PART I
William E. Caplin

&

THE THEORY
OF FORMAL
FUNCTIONS

WHAT ARE FORMAL FUNCTIONS?

COMMENTS ON THE ESSAY

RESPONSE TO THE COMMENTS

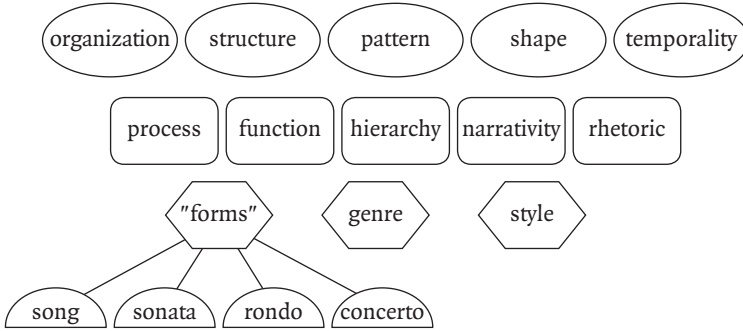# WHAT ARE FORMAL FUNCTIONS?
William E. Caplin

The question posed in the title of this essay should, by all rights, have been answered in my treatise *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven*.[1] Yet in a number of respects, this study did not sufficiently address the central concept of my *Formenlehre*. Indeed, I toyed with the idea of writing a summational chapter on general notions of formal functionality; but, to be frank, I was exhausted with the project after working on it for many years, and, more importantly, I was aware that I had still not adequately developed the idea. In fact, it was only in the process of writing the glossary of terms that I realized my difficulties in providing a satisfactory definition.[2] In the intervening years, I have given considerable thought to what constitutes the concept of formal function, and the following essay begins to explore some of these ideas.
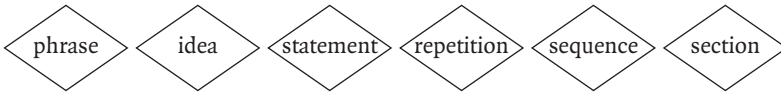
Before proceeding further, however, let me survey various meanings associated with the general notion of musical form, with the goal of eventually situating my own theory of formal functions within the semantic range expressed by that broad term. A number of years ago, I brainstormed the question 'what is form?' with a group of graduate students. Figure 1.1 summarizes our discussion as a list of terms and expressions associated with discourse about form in music. Form, it seems, involves highly general concepts, such as organization, structure, patterning, and the only somewhat less abstract notions of process, function, hierarchy, etc. A theory of form in general typically proposes a set of specific forms (in the plural), such as song form, sonata form, rondo form, and concerto form. And these formal types often relate to various genres of music from any number of style periods. In connection with a given form, we often speak of its constituent parts using terms such as phrase, idea, statement, repetition, sequence, and section. As well, discussions about form invariably implicate ancillary parameters, such as motive, melody, cadence, harmony, rhythm, and
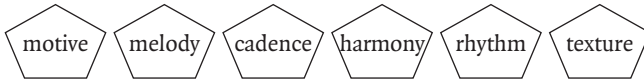
FORM

GENERALITIES

organization   structure   pattern   shape   temporality

process   function   hierarchy   narrativity   rhetoric

"forms"   genre   style

song   sonata   rondo   concerto

PARTS OF FORM

phrase   idea   statement   repetition   sequence   section

ANCILLARY PARAMETERS

motive   melody   cadence   harmony   rhythm   texture

BINARY OPPOSITIONS

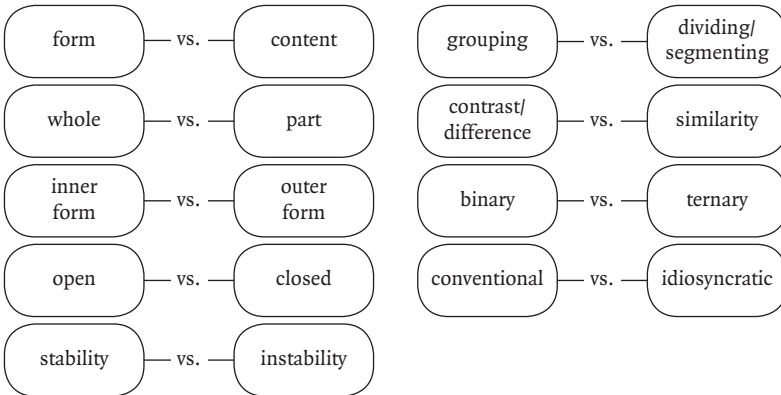| form | — vs. — | content | | grouping | — vs. — | dividing/ segmenting |
whole	— vs. —	part		contrast/ difference	— vs. —	similarity
inner form	— vs. —	outer form		binary	— vs. —	ternary
open	— vs. —	closed		conventional	— vs. —	idiosyncratic
stability	— vs. —	instability				

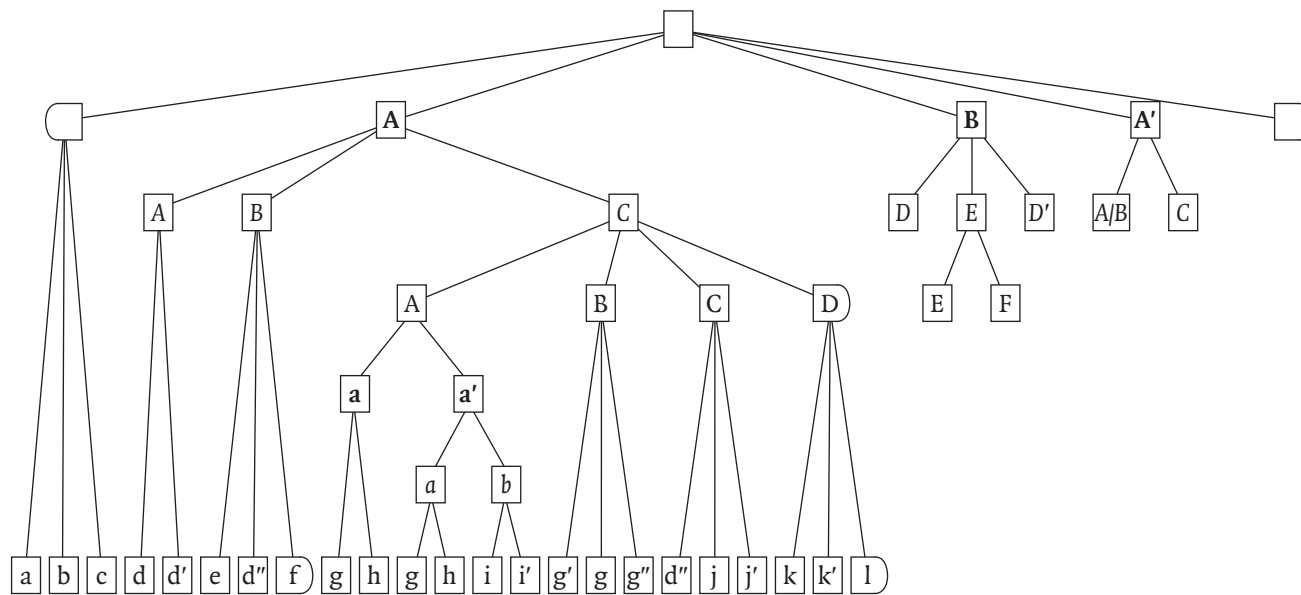*Figure* 1.1   Terms associated with 'musical form'

Figure 1.2   Ludwig van Beethoven, Symphony No. 1, Op. 21, i: grouping structure

texture. Finally, when talking about form, there arise a large number of binary oppositions, over which much ink has been spilt: form vs. content; grouping vs. dividing; whole vs. part; contrast vs. similarity; inner form vs. outer form; binary vs. ternary; and so forth. Such oppositions reflect the difficulties theorists often have in conceptualizing form and sorting out its manifold meanings.

So far, I have avoided providing anything like a dictionary definition of form in music. Rather, I think we might more effectively approach the issue by considering the sorts of things we typically do when analyzing form in connection with a specific work, say, the opening movement of Beethoven's First Symphony (see Figure 1.2). Most descriptions of form begin by segmenting the music into distinct and contiguous time-spans at multiple levels in a structural hierarchy.[3] We can consider this tree-like representation to be an analysis of the work's 'grouping structure,' with the notion of grouping relating to our cognitive ability to 'chunk' (as psychologists like to say) the music into discrete units of time.[4] Next, we normally want to indicate how these time-spans relate to each other beyond their purely hierarchical connections (as shown by the lines linking the boxes). Many traditional theories of form use letter schemes to show commonalities of 'thematic content' among the groups. Our figure presents a partial attempt along these lines. At each hierarchical level, I have used letters, starting with *a*, to show similar materials based on melody, motive, texture, and the like.[5]

The primary weakness of such a letter-based analysis, however, is that it fails to represent in any explicit manner what I, along with many others, consider to be a fundamental aspect of form—namely its intimate association with musical 'temporality'. Central to our experience of time in general is our ability to perceive that something is beginning, that we are in the middle of something, and that something has ended. To these general temporal functions, we can add the framing functions of something occurring before-the-beginning or after-the-end. Musical form directly engages our temporal experience of a work inasmuch as its constituent time-spans have the capacity to express their own location within musical time. In some sense, the idea that a given span has a temporal function issues automatically from the hierarchical structure we are already considering. As Figure 1.3 shows, for a given time-span
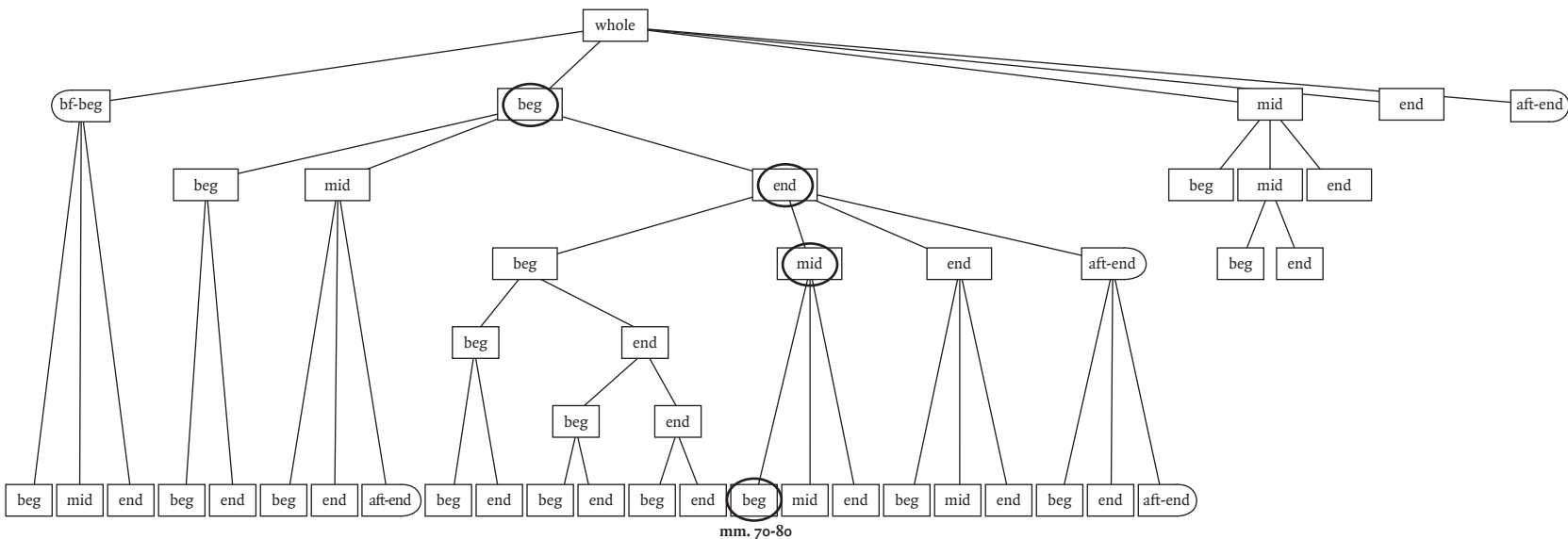
Figure 1.3   Ludwig van Beethoven, Symphony No. 1, Op. 21, i: temporal functions

at one level of structure, any one of its constituent 'lower-level' spans could be understood, very generally, as a beginning, middle, or end of that 'higher-level' span. This figure reflects what Kofi Agawu has called the 'beginning-middle-end' paradigm of introversive semiosis.[6] Though rather crude, this representation has the advantage of revealing that each time-span at the surface of the piece has a unique temporal character. Take, for example, mm. 77–80 (circled). This passage can be understood, moving from the surface to the background, that is, from bottom to top, as the 'beginning', of the 'middle', of the 'end', of the 'beginning' of the entire movement. I would suggest that a composer's ability to realize in a convincing manner these kinds of temporal multiplicities accounts for experienced listeners (that is, those who are familiar with the host of compositional conventions informing this style) being able to discern quickly just where a particular passage lies within the overall temporal extent of a work.[7]

What makes the analysis in Figure 1.3 so crude, of course, is that the temporal functions at different levels of formal organization are considerably more diverse than the simple labels 'beginning,' 'middle,' and 'end' would suggest. And it is precisely the attempt to differentiate just how such spans express their temporality that is the goal of a theory of formal functions, the particular kind of formal theory that I espouse. Inspired by Arnold Schoenberg and his students, especially Erwin Ratz, I have systematically defined a variety of formal functions operating at multiple levels in a work.[8] Figure 1.4 shows such a form-functional analysis, though even other, more surface-level functions are not identified here, such as 'basic ideas,' 'contrasting ideas,' 'codettas,' etc. The specific form-functional categories of Figure 1.4 are manifestations of the generalized temporal functions of Figure 1.3, and, as I will discuss later, each formal function arises from criteria involving multiple parameters, most importantly harmony, tonality, grouping, and cadence.

Let me summarize a number of these functions. (Of course, many of these are familiar from the traditional *Formenlehre*.) At the top of the hierarchy, we observe the five broad formal functions of the overarching sonata form: the slow introduction, a before-the-beginning; the exposition, an initiation; the development, a medial function; the recapitulation, an
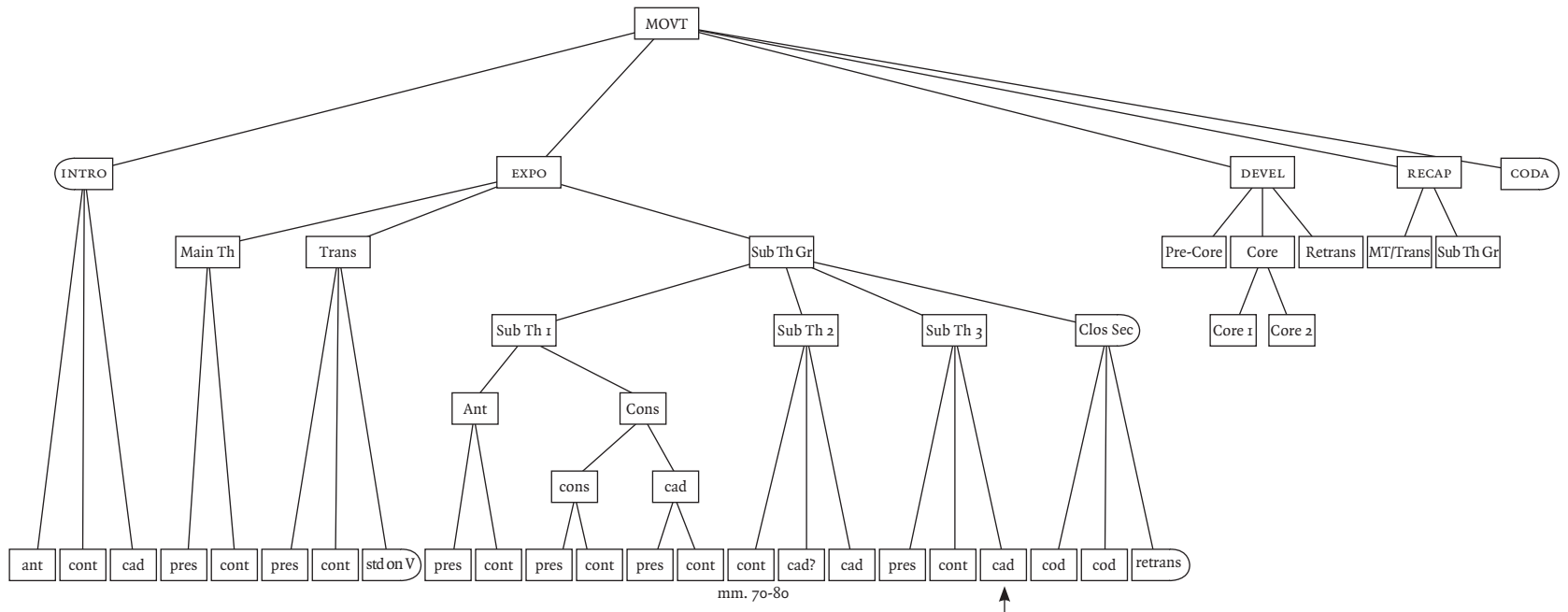
Figure 1.4 Ludwig van Beethoven, Symphony No. 1, Op. 21, i: formal functions

ending; and the coda, an after-the-end function. Within the exposition, we recognize the initiating function of main theme; the medial function of transition; and the ending function of subordinate theme.[9] In the case of the first movement of Beethoven's Symphony No. 1, a group of three subordinate themes together constitutes the exposition's ending.[10] And following the last of these themes, a brief closing section functions as an after-the-end of that theme. Within the unit labeled 'subordinate theme 3' reside the three functions—presentation, continuation, and cadential—that make up what Schoenberg first identified as a sentence (*Satz*), a theme-type that plays perhaps the most prominent role in all of classical phrase structure. And in 'subordinate theme 1,' we see an initiating antecedent and a closing consequent, which together make up the period form. Notice that the period contains only two functions: a specific medial function does not arise in this theme-type.

When talking about the expositional functions of main theme, transition, and subordinate theme, it may strike the reader as odd that I refer to the latter, in this case a group of three subordinate themes, as the 'ending' of the exposition. Indeed, it may seem overly reductive to speak of more than half of the exposition as its end. Rather, we more typically think of that end occurring much later in the game, perhaps at the final cadence of the group or even at the last codetta of the closing section. Consider, for example, the case where a single cadence is taken as the primary mechanism to end an exposition.[11] I would argue that such a cadence, say the one concluding the third subordinate theme (see the arrow in Figure 1.4), does not carry the entire burden of effecting expositional closure. Rather, this cadence can be understood as marking the 'end' of the theme, which marks the 'end' of the group, which marks the 'end' of the exposition. Given the hierarchical alignment of ending functions associated with this cadential unit, it is no wonder that many listeners may experience it as the 'real' end of the exposition.[12] Yet I would hold that, already at the beginning of the subordinate-theme group, we have entered into the temporal territory of expositional ending. Within this broad expanse of time, we can experience at lower levels of motion various articulations of beginning, being-in-the-middle, and ending. Eventually this large-scale ending function of the subordinate-theme group is fully completed—brought to its own end—by the final

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cadence, and what follows is a temporal after-the-end, taking the form of codettas. In short, the expression of formal ending arising at higher levels in the structural hierarchy of a work can span an enormous length of time, one that is similar to, or even at times exceeding, the time-spans associated with the processes of beginning and middle.

At this point we might ask how the traditional notion of 'closing theme' would fit into the form-functional view that I have been developing here. At least three options come to mind. In the first place, since almost all expositions bring a series of codettas following the final cadence of the subordinate theme (or theme group), such a collection of ideas, the very last to appear in the exposition, could be thought of as closing, even if the actual form-functional expression of these ideas is one of after-the-end. This is the option that I have adopted.[13] Since this group of codettas does not coalesce into a genuine theme (in particular, it does not bring any further cadential closure), I prefer the term 'closing *section*' to 'closing *theme*.'

If we want, however, to hold on to the notion of a specific 'closing *theme*,' then a second option would be simply to apply that label to the last subordinate theme of an exposition. In the case of Beethoven's First, the unit that I have identified as the third subordinate theme would then be considered the closing theme. As long as such a theme is understood to be equivalent to 'the final subordinate theme,' I would have no concerns. Such a usage allows us to retain the traditional idea of closing theme, though this term would not gain any additional functional meaning beyond that conveyed by 'subordinate theme.'

But if we go one step further and propose to identify a categorical distinction between subordinate theme on the one hand and closing theme on the other—and this would be option three—we enter into what I consider to be more problematic theoretical territory. For in all of my study of classical expositions, I have been unable to discover any clear and consistent compositional techniques that would permit one to posit such a functional differentiation. Thus a theme labeled as subordinate may employ the same phrase-structural procedures as found in a different theme, one considered closing. For example, an expanded cadential progression may be used to create a cadential arrival of powerful rhetorical strength for the first of several themes in the new key,

but the same technique may be used instead to end the final theme of a group. In our Beethoven symphony, both the first and third themes in the new key conclude with expanded cadential progressions lasting nine bars (mm. 69–77, 92–100), though each is organized somewhat differently. The presence of an expanded cadential progression—a hallmark of expositions in the classical style—fails as a criterion for distinguishing between a subordinate theme proper and a putative closing theme. In fact, none of the devices used to characterize subordinate themes (as distinct, say, from main themes) can be seen as applying more typically to either the first or last theme in the new key.[14]

I recognize that it is hard to break away from some historically entrenched theoretical positions, but in the case of 'closing theme,' I find little advantage in holding on to this particular nomenclature and actually see a potential for form-functional confusion when trying to distinguish thematic units as subordinate or closing. In fact, the question of whether or not a specific closing theme should be included within the basic model of the classical sonata-form exposition may never find clear consensus. As Joel Galand notes, "[t]he conflict between Caplin and, say, Rothstein, over the boundaries of the closing section, though perfectly comprehensible, may be unresolvable for the simple reason that 'closing' is ultimately a rhetorical category that defies formal precision."[15] Still, until a theoretically consistent way of distinguishing closing theme from subordinate theme is firmly established, I find it preferable to identify *multiple* subordinate themes within many sonata expositions and to recognize the final group of codettas as the most useful unit to consider as 'closing.'

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In the course of identifying some of the formal functions associated with the Beethoven Symphony, I made reference to 'sonata,' 'sentence,' and 'period.' These terms appear nowhere in Figure 1.4, however, and for good reason. For they do not in themselves refer to formal 'functions'; rather they stand for specific formal 'types.' This crucial distinction between function and type is highlighted in Table 1.1, which lists some representative full-movement types along with some theme types

and associates each of them to a set of formal functions. This chart is not meant to be comprehensive, and I will not be discussing many of these items in any more detail. Rather, I want to emphasize that there are at least four good reasons for a theory of form to focus more on function than on type.

In the first place, the standard formal types traditionally identified by historians and theorists have not accounted for all of the syntactical arrangements of functions that arise in the repertoire. Thus, the possibility of mixing functions conventionally belonging to one type with those of another gives rise to 'hybrid' forms. In the case of theme types, I have identified at least four hybrids, the most common of which (shown at the bottom of Table 1.1) combines the antecedent of the period with the continuation and cadential functions of the sentence.[16]

A second advantage of attending more to function than type becomes evident when the set of functions of a given type remains incomplete. Consider mm. 77–80 from Beethoven's First (Example 1.1). Though these bars appear to 'begin' the second subordinate theme, they actually sound more medial in function, for they feature continuational characteristics such as sequential harmonies and repeated one-bar units. What follows in mm. 81–83 brings cadential harmonies, but in the wrong key. The theme finally ends with a genuine cadential function in mm. 84–88, culminating in a perfect authentic cadence. Thus while this theme contains two of the three functions of the sentence form—continuation and cadential—a clear functional beginning is actually missing, and so the theme seems to start, in some sense, already in its middle. By fixing our attention on this theme's constituent functions, we can be very precise on just how this particular sentence-like structure deviates from the norms of its type.

Thirdly, distinguishing between function and type permits us to attend to the fundamental building blocks of classical form without getting bogged down in unproductive debates about whether or not a given theme or movement represents a specific type. In my teaching experience, I have witnessed all too often students becoming fixated on trying to classify themes as sentences or periods, as if simply applying those labels were the central task at hand. Instead, I want them to focus on the constituent functions associated with these types and, for a particu-

Formal Types	Formal Functions
Full-Movement Types	
SONATA	Introduction
	Exposition
	main theme
	transition
	subordinate theme
	closing section
	Development
	Recapitulation
	Coda
FIVE-PART RONDO	Main Theme
	Subordinate-Theme Complex
	Main Theme
	Interior Theme
	Main Theme
	Coda
LARGE TERNARY	Main Theme
	Interior Theme
	Main Theme
CONCERTO	Opening Ritornello
	Exposition
	Subordinate-Theme Ritornello
	Development
	Recapitulation
	Closing Ritornello
Theme Types	
SENTENCE	presentation
	continuation
	cadential
PERIOD	antecedent
	consequent
SMALL TERNARY	exposition (A)
	contrasting middle (B)
	recapitulation (A')
HYBRID THEME	antecedent [from period]
	continuation [from sentence]
	cadential [from sentence]

Table 1.1   Formal 'types' vs. formal 'functions'

lar theme, to answer more specific questions, such as, "Is the initiating phrase a presentation, an antecedent, or some combination thereof?" and "What kinds of cadential articulations are present in the theme?" Once we decide on its functional makeup, we can state with more confidence that the theme is a period or a sentence, or, even more typically, that it displays aspects of both types, either in the sense of a conventional hybrid or as some unique, non-conventional form.

At higher levels, the privileging of function over type distinguishes my approach from that of, say, Charles Rosen, or James Hepokoski and Warren Darcy, who identify a variety of 'sonata-form' types (emphasis on the plural) within the classical repertory.[17] I prefer instead to recognize a wider range of distinct, individual full-movement forms.[18] But more importantly—and this is the key point—I see classical form arising out of a common set of formal functions, which are deployed in different ways to create multiple full-movement types. The common element is not sonata form per se, but rather the functions that make up the various forms. Thus we can recognize the appearance of subordinate-theme function, to take one example, in a short minuet form, in a moderately-sized rondo form, in a large-scale concerto form, and, of course, in a sonata form. In each of these formal types, the notion of subordinate-theme function remains essentially the same, and the fundamental compositional techniques that define this function are manifest in similar ways throughout these differing forms.

A final reason to emphasize function over type is that in so doing, we more actively engage ourselves with musical time. As I have been stressing throughout, the various 'formal' functions are all manifestations of general 'temporal' functions. But the formal 'types' have no such determinate temporal expression. For example, a sentence form per se does not situate itself in any particular location in time. Only when a given sentence is identified functionally as, say, a main theme, does it attain the temporal status of a beginning. But a sentence may also be used as a subordinate theme, in which case it may be realized as an expositional ending. Formal types are thus atemporal, whereas the functions making up those types are intimately associated with our experience of time in music. A theory of form whose analytical methodology focuses primar-

Example 1.1   Ludwig van Beethoven, Symphony No. 1, Op. 21, i, mm. 77–90

ily on details of formal functionality forces us to confront directly the processes that create musical time.

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Let me now, in the final portion of this essay, briefly review the criteria used to identify formal functions. Here we must distinguish among hierarchical levels, for the criteria change depending upon whether the formal unit in question resides near the foreground or else embraces a larger stretch of time. At lower levels, the primary criterion is the kind of harmonic progression supporting the passage, in particular, whether the harmony is prolongational, sequential, or cadential.[19] In general, prolongational progressions engender a sense of formal initiation, sequential ones express medial functions, and cadential progressions create formal closure. Working closely together with harmony are important processes of grouping structure, especially that of fragmentation, in which units

become increasingly smaller in relation to prior sounding units. Such fragmentation is highly expressive of medial functionality, especially in the case of the continuation function of the sentence.

But an opposite process—for which there is no standard term—can have important form-functional consequences as well. I am referring here to situations where larger-sized units are re-established following fragmentation. In some of those cases, the resumption of a larger unit can help to signal formal initiation. A good example occurs in the finale of Beethoven's *Pastoral* Symphony (Example 1.2). The passage shows the transition section of this rondo exposition beginning with a two-bar basic idea in the lower voices, which is repeated in the upper voices. The entire four bars are then restated with light ornamentation. The subsequent fragmentation and modulation to the new key render mm. 40–41 highly continuational, and the arrival at m. 42 on I^6 suggests potential cadential closure to end the transition. But instead of bringing an expected half cadence, the music sees a broadening of the grouping structure, and a new two-bar idea, one that prolongs the tonic of the new key, is established in mm. 42–43. A repetition of that idea, supported by dominant harmony, completes a presentation function. These bars are themselves repeated, thus establishing the four-bar unit as the large-scale group initiating a new thematic process. At m. 50, fragmentation into two-bar groups signals a medial, continuation function, and a subsequent cadential unit, beginning at m. 54, promises to bring closure to this new theme. In that it resides entirely in the key of the dominant, this is a fully legitimate subordinate theme, whose constituent initial, medial, and concluding functions are clearly articulated.[20] Even though the transition failed to bring its own cadential closure or any textural caesura, it is not difficult to hear the beginning of this subordinate theme, as signaled by the harmony and, especially in this case, by the grouping structure.[21]

Turning now from the lower-level phrase functions to the differentiation of higher-level thematic functions, the essential criterion is one of tonality, as confirmed by cadential articulation. Thus within an exposition, main-theme function concludes with a home-key cadence of some kind, either half or authentic; transition function destabilizes that key,

Example 1.2 Ludwig van Beethoven, Symphony No. 6 (*Pastoral*), Op. 68, i, mm. 31–59

usually by modulating to a new key; and subordinate-theme function requires authentic cadential confirmation of that new key. But tonality does not provide the whole story. For these thematic functions are also distinguished by a host of compositional processes that Schoenberg generalized under the notion of 'tight-knit' (*fest*) versus 'loose' (*locker*) formal organization. Figure 1.5 summarizes many of the factors that contribute to this fundamental distinction.[22] On this basis, we can observe that main-theme function normally defines the most tight-knit unit within a movement, against which can be measured the various other thematic functions as more or less loose. In particular, both transition and subordinate-theme functions are markedly looser than the main theme, though different loosening devices tend to be used within these functions respectively.

Now, I must admit a certain disappointment that the concept of tight-knit versus loose has yet to be as influential on current analytical practice as I believe is warranted. Thus whereas my categories for phrase functions have been widely adopted for analyzing tight-knit main themes, analysts have been slower to recognize that these same functions are also employed, albeit in a looser manner, in other formal regions. Perhaps the pedagogical tendency to teach phrase functions exclusively in connection with main theme types explains this lack of awareness. For when turning attention to larger formal concerns—such as transitions, subordinate themes, and development sections—students are rarely asked to account for the phrase-structural makeup of those broader units. But as soon as one attempts a detailed analysis of these functions, then a consideration of the various loosening devices comes readily to the fore, and the utility of conceptualizing, indeed truly experiencing, the varying degrees of tight-knit and loose organization proves invaluable.

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So far, I have outlined the broad criteria used for identifying formal functionality. I want now to mention a criterion that plays a minimal role, namely, thematic content, or what I prefer to call 'melodic-motivic material.' Appeals to melodic content are typically grounded in two pos-

	TIGHT-KNIT			LOOSE
tonality	home key (I)	subordinate key (V)	distant keys (iii, ♭VI)	modulating
harmony	prolongation of I	prolongation of I^6	prolongation of V	sequential
	diatonic		modal mixture	chromatic
cadence	PAC	HC	cadential evasion	no cadence
grouping structure	symmetrical (4 + 4)	(6 + 6)		asymmetrical (4 + 3 + 5)
motivic material	uniformity			diversity
thematic conventionality	period	sentence		non-conventional types

Figure 1.5 'Tight-knit' versus 'loose'

tulates. The first holds that the appearance of new ideas signals formal initiation. The second asserts that the return of a previously sounding idea brings its previously associated formal function. It is easy to understand why these postulates have proven irresistible to theorists. For the start of a new formal unit often brings new melodic-motivic ideas, and the return of prior materials regularly restores the formal context of the earlier appearance of those ideas. But frequency of occurrence can be deceptive, for it suggests a causal relation between content and function that, in my opinion, is erroneous.

Consider the *Pastoral* Symphony passage previously examined in Example 1.2. First, we can observe that m. 50 brings entirely new melodic-motivic material; but, as already discussed, this material is associated with a strong sense of being-in-the-middle of the subordinate theme. Second, we can note that mm. 42–45, which we identified as the beginning of that theme, brings no significant melodic change; in fact, the head motive, marked *x*, has been sounding throughout the prior transition. Finally, and now I am referring to the second postulate, the music at m. 54 brings back the rhythmic motives and melodic contour of the main theme's basic idea. But it would be wrong to speak here of a return to an initiating function; rather, this passage plays a decidedly cadential role.

In short, none of the standard associations between content and function are realized in this theme. Yet for this reason, identifying formal functionality should not be thrown into doubt; for the harmonic organization and grouping structure confirmed our functional interpretations without any consideration of the melodic-motivic materials. Indeed, such an appeal is rarely necessary even in passages where the association of content and function is more standard. That thematic content remains essentially independent of formal functionality turns out, in fact, to be an aesthetic boon. For the composer not only can forge an extensive web of motivic referentiality without disturbing the standard course of formal syntax, but can also cast new meanings to familiar ideas by allowing them to serve multiple functions. The listener in fact gains added pleasure from following the play between content and function, a game that can best be enjoyed when melodic-motivic ideas have no necessary connection to formal function.

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Let me briefly conclude this essay by noting that more can be said about the nature of formal functions than I have had space here to pursue, including such topics as the potential for the 'retrospective reinterpretation' of formal functions or the 'fusion' of multiple functions within a single grouping unit. Though I have been stressing the important role of formal functionality, I want to assert, of course, that other aspects of musical organization participate in the broad concept of 'form in music,' and for this reason I can fully endorse a multivalent approach to formal analysis, such as that advocated by James Webster. As well, I acknowledge the important ways in which James Hepokoski, along with his collaborator Warren Darcy, have enriched our understanding of how dynamic and textural processes relate to the formal options available to composers. But no matter what approach a given analyst will favor, I am convinced that the value of understanding form in relation to musical time means that some account of formal functionality will certainly occupy a central place within any theory of classical form.

Comments on William E. Caplin's Essay "What Are Formal Functions?"

James Hepokoski

While the practice of Sonata Theory resonates in some substantial ways with William E. Caplin's form-functional theory, there are also a number of foundational areas in which these approaches diverge markedly. Some of these conceptual divergences have far-reaching consequences, and in this reply it would misrepresent the issues to downplay them. No close reader of the form-functional method could fail to observe (and admire) its rigorous logic and the single-minded insistences that drive its analytical ramifications. Once its premises and definitions are accepted and placed beyond question, all else follows: the dominos fall, one by one. But from the Sonata-Theory perspective, this is where our problems and differences begin. We dispute several of these premises; we consider some of its definitions (such as those of cadence, transition, subordinate theme, and closing ideas) either flawed or overly restrictive and inflexible; we find many of its analyses detached from history and (dialogical) context; and we are occasionally obliged to conclude that its pursuit of a mechanistically consistent, systematic reasoning sometimes overrides a more nuanced, more musical response and crosses the line into what we, at least, experience as the counterintuitive.

How useful is it to place temporal (and other) 'functions' at the radiating center of an analytical system, trumping other factors of one's musical experience? It goes without saying that function—the "unique temporal character" of "each time-span at the surface of the piece"—is an important aspect of a composition [>26]. But as defined here (with implicit nods to an underdeveloped phenomenology),[1] it is so self-evident as to border on the trivial. All temporal structures of whatever length must *ipso facto* have 'beginnings,' 'middles,' and 'ends,' and it is hardly revelatory to be reminded that there arose certain standardized ways of articulating these spans and that, for instance, even the 'middles' and 'ends' also feature their own 'beginnings' and 'middles,' and so on, in what is potentially an infinite regress.

Such basic experiences of functions (including 'before the beginning' and 'after the end') are so unremarkable that they are taken for granted within Sonata Theory, where they are integrated into larger concepts that we find to be more productive in confronting the complexities of a piece of music in the classical style or beyond. The much-insisted-upon "crucial distinction between function and [formal] type" ([>30]; see also Caplin's Table 1.1 [>32]) turns out to be a distinction without a significant difference. The formal types, after all, are largely defined and recognizable by their effecting of temporally situated formal functions (many of which Caplin defines harmonically, coupled with observations about fragmentation, tight-knit or loose organization, and so on). This means that to identify a type, such as a period or a sonata exposition, is always already to declare on behalf of a concomitantly implied internal function or ordered array of functions (encountered phenomenologically in real time by the listener). Any exceptional or unusual internal features that complicate one's perceptions may easily be pointed out as just that: exceptional (or, as we might characterize extreme cases, 'deformational'). While Caplin seems to be cautioning his readers against a simplistic reification of the term 'type,' that fear is overblown. One can applaud his desire that "we more actively engage ourselves with musical time" (who could disagree?), but in the end, it is difficult to understand the need to insist that "formal types are (...) [necessarily?] a-temporal, whereas the functions making up those types are intimately associated with our experience of time in music" [>33]. What one comes away with is only the suspicion of hearing a doctrinaire reaffirmation that nearly all aspects of music, at nearly all levels of analysis, are to be dissolved back into little more than elemental beginning-middle-end functions, replicated *seriatim*, one after another.

Overinflating this single though certainly relevant factor into the master key of classical analysis leads Caplin, step by logical step, into a number of questionable claims. What is one to make of any system that declares that 'thematic content,' a central topical feature of the dramatized classical style by any account and one of the foremost attributes that all listeners directly experience, "plays [only] a minimal role" when compared with ever-recurring strings of beginning-middle-end functionalities [>37-39]? The dramatic textural contrasts and intertextu-

ally shared thematic/topical signs that such content regularly provides as vivid, expressive hallmarks of the style are thus demoted to a status "essentially independent of formal functionality," with "no necessary connection to formal function" [>39]. Even while granting the wiggle-room offered here by the qualifier 'necessary,' this seems an astonishing subordination of common sense to a dubious *a priori* postulate—to which Webster's advocacy of a more nuanced multivalence, coming to terms with the interactive implications of a richer surface, furnishes a welcome corrective.

Caplin's procedural lockstep may be grounded in a false hope that a quasi-scientific precision might still be obtainable in the area of analytical interpretation. As a result he finds himself tangled in definitional struggles that some readers might find more needlessly disputatious than enlightening. Consider his 'closing-theme' qualms. Here he has predecided that any theme that others might consider as in some sense 'closing' (even when that limited sense has been carefully defined) should not "employ the same phrase-structural procedures" [>29] as one occupying subordinate-theme space. A closing theme, for instance, cannot be shaped as a sentence. But why not? Who has declared this to be true? The reasoning here, as so much else in Caplin, is circular, tautological, an exercise in *petitio principii*: decisionistically, he predefines subordinate-theme space in a way that excludes any possibility of a fully developed closing theme or set of themes, then insists that what others have claimed as those themes are not justifiable by "any clear and consistent compositional techniques" that he has been able to "discover," notwithstanding "all of my study of classical expositions" [>29].[2]

From our perspective, it is difficult not to suspect that Caplin's formal-space definitions are sometimes uncritically declared at the outset as unassailable postulates (some of them perhaps too eagerly adapted from mid-century, problematic others, such as Schoenberg and Ratz) rather than as suggested concepts inductively derived from a patient rethinking of all of the interpretive possibilities at hand concurrently with a flexible and musically intuitive examination of the multiple realizations actually present in the repertory. The issue of identifying a presumed 'subordinate theme' in m. 42 of the sonata-rondo finale of the *Pastoral* Symphony, for instance, depends entirely on such definitions.

Sonata Theory would not interpret that measure as the onset of any such theme. (Indeed, it would regard the attempt to demonstrate that it *is* one—via the criteria of the form-functional system—to be a demonstration of the opposite, that is, of why that system's logic can lead to unconvincing assertions.) Instead, and not uncommonly in terms of expositional options, m. 42 advances the ongoing, midstream flow of a 'continuous exposition' (one lacking a medial caesura).

This matter boils down to assumptions and definitions—a discussion that would require more space than is available here. In brief, though: more intuitively and more in line with what we believe to be conventional (and accurate) construals, Sonata Theory normally grants secondary theme status only to themes prepared by a recognizable medial caesura—themes launched in the new key with a sense of restarting a process that had been brought to a literal or implicit rhetorical pause or equivalent articulation only moments before.[3] Not all expositions need to feature a secondary theme: those without an MC (continuous expositions) do not, a different exposition-type known since the mid-1960s to musicological scholars (especially Haydn scholars).[4] My sense, however, is that Caplin starts with the unnecessary assumption that all expositions *must* have a subordinate theme, which he then reconfigures, not surprisingly (since thematic content is downplayed), as a subordinate-theme 'function.'[5] One of its leading functions is to produce a PAC in the new key, a function that is axiomatically denied to all (pre-S) transitions (for instance, TRs—not yet S-spaces—that Sonata Theory would regard as ending in third- or fourth-level medial-caesura defaults, V:PAC MC or I:PAC MC).[6] Hence, for Caplin, it seems that if there is a V:PAC or equivalent anywhere in the exposition (as there almost always is), there must be something preceding it that is to be designated as a subordinate theme. And this sets him off on the hunt for one—as in the *Pastoral* finale.

In this case, the appeal (within an ongoing stream of modules) is made to the newly manufactured principle that in "situations where larger-sized units are re-established following fragmentation," such a "resumption of a larger unit can help to signal formal initiation" [>35]. With the triggering function-term "initiation" now lodged in place, he can assess m. 42 to be "a fully legitimate subordinate theme" [>35]. It all follows logically—but not musically, at least not to my ear. Measure

42, rather, is a reinvigorated, broader 'energy-burst,' joyously celebrating the music's exuberant move to the dominant key within a process of still-unfolding, obviously similar modules, driving ahead continuously from m. 32. This enlargement of formal units is a not-uncommon procedure within continuous expositions or within any passage of broader *Fortspinnung* that re-ignites or re-inflates itself midstream in order to keep plunging forward (instead of dissolving only once and forever into shorter units). It is the familiar strategy of a forward-vectored renewal, a new, well-placed modular burst continuing to propel the music onward, an opening into the next stage of a continuing relay.

It is true that we sense an *en-route* 're-energizing' at m. 42 of the *Pastoral* finale and it is indeed the onset of what may be regarded as a new sentence-presentation. But there is no need to call it a conceptually separable subordinate theme, unless, again, one has predefined the expositional situation in such a way as to demand the presence of such a theme. If one does demand this, though, one is placed in the position of pointing out structurally subordinate themes that otherwise, as here, would probably never have occurred as such to experienced listeners. Too-strict definitions too rigidly carried out can lead to counterintuitive conclusions. When they do, it is advisable to rethink those definitions.

Comments on William E. Caplin's Essay
"What Are Formal Functions?"
James Webster

William E. Caplin's article further develops the careful and patient classifications that characterize his *Classical Form*. Many of the principles and methods expounded are illuminating. These include his analytical multivalence, his distinction between 'tight' and 'loose' construction, and his well-grounded skepticism regarding many familiar notions in formal analysis, particularly the so-called closing group and the supposedly foundational role of musical ideas (and of distinctions among different types of themes) in creating form. I shall take all this for granted, and focus instead on the underlying argument, in which certain issues of logic and aesthetics seem to me not satisfactorily resolved. (Caplin acknowledges that his article is a first attempt to explore these issues.)

In my reading, Caplin's argument depends on two primary theses. (1) Formal functions—main theme, transition, subordinate theme (or theme-complex), etc.—are 'temporal'; they are "manifestations of (…) generalized temporal functions" [>26]; that is, beginning, middle, and end (as well as 'framing' events). In practice they are understood as multivalent; each function "arises from criteria involving multiple parameters, most importantly harmony, tonality, grouping, and cadence" [>26]. (2) In their temporality, formal functions are fundamentally different from formal types: "I see classical form arising out of a common set of formal functions, which are deployed in different ways to create multiple full-movement types (…). Formal types are (…) a-temporal, whereas the functions making up those types are intimately associated with our experience of time in music" [>33]. I will critique each thesis in turn.

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(1) Formal functions as 'manifestations' of generalized temporal functions
If formal functions arise as 'manifestations' of generalized temporal functions, it is the latter—beginning/middle/end—that are foundational. However, I believe that these phenomena, precisely because of

their ubiquity in human life and art, are *too* general to serve this theo-ry-building purpose.[1] The difficulties are manifest in Caplin's Figures 1.2–1.4, devoted to Beethoven's Symphony No. 1. The verbal description of mm. 77–80 (the beginning of the second theme within the second group, highlighted in Figure 1.3; cf. Example 1.1) as "the 'beginning', of the 'middle', of the 'end', of the 'beginning'" [>26] borders on the unintentionally comic (unless it is an unacknowledged trope of John Cage's *Lecture on Nothing*). And the corollary that composers "realize in a convincing manner these kinds of temporal multiplicities," such that *on this basis* experienced listeners can "discern quickly just where a particu-lar passage lies" [>26] is not only unproved, but unprovable. In real life, nobody discerns the 'location' of such a fragment out of context, solely from complex beginning/middle/end characteristics of the sort ascribed to Beethoven's four measures, still less from its position in a notional tree-diagram; rather, we do so on the basis of the informed experience of listening to the work as a whole, in context: we *know* that a new idea within the second group is being initiated. That is, context determines function as much as function creates context.

The inadequacy of the beginning/middle/end paradigm as the basis for formal functions is obvious from the notion that the entirety of a long and complex second group has the function of 'ending,' merely because it occurs last within an exposition and ordinarily includes the structural cadence in the dominant. On the contrary, the function and 'feel' of mm. 53ff. of the Beethoven Symphony are those of initiation; Caplin's appeal to their supposed multi-functionality ('the beginning of the end') doesn't address this problem. Similarly, on both small and large scales the various possible functions are distinguished primar-ily by these same three elementary possibilities: on the small scale by "the kind of harmonic progression (…) prolongational, sequential, or cadential" (i.e. beginning, medial, ending) [>34], and on the large scale by "tonality [and] cadential articulation (…) main-theme function con-cludes with a home-key cadence (…) transition function destabilizes (…) subordinate-theme function requires authentic cadential confirma-tion of [the] new key" (again: beginning, medial, or ending) [35]. This is too limited a 'repertory' of the kinds of things that can happen in a complex musical work.

Even after the insertion of formal functions in Figure 1.4, and (later) a discussion of the context of mm. 77–80, a fundamental problem remains. As implied in Caplin's third paragraph and his examples, the beginning/middle/end paradigm encourages (if it does not indeed require) the procedure of 'segmentation.' However, a segmentation diagram is merely a 'dead' sequence of successive fragments, until and unless it is 'animated' by a complementary representation of the work 'in action' (most obviously, a Schenkerian voice-leading graph). In terms of the binaries discussed in my article "*Formenlehre* in Theory and Practice", only when the latter is supplied has one accounted for '*Formung*' as well as '*Form*.'[2] Moreover, segmentation diagrams suffer from the felt need to label every cell with a single, specific designation; the formal analyst abhors a 'naked' cell no less than nature a vacuum.[3] Thus in Figure 1.4, the unqualified label 'continuation' for mm. 77–80 is problematical, despite Caplin's claim that these measures are 'medial' in character. For they introduce a new idea, *piano* and in the minor (the bass deriving from m. 53); the well-marked oboe phrase in B-flat is as much presentational as continuational (despite the sequential repetition in G minor). Harmonically as well, since this theme is a minor-mode 'purple-patch,' the local function of m. 77 is initiatory rather than medial.[4] (Of course, Caplin is correct that this passage is the 'middle,' and least stable, unit within the second group as a whole; for this reason I share his skepticism of the pertinence of the concept 'closing' (group or theme) for the third unit, mm. 88–101.)[5]

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(2) *Formal functions versus formal types*
Caplin's second thesis is that formal functions are temporal, whereas formal types are atemporal. A corollary is that formal functions are foundational (causes), while formal types are results (effects): "(…) form[s] *arising out of* (…) formal functions, which (…) *create* (…) full-movement types (…)" [>33, my italics]. I cannot accept these premises. Both distinctions—temporal versus a-temporal; cause and effect—are rigid binarisms which, at least as far as the repertories under consideration here are concerned, more or less automatically self-destruct.

(a) *Temporal versus a-temporal.* This distinction is analogous to those between '*Formung*' and '*Form*,' prolongation and segmentation, and indeed all the process–versus–structure binaries discussed in my article. It is desirable and indeed often necessary to account for both aspects of form with respect to a given movement or section taken as a whole. However, the premise that there are *two distinct classes of musical entities*, one of which (formal functions) is temporal but the other (formal types) a-temporal, flies in the face of both logic and experience. Caplin's example is 'sentence form' (listed as a 'theme type' in Table 1.1 [>32]), which "does not situate itself in any particular location in time" [>33]. Only when a given sentence "is identified functionally as, say, a main theme does it attain the temporal status of a beginning" however [>33], it may also be a subordinate theme, and so forth. Well, of course; any small- or medium-scale entity may appear in any number of locations. In fact, however, even the sentence is Janus-faced: it is described here as a 'form,' but once it becomes a main theme, it attains "the *temporal* status of a beginning" [>33, my italics]. Indeed, 'main-theme function' itself (like the others) is defined in terms of *both* location (beginning— although this borders on circular logic) *and* character (tight, prolongational, cadential, etc.). Similarly, in Table 1.1 'exposition' is listed as a formal function, and therefore typed as temporal (because it occurs 'at the beginning'). But an exposition as a whole self-evidently exhibits form as well; indeed Caplin himself applies his beginning/middle/end paradigm to expositions (see the indented entries in Table 1.1), which he thus understands as complete structures. Sentence, main-theme function, exposition: all three units unite aspects of temporality *and* structure, which in sophisticated tonal compositions cannot be dissociated.

(b) *Cause and effect.* Similarly, in artworks of this kind, any attempt to distinguish 'foundational' from 'secondary' aspects, or 'causes' from 'effects,' is doomed to failure. Caplin states that the formal types 'arise out of' the formal functions, but it is equally true that the functions arise out of the (pre-existing) need to create differentiation and progression within any given musical entity. In the compositional genesis of a theme, its basic motive or gestural character presumably often preceded any details of its working-out (such as whether it was to be a period or a sentence, or close on a half or full cadence, or even whether it was to be

'main' or 'subordinate'). And to the extent that the generalization holds that main themes are tight-knit, other themes looser, and transitions looser still, the decision that such-and-such an idea was to be (say) the main theme necessarily preceded the decision to work it out in a relatively tight manner.

A modest example of the dangers posed by an overly fixed linkage between type of theme and type of formal function can be seen in Caplin's analysis of a theme from the *Pastoral* Symphony (his Example 1.2). I agree that the second theme begins *in medias res* on the I[6] chord in m. 42, and with a broadening: not of the grouping structure, however, which has been in 2s and 2+2s throughout, but of the harmonic rhythm, each chord now lasting two full bars: {(2+2)+(2+2)}. Hence to my ear mm. 50b–54a are not so much a 'fragmentation' (the two-bar grouping continues)[6] as an acceleration and enrichment of the harmony (faster harmonic rhythm; roots other than I and V); not so much a 'continuation' or a 'medial' function, as a new idea. Hence (even if at first counterintuitively) they are better understood as the closing theme, despite the extreme brevity of an 8+4-bar second group.[7] Indeed mm. 50b–54 (whether construed as 'closing' or not) bring the only PACs in C major; i.e. the structural cadence, whose status is confirmed by its recapitulation in the tonic, mm. 158–62.[8]

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In short, I believe that all musical entities, on all levels, are temporal *and* structural: '*Form*' and '*Formung*.'

Response to the Comments
William E. Caplin

I thank my colleagues for their thoughtful and serious commentaries. Their remarks highlight crucial issues facing the contemporary *Formenlehre* and afford me the opportunity of clarifying and elaborating some of the positions that I staked out in my opening essay. In this response, I address what I take to be the major points of contention raised by my colleagues. These include the general goals of music theory, the specific goals of a theory of musical form, the experience of musical time, the relation of formal functionality to other aspects of form (formal type, thematic content, grouping structure), and the organization of sonata expositions (subordinate theme, closing theme). This response also permits me to raise some additional issues associated with my theory that I alluded to at the end of my opening essay (retrospective reinterpretation, form-functional fusion).

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Included in the foregoing critiques are matters relating to the goals and methods of music theory in general. Thus James Hepokoski acknowledges that my theory is developed with "rigorous logic" [>41] and that its analytical applications are pursued with "single-minded insistences" [>41]. Yet he considers "some of its definitions (…) either flawed or overly restrictive and inflexible" [>41] and finds that "its pursuit of a mechanistically consistent, systematic reasoning sometimes overrides a more nuanced, more musical response and crosses the line into what we, at least, experience as the counterintuitive" [>41]. He further speaks of a "procedural lockstep" that "may be grounded in a false hope that a quasi-scientific precision might still be obtainable in the area of analytical interpretation" and of "definitional struggles that some readers might find more needlessly disputatious than enlightening" [>43]. At times he considers my reasoning to be "circular, tautological, an exercise in *petitio principii*" [>43]. And he concludes that "[t]oo-strict definitions too rigidly

carried out can lead to counterintuitive conclusions. When they do, it is advisable to rethink those definitions" [>45].

These are serious charges. Yet rather than defending against them (for ultimately, they will have to be validated, modified, or rejected by others than myself or my colleague), I would rather respond to what I see as underlying issues regarding the general nature of music theory. For what I sense in Hepokoski's remarks is a certain suspicion and reluctance to embrace the development of systematic assumptions, definitions, and concepts, along with the attempt to apply such theoretical formulations with logical rigor in the course of analytical work.[1] He speaks of rigidities, inflexibilities, and "quasi-scientific precision" [>43] with such negative connotations as to suggest that a theory of music that strives for these qualities should be condemned from the start. But surely these same values could be interpreted in a more positive light as essential goals of any theoretical enterprise.

Some of Hepokoski's concerns may pertain to a distinction between 'theory' and 'analysis.'[2] As I stated in the introduction to *Classical Form* (in an attempt to forestall precisely the kind of critique leveled by Hepokoski), my "theory establishes strict formal categories but applies them flexibly in analysis."[3] By 'flexibly,' I largely mean the use of multiple concepts—each one being rigorously defined—in cases where ambiguities of structure present themselves. I do not mean constantly changing and revising the definitions in light of the compositional complexities presented by the music. This being said, there are nevertheless significant heuristic advantages of applying rigorous concepts to their logical end, for such a pursuit often leads to new modes of hearing familiar passages. In Beethoven's *Pastoral* finale, for example, Hepokoski derides my establishment of "the unnecessary assumption that all expositions *must* have a subordinate theme" [>44], which thus sets me "off on the hunt" [>44] for such a theme, one that "would probably never have occurred as such to experienced listeners" [>45]. I would counter that such analytical hunts can pay off handsomely and that even experienced listeners can come to new ways of hearing.[4] To be sure, the 'catch' may at times prove unenlightening (and I have no objections to Hepokoski, or anyone else, being unconvinced in the particular instance of the *Pastoral*), but I reject the implication that such analytical quests are, in principle, futile. They

have, in fact, been part and parcel of almost all music-theoretical work throughout the ages.

The irony in Hepokoski's rebuke is that aspects of his own theory could be characterized in ways similar to how he has chastized mine. For his and Warren Darcy's Sonata Theory also establishes a number of firmly held concepts, such as the idea that a sonata exposition contains a single 'essential expositional close' (EEC) and the notion that, "If there is no MC [medial caesura], there is no S [secondary theme]."[5] Each of these is as dogmatic an assertion as to be found in music theory from any era. It so happens that I disagree with both notions for a host of reasons, but I do not object, in principle, to their being proposed. In fact, such assumptions, postulates, definitions, and the like are a standard requirement of most theories.[6] In the end, the goals of a theory are to attain internal consistency, logic, and precision, and to produce analyses that are musically convincing and insightful. Whereas the value of the second goal is undisputed by all, it seems odd to criticize a theory for striving to achieve the first of these goals.

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I turn now from the broad aims of any music theory to the more specific features of a theory of musical form and address the complaint, voiced by Hepokoski, that I place the concept of formal functions, especially as manifestations of more general temporal functions, "at the radiating center of an analytical system, trumping other factors of one's musical experience" [>41]. That I deem formal functionality to be central to my theory of form is undeniable; yet I reject the charge that formal functions override other modes of experiencing musical form. Figure 1.1 of my opening essay makes it clear that I see 'form' embracing a wide variety of organizing principles, only some of which directly relate to formal functions. No doubt motivic connections or various dynamic processes can impart to a musical work a particular 'shape' or 'form,' one which may be (but often is not) congruent with form-functional patterns. A theory of form has no need to suppress the shaping forces of any musical parameters, and a comprehensive account of musical form must take all such forces into consideration.

At the same time, when specific questions are asked about the hierarchical structuring of discrete musical events, then the act of identifying those events automatically brings forth a consideration of where they begin and end. And as soon as such temporal matters are broached, the issue of formal functionality emerges as a major concern. Though Hepokoski might feel that it is "hardly revelatory to be reminded that there arose certain standardized ways of articulating" time-spans that are characterized as a beginning, middle, or end [>41], I would counter that a main objective of any theory of form is precisely to account for those "standardized ways"; indeed, most all of my *Classical Form* is devoted to defining just which compositional techniques are responsible for generating formal functionality at all levels in a musical work. By placing functionality at the center of a formal theory, we are in a position to pose questions such as: "What are the conventional ways of structuring a main theme?"; "How is a transition different from a subordinate theme or a developmental core?"; "How are cadences created and how are they to be identified?". In fact, the analyses offered by my colleagues in their opening essays raise at every turn precisely these kinds of questions. I have no doubt that Hepokoski has indeed 'integrated' such concerns within his Sonata Theory, but to characterize the "basic experiences of functions" as "so unremarkable that they are taken for granted" [>42] is surely to underplay an essential aspect of musical form, one that has occupied a focal position in the history of *Formenlehre* from the mid-eighteenth century to the present.

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Both of my colleagues express concerns about the phenomenology of musical time outlined in my opening essay. For Hepokoski, it is "underdeveloped" [>41], and for James Webster the generalized temporal functions of beginning/middle/end (henceforth abbreviated B/M/E), "precisely because of their ubiquity in human life and art, are *too* general to serve" as foundational for the purpose of theory building [>48]. I concede that my model of musical time is rather primitive[7] and that these temporal functions represent, as Webster notes, "too limited a 'repertory' of the kinds of things that can happen in a complex musical work" [>48].

In trying to enrich my view, I thus proposed the notion of a hierarchical nesting of such functions, so that a given time-span on the musical foreground can be conceived to express multiple temporalities—seemingly at the same time, but really at different 'time-spaces,' to speak with Lewin.[8] And though my characterization of a passage from Beethoven's First as "the 'beginning', of the 'middle', of the 'end', of the 'beginning'" was intentionally tongue-in-cheek [>26; quoted by Webster on >48], I did so in order to try to capture what we can perceive as temporally unique about that particular passage.[9] Webster, however, remains unconvinced, and in casting doubt on my notion that a subordinate theme group "ends" an overall exposition, he notes that "the function and 'feel' of mm. 53ff. (…) are those of initiation," and that my "appeal to their supposed multifunctionality ('the beginning of the end') doesn't address this problem" [>48]. I agree with him that these measures are entirely initiating at the level of the theme, but I also believe that a hierarchical approach to functionality can help us understand the particular location of these measures within the broader formal plan. For it is interesting to ask, could these measures (transposed into the home key) have been used to initiate the main theme? I suspect that few listeners would be satisfied with such an opening to the exposition.[10] In other words, something in the musical content of mm. 53ff. makes them entirely appropriate as the 'beginning' of the 'first' of three subordinate themes. Considerably more theoretical work needs to be directed toward understanding just which musical features help to project these kinds of multi-functionalities (as Webster puts it), but it is likely that rhythmical patterning, dynamics, and texture may play a significant role.[11]

Another issue in the phenomenology of time raised by Webster concerns my contention that experienced listeners "are able to discern quickly just where a particular passage lies within the overall temporal extent of a work" [>26]. I perhaps overstated the case here, but I suspect that some of my readers have had similar experiences to mine, where I will turn on the radio and be able to identify in a matter of seconds approximately where in the movement the music is located (e.g., toward the end of an exposition, in the middle of the development, at the start of a transition). Webster not only questions whether listeners can hear such formal functionality 'out of context', but also suggests that the claim is

"not only unproved, but unprovable" [>48]. Perhaps so, but some recent cognitive research conducted at McGill University supports the proposition that musically trained listeners can identify with statistically significant accuracy whether short passages, drawn from early Mozart piano sonatas and heard in isolation, occur as the beginning, middle, or end of a thematic unit.[12] If this is so, then something in the musical materials themselves, irrespective of the listeners knowing the broader context, articulates a sense of temporal location. I am not proposing, of course, that context plays no role; it obviously contributes to our presuming the formal function of a passage. When we hear that something has ended, we well expect that what follows will be a new beginning. But until we hear that the musical content itself projects a clear sense of initiation, our interpretation remains somewhat provisional and open to subsequent reinterpretation of what temporal function is actually being expressed.

Webster's critique of my hearing as 'continuational' the very start of the second subordinate theme (m. 77) of Beethoven's First Symphony relates directly to this question (see Example 1.1 [>34]). He counters that these measures are more rightly to be heard as initiating, "[F]or they introduce a new idea, *piano* and in the minor" [>49]. I agree that the opening I–IV progression projects a sense of beginning, especially in the context of an elided PAC closing the first subordinate theme. But when the progression continues on to realize a broader sequential pattern, it is possible to *reinterpret* the formal situation and understand that medial functionality is already being expressed from the very start of the theme; in other words, a more traditional initiation (in which an opening I–IV statement would be completed as a tonic prolongation by a V–I response) has been bypassed altogether. Webster is correct to ask that we be careful in our labeling, and perhaps the notion of 'initiation *becomes* continuation' more fully captures the subtleties of this passage rather than exclusively choosing either one of these functions as the main descriptor.

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I turn now to how formal functionality relates to formal types, thematic content, and grouping structure.

(1) *function versus type.* With respect to the distinction that I draw between formal functions and formal types, both colleagues object to my suggesting that the former are linked to temporal functionality while the latter are not. When speaking of types (such as sonatas, rondos, ternaries, periods, hybrids) as atemporal, I do not mean that a given exemplar of a type does not unfold in time or that it does not express a sense of beginning, middle, or end. What I mean is that, *as an abstract category*, a formal type has no predetermined relation to a temporal function. Therefore, when exploring the temporality of a particular type, one needs to identify the specific case (e.g., a sentence), study its internal functions (e.g., presentation, continuation, and cadential), and then consider the broader function that the type serves as whole (e.g., as first subordinate theme). My "fear," which I do not believe is "overblown" (as Hepokoski puts it [>42]), is that focusing on type over function lets the analyst too quickly off the hook of providing a detailed functional justification for the labeling of any given type. In the end, I am not claiming enormous significance for this distinction, but I do find it to be of considerable heuristic value in the ways that I describe in my opening essay.

(2) *function versus thematic content.* My assertion that "thematic content remains essentially independent of formal functionality" [>39] leads Hepokoski to charge that, in "an astonishing subordination of common sense to a dubious *a priori* postulate" [>43], my system "declares that 'thematic content' (…), one of the foremost attributes that all listeners directly experience, 'plays [only] a minimal role' when compared with ever-recurring strings of beginning-middle-end functionalities" [>42]. Here, I believe that my colleague has misunderstood the intent of my claim. For I am manifestly not saying that thematic content plays a minimal role in our experience of music; in fact, it clearly plays a major role (perhaps for most listeners, *the* major role). What I am claiming is that thematic content does not contribute essentially to how the functionalities of B/M/E come into being. This point is not meant to undermine the significance of thematic content in general, but rather its significance as a factor in making analytical decisions about where formal units begin or end. It is fair enough to take issue with this assertion, and I would welcome continued debate on the matter; but then we should expect detailed demonstrations showing

how thematic content—independent of harmonic and grouping-structural aspects—determines formal functionality.

(3) *function versus group.* Webster correctly observes that the B/M/E paradigm "encourages (…) the procedure of 'segmentation'" [>49] or what I call *grouping* analysis. He raises concerns, however, that "a segmentation diagram is merely a 'dead' sequence of successive fragments, until and unless it is 'animated' by a complementary representation of the work 'in action' (most obviously, a Schenkerian voice-leading graph)" [>49]. Webster's point is well taken: most tree diagrams suffer by appearing abstract and static, and compared with a Schenkerian representation, which by its very nature is more 'musical,' they may seem lifeless and empty of real content. Moreover, such analyses tend to project a certain rigidity in order to respect principles of hierarchical 'well-formedness.'[13] Thus a grouping analysis cannot easily account for structural overlaps, for the explicit relationships of groups that are non-consecutive (at a given level), or for retrospective reinterpretations. But whereas these limitations apply especially to an uninterpreted grouping analysis (of the kind shown in Figure 1.2 of my opening essay [>23]), the further step of specifying the formal function of the groups, such as that in Figure 1.4 [>27], permits greater analytical flexibility than Webster seems to appreciate. For although a single group typically serves a single function, the relation between the two is often more complex. Two common situations involve (1) the possibility that a formal function may embrace multiple groups, such as when a highly expanded cadential function ending a subordinate theme consists of multiple phrases, and (2) when one group embraces two or more functions, a situation that I term 'fusion.' As well, a given group might initially be understood to project one function, but then come to be reinterpreted retrospectively as another one. In short, grouping and function are often congruent, but sometimes not; that they arise from different musical relationships means that while they may interact in significant ways, they represent essentially distinct aspects of musical form.

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To conclude, let me respond to some concerns raised by my notions of sonata exposition, especially the nature and status of subordinate and closing themes. Hepokoski takes me to task for rejecting 'closing theme' as a category of form. He believes that I have "predecided that any theme that others might consider as in some sense 'closing' (…) should not 'employ the same phrase-structural procedures' as one occupying subordinate-theme space. A closing theme, for instance, cannot be shaped as a sentence. But why not? Who has declared this to be true?" [>43]. I respectfully submit that my colleague has misconstrued the point of my critique. For I am not asserting that the phrase structure of a closing theme must differ from that of a subordinate theme (and I never claimed it could not be a sentence). What I am asking for is a clear definition of what would functionally differentiate such themes, and I suggested that locating a distinction in terms of phrase structure would be an obvious place to look. Failing that, however, I would be happy to recognize a category of closing theme if we could discover any other means of defining its properties, for example, that it is generally louder than a subordinate theme, or longer, or texturally more complex, or that it brings some characteristic melodic formations. Unfortunately, I have yet to uncover any such distinguishing properties. And when considering what prior theorists have labeled as a closing theme, I find no consistent criteria used to make that identification, other than the analytically trivial one that it appears *last* in the exposition. Thus my rejection of closing theme as a functional category is not made out of any 'predecision' or any perverse desire to buck theoretical tradition. Rather, I have been led to this viewpoint by carefully considering how such a thematic category could be meaningfully developed and analytically employed, and I have concluded—for the time being at least—that it is entirely dispensable, that the concept of *subordinate theme* adequately covers the formal situations presented in the later portion of a sonata exposition.[14]

As for my understanding of subordinate theme and my specific analysis of that function within Beethoven's *Pastoral* finale, Hepokoski correctly locates the source of our disagreements at the level of fundamental "assumptions and definitions" [>44]. Space limitations prohibit an extended discussion of how our concepts differ, but a number of points are worthy of mention nonetheless. Sonata Theory "normally

grants secondary theme status only to themes prepared by a recognizable medial caesura" [>44]. In the absence of such a caesura, the theory proposes to view the exposition as 'continuous' and thus lacking any subordinate theme. Now this is a curious idea: for whether or not a stretch of music in the new key is regarded as a subordinate theme seems to depend more on what *precedes* the passage in question, rather than on its actual content.[15] But is this how we really experience music? To be sure, our initial understanding of a passage may well be influenced by how it is set up. But eventually we hear what the passage itself is telling us about its formal expression. The effect of a medial caesura may provide an appropriate *textural* backdrop for the beginning of a new theme, but ultimately the sense of initiation must be articulated by the nature of the musical materials found there. Moreover, the absence of a medial caesura should not preclude hearing thematic initiation based on the cues that the music actually offers (such as the establishment of a basic idea supported by a tonic prolongation or by the reconsolidation of the grouping structure into broader units, a criterion that I introduced in my opening essay).

Inasmuch as the exposition of the *Pastoral* finale contains no medial caesura, Hepokoski identifies a continuous exposition there and thus, logically in terms of Sonata Theory, no subordinate theme. He therefore explains the expansion of the grouping structure at m. 42 (which for me, helped to project the beginning of the subordinate theme) as "a reinvigorated, broader 'energy-burst,' joyously celebrating the music's exuberant move to the dominant key" [>45], and he further notes that such "enlargement of formal units is a not-uncommon procedure within continuous expositions or within any passage of broader *Fortspinnung* that reignites or reinflates itself midstream in order to keep plunging forward" [>45]. Hepokoski's description is accurate and evocative; it also complements well my own account. He even concedes that the "'re-energizing' at m. 42 (...) is indeed the onset of what may be regarded as a new sentence-presentation" [>45], that is, a structural initiation. But he then asserts that even so, "there is no need to call it a conceptually separable subordinate theme" [>45].

Of course, Hepokoski must deny the existence of a subordinate theme in the *Pastoral* finale according to the demands of Sonata Theory,

which posits a fundamental distinction between a 'two-part exposition' (containing medial caesura and subordinate theme) and a continuous one (containing neither). But, in fact, there are good reasons to identify a subordinate theme there. For in so doing, we not only account for many details of the formal organization, but we also identify a continuity of compositional practice informing both two-part and continuous expositions. If it can be demonstrated—and I believe it can—that continuous expositions bring either a complete subordinate theme or sufficient functional elements of such a theme (one that 'fuses' with the prior transition),[16] we can recognize that all expositions employ the same basic formal syntax. Separating them as two-part or continuous, while useful enough in relation to textural, rhythmic, and dynamic processes, obscures the underlying logic of formal functionality adopted by the classical composers.

Indeed, distinguishing between the 'syntax' and 'rhetoric' of musical form might point the way to an eventual reconciliation of some fundamental conflicts between a theory of formal functions and Sonata Theory.[17] For whereas the former deals largely with the syntactical succession of formal units by rigorously focusing on harmonic progression and grouping structure, the latter brilliantly exposes the rhetorical, expressive, and hermeneutic effects of such units by carefully attending to texture, dynamics, instrumentation, and the like. By combining aspects of both theories (and thus emphasizing a multiplicity of parameters, as called for by Webster in Part III of this volume), we can provide a richer view of classical form than by employing either theory alone. Toward the goals of highlighting differences in approach as well as of resolving points of divergence, it is to be hoped that the 'multivalent dialogues' initiated in the present collection of essays will continue to be pursued—not only by myself and my colleagues—but by the many theorists and historians who find the theory of form a continual source of intellectual fascination and musical reward.

Notes

WHAT ARE FORMAL FUNCTIONS?
William E. Caplin

1.   William E. Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (1998). Support for the research reflected in that book as well as in the essays of the present volume was provided by the Social Sciences and Humanities Research Council of Canada.

2.   In the glossary, I eventually defined 'formal function' as follows: "The specific role played by a particular musical passage in the formal organization of a work. It generally expresses a temporal sense of beginning, middle, end, before-the-beginning, or after-the-end. More specifically, it can express a wide variety of formal characteristics and relationships" (*Classical Form*, pp. 254–55). The first and third sentences are overly general and not particularly helpful; the second sentence, though, does establish the fundamental relation between functionality and temporality that I develop more fully in the present essay.

3.   To save space, I have omitted lower-level groupings for the later portions of the movement.

4.   The most comprehensive and formalized theory of grouping structure is found in Fred Lerdahl & Ray Jackendoff, *A Generative Theory of Tonal Music* (1983), pp. 13–17, 36–67.

5.   For the second level from the top, I have begun the lettering with the exposition section, not the slow introduction. This adjustment helps reveal the large-scale A–B–A' patterning associated with the fundamental sonata form lying at the basis of the movement.

6.   V. Kofi Agawu, *Playing with Signs: A Semiotic Interpretation of Classic Music* (1991), Chapter 3.

7.   The idea of a hierarchical multiplicity of temporalities is hardly confined to musical situations; rather, it can be seen to inform a human being's experience of time in a host of everyday contexts. To take one mundane example relevant here: I delivered the oral version of this essay as the third of three papers (ending), at the first portion (beginning), of a late-afternoon round-table (ending), on the third day (middle) of the Freiburg EuroMAC conference. These multiple expressions of temporal location combined together to imbue my presentation with a unique placement in the 'time' of the conference as a whole, a placement that had a palpable, psychological effect on my own experience of reading the paper.

8.   Arnold Schoenberg, *Fundamentals of Musical Composition* (1967); Erwin Ratz, *Einführung in die musikalische Formenlehre: Über Formprinzipien in den Inventionen und Fugen J. S. Bachs und ihre Bedeutung für die Kompositionstechnik Beethovens* (1973). Schoenberg and Ratz largely confine their notion of formal functionality to relatively high levels in a movement's hierarchical structure. Thus Ratz's '*funktionelle Formenlehre*' has at its basis an *Urform* consisting of five parts: "(...) one part that exposes the tonic, a second part that leads away from the tonic (transition, first episode), a part that lingers in distant regions (subordinate

theme, development), a part that leads back to the dominant of the home key (retransition), and a part that reinforces the newly achieved tonic" (ibid., p. 56, my translation). A major goal of *Classical Form* is to provide functional interpretations for all levels in the formal organization of a movement.

9.   I am using the term 'theme' not just in the sense of 'melody,' but rather as a complete middle-ground structural unit consisting of multiple phrases leading to cadential closure. Some theorists speak of this structure as a single 'phrase' (William Rothstein), a 'period' (Leonard Ratner), or even a 'paragraph' (James Webster).

10.   For a more detailed analysis of the subordinate-theme group of this exposition, see William E. Caplin, "Structural Expansion in Beethoven's Symphonic Forms" (1991), pp. 33–36.

11.   I discuss the idea that cadence can be viewed as an ending function for an entire exposition, along with the more general issue of the hierarchical limitation of cadential closure, in William E. Caplin, "The Classical Cadence: Conceptions and Misconceptions" (2004), pp. 60–66. The most prominent exponents of the position that a sonata exposition normally features a generically 'concluding' cadence are James Hepokoski and Warren Darcy, whose concept of 'essential expositional closure' (EEC) is based on the identification of a single cadence that is deemed to conclude an 'essential' exposition, even while much closing material may follow (including later cadences, which would 'end' the exposition in a different sense); see James Hepokoski & Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late-Eighteenth-Century Sonata* (2006).

12.   The salience accruing to the moment of multiply hierarchical endings is similarly associated with the very moment of formal initiation; thus m. 13 of Beethoven's First Symphony is highly marked as the 'beginning' bar, of the 'beginning' phrase, of the 'beginning' theme, of the 'beginning' section, of the entire movement. By contrast, the alignment of medial functions would not seem to create any special moment of perceptual significance.

13.   *Classical Form*, p. 122.

14.   A major criterion used by Hepokoski and Darcy to distinguish the secondary-theme zone (S) from the closing zone (C) is 'melodic differentiation'—the statement of a 'new' (not-S-based) theme following the first satisfactory PAC in the subordinate key, their 'essential expositional closure' (EEC). (Restatements of all or part of S are considered as remaining in an expanded S-space.). Thus in the case of Beethoven's First Symphony, they note that one's initial assumption that the cadence at m. 77 will serve as the EEC, the moment that divides S from C, becomes undermined: "Instead of moving directly into C, S-material is retained with a sardonic, *pianissimo*, after-the-fact back-reference to the opening of S" (*Elements of Sonata Theory*, p. 125). The EEC proper, and thus the beginning of C, only appears at m. 88, where "characteristic S-melodic-material is (…) relinquished with a shift into differing ideas" (ibid., note 14). Later in this essay, I question whether melodic differentiation of this kind is a legitimate ground for distinguishing among formal functions. A different criterion for identifying closing themes is proposed by David Temperley, who suggests that closing themes tend to feature an end-accented grouping structure, as opposed

to subordinate themes, which are normally beginning-accented; see David Temperley, "End-Accented Phrases: An Analytical Exploration" (2003), pp. 132–36. Problematic in Temperley's account, however, is that most of the 'themes' that he identifies are actually groups of codettas that function as either genuine closing sections or make up the first part of a more complete thematic unit. Thus any proposed differentiation between subordinate theme and closing theme must also develop a consistent definition of 'theme' (see note 9, above).

15. Joel Galand, "*Formenlehre* Revived" (2001), pp. 192–93; the reference to William Rothstein involves that theorist's proposal that a closing theme can be identified as that portion of the exposition "following the first strongly articulated perfect cadence in the goal key"; see *Phrase Rhythm in Tonal Music* (1989), p. 116.

16. See *Classical Form*, Chapter 5, for a discussion of four hybrid theme types.

17. Rosen speaks of a 'minuet sonata form' and a 'finale sonata form' in addition to the standard 'first-movement sonata form'; see *Sonata Forms* (1988), Chapter 6. Hepokoski and Darcy identify five differing sonata-form types (*Elements of Sonata Theory*, pp. 344–45), the fifth of which embraces concerto first-movement form.

18. In *Classical Form*, I define, along with 'sonata form,' an overall 'minuet/trio form,' a more specific 'minuet form,' two main types of 'rondo form' (with some additional variants), 'concerto form,' 'sonata without development form,' 'large ternary form,' and 'theme and variations form.'

19. On my tripartite scheme for classifying harmonic progressions, see *Classical Form*, Chapter 2.

20. As it turns out, this subordinate theme lacks a concluding moment of cadence, a functional deviation that occurs now and then in rondo forms, where the need to dramatize, or even fully to confirm the subordinate key—essential to the aesthetic of sonata form—is downplayed in favor of emphasizing the return to the rondo refrain, usually through an extensive retransition; see *Classical Form*, p. 237. Some listeners may want to identify cadential articulations arising earlier within this theme; thus the resolution of dominant to tonic at m. 50 may prompt an interpretation of imperfect authentic cadence at this moment. But not only does the preceding passage lack a genuine cadential progression (the dominant functions throughout as a neighboring harmony within a tonic prolongation), but m. 50 cannot be understood to represent a formal 'end,' seeing as everything up to this point has been expressing an initiating presentation function. The tonic harmonies of mm. 52 and 54 might also strike the casual listener as points of potential cadence, but Beethoven is careful to invert the preceding dominants in order to prohibit the formation of genuine cadential progressions and to keep the harmonic context fluid, as is appropriate for the continuation function being expressed during these measures.

21. The criterion of an enlarged grouping structure helps to identify the beginning of the subordinate theme in a number of problematic cases from Beethoven's later piano sonatas; see Op. 78, i, m. 20; Op. 81a, i, m. 39; and Op. 110, i, m. 20. In all of these expositions, the transition lacks a concluding formal function such that the beginning of the subordinate theme is not immediately evident.

22. See *Classical Form*, pp. 84–86, for an elaboration in prose of Figure 1.5.

COMMENTS ON WILLIAM E. CAPLIN'S ESSAY
"WHAT ARE FORMAL FUNCTIONS?"

James Hepokoski

1.   Compare Caplin's light-touch treatment of the experience of temporality within a diachronically unfolding art with, e.g., that of Wolfgang Iser, *The Act of Reading: A Theory of Aesthetic Response* (1978), or, within the field of music theory, with the concerns of David Lewin in such writings as "Music Theory, Phenomenology, and Modes of Perception" (1986).

2.   Claims of this sort lie at the heart of Caplin's objections to Sonata Theory's heuristic, historically informed concept of essential expositional and structural closure (EEC and ESC), along with our conceptions of secondary and closing themes, which we elaborated at length, in flexible and nuanced ways (including multiple exceptions and problematic cases), in my and Warren Darcy's *Elements of Sonata Theory* (2006). One cannot rehearse all of these EEC-arguments here.

3.   *Elements of Sonata Theory*, Chapters 3 and 4, pp. 23–64. Some exceptions are noted on pp. 47–50. The normative guideline, however, is that "if there is no MC, there is no S. If there is no medial caesura, we are confronting not a two-part exposition but a continuous exposition, for which the concept of S is inappropriate" (p. 117).

4.   Jens Peter Larsen, "Sonata Form Problems" (1988), pp. 269–79; Michelle Fillion, "Sonata Exposition Procedures in Haydn's Keyboard Sonatas" (1981). Charles Rosen also wrote of Haydn's occasional 'three-part organization' in *Sonata Forms*, pp. 100-04, and provided an example with the Symphony No. 44 (*Trauer*), first movement.

5.   E.g., Caplin, *Classical Form*, p. 97: "In line with the fundamental precepts of this book, however, a subordinate theme refers not only to a thematic unit but also to a definite formal function," and "one of the theme's principal functions [is that of] confirming the subordinate key." In practice, I presume that the reverse is also true, namely, that a subordinate-theme function also refers to a concrete thematic unit that is selected to be designated as the subordinate theme. Caplin additionally refers to other functions of the 'constituent phrases' of S: "an *initiating* function of some kind (antecedent, presentation, or compound basic idea), a *medial* function (continuation), and a *concluding* function (cadential or, more rarely, consequent). Framing functions, such as introduction, codetta, and standing on the dominant are frequently associated with the theme as well" (p. 97). S themes are also more 'loosely organized' than P-themes, in a variety of ways described in several passages in the book.

6.   *Elements of Sonata Theory*, pp. 27–29 brings up issues, problems, and examples of the V:PAC and I:HC MC. So far as I can tell (it may never actually be stated point-blank), Caplin, in *Classical Form*, grapples with this matter by assuming that any I:PAC immediately preceding a (new-key) S must actually mark the end of a P-function (and thus such an exposition would lack a transition, suggested though not illustrated, e.g., on p. 211) and that the V:PAC must already, by definition, be the result of a subordinate theme function (see note 5 above). Con-

sequently, when confronting expositions where a clearly marked 'subordinate theme' seems to be absent or problematic, Caplin—setting aside more intuitive alternatives—is obliged to devise such strained categories as 'obscured boundary between transition and secondary theme,' 'transition lacking a concluding function,' 'transition/subordinate-theme fusion,' and the like (pp. 135, 201–03).

COMMENTS ON WILLIAM E. CAPLIN'S ESSAY "WHAT ARE FORMAL FUNCTIONS?"

James Webster

1. Caplin appeals to Kofi Agawu's use of the beginning/middle/end paradigm as a foundational concept of 'introversive semiosis,' in *Playing with Signs* (1991), but Agawu's procedure suffers from the same problematic.
2. As is done, for example, by Lerdahl and Jackendoff (cited by Caplin), who rightly insist on the complementary roles of grouping structure (segmentation) and prolongational structure (dynamic form). Indeed Lerdahl's more recent *Tonal Pitch Space* (2001) explicitly assigns a higher status to prolongational structure.
3. An analogous danger attaches to topical analysis: often, every distinct motive is specified as instantiating some topic or other (as in Leonard G. Ratner's analysis of the introduction to the *Prague* Symphony, discussed in Agawu, pp. 17–20), whether or not all these topics are persuasive.
4. In my view the B-flat tonicization comprises only mm. 79–81, corresponding to the first oboe phrase; m. 82 (the second phrase) returns immediately to G minor.
5. As described in the reference in his note 11 [>65].
6. Measure 54a 'counts,' because of the cadential arrival on its downbeat (which, by elision, also functions as the beginning of the next idea).
7. But then part of its point is that everything is drastically compressed by comparison with the leisurely first group; this is not uncommon in sonata-rondos.
8. As Caplin notes, mm. 54–56 appear to launch a much stronger PAC, which however is subverted (again faithfully replicated in the recapitulation). However, he states incorrectly that mm. 51–52 and 53–54 are not genuinely cadential, because the dominants are in inversion. Perhaps he was misled by his piano reduction (cf. his Example 1.2 [>36]), in which the lowest notes represent the cellos; in the score and to the ear, however, these dominants are unambiguously long notes in root position, sounded by double-basses and second bassoon and doubled by the violas.

RESPONSE TO THE COMMENTS

William E. Caplin

1. To be clear, I am referring here specifically to the remarks in his commentary to my essay, not to his actual theorizing in Hepokoski & Darcy, *Elements*

of Sonata Theory. As I will mention shortly, this theoretical work can readily be characterized as systematic and comprehensive.

2. Though this distinction is not entirely hard and fast, I generally subscribe to David Lewin's characterization of their essential difference (See David Lewin, "Behind the Beyond: A Response to Edward T. Cone" (1969), pp. 59–69.

3. *Classical Form*, p. 4.

4. I am thus gratified that James Webster concurs in my finding a subordinate theme to begin at m. 42.

5. Hepokoski & Darcy, *Elements of Sonata Theory*, p. 117.

6. Indeed, my own approach has its own dogmas, such as the one (already observed by Hepokoski) that a sonata exposition requires the presence of subordinate-theme function. Another of my dogmas insists that dominant harmony appear in root position in order to speak of its projecting a cadential harmonic function.

7. And Webster graciously reminds the reader that my essay "is a first attempt to explore these issues" [>47].

8. David Lewin, "Music Theory, Phenomenology, and Modes of Perception" (1986), pp. 327–92.

9. The idea of nested functions is, of course, well known in Schenkerian theory, where a given harmonic entity, say, the final cadential event of an expositional subordinate theme, is understood as 'tonic' at one level of structure (within the theme itself) but as 'dominant' at a higher level (within the context of the movement as a whole). To take a more extreme case, consider the F^7 harmony in m. 79 of Beethoven's First (see Example 1.1 in my opening essay [>34]), which may be multiply described as the 'dominant seventh', of the 'flat-mediant', of the 'dominant', of the 'tonic.'

10. Likewise, listeners would probably find it odd for a subordinate theme to begin with the materials of mm. 13ff.

11. As I noted in *Classical Form* (p. 197), "Many main themes exhibit a certain hesitancy or uncertainty in the course of their unfolding, often bringing sudden, striking changes in texture and marked discontinuities in rhythmic momentum." These features well describe what happens at mm. 13ff. of Beethoven's First. By contrast, subordinate themes tend to exhibit a greater uniformity of rhythm and texture; thus mm. 53ff. bring a continuous accompanimental patterning, and the rhythmical gaps in the oboe melody are filled in by the motivic imitations in the flute.

12. See Michel Vallières, Daphne Tan, William E. Caplin, Joseph Shenker, and Stephen McAdams, "Intrinsic Formal Functionality: Perception of Mozart's Materials" (2008). Non-musically trained listeners were far less accurate in making such functional identifications. Especially interesting were those cases where ambiguities of interpretation arose, particularly as regards beginnings vs. middles. Subsequent analysis of such passages permitted us to hypothesize which musical parameters were responsible for the functional uncertainties. Needless to say, further research will be needed to confirm these results and to test whether larger time-spans are similarly capable of being perceived as having an 'intrinsic' functional interpretation.

13. Fred Lerdahl & Ray Jackendoff, *A Generative Theory of Tonal Music* (1983), pp. 37–39.

14. As discussed in my opening essay, however, I do recognize a postcadential 'closing section' consisting of a group of codettas, which do not organize themselves into a full-fledged theme.

15. Something similar appears to be operative in the case of Sonata Theory's 'closing zone,' whereby its onset is primarily determined by the location of a *preceding* essential expositional close: "By definition C is postcadential (post-EEC). Normally we cannot consider anything to be C until S has attained the EEC" (*Elements of Sonata Theory*, p. 180).

16. See *Classical Form*, pp. 201–203.

17. For a more specific application of the distinction between syntax and rhetoric to the realm of cadence, see Caplin, "The Classical Cadence" (2004), pp. 106–12.