with this explanation. First, these proportions are independent of the content, and second, unless there is something inherently cohesive about the proportion 3:2, we must wait until a considerably later stage in the progress of the piece to sense the pervasiveness of this proportion as a unifying factor. Cone, on the other hand views these two sections as discrete "layers of sound" whose opposition is not resolved by any immediate relationship. Yet, not willing to accuse Stravinsky of formlessness, Cone writes that "some sort of unification is the goal toward which the entire composition points, for without it there is no cogency in the association of the component areas . . . The diverse elements are brought into closer

[14]Kramer, "Moment Form," 187.

Example 2



Example 3. Mm. 7–13

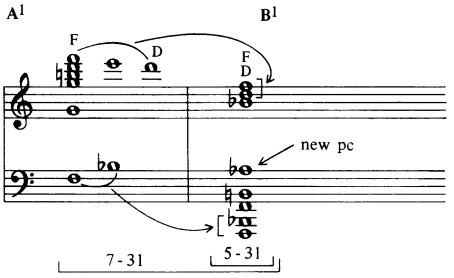


and closer relation with one another, all ideally being accounted for in the final resolution."[15] Unfortunately, Cone does not demonstrate this ultimate, "ideal" synthesis. He does, however, point to one element of connection between sections A^1 and B^1: the fourth, F–B♭, in the bass, which he regards as "the foundation common to the two areas despite their striking difference in sound." This connection and others are shown in Example 4.

Useful as such observations are, the comparison of sonorities abstracted from rhythm cannot lead us to an understanding of form. We may find the sonorities more or less homogeneous, but homogeneity does not create musical coherence. If we wish

[15]Cone, "Stravinsky," 19–20.

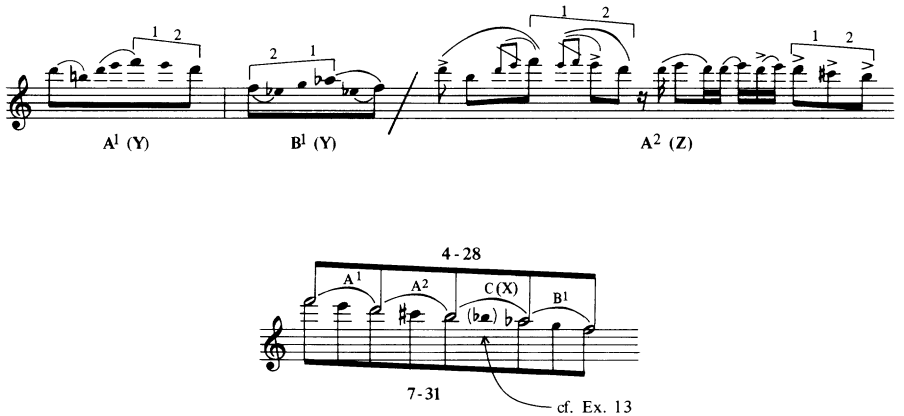
Example 4



to investigate the coherence of these two sections we should attempt to compare them as wholes. In Examples 1 and 3 I have indicated a correspondence between the two sections. Like section A^1, B^1 begins with a constituent X^1 comprised quite clearly of two parts. This is followed by an abbreviated replica, X^2. Yet another repetition is initiated but is immediately involved in a figure very reminiscent of the extension Y in section A^1. As a turning figure around the note F, Y closes on the return of F which, as X^3, is incomplete, lacking a second attack. The melodic closure coupled with an incomplete restatement of the opening figure noted in section A^1 is perhaps intensified in section B^1.

The relation of the figures labeled Y in both these sections invites further comment. Example 5 interprets the upper voice of these figures. In section B^1 the only new pitch class introduced by the first sonority, A♭, is quite strongly linked to F, as F was to D in section A^1. Later, in section A^2, the interval D to B is likewise filled in. The pitches F, D, B, and A♭ of course form the diminished seventh chord or set class 4–28, the complement of the octatonic scale, 8–28. These pitches together with the intervening pitches form set class 7–31, also an octatonic set and the complement of the first sonority of section B (see Example 4).

Example 5

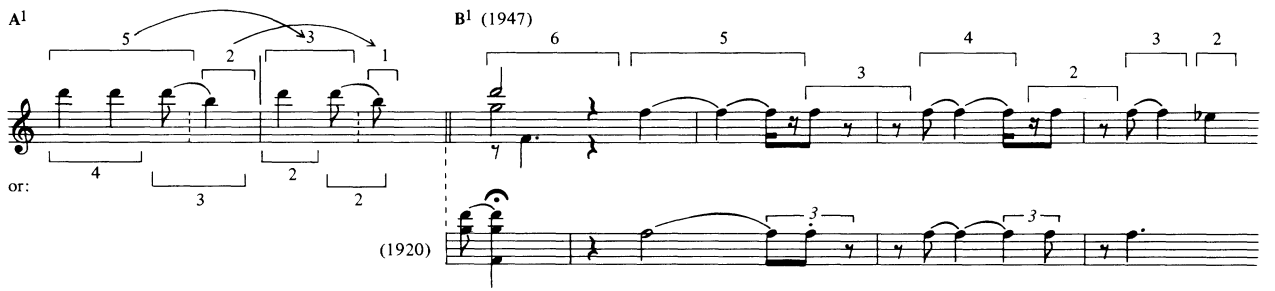


Returning to a rhythmic comparison of these sections, notice that in both cases there is an acceleration toward the Y constituents. Example 6 shows this progressive shortening of durations. In contrast to section A^1, the durations of B^1 are unmeasured in the sense that metrical qualities are largely effaced. Stravinsky scrupulously notates the initiations of X^2 and X^3 as offbeats. In a homophonic texture this technique must replace the cross accents of A^1 as a means of insuring metrical ambiguity. Nevertheless, the persistence of the eighth-note pulse established in the previous section may enable us to sense the quantitative measuring indicated in Example 6. This possibility was considerably weakened in the 1920 version by the fermata preceding section B^1 and the introduction of the triplet eighth.

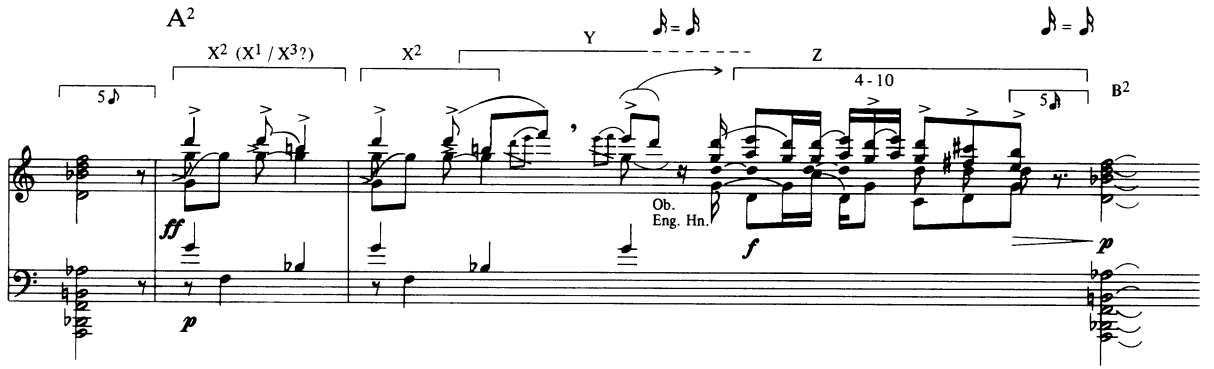
The next section, A^2, is given in Example 7. It seems to me an open question whether we regard the first constituent as a completion of X^3 which was initiated at the end of section A^1, or as a compression and thus an intensification of X^1, or as a restatement of X^2 beginning this section *in medias res*. Such questions arise because we are dealing with a temporal whole in which earlier phases can be in Harris's words "retained sublated in succeeding events." It is not that we must literally recall an earlier event to make a comparison, in the way that we might turn back pages of the score, but rather that the structural character of an event is determined by past events. The first constituent of A^2 is thus not innocent of its history. (In this sense it is perhaps misleading to speak of a "comparison" of sections A^1 and B^1. In any relation it is tempting to speak of two things rather than one.) Constituent Y is here extended by elision to a new constituent (labeled Z) bringing the line down to B♮. The introduction of sixteenths here has the effect of a change of tempo and Stravinsky is careful to mark "sixteenth equals sixteenth" on either side of this passage. Component Z presents the most densely complex rhythmic configuration encountered thus far. In Example 8 I have indicated an acceleration toward the final descent, D–C♯–B. This passage, while far from disconnected from A^2, is quite disruptive. It is a new, highly intensified development of Y which finds no response in the beginning of the next section. And yet it is perhaps in response to component Z that section B^2 breaks out of its isolation to join with a mollified issue of this new development in section C. At the conclusion of A^2 there is no incomplete statement, X^3, as there was in the first section. Section B^2 follows urgently and is like A^2 both compressed and extended (see Example 9).

In B^2 the second constituent, X^2, enters an eighth earlier

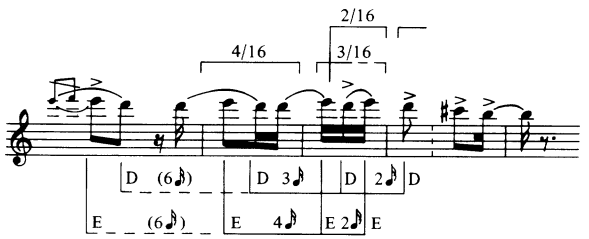
Example 6



Example 7. Mm. 13–22



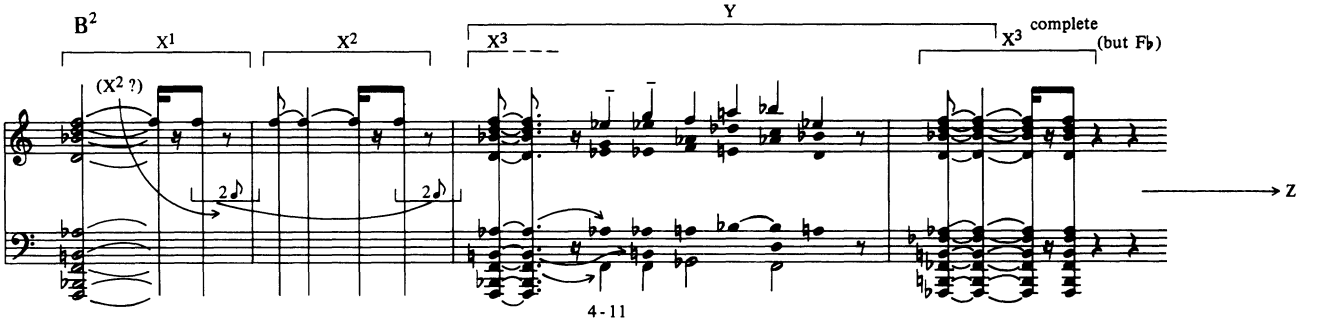
Example 8



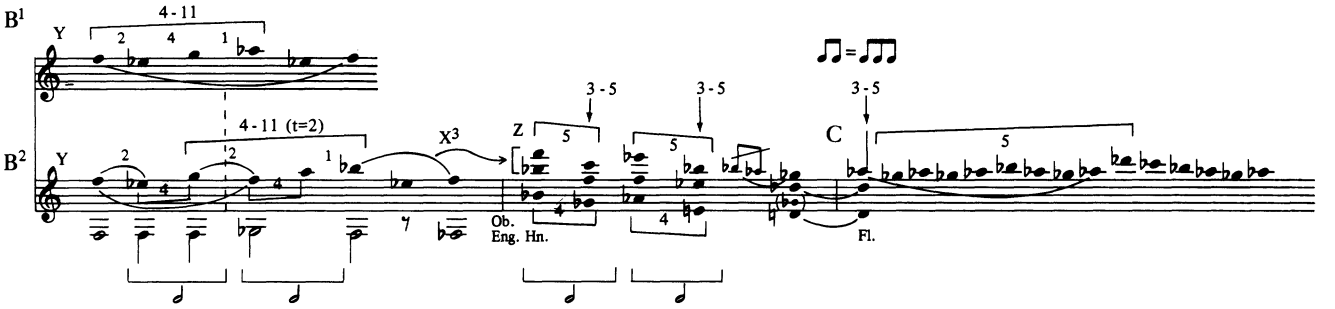
than did constituent X^2 of Section B^1. As a result of this change the first two constituents come to resemble one another in their durations, reenacting the similarity of the first two constituents in section A^2. Constituent Y is considerably changed from its appearance in B^1. Here the connection of the first sonority with the two succeeding sonorities is made smoother by the retention of the tones indicated in the bass clef of Example 9—F, B♮ and A♭. At this point there is a change in the upper line. Example 10 shows the complex sequential structure which results from this change. In B^2 the immediate return to the pitch F, unsettled by the G♭ in the bass, can be heard together with the preceding G as a sequential restatement of the initial dyad, F and E♭. With the entrance of the pitch A, the sequence is complicated by elision if we can sense the repetition F–E♭–G, G–F–A. Here the major thirds, E♭–G and F–A, seem to break out of this pattern, supported by the half-note pulse of the bass. With B♭, a statement of set class 4–11 is introduced a whole-step higher than its appearance in section B^1.

This climactic course of events leads to constituent X^3, now rhythmically complete but significantly altered. The alteration is shown in Example 11. The bass drops from F to F♭ to form an instance of set class 6–30, also an octatonic subset and a set which can take the form of a conjunction of two major triads a tritone apart. While such analyses of complex sonorities are often not very productive, I believe there is some justification for

Example 9. Mm. 22–27

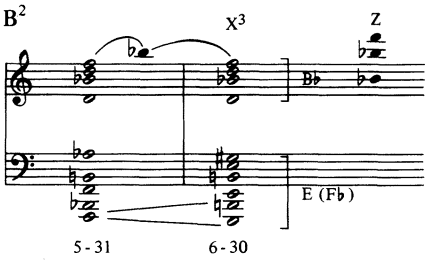


Example 10



taking such a view in this case. I have re-notated the chord, changing F♭ to E. In the remainder of the *Symphonies* there is no section B^3, although forms of constituent Y appear frequently. However, the final cortége clearly involves sections B^1 and B^2. These concluding thirty-odd measures are dominated by E in the bass, and I hear the piece ending, if "in" anything, then in some sort of E rather than C. I believe that in the context of the entire concluding section, the final C in the bass can be heard, without severely straining the imagination, as a very Debussean added sixth, ending the work with a gesture of opening. In the present context nothing is made of this E or F♭. As Example 10 indicates, the next constituent instead takes over B♭ and F from the preceding upper voices. Because it presents new material, I have labeled this constituent Z. It does bear some obvi-

Example 11

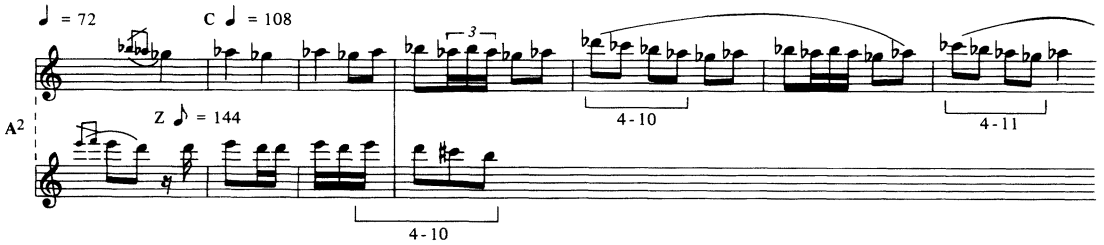


ous similarity to constituent Z of section A^2—both passages are played by oboes and english horn and prominently feature parallel fifths. Also, both develop out of their preceding Y constituents. In section B^2 constituent Z answers the ascending sequence of Y with a descending sequence, resuming the half-note pulse. It is beautifully elided with another section, C, which, like constituent Z of section A^2, introduces an acceleration of tempo. (Note the three parallel forms of set class 3–5, a sonority that permeates the new section.)

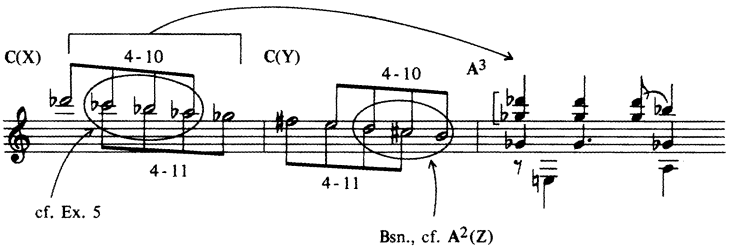
While section C quickens the pulse of the preceding section, we can also sense a sort of relaxation here if C is heard as a reenactment of the previously isolated constituent Z of section A^2. These two passages are compared in Example 12. Thus C may mediate the change of pulse introduced in section A^2. There is also a sense in which C mediates the opposition of A and B. Example 13 displays the pitches of the upper voices of the new section's two parts, CX and CY. Both of these collections unite forms of 4–10 and 4–11. Occurrences of 4–11 have already been indicated in the Y constituents of sections B^1 and B^2 (see also Example 17). (Notice that the shared trichord of 4–10 and 4–11 in CX, a segment that is very prominent in this passage, C♭–B♭–A♭, completes the octatonic scale shown in Example 5.)

Example 14 displays instances of set class 4–10 in A^1, A^2, CX and CY. More specifically, in the sections labeled A the pitch E seems to function as an auxiliary, a whole-step above the "primary" pitch D. In the B sections it is the whole-step below, E♭, that embellishes F. In CX the central pitch, A♭, is embellished by the whole-steps above *and* below, B♭ and G♭. CY returns in the bassoon to the minor third which closed section A^2; but, while C♯ in A^2 functioned as a passing tone between D and B, in CY C♯ is treated as the primary tone to prepare section A^3. (The predominant whole-steps of CX and CY are shown in Ex-

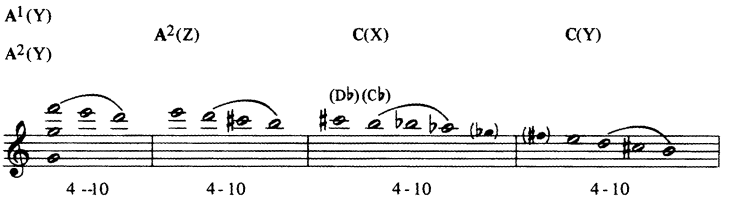
Example 12



Example 13



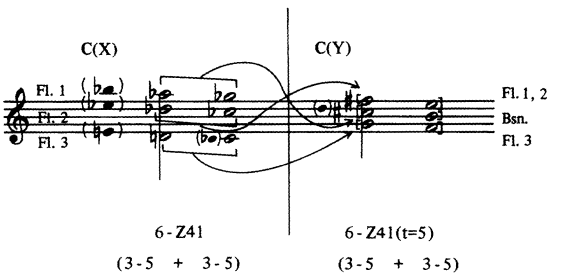
Example 14



ample 15 to form sets of the same class. This correspondence arises from a radical recomposition of the accompanying voices of CX in the 1947 revision.)

While section C may bring together melodic figures characteristic of sections A and B, I believe it would be a mistake to maintain that this synthesis can overcome the differences of the earlier sections. If A and B were perceived as autonomous and discontinuous, it is too late for C to undo this perception. I have, of course, been arguing that A and B are not necessarily autonomous and discontinuous, that they are part of a develop-

Example 15



ing whole. They do not need C; rather C needs them to extend this whole.

Kramer argues that sections A^1 through B^2 constitute a moment composed of submoments. His analysis is given in Example 16. "The crucial attribute of moments," Kramer writes, "is their self-containment . . . If a section leads to another section (whether adjacent or not) then it is neither self-contained nor in moment time."[16] Also, "the nature of moment form suggests proportional lengths of moments as the one remaining principle of formal coherence."[17] There are, I think, numerous senses in which this course of events can be understood to lead to section C. For instance, the connections shown in Example 10 seem to constitute a palpable transition, in fact, the first transition encountered in the work. These sequences have an almost modulatory effect, one of the consequences of which is indicated in Example 17. Here the transpositions of 4–11 can be seen and, I think, heard to lead from F up to A♭ through the intervening pitch, G.

Without engaging in a detailed analysis it may be pointed out that the gestures of CX become increasingly compressed, culminating in the minute and, metaphorically speaking, static repetitions in CY against which the following section, A^3, in the original (slower) tempo, seems new in its spaciousness. In this analysis of the beginning of the *Symphonies* I have barely touched on the relations which occur in these forty-six measures, relations which, although they can never be exhausted by description and analysis, are nevertheless fully comprehensible to the ear. As the work progresses, relations proliferate in unpredictable, incommensurable directions. The whole is always before us, a developing, temporal whole.

Having chosen to examine a sixty-five-year-old composition by Stravinsky, I have not demonstrated continuity in the music of composers who themselves argue for the disconnected, autonomous event. The purest examples of such composition would seem to be those in which the sequence of events is chosen through chance operations. And yet John Cage has throughout his career eloquently argued for the unlimited freedom to make connections. In true dadaist spirit, Cage takes even the chance juxtaposition of events not as a means to annihilate connection, but as an opportunity to make new and unconventional connections. The assertion that in new music events are necessarily disconnected and that this discontinuity is so absolute as to negate temporal succession is, I have argued, unfounded. Certainly, this assertion does little for the cause of new music. The traditionalist listener or player will be confirmed in his opinion that this music cannot make sense to him. In protecting music from tradition, proponents of the new art have contributed significantly to its isolation.

By concentrating on the wholeness of temporal development and the possibility of relating events, I do not mean to deny the *relative* discontinuity of much twentieth-century art or the difficulties this art presents to our comprehension. The dialectic of whole and part, of similarity and difference, create a vast field for the play of form. Styles may arise in which the part is valued over the whole. But while the part may assume ascendency, it cannot conceivably break away from the whole utterly. The value of such art may be contested, but a sympathetic experience must proceed from the attempt to make connections and can only be hindered by limiting the definition of what may constitute a connection, to what has come to be considered normal in an older style.

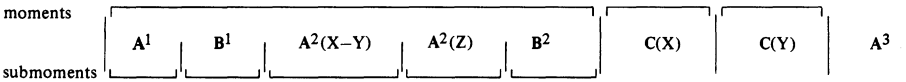
Commenting on the open, kaleidoscopic, "modern" style of Tasso, Galileo Galilei writes,

> Among the various defects of Tasso is the poverty of his concepts, the frequent lack of a subject matter which make him string together disjointed things without any dependence and connection. Tasso works piecemeal, with concepts having no cogent connection with what is said or to be said.

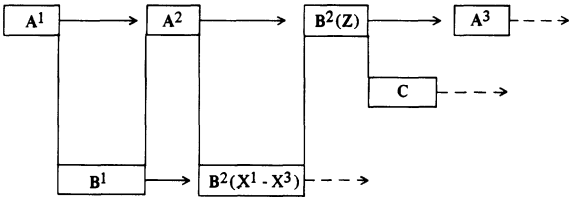
[16]Kramer, "Temporalities," 547.
[17]Kramer, "Moment Form," 182.

Example 16

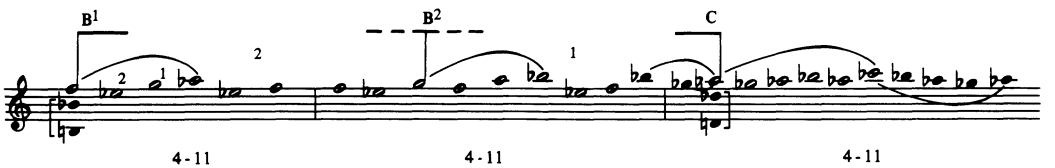
Kramer:



Cone:



Example 17



Tasso's narrative resembles anamorphic pictures

that show a human figure when looked at sideways and from a determined point of view, but when observed as we naturally and normally do with other pictures, display nothing but a welter of lines and colors from which we can make out, if we try hard, semblances of rivers, bare beaches, clouds or strange chimerical shapes.[18]

On the other hand, a champion of the Tasisti, Lorenzo Giaccomini, points to the value of "the strange, unfamiliar, unexpected and admirable which does temper clarity and gives the listener the opportunity to experience something for himself."[19] If we wish to find something positive in new music we can accomplish this only by attempting to make connections, using all the means at our disposal. Confronted by a composition which makes such demands, we may judge the music incomprehensible, become bored, frustrated, and angry, and leave the concert hall; or we may find that with an effort of attention we can make some sense of it; or, in a typical twentieth-century aesthetic posture, we may take the music as a challenge to think about the issue of musical organization or temporal succession or our perceptual habits.

[18]Erwin Panofsky, *Galileo as a Critic of the Arts* (The Hague: Mouton, 1954), pp. 18 and 13.

[19]Edward Stankiewicz, "Centripetal and Centrifugal Structures in Poetry," *Semiotica* 38-3/4 (1982): 223.