

NOTES ON SONATA FORM

BY

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TO ACCOMPANY CHAPTER 5 OF

Mozart's Music of Friends:
Social Interplay
in the Chamber Works

INTRODUCTION

This document provides an introduction to the concepts and terms used to discuss musical form in Chapters 5 and 7 of *Mozart's Music of Friends*. Among the most widespread ideas about sonata form are many that contain some kernel of truth but – like the notions that Columbus “discovered” America or proved the earth was round – are misleading oversimplifications that obscure a more interesting story. “Textbook” definitions of sonata form as a rigid system of rules and regulations are challenged by the diversity of practices found in actual repertoire. One need look no further than Mozart’s “Sonata facile” in C Major, K. 545, to find an exposition whose transition remains in the original key (rather than modulate to the dominant) or to find a recapitulation that begins in the subdominant (rather than the usual tonic). Any number of expositions by Haydn (among other composers) lack the two contrasting main themes often said to be fundamental to sonata design; other pieces could be said to have more than two principal “themes,” depending on how one defines the term. And the list goes on.

In short, the need to recast “textbook” models of sonata form to reflect the diversity of practices found especially in eighteenth-century compositions has long been recognized. Recent decades have seen significant breakthroughs stimulated largely by two major studies: William E. Caplin’s (1998) *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* and James Hepokoski and Warren Darcy’s (2006) *Elements of Sonata Theory*. These two influential publications – collectively known as the *New Formenlehre* (theory of form) – have introduced many innovative paradigms and concepts, along with important clarifications, refinements, and reformulations of old ones. It should be noted that, although these two studies examine the same repertoire, they proceed from quite different sets of assumptions and priorities, and they therefore reach divergent, even incommensurate conclusions about certain aspects of sonata form. It is beyond the scope of this document to provide a full exposition of either theory, much less a detailed examination of their points of conflict. A bibliography is provided below for readers who wish to peruse this literature directly.

My own approach to sonata form in *Mozart's Music of Friends* incorporates some concepts and terms drawn from both of the above-cited texts, and others from more traditional approaches. I have adapted each theory somewhat to enhance their mutual compatibility and to minimize the introduction of new jargon.¹ Although many of the concepts and specific examples discussed below are borrowed liberally from these authors, I will provide parenthetical citations and explanatory footnotes only sparingly. Throughout the document, **boldface type** indicates terms that appear in the glossary below. I will proceed from small units to large: After an examination of musical themes in

1 Over the objections of some purists, I will sidestep the theoretical distinctions between, for example, Caplin’s “subordinate theme” or Hepokoski and Darcy’s “S-zone,” both of which correspond approximately to the traditional “second theme.” While I recognize that these authors’ respective terms reflect important conceptual differences between the two theories, I have endeavored where possible to select terms that will remain reasonably self-evident to a diverse readership including non-theorists. I therefore generally adopt Caplin’s terms on account of their simplicity, but I use other terms for concepts that do not exist in his theory (such as “closing theme” and “essential expositional closure,” explained below). Since my usage mixes terms and concepts from both theories, this document should be understood narrowly as a guide to sonata form as it is discussed in *Mozart's Music of Friends* only, not as a faithful or complete introduction to either Caplin’s or Hepokoski and Darcy’s theories.

Part I, Part II focuses sonata-form expositions and Part III takes up full sonata-form movements. An appendix provides an annotated score of the first movement from Mozart's Piano Sonata in A Minor, K. 310, with some brief prose commentary. Some readers may prefer to consult this sample analysis first, and then circle back to the theoretical exposition.

PART I. FORMAL FUNCTION AND TIGHT-KNIT THEMES

The starting point for this study is the principle that formally meaningful units of music – such as **themes**, expositions, or complete movements – have beginnings, middles, and ends. An internal segment within such a unit expresses its **formal function** through qualities that locate it as a logical beginning, middle, or ending (Caplin 1998). This notion will become clearer presently, but it may already make some intuitive sense. If musical phrases tend to begin with tonic prolongations and end with cadences, it would be nonsensical to reverse the order of these functions within a phrase; and the results would be no better if one, say, listened to a development section first, followed by the recapitulation and ending with the exposition. Simply put, a segment of music can express its “beginningness,” “middleness” or “endingness” as an intrinsic property, even when heard out of context.

In addition to the basic formal functions of beginning, middle, and end, we may also speak of two **framing functions**: before-the-beginning and after-the-end. An adagio introduction that opens a symphony – preceding its true beginning at the subsequent allegro – may be said to express a before-the-beginning function, just as the coda that follows the end of a recapitulation expresses an after-the-end function. These same framing functions can be attached to smaller units of structure as well. A theme may commence with an introduction (before-the-beginning) or may be followed by a **codetta** (after-the-end).

Although the term “theme” is, in common parlance, used loosely to refer to the “main tune” of a passage, the concept of formal function allows for a more precise definition. Namely, a theme is a unit of music comprising beginning, middle, and ending formal functions, and concluding with a cadence. This definition clarifies that a “theme” includes all components between its beginning and ending – including its bass line and accompanimental parts just as well as its melody. And this stands to reason: if a theme must lead to a cadence, then harmonic factors must combine with melodic ones to define its ending.

Having established working definitions of “formal function” and “theme,” let us now refine these concepts by examining the two prototypical thematic types found in late-eighteenth-century instrumental music: the **sentence** and the **parallel period**.

Sentence

Ex. 1: Beethoven, Piano Sonata in F Minor, op. 2, no. 1 (i)

Allegro

PRESENTATION
B.I. (tonic version) B.I. (dominant version)

CONTINUATION (frag.) CADENTIAL

Cadential bass line: 3̂ 4̂ 5̂
HC

The sentence – a theme-type first codified by Arnold Schoenberg – is paradigmatically eight measures long and comprises three formal functions: *presentation* (mm. 1–4), *continuation* (often mm. 5–6), and *cadential* (often mm. 7–8). These three functions correspond to the generic beginning-middle-end paradigm discussed above, but these specific terms reflect the particular ways beginnings, middles, and ends are expressed in sentences.

A presentation comprises two statements of a two-bar motive called a *basic idea*. Sometimes, as in Ex. 1, the two statements represent tonic and dominant versions of the motive; the repetition needs not be exact. The dual statements of the basic idea mean that, in terms of melodic motives, the presentation represents the most characteristic or distinctive portion of a sentence. Harmonically, it tends to express a tonic prolongation (as in the neighboring progression $I-V^6_5-I$ in Ex. 1).

The continuation tends to feature motivic fragmentation and compression, as well as acceleration in harmonic and/or surface rhythms. In Ex. 1, m. 5 and m. 6 each state a compressed version of the basic idea, squeezing the two-bar idea into just one. The harmonies, which had theretofore changed every two measures, now change every bar. The continuation leads seamlessly to the cadential function in mm. 7–8. In achieving the **half cadence (HC)**, the sentential theme reaches its goal and can be considered complete. Whereas the presentation is the most characteristic portion of any sentence, the cadential segment tends to be the most generic, often consisting of a highly conventional formula that – if heard out of context – could not easily be identified as belonging to any specific composition. In Ex. 1, the cadence counterpoints a descending, scalar melody against a typical cadential bass line, $\hat{3}-\hat{4}-\hat{5}$, which is often used to approach either a HC or **perfect authentic cadence (PAC)**.

Ex. 2: Beethoven, String Quartet in F Major, op. 135 (iii)

INTRODUCTION PRESENTATION B.I. (tonic version repeated)

Lento assai, cantante e tranquillo

CONTINUATION CADENTIAL CODETTA

Seq.: model copy copy

Ex. 2 also exemplifies a prototypical sentence (mm. 3–10). Note the model-sequence technique in the continuation (mm. 7–9) and the porous boundary between the continuation and cadential functions (mm. 9–10), both common features in sentences. Unlike the sentence in Ex. 1, this one is prefixed with a two-bar thematic introduction that precedes the beginning of the sentence proper (a “before-the-beginning” framing function). Likewise, as the sentence achieves its goal with the PAC in the middle of m. 10 – a juncture where the theme could have stopped – it instead continues developing the cadential idea and prolonging the cadence’s arrival harmony through the downbeat of m. 13. This postcadential music is a codetta to the sentence, expressing an after-the-end framing function. Caplin explains framing functions through a lucid analogy to a running race:

The beginning of the race is literally marked by the opening gun; the end, by the moment when each runner crosses the finish line. But the full experience of the race also includes the time preceding and following these temporal boundaries. The period of time when the runners set themselves up in the starting blocks and wait for the officials to fire the gun is filled with a sense of accumulating tension, which is temporarily released when the race finally gets under way. What happens after the runners cross the finish line belongs to the complete experience of the race as well. The runners do not merely stop cold, but instead gradually release their physical and psychical energy by slowing down into a sprint followed by some brief walking (Caplin [1998], 15).

Parallel Period

Ex. 3: Mozart, Serenade in G Major ("Eine kleine Nachtmusik"), K. 525 (ii)

The musical score for Ex. 3 is in G major, 3/4 time, and Andante. It consists of two systems of four bars each. The first system is labeled 'ANTECEDENT' and the second 'CONSEQUENT'. Both systems start with a two-bar 'B.I.' (Basic Idea). The first system ends with a 'C.I.' (Contrasting Idea) and an 'HC' (Half Cadence). The second system ends with a 'C.I. (new)' and a 'PAC' (Perfect Cadence). Dynamics include piano (p) and forte (f). The bass line is mostly silent in the first system and active in the second.

A parallel period consists of two phrases, paradigmatically four bars each, designated *antecedent* and *consequent*.²

Each phrase begins with the same two-bar basic idea, establishing their “parallel” beginnings. But unlike the presentation of a sentence, the basic idea is here followed not by a repetition but by some new motive – a contrasting idea – that leads to a cadence. In this context, “contrasting idea” simply denotes something other than a repetition of the basic idea; it need not pose a pronounced musical contrast. The contrasting idea of the consequent phrase is sometimes modeled on that of the antecedent, but (as in Ex. 3) it can also be entirely new.

The qualities of antecedent and consequent phrases are established by the relative strength of their respective cadences. An antecedent phrase ends with a weak cadence, such as a HC or **imperfect**

² What I am calling a “parallel period” is designated simply “period” by Caplin (following Schoenberg). I include the term “parallel” to distinguish this usage from other historical and modern usages of the term “period.”

authentic cadence (IAC), and its sense of repose is therefore only tentative or partial. But the PAC that closes the consequent phrase is strong enough to complete not only that phrase but also the full, parallel period theme. Although the sentence and parallel period are both paradigmatically eight-bar forms, the latter's weak cadence in fourth bar makes for a more balanced, symmetrical, or reposeful structure as compared to the period's more kinetic drive to its sole cadence.

Traditional approaches to form studies recognized a variant form known as a contrasting period, defined as a pair phrases organized as antecedent and consequent (in terms of cadential differentiation) but whose consequent phrase begins with some contrasting material in place of a restatement of the basic idea. However, such examples are often preferably understood as **hybrid themes**, combining the functional characteristics of sentences and parallel periods. Ex. 4a is cast as an antecedent-plus-continuation hybrid. Measures 1–4 constitute a “normal” antecedent: a two-bar basic idea and two-bar contrasting idea that leads to a HC. What follows is essentially the second half of a would-be sentence: mm. 5–6 express continuation function (with characteristic fragmentation into one-bar units) and mm. 7–8 constitute a cadence. Exx. 4b and 4c recompose the excerpt as a parallel period and as a sentence, respectively.³

Ex. 4: Beethoven, Piano Sonata in C Minor (“Pathétique”), op. 13 (iii)

a. Original

Allegro

³ Antecedent-plus-continuation of but one of several hybrid and compound theme types developed in Caplin 1998 (pp. 59–70).

b. Recomposition as parallel period

Allegro

c. Recomposition as sentence

Allegro

Tight- and Loose-Knit Formal Organization

The excerpts analyzed thus far all derive from openings of movements and adhere closely to their sentence or parallel-period models. These qualities reflect their **tight-knit** organization to distinguish them from other (**loose-knit**) passages that lack such a strict organization. Caplin describes these

metaphors of tightness and looseness as follows:

Tight-knit organization is characterized by harmonic–tonal stability, cadential confirmation, unity of melodic–motivic material, efficiency of functional expression, and symmetrical phrase groupings. Loose organization is characterized by harmonic–tonal instability, evasion or omission of cadence, diversity of melodic–motivic material, inefficiency or ambiguity of functional expression, [and] asymmetrical phrase groupings (arising through extensions, expansions, compressions, and interpolations) (Caplin [1998], 17).

Although these concepts resist strict definitions, they are useful in analytical practice, since comparing a loose-knit excerpt to its normalized (tight-knit) model elucidates important aspects of its organization.⁴ Moreover, these metaphors are also useful theoretically to characterize tendencies of various sections within sonata form in general. For instance, development sections are a looser formal region than expositions or recapitulations. Moreover, within expositions, the **primary theme** (also known as “first” or “main” theme) tends to be the most tightly knit portion, whereas the **subordinate theme** (also known as “second” theme) tends toward expansion, repetition, and other loosening techniques.

PART II. TWO STORIES OF THE SONATA-FORM EXPOSITION

Story #1: Formal Function and Cadential Punctuation

Part II offers two “stories” (or models) of the sonata-form exposition, the first formulated in terms of formal function and the second emphasizing other aspects to be introduced shortly.⁵ One need not choose between them any more than one must decide whether to describe a person in terms of her personality or her appearance. Indeed, the fullest possible description would include aspects of both, even if it may be useful for particular purposes to focus on one or the other.

The concept of formal function – beginning, middle, and end, plus framing functions – operates not only *within* themes (at the *intra*-thematic level) but also at higher (*inter*-thematic) levels, such as over the course of a complete exposition. All expositions must establish a sonata’s primary key (*beginning*), initiate a modulation to a new key (*middle*), and confirm or secure the modulation through a new-key PAC (*end*); and in most expositions, that cadence will be followed by additional new-key music (*after-the-end*).

Although formal function is a modern concept, it is arguably anticipated in some late-eighteenth-century composition treatises. The most important among these, Heinrich Christoph Koch (1983 [1793]), emphasizes certain form-defining cadences that punctuate an exposition, serving as important landmarks or way stations along the journey from an exposition’s beginning, through

⁴ See, for example, the discussion of Ex. 4.6a in *Mozart’s Music of Friends*.

⁵ My two “stories” correspond approximately to Caplin 1998 and Hepokoski and Darcy 2006, respectively. I have adapted each theory in various respects to minimize certain conflicts. As presented here, these two stories are fully commensurate.

its middle, to its end. (His account largely downplays melodic contrasts as determinants of form.) Stated in terms of such a **punctuation form** (emphasizing requisite cadences), and infused with some modern concepts based on Caplin's theory of formal functions, a sonata exposition could be defined as having the following components:

Fig. 1: A punctuational model of the sonata exposition (loosely adapted from Caplin 1998)

Primary Theme: Typically a tightly knit sentence, period, or hybrid that establishes the primary key and culminates in some tonic-key cadence (PAC, IAC, or HC).

Transition: Usually a loosely knit construction – that most commonly either (1) modulates to the subordinate key, ending in a new-key HC or (2) remains in the original key, ending in a tonic-key HC. In either case, the HC is usually followed by a **standing on the dominant**, a passage after the end of a transition that is supported exclusively by a dominant prolongation.

Subordinate Theme: Often a loosely knit sentence, period, or other construction that begins in the new key and that achieves a new-key PAC. One manifestation of its loose-knittedness is a tendency toward expansion, typically achieved by evading or otherwise postponing the theme-ending cadence, often multiple times.

Closing Theme: A codetta (or series of codettas) to the subordinate theme that emphasizes the local (new-key) tonic, typically through multiple PACs. With respect to the full exposition, this stands as an after-the-end function and, strictly speaking, it is optional (commonly omitted in slow movements but almost always included in allegros).

The word “theme” in Fig. 1 should be understood in the technical sense developed above in Part I: It is a neutral designation for a segment of music that comprises formal functions of beginning, middle, and end (specifically with a cadence).⁶ Therefore, according to this account, there is no implication that the primary, transition, and subordinate themes should introduce new “tunes” involving contrasts of style, topic, affect, or motive. Indeed, provided the requisite cadences are achieved, it is possible for an exposition to recycle the same (or closely related material) in different sections of the form. The sonata forms analyzed in *Mozart's Music of Friends* include one in which the new melody introduced in the transition is immediately restated as the subordinate theme (the Sonata for Piano and Violin in E Minor, K. 304, Ex. 5.1); and another in which closely related melodies are used for the primary and subordinate themes (the “Kegelstatt” Trio, K. 498, Ex. 7.1). It is even possible for a single melodic

⁶ One exception is the section I designate “closing theme,” which in many cases is not a *bona fide* theme (beginning, middle, and end) but a series of codettas to the subordinate theme (after-the-end). Caplin's (1998) form-functional model dispenses with the concept entirely; according to his theory, what follows a subordinate theme is either a codetta (i.e., not a theme) or another subordinate theme.

motive to dominate much of the movement; see, for instance, Mozart's so-called "Rondo" in D Major, K. 485, which is actually a so-called **monothematic** sonata (Rothstein 2005). In these and similar cases, an attempt to parse the form in terms of melodic criteria will give a distorted, misleading view, whereas the punctuational or form-functional model outlined in Fig. 1 will prove to be a reliable guide for analysis.

Story #2: Sonata Rhetoric and Style

The punctuational (or cadential) model of sonata form in Fig. 1 could be said to emphasize aspects of sonata-form **syntax** at the expense of its **rhetoric**. To consider a rough analogy: In order to be a complete, syntactical unit in English, a sentence need only include a subject and a predicate (potentially just two words, such as, "She speaks"). Although most sentences contain additional words and clauses that add and refine meaning – perhaps even meaning that is fundamental to the sentence's intended communication ("She seldom speaks truthfully") – the subject and predicate are understood to be the syntactically fundamental component. Along similar lines, a composer who follows the formal plan outlined above will have created a syntactically complete sonata-form exposition. These form-functional and cadential criteria are therefore taken by Caplin (1998) to be the most salient, defining aspects for Classical form.

But achieving syntactical completeness does not mean our study of expositions is yet complete. As noted above, although the strictly syntactical or punctuational model of sonata form does not *require* a thematic contrast between the primary and subordinate themes, such contrasts nevertheless figure prominently in most sonata-form expositions, especially in fast movements and especially after around 1775. Such contrasts are not a syntactical requirement of sonata form – plenty of expositions lack them, especially those composed at mid-century – and yet they seem to be an important aspect of a large swath of the sonata-form repertoire. To overlook this aspect of sonata form would be to miss something important. As Charles Rosen notes, with characteristic directness: "The isolation of the harmonic [i.e., tonal and cadential] structure, while an advance over a basically thematic [i.e., melodic] definition of 'sonata form,' is . . . generally unsatisfactory . . . [since contrasts among] themes are absurdly seen as subsidiary – decorations added to emphasize, or even to hide, a more basic structure" (Rosen 1997, 33). Even Koch (1983 [1793]), often taken as the *locus classicus* of a punctuational approach to formal design, alludes in passing to topical and dynamic contrasts. His account of the typical plan for an exposition mentions "rushing [*rauschender*] and sonorous passages" (i.e., the transition) that give way to "a more singing [*cantabler*] phrase, usually to be played with less force" (i.e., the subordinate theme).

These palpable (but non-syntactical) aspects of sonatas may best be understood as elements of what might be called "sonata style" (Tovey 1944, 209–13) or "sonata rhetoric" (Hepokoski and Darcy, 2006). Namely – to focus our discussion on the repertoire discussed in *Mozart's Music of Friends*, mostly sonata forms composed in the final quarter of the eighteenth-century – certain prominent features of the musical surface, such as thematic and textural contrasts, are important components of sonata style and serve to both to reinforce and to dramatize the punctuational plan outlined in Fig. 1. What follows is our second story of the expositional plan, which emphasizes these stylistic, rhetorical, and narrative elements:

Fig. 2: A rhetorical/narrative model of the sonata exposition (loosely adapted from H/D 2006)

EXPOSITION, PART 1

Primary Theme: Sonata launch: proposes the main idea for the sonata.

Transition: Signals acceptance of the primary theme; often has an “energy-gaining” quality (*forte* dynamic, faster note values, etc.). Usually arrives at a HC (most commonly in the subordinate key, but sometimes in home key). The HC is usually followed by standing on the dominant, which continues the sense of energy gain, culminating in the **medial caesura (MC)**, a conventional break in the texture that serves as the transition’s terminal gesture and that divides an exposition into two parts. The MC may be emphasized with **triple hammer-blow**, or three *forte* chords.

EXPOSITION, PART 2

Subordinate Theme: Sonata re-launch (in the new key): often piano and lyrical to contrast with the primary theme (but such contrast is not essential). Tasked with achieving a satisfactory, new-key PAC, known as the **essential expositional closure (EEC)**, that moves on to differing material. The achievement of the EEC is often dramatized through multiple attempts or evasions that heighten the sense of arrival when it is eventually completed. The EEC is often marked with a cadential trill.

Closing Theme: Having already achieved the exposition’s most essential goal (**the EEC**), this postcadential appendix poses a set of accessory ideas, often presented as a series of sections each ending with a subordinate-key PAC. Since these sections are typically *forte* and gaining in rhetorical force, closing theme’s final cadence may be sonically stronger than the EEC; yet the EEC is nevertheless understood to be the more rhetorically and structurally significant cadence. Some closing themes reprise material from the primary theme, achieving a “rounding” or *ritornello*-like effect that prepares for the expositional repeat.

Both stories of sonata form emphasize the significance of certain prominent cadences essential to defining the structure’s syntax. But Fig. 2 incorporates other aspects of sonata expositions that, while not truly syntactical (in the sense of Fig. 1) are nevertheless highly salient to the experience of listening to or playing most sonata. Namely, Fig. 2 dramatizes the exposition’s journey from its original launch to the arrival of the EEC, which marks the end of the essential portion of the exposition and the beginning of the (optional) closing theme. The path is not a straight line, and its byways are defined by certain marked events on the musical surface. The journey is launched with the primary theme, which proposes the sonata’s main idea. The transition, which marks the first move away from “home,” stands as a more kinetic, bustling section. Its rhetorical quality of “energy-gain” correlates to the modulation

that usually occurs during this section, and the accumulated momentum during the standing on the dominant heightens the drive toward the MC, where this energy is summarily dissipated. These energetics imbue the MC's momentary silence with a particular rhetorical weight, enough to divide the exposition into two parts at this juncture.

The second leg of the journey, commencing with the subordinate theme, constitutes a renewed effort to achieve the EEC ("re-launch"). This sense of re-launch is emphasized if – as in most sonata expositions after c. 1775 – the subordinate theme introduces new material of contrasting character or topic. Since the subordinate theme commences in the new key, the achievement of a new-key PAC would seem to be close at hand; yet typically, the path from the beginning of the subordinate theme to its conclusion at the EEC is characterized by meandering and delay (i.e., thematic loosening). This tendency relates to the definition of the EEC as *the first satisfactory PAC that goes on to differing or contrasting material*, that is, to the closing theme.⁷ A common strategy is to imply an impending EEC, only to thwart the closure at the last moment and to defer the EEC to a later juncture. This may be achieved several ways, such as (1) by replacing a would-be PAC with an evaded cadence, (2) by following the PAC with an immediate thematic repetition of subordinate-theme material, or (3) by continuing an accompanimental pattern after the cadence.⁸ The proclivity toward EEC deferral means that subordinate themes tend to expand and, in so doing, to heighten the sense of fulfillment once the EEC is eventually achieved. Whatever music follows the EEC stands as a closing theme (after the end); having achieved a major milestone in the sonata-form journey, it is only appropriate to enjoy the new-key arrival before preparing either to repeat the exposition or to forge ahead into new territory for the development.

PART III. THE COMPLETE SONATA-FORM MOVEMENT

Development and Rotational Form

Traditional perspectives on sonata form have offered somewhat limited explanations for development sections, beyond the general statements that "anything can happen" amid constant modulations, motivic elaboration, and sequential treatment.

One major contribution formulated in H/D 2006 is the idea of **rotational form**, which refers broadly to a principle of a parallel ordering of events in the exposition, development, and recapitulation. A principle of parallelism between exposition and recapitulation – that both are both organized as primary theme, transition, subordinate theme, and closing theme, with certain requisite tonal adjustments – is clear enough.

7 The EEC concept was first formulated in H/D 2006 but was anticipated by some eighteenth-century authors such as Koch, whose term *Schlußsatz* denotes the equivalent juncture. It helps to define the boundary between the subordinate and closing themes, a murky distinction in traditional approaches to sonata form. The broader importance of the EEC to the complete sonata-form movement will become clearer in Part III, which introduces its companion cadence in the recapitulation.

8 Of these three techniques, only #1 involves a syntactically failed cadence. Techniques #2 and #3 involve successful cadences that fail rhetorically to bring about new material. They tend to foster a sense of continuation of the subordinate theme (instead of a rhetorical "mission accomplished, moving on to something new").

But less well known is the tendency toward a similar principle in many development sections. A development will be considered a *full rotation* if (1) it begins with some material drawn from before the MC, usually based on the primary theme, followed by (2) some material drawn from after the MC, based on the subordinate and/or closing themes. A full-rotation is so-named because it traces a rhetorical arc that loosely approximates that of the exposition, like another rotation through approximately the same events. A development section may also take the form of a *half rotation* if, for example, it presents material drawn from before the MC but no music drawn from after the MC ensues.

Recapitulation and the Sonata Overall

The major task of a recapitulation is to rework the materials of the exposition such that the subordinate and closing themes appear in the tonic key. This reworking involves some tonal adjustments to or recomposition of the transition. In major-mode movements, this often involves a tonicization of IV, swerving one station flatward on the circle of fifths, so that the transition will arrive at a home-key HC and standing on the dominant. The subordinate theme, now stated in the home key, will bring about the **essential structural closure (ESC)**. The ESC is a structurally salient and rhetorically emphasized home-key PAC that is to the recapitulation what the EEC is to the exposition; but it is moreover a goal of the entire movement, since it counterbalances the exposition's new-key tonal excursion with its home-key tonal closure. The ESC has essentially the same definition as the EEC: within a recapitulation's subordinate theme, it is the first satisfactory PAC that proceeds to differing material, the closing theme. In some pieces, the closing theme is followed to a coda (additional, after-the-end material that has no parallel in the exposition).

To understand the meaning of the EEC and ESC in the overall trajectory of a sonata-form movement, let us revisit a distinction we observed in our discussion of the exposition between syntactical criteria (shown in Fig. 1) and rhetorical criteria (emphasized in Fig. 2). I quote at length from H/D 2006:

The exposition is assigned a double-task, one harmonic and the other thematic-textural ("rhetorical"). Its harmonic task is to propose the initial tonic and then, following any number of normative (and dramatized) textural paths, to move to and cadence in a secondary key . . .

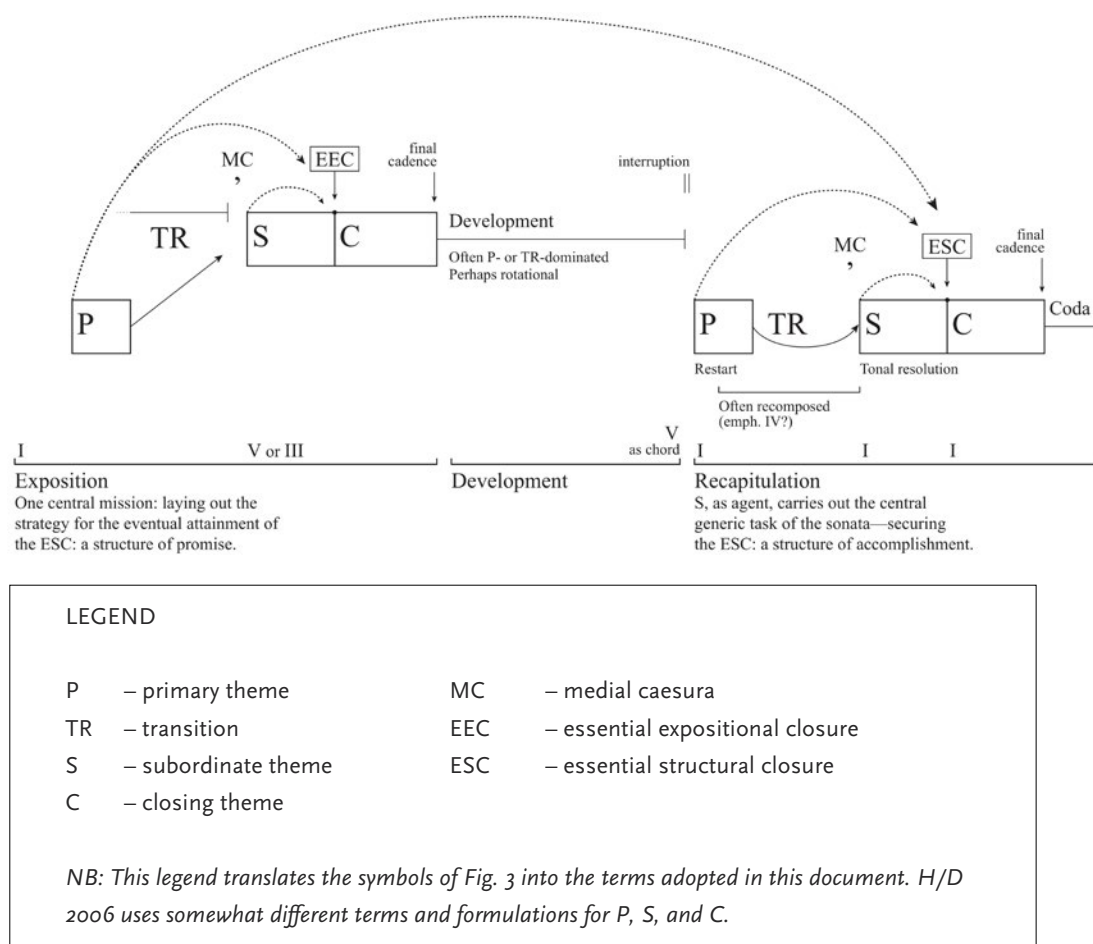
The exposition's rhetorical task, no less important, is to provide a referential arrangement or layout of specialized themes and textures against which the events of the two subsequent spaces – development and recapitulation – are to be measured and understood.

Because the exposition's succession of events serves, especially in its second half, to predict the plan and purpose of the [recapitulation] . . . its layout may be understood as articulating a structure of promise (indicating how it proposes that "things work out" in the recapitulatory / rotation-to-come) . . .

Because of [their] function in bringing tonal closure to the entire form, we refer to the [subordinate and closing themes] as the tonal resolution. Its shape and manner of unfolding had been established by the exposition's structure of promise. Correspondingly, we consider the recapitulation to articulate a structure of accomplishment . . .

The recapitulation's [subordinate theme], launching the tonal resolution following a recapitulatory MC, leads to the production of the [ESC] . . . most often a point parallel to the exposition's EEC. The ESC represents the tonal goal of the entire sonata form, the tonal and cadential point toward which the trajectory of the whole movement had been driving: This is suggested by the dotted-line arrow in [Fig. 3]. From the perspective of Sonata Theory, it is only here where the movement's tonic is fully called forth, stabilized as a reality as opposed to a mere potential (H/D 2006, 16–20).

Fig. 3: The Essential Sonata Trajectory to the ESC (from H/D 2006, p. 17). By permission of Oxford University Press, USA.



Hepokoski and Darcy’s approach – which they call “Sonata Theory” – is presented to some extent from the point of view of a musician composing or improvising the sonata, deciding at each choice point which strategies to employ on the journey toward certain generic goal points. (Their notion of a “sonata game” resonates with the spirit of music-making as “play” developed in *Mozart’s Music of Friends*.) The arrows shown in Fig. 3 relate to this in-time re-enactment of the sonata’s creation: As the exposition commences, one fairly immediate cadential destination is the MC. (“Now that I’ve establish the sonata’s main idea, how can I drive toward an exciting MC? And will I choose a home-key HC or a new-key HC for that juncture?”) A more intermediate destination is the EEC, a goal that is reinvigorated at the outset of the subordinate theme. (“This new, *cantabile* idea is so nice – do I really want it to end just yet, or shall I evade the cadence once or twice first?”).

The significance of the EEC pertains to its implications for the recapitulation. As shown by the largest arrow in Fig. 3 (from the movement’s beginning to the ESC), the exposition works out a strategy that forecasts the probably path to the ESC. (“Okay – I’ve managed to rework the transition such that I’m back in the home key for the return of the subordinate theme. I could play a transposed version that adheres exactly to the exposition . . . or should I throw in another trick – to intensifying the harmonies or delaying the cadence even further? This is such an important cadence, so I should really make it count!”)

APPENDIX. ANALYSIS OF MOZART, PIANO SONATA IN A MINOR, K. 310 (I)

PRIMARY THEME (SENTENCE)
Presentation

Allegro maestoso

5 Continuation

Cadence (I:HC)

TRANSITION

10 (modulation begins)

14 calando

III:HC Standing on the dominant

18

21 MC Triple hammer-blow

SUBORDINATE THEME

24

27 Cadential process begins . . .

Bass: 3 4 back to 3

30

Trill (impending cadence?) No!

Another cadential attempt...

Again evaded

EEC; CLOSING THEME
(reprises primary-theme motive)

bass in wrong register

Triple hammer-blow

bass achieves proper register

The musical score consists of five systems of piano music. The first system (measures 33-35) shows a trill in the right hand in measure 33, with a blue annotation 'Trill (impending cadence?) No!' above it. The second system (measures 36-39) shows another cadential attempt in measure 36, with a blue annotation 'Another cadential attempt...' above it. The third system (measures 40-42) shows a trill in the right hand in measure 40, with a blue annotation 'Again evaded' above it. The fourth system (measures 43-45) shows a trill in the right hand in measure 43, with a blue annotation 'EEC; CLOSING THEME (reprises primary-theme motive)' above it. The fifth system (measures 46-48) shows a triple hammer-blow in the right hand in measure 46, with a blue annotation 'Triple hammer-blow' above it. The bass line in measure 43 is in the wrong register, and in measure 46 it achieves the proper register, as indicated by blue annotations and arrows.

DEVELOPMENT

Primary-theme material (in subordinate key)

50

54

Closing-theme material (cf. mm. 45–48) in circle-of-fifths sequence

58

61

64

67

70

73 Retransition (standing on the dominant)
I: HC

76

79 lead-in to ...

80 ... RECAPITULATION
PRIMARY THEME

82

87 TRANSITION

91

95 *lando* I:HC Standing on the dominant

99 *p*

102 MC SUBORDINATE THEME

106

109 (bll emphasis)

112 Tonicization of IV intensifies cadential progression

Cadence elided

115

118

Again, cadence elided

121

ESC seems imminent ...

"Shock" chord

VII₄

124

127 ESC; CLOSING THEME

VII⁷ / V

V₄⁶

5_#

I

130 Triple hammer-blow

Exposition:

The primary theme is a sentence culminating in a HC in m. 8. Some traditional approaches to sonata form would identify a transition in m. 12, the moment of a harmonic swerve away from the original key. However, according to the approach developed here, the transition should be identified as commencing in m. 9, even though the phrase that commences in that bar is based on the same material as m. 1 (i.e. still “the same theme,” on the old-fashioned sense of theme as a “tune” or melodic motive). Since we have defined “theme” as a unit with beginning, middle, and end (cadence), the sentential primary theme reaches its conclusion at its cadence in m. 8.⁹ Measure 9 is the beginning of a formal unit that can be identified as the transition, whereas m. 12 is not the beginning of anything (but rather a middle); at best, one could say that m. 12 is the moment one realizes that the transition had already begun in m. 9.

The transition achieves a modulation to the subordinate key of C major, arriving at a HC in m. 16. Although mm. 9–12 do not display a quality of energy-gain (note the *calando* and *piano* markings), the sudden *forte* and high register for the standing on the dominant (mm. 16–22) evoke an orchestral style that drives toward the MC in m. 22. That juncture is emphasized with triple hammer-blow. (The third hammer-blow is elided in the right hand to allow for the upbeat to the new theme.)

Compared to the intense primary theme and transition – and particularly after the modal mixture in the standing on the dominant – the entrance of the *leggiero* subordinate theme (upbeat to m. 23), with its unalloyed major mode and comfortable registers, lightens the mood considerably. The theme is not identifiable as a sentence, parallel period, or hybrid; it is a loosely knit section (possibly a parallel period with an extremely expanded consequent phrase). Measure 27 marks a turning-point as a cadential process seems to commence: the left-hand returns to a proper bass register and is poised on $\hat{3}$, potentially ready to express the common cadential bass line $\hat{3}-\hat{4}-\hat{5}-\hat{1}$. In the following measure, as I^6 progresses to II^6 , it seems that such a cadential progression may be underway, but it is discontinued in m. 29. Thus, when the left hand returns to $\hat{3}$ in m. 31, the passage seems yet more eager to achieve a successful cadence. This “eagerness” is manifest (1) harmonically, since the Bb in m. 31 intensifies the progression to IV, (2) rhythmically, since mm. 33–34 are the first time both hands have played sixteenth notes, and (3) rhetorically, since the trill in m. 34 signals that the EEC is expected on the following downbeat.

However, as it happens, a cadence in m. 35 fails to materialize, since the right-hand’s would-be cadential note is replaced by a rest. Such cadential elision means that the EEC has been deferred and that subordinate-theme space remains open. The continued development of subordinate-theme material (sixteenth notes with decorated lower neighbors) underscores the sense of continuity at this juncture. A similar cadential attempt again results in an evaded cadence in m. 40. Only in m. 45 is a satisfactory PAC achieved that moves on to new material, reprising the primary theme’s stately dotted rhythms as a closing theme. (Even the EEC in m. 45 might be quibbled with slightly on account of

9 An alternative analysis, discussed in Burstein 2014, would interpret the primary theme as culminating with an authentic cadence on the downbeat of m. 9. According to this analysis, the downbeat of m. 9 stands as a formal overlap, simultaneously the end of the primary theme and the beginning of the transition.

the left hand's register: the octave leap G to GG would call for a cadence on C (great octave). The c¹ that appears instead is two octaves too high. This motivates the bass descent throughout the closing theme, which finally arrives at the proper C in the final measures triple hammer-blow, thus supplying a register that had been suppressed at the EEC.)

Development:

The development section is cast as a full rotation. Like many development sections, it opens with primary-theme material presented in the subordinate key. The next section, beginning in m. 58, is clearly based on the closing theme, combining dotted rhythms in the right hand with sixteenths in the left (cf. mm. 45–48). This material obtains for most of the remainder of the development, discontinuing only in m. 73 as a descending-bass-line progression leads through a German-sixth chord to the arrival on V in m. 74. The standing on the dominant that follows (mm. 74–79) serves as a retransition, preparing for the recapitulation.

Recapitulation:

The first eight measures of the recapitulation are identical to those of the exposition. (This provides further corroboration that m. 9 is the exposition's transition.) Measures 88–96 are based on the exposition's transition, but are significantly reworked to arrive at a tonic-key half cadence on the downbeat of m. 97. The ensuing seven-bar standing on the dominant is an exact transposition of the corresponding measures from the exposition.

The subordinate theme is mostly a measure-for-measure transposition of the corresponding passage in the exposition, save for a few minor details. However, as Hepokoski and Darcy emphasize, such transpositions take on a particular meaning in minor-mode sonatas. In an exposition, after the minor-mode primary theme, the major-mode subordinate theme offers a positive change of mood. But when the same music returns in the minor tonic in the recapitulation, it may sound all the more severe by comparison. Mozart's choice in m. 109 to use a Neapolitan-sixth – a harmony strongly associated with the minor mode – exacerbates the “minor-ness” of this statement of the theme.

Given that the subordinate theme proceeds, by and large, identically to its original statement in the exposition, most listeners would be primed to anticipate that m. 125 will lead to the ESC on the following downbeat (parallel to m. 44, leading to the EEC in m. 45). But Mozart's trick is to insert three extra bars (mm. 126–28) that intensify both the harmony and the level of virtuosity. The harmonic tension is particularly pronounced since the V_2^4 chord in m. 126 is not permitted to resolve as it “ought” to a I^6 harmony, and several voices are forced to resolve against their natural tendencies. These three inserted bars serve both to delay and to dramatize the arrival of the ESC in m. 127. The ensuing closing theme is an exact transposition of the analogous section from the exposition.

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GLOSSARY

Note: Many of the definitions that follow are quoted from or are adapted from Caplin 1998 or H/D 2006.

CLOSING THEME: A codetta (or series of codettas) to the subordinate theme within an exposition or recapitulation that immediately follows the EEC or ESC, respectively. It typically involves multiple PACs that reinforce the EEC or ESC. With respect to the full exposition or recapitulation, the closing theme stands as an after-the-end function and may be omitted (especially in slow movements).

CODETTA: A postcadential (after-the-end) function following a PAC that closes a primary or subordinate theme and consisting of a tonic prolongation or brief cadential progression that reinforces cadence of the preceding theme.

ESSENTIAL EXPOSITIONAL CLOSURE (EEC): Within the subordinate theme of an exposition, the first satisfactory PAC that moves on to contrasting material. An potential EEC may be deferred using a variety of methods, such as cadential evasion or the immediate repetition of subordinate-theme material.

ESSENTIAL STRUCTURAL CLOSURE (ESC): Within the subordinate theme of a recapitulation, the first satisfactory PAC that moves on to contrasting material. The ESC is often achieved using a strategy parallel to that of the EEC. The EEC is understood to promise or forecast the eventual attainment of the ESC, which represents the fulfillment and ultimate resolution of the sonata's structure.

FORMAL FUNCTION: The specific role played by a particular passage at a particular hierarchical level within the formal organization of a work. Generic formal functions include beginning, middle, and end, plus the framing functions before-the-beginning and after-the-end.

FRAMING FUNCTION: See formal function.

HALF CADENCE (HC): A cadence ending on a V triad (or, in certain contexts, on a V7 chord).

HYBRID THEMES: Categories of themes, described in Caplin 1998, that combine elements of sentences and periods.

IMPERECT AUTHENTIC CADENCE (IAC): A cadence that progresses from root-position V to root-position I, typically with $\hat{3}$ in the melody. It is understood to be a weaker cadence than a perfect authentic cadence (PAC), which ends with $\hat{1}$ in the melody.

LOOSE KNIT: A formal organization characterized by the use of non-conventional thematic structures, harmonic-tonal instability (modulation, chromaticism), an asymmetrical grouping structure, phrase-structural extension and expansion, form-functional redundancy, and a diversity of melodic-motivic material. *Compare* tight knit.

MEDIAL CAESURA (MC): Within an exposition or recapitulation, a rhetorically marked break after the transition and before the subordinate theme. An MC is understood as the boundary between a typical exposition's two parts. *See also* triple hammer-blow.

MONOTHEMATIC: A sonata in which the primary and subordinate themes are based on closely related material.

PARALLEL PERIOD: An eight-bar theme type consisting of an antecedent (ending on a weak cadence) followed by a consequent (ending with a PAC).

PERFECT AUTHENTIC CADENCE (PAC): A cadence that progresses from root-position V to root-position I, with $\hat{1}$ in the melody. It is understood to be a stronger cadence than an imperfect authentic cadence (IAC). A PAC is required to achieve closure in a subordinate theme. *See also* Essential Expositional Closure (EEC) and Essential Structural Closure (ESC).

PRIMARY THEME: An initiating interthematic function that brings the main melodic-motivic ideas of the movement and establishes the home key. It is typically a tightly knit sentence, period, or hybrid construction.

PUNCTUATION FORM: A model of sonata (or other) forms expressed in terms of requisite, form-defining cadential goals.

RHETORIC: Thematic, textural, topical, or gestural elements of sonata style that differentiate sections or mark arrivals within the sonata's layout (such as triple hammer-blow or topical contrasts). *Compare* syntax.

ROTATIONAL FORM: The tendency for the exposition to serve as a referential layout for the development and recapitulation sections. A development may be either a *full* or *half rotation*, the former designating a development in which music based on material from before the MC (such as primary theme or transition) is followed by music based on material from after the MC (such as subordinate or closing themes). A half-rotational development section is usually based mainly on primary-theme material.

SENTENCE: An eight-bar theme type consisting of presentation, continuation, and cadence.

STANDING ON THE DOMINANT: Within an exposition or recapitulation, as passage placed after the end of a transition that is supported exclusively by a dominant prolongation.

SUBORDINATE THEME: An interthematic function that confirms a subordinate key by closing with a PAC (the EEC or ESC). It tends to be more loosely knit than the primary theme, and it often (but not always) poses a contrast to it.

SYNTAX: Form-functional elements that define sections within a sonata form and that are essential to a well-formed expression of the form (such as sonata form's requisite cadences). *Compare* rhetoric.

THEME: A unit of form – such as a sentence, period, hybrid, or looser construction – consisting of beginning, middle, and ending functions. It must close with a cadence.

TIGHT KNIT: A formal organization characterized by the use of conventional theme-types, harmonic-tonal stability, a symmetrical grouping structure, form-functional efficiency, and a unity of melodic-motivic material. *Compare* loose knit.

TRANSITION: An interthematic function that destabilizes the home key and loosens the formal organization in order for a subordinate key to be established and eventually confirmed. In an exposition, the transition most commonly modulates, ending in a HC in the subordinate key, but it may also end in a home-key HC. In either case, it is typically followed by a standing on the dominant and the medial caesura. In a recapitulation, it is usually adjusted or recomposed (sometimes involving a tonicized IV) to prepare for a home-key statement subordinate theme.

TRIPLE HAMMER-BLOW: A conventional figure, usually expressed as three repeated *forte* chords, that sometimes appears at the MC to provide rhetorical emphasis as a terminal gesture. Triple hammer-blow may also appear at other points of formal articulation, such as the outset the outset or conclusion of an exposition or recapitulation.