## SENTENTIAL CYCLING: STRUCTURAL LAYERING IN THE BAROQUE ERA

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### ABSTRACT

#### Per F. Broman, Advisor

In his book, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven*, William Caplin developed a model for describing formal structure from the level of the phrase to that of an entire piece. Scholars such as James MacKay, Matthew BaileyShea, and Per F. Broman have expanded Caplin's discussion of phrase structure to encompass works by composers outside of the Classical era, including William Byrd, Richard Wagner, and Béla Bartók. Little scholarship has bridged the gap between the Renaissance and Classical eras, however.

This document considers the applicability of Caplin's model to the motivic and canonic Baroque phrase structure. After an overview of Caplin's terms and ideas, it discusses the primary ideological and compositional similarities, as well as the obvious differences, between the Baroque and Classical periods, drawing upon the perspectives of historical writers including Johann Mattheson, Joseph Riepel, Johann Philipp Kirnberger, and Heinrich Christoph Koch. Then, it illustrates the Baroque sentence, using examples from Johann Sebastian Bach, Antonio Vivaldi, and Arcangelo Corelli, and introduces the concept of *sentential cycling* in relatively simple movements by Corelli and Vivaldi. It culminates in the application of this concept to a complicated piece by providing a multi-level analysis of the *Andante con moto* section of J.S. Bach's Motet II, "Der Geist hilft unsrer Schwachheit auf," BWV 226. This thesis is dedicated to my grandmother, Mildred Dean,

without whom I never would have made it this far.

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## CHAPTER 1. INTRODUCTION

In his book, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven*,<sup>1</sup> William Caplin developed a model for describing formal structure from the level of the phrase to that of an entire piece. Scholars such as James MacKay,<sup>2</sup> Matthew BaileyShea,<sup>3</sup> and Per F. Broman<sup>4</sup> have expanded Caplin's discussion of phrase structure to encompass works by composers outside of the Classical era, including William Byrd, Richard Wagner, and Béla Bartók. Little scholarship has bridged the gap between the Renaissance and Classical eras, however.

This document considers the applicability of Caplin's model to the motivic and canonic Baroque phrase structure. The bulk of the present chapter provides an overview of Caplin's terms and ideas, after which the second chapter discusses the primary ideological and compositional similarities, as well as the obvious differences, between the Baroque and Classical periods, drawing upon the perspectives of historical writers including Johann Mattheson, Joseph Riepel, Johann Philipp Kirnberger, and Heinrich Christoph Koch. The third chapter is divided into two sections. The first section illustrates the Baroque sentence, using examples from Johann Sebastian Bach, Antonio Vivaldi, and Arcangelo Corelli. The second section introduces the concept of *sentential cycling* in relatively simple movements by Corelli and Vivaldi. This chapter culminates in the application of this concept to a complicated piece by providing a multi-level analysis of the *Andante con moto* section of J.S. Bach's Motet II, "Der Geist hilft unsrer

<sup>&</sup>lt;sup>1</sup> William E. Caplin, *Classical Form: A Theory of Formal Functions for the Instrumental Music of Haydn, Mozart, and Beethoven* (New York: Oxford University Press, 1998).

<sup>&</sup>lt;sup>2</sup> James MacKay, "Toward a Theory of Formal Function for Renaissance Music," *Indiana Theory Review* 23 (Spring–Fall 2002): 99–131.

<sup>&</sup>lt;sup>3</sup> Matthew BaileyShea, "The Wagnerian *Satz*: The Rhetoric of the Sentence in Wagner's Post-*Lohengrin* Operas" (PhD diss., Yale University, 2003) and Matthew BaileyShea, "Beyond the Beethoven Model: Sentence Types and Limits," *Current Musicology* 17 (Spring 2004): 5–33.

<sup>&</sup>lt;sup>4</sup> Per F. Broman, "In Beethoven's and Wagner's Footsteps: Phrase Structure and *Satzketten* in the Instrumental Music of Béla Bartók," *Studia Musicologica* 48, no. 1–2 (March 2007): 113–132.

Schwachheit auf," BWV 226. This analysis demonstrates that sentential structures not only occur in Baroque music, but that they exist on several structural levels, which exemplifies the cyclic nature of Baroque music versus the goal-directed nature of the music of the Classical period. The final chapter summarizes the conclusions from the preceding chapter and discusses steps for further research.

#### **Basic Theme Types**

Caplin draws from the works of Arnold Schoenberg<sup>5</sup> and Erwin Ratz<sup>6</sup> to produce a "comprehensive theory of formal functions"<sup>7</sup> for Classical-era instrumental music. Caplin defines two fundamental types of phrase structure: the *sentence* and the *period*, using "ideal types" to elucidate the general make-up of these structures. These phrase structures each combine two phrases to produce a single unit, termed a *theme*.

Originally identified by Schoenberg, the ideal sentence consists of two four-measure segments: the *presentation phrase* and the *continuation phrase*. The presentation phrase introduces a two-measure *basic idea*, a melodic gesture over tonic harmony, which is immediately repeated. The continuation phrase breaks down this basic idea through *fragmentation* and faster harmonic rhythm in preparation for the *cadential idea* at the end of the phrase. *Liquidation*, or "the systematic elimination of characteristic motives," may also be used in order to leave only the conventional cadential harmony and lacks a clear cadential goal, which the continuation phrase is always based on tonic harmony and lacks a clear cadential goal, which

<sup>&</sup>lt;sup>5</sup> Arnold Schoenberg, *Fundamentals of Musical Composition*, ed. Gerald Strang and Leonard Stein (London: Faber & Faber, 1967).

<sup>&</sup>lt;sup>6</sup> Erwin Ratz, *Einführung in die musikalische Formenlehre: Über Formprizipien in den Inventionen und Fugen J. S. Bachs und ihre Bedeutung für die Kompositionstechnik Beethovens*, 3rd ed., enl. (Vienna: Universal, 1973).

<sup>&</sup>lt;sup>7</sup> Caplin 1998, 3.

presentation, continuation, and cadential, although the continuation and cadential functions usually work together.<sup>8</sup> Caplin stresses that the smallest building block in Classical-era music is not the motive, but the basic idea, which "groups together several motives into a single gesture.... This *basic idea* is small enough to group with other ideas into phrases and themes but large enough to be broken down (fragmented) in order to develop its constituent motives."<sup>9</sup>

Example 1 shows one of the most frequently cited examples of the sentence: the opening eight measures of Beethoven's Piano Sonata in F Minor, Op. 2, No. 1, I. In this case, the presentation phrase consists of a two-measure basic idea which is immediately repeated (over dominant harmony). The continuation phrase fragments the basic idea by stating its second motive twice. The sentence closes in a cadential idea which produces a half cadence.



Example 1: Beethoven, Piano Sonata in F Minor, Op. 2 No. 1, I, mm. 1–8<sup>10</sup>

As the above example illustrates, the basic idea does not have to be repeated verbatim. The repetition could be *exact*, meaning harmonized in the same way, although the melody may be ornamented or transposed. But the presentation phrase could also take the form of *statementresponse*, in which the basic idea is initially stated over tonic harmony, but is transposed to its

<sup>&</sup>lt;sup>8</sup> Ibid., 10–11.

<sup>&</sup>lt;sup>9</sup> Ibid., 37. Although Caplin's definition of the Classical sentence places little value in the motive—he literally states that his theory "minimizes motivic content as a criterion of formal function" (4)—the following chapters will show that, because it is such an integral part of the Baroque compositional style, the motive plays a much larger role in the Baroque sentence.

<sup>&</sup>lt;sup>10</sup> Ibid., 10.

dominant or subdominant form for the repetition (as in the above example). A third option occurs when "the melody and its harmonic support are transposed by the same interval," which yields a sequential repetition (also called model-sequence technique). Model-sequence technique can also be used in the continuation.<sup>11</sup>

Although the ideal sentence is balanced, comprising two four-measure phrases, Caplin recognizes that this is not always the case. The presentation phrase generally adheres to his ideal type, but the length of the continuation phrase may be changed in several ways. It may be lengthened through extension of the continuation function (more fragmentation and/or more sequencing) or through *expansion* of the cadential function (one or more chords are lengthened). The continuation phrase may also be shortened through *compression* (fewer units of fragmentation and/or a shorter cadential progression).<sup>12</sup>

Caplin's second major theme type, the period, resembles the sentence in that it is also, in its ideal form, divided into two four-measure phrases, and it too begins with a two-measure basic idea. Instead of repeating the basic idea, however, a two-measure *contrasting idea* is immediately introduced, leading to a weak cadence. The contrasting idea differs from the basic idea primarily through its melodic and motivic content, although it may also contrast in texture, dynamics, and/or articulation. These four measures form the *antecedent phrase*.<sup>13</sup> In the consequent phrase, the basic idea returns, followed by a contrasting idea that "may or may not be based on the first contrasting idea."<sup>14</sup> The consequent phrase usually ends with a perfect authentic cadence. The essential concept of the period is that "a musical unit of partial cadential

<sup>11</sup> Ibid., 39. <sup>12</sup> Ibid., 47–48.

<sup>14</sup> Ibid., 12.

<sup>&</sup>lt;sup>13</sup> Ibid., 12, 49.

closure is repeated so as to produce a stronger cadential closure"<sup>15</sup> (usually a half cadence or imperfect authentic cadence followed by a perfect authentic cadence, although an imperfect authentic cadence may follow a half cadence).

The first eight measures of Mozart's *Eine kleine Nachtmusik*, K. 525, II, shown in Example 2, illustrate the ideal period. In this example, the antecedent phrase consists of a two-measure basic idea which prolongs tonic harmony, followed by a two-measure contrasting idea that ends in a half cadence. The consequent phrase begins by restating the basic idea verbatim, though now at *forte* instead of *piano*. A new contrasting idea follows, ending in a perfect authentic cadence.



Example 2: Mozart, Eine kleine Nachtmusik, K. 525, II, mm. 1-8<sup>16</sup>

Like sentences, not all periods adhere to Caplin's ideal type. Period structure can be made to deviate from the norm through the use of the same devices described in conjunction with the sentence: extension, expansion, and compression. It can also be altered through *interpolation*,

<sup>&</sup>lt;sup>15</sup> Ibid., 49.

<sup>&</sup>lt;sup>16</sup> Ibid., 12.

which Caplin defines as "musical material that is inserted between two logically succeeding formal functions, yet seeming not to belong to either function."<sup>17</sup> An interpolation differs from an extension because it is not motivically connected to the previous material.

Since the consequent phrase essentially repeats the antecedent phrase, any alteration in length made to one phrase is usually balanced by applying a similar alteration to the other, in order to maintain the period's symmetrical organization. Sometimes, however, the consequent alone may be expanded or extended, resulting in an asymmetrical period. Such extensions usually occur when a perfect authentic cadence does not arrive after four measures, and all or part of the phrase is repeated to bring the needed closure.<sup>18</sup>

## Hybrid Themes

Sometimes an eight-measure unit contains qualities of both a sentence and a period. Caplin terms this a hybrid theme, of which he describes four types. Hybrid 1 combines an antecedent with a continuation: it begins like a period, but ends like a sentence.<sup>19</sup> Example 3 highlights this type of hybrid in the first eight measures of Mozart's Piano Sonata in C, K. 330/300h, II. The antecedent phrase begins this theme like a normal period, but the basic idea never wholly returns in the second phrase. Instead, two fragments of the basic idea occur, followed by a cadential idea that brings about a perfect authentic cadence. Thus, the second phrase is a continuation, not a consequent.

<sup>&</sup>lt;sup>17</sup> Ibid., 55. <sup>18</sup> Ibid., 55, 57.

<sup>&</sup>lt;sup>19</sup> Ibid., 59.



Example 3: Mozart, Piano Sonata in C, K. 330/300h, II, mm. 1–8<sup>20</sup>

*Hybrid* 2 combines an antecedent with a *cadential*, or a phrase built entirely from a cadential progression. When such a progression is enlarged to encompass an entire phrase, Caplin terms it an *expanded cadential progression* (E.C.P.).<sup>21</sup> Beethoven's Violin Sonata in D, Op. 12/1, III, shown in Example 4, uses this type of hybrid in the first eight measures. It begins with an antecedent that closes with a half cadence. The second phrase never restates the basic idea, but uses an expanded cadential progression to arrive on a perfect authentic cadence, thus deeming it a cadential phrase.<sup>22</sup>

<sup>&</sup>lt;sup>20</sup> Ibid., 60.

<sup>&</sup>lt;sup>21</sup> Ibid., 61.

<sup>&</sup>lt;sup>22</sup> Caplin uses an arrow beneath a Roman numeral to denote a secondary-function chord.



Example 4: Beethoven, Violin Sonata in D, Op. 12/1, III, mm. 1–8<sup>23</sup>

The last two hybrid types begin not with an antecedent, but with a *compound basic idea*, or a phrase with a basic idea and a contrasting idea that does not end with a cadence. This type of phrase is so named because the lack of cadential closure gives it "the character and function of a higher-level basic idea."<sup>24</sup> A compound basic idea resembles an antecedent through its melodic and motivic content, but its underlying harmony, which usually prolongs the tonic, makes it also resemble a presentation.

*Hybrid 3* combines a compound basic idea with a continuation or a cadential phrase. Example 5 shows an instance of this hybrid type in the first eight measures of Haydn's Piano Sonata in C, Hob. XVI: 35, I. The first phrase consists of a basic idea and a contrasting idea, but no half cadence occurs. Therefore, this phrase can be called a compound basic idea. The second

<sup>&</sup>lt;sup>23</sup> Ibid., 60.

<sup>&</sup>lt;sup>24</sup> Ibid., 61.

phrase, a continuation, fragments the basic idea three times before the cadential idea progresses to a perfect authentic cadence.<sup>25</sup>



Example 5: Haydn, Piano Sonata in C, Hob. XVI: 35, I, mm. 1-8<sup>26</sup>

Hybrid 4 consists of a compound basic idea and a consequent. The only difference between this type of hybrid and a period is the lack of a weak cadence at the end of the first phrase. Beethoven's String Quartet in G, Op. 18/2, IV contains a hybrid of this type in mm. 21-28, as shown in Example 6. Here, the first phrase is a compound basic idea, since no cadence occurs in m. 4. Instead, dominant harmony continues through the restatement of the basic idea. A new contrasting idea follows, ending the consequent with a perfect authentic cadence.<sup>27</sup>



Example 6: Beethoven, String Quartet in G, Op. 18/2, IV, mm. 21–28<sup>28</sup>

- <sup>27</sup> Ibid., 61.
- <sup>28</sup> Ibid., 62.

<sup>&</sup>lt;sup>25</sup> Ibid., 61. <sup>26</sup> Ibid., 62.

The next chapter will trace the historical concepts of phrase structure through the Baroque and early Classical periods, showing how seemingly divergent compositional frameworks can be linked through the Caplinian concepts engaged above. Sentential characteristics will be highlighted in historical writings on phrase structure by focusing particularly on theorists' concepts of motives, phrase segments, and phrase endings.

## CHAPTER 2. HISTORICAL CONTRIBUTIONS TO PHRASE STRUCTURE

The Baroque and Classical periods represent almost opposite compositional mindsets. Baroque music is cyclically-oriented; for example, in the fugue and the concerto, a composer cycles through expositions or ritornellos, and the listener cannot tell where the piece will stop until the end is signaled by the entrance of conventional closing material. In other words, the listener cannot predict the precise number of expositions or ritornellos that a composer will use, or in what order he will employ them. In the Classical era, however, an informed listener can anticipate the end of a Classical sonata or concerto almost from the beginning of the movement, because it has a standard trajectory and a conventional order of events. Therefore, Classical music is temporally-oriented, since the listener is always more or less aware of where he or she is during the piece.<sup>29</sup>

This dichotomy between compositional frameworks would seem to place a roadblock between the two eras in terms of form and phrase structure. Theorists in the Baroque period are chiefly concerned with classifying metrical and durational patterns, explaining metrical accents, and relating these metrical patterns to Greek poetic meters. The Classical era, however, with its "emphasis on formal articulations, melodic prominence, and balanced phrasings, stimulate[s] theorists to consider the rhythms projected by phrase groupings and cadential goals."<sup>30</sup> This and the gallant style lead to complex descriptions of phrase structure.<sup>31</sup>

Although theorists in each era focus on different tasks, the common bond of rhythmic organization connects concepts from both eras.<sup>32</sup> This chapter will follow the development of

<sup>&</sup>lt;sup>29</sup> Karol Berger, *Bach's Cycle, Mozart's Arrow: An Essay on the Origins of Musical Modernity* (Berkeley and Los Angeles: University of California Press, 2007), 8.

 <sup>&</sup>lt;sup>30</sup> William E. Caplin, "Theories of Musical Rhythm in the Eighteenth and Nineteenth Centuries," in *The Cambridge History of Western Music Theory*, ed. Thomas Christensen (Cambridge: Cambridge University Press, 2002), 657.
<sup>31</sup> Ibid., 658.

<sup>&</sup>lt;sup>32</sup> Ibid.

historical writers' conceptions of phrase structure in the Baroque and Classical eras by discussing the work of four eighteenth-century writers: Johann Mattheson, Joseph Riepel, Johann Philipp Kirnberger, and Heinrich Christoph Koch. Throughout the discussion, sentential characteristics will be highlighted.

## Johann Mattheson

Mattheson was both a composer and a writer, although his writing *about* music has had more lasting significance than the music he composed. In his writing, he founded musical criticism, practical music theory, and musical history in Germany. His most important theoretical work, *Der vollkommene Capellmeister*, was published in 1739, although portions of it were printed as early as 1724. Thus, Mattheson's theory of melody, which came into fruition in *Der vollkommene Capellmeister*, is rooted squarely in the Baroque period.<sup>33</sup>

Mattheson's comments on phrase structure are interspersed throughout his theory of melodic invention, which relies on what later became known as "motives" as the fundamental building blocks of a composition. He describes how to compose a good melody by developing motives through rhythmic changes, permutation, inversion, repetition, and transposition.<sup>34</sup>

Although Mattheson writes thoroughly and methodically, he comments relatively little on phrase structure. However, in his discussion of melody (Part II), he includes a chapter entitled "Von den Ab- und Einschnitten der Klang-Rede" ("On the Sections and Caesuras of Musical Rhetoric"), in which he addresses the structural levels inherent in a good musical composition.<sup>35</sup>

<sup>&</sup>lt;sup>33</sup> Ernest C. Harriss, introduction to *Der vollkommene Capellmeister*, by Johann Mattheson (Hamburg, 1739), trans. Ernest C. Harriss (Ann Arbor: UMI Research Press, 1981), 4, 12–13.

<sup>&</sup>lt;sup>34</sup> Joel Lester, *Compositional Theory in the Eighteenth Century* (Cambridge and London: Harvard University Press, 1992), 162–163. Thus, Mattheson utilizes a smaller unit than the basic idea from which to build a composition. As will be shown below, his motives can still group together to form basic ideas, however.

<sup>&</sup>lt;sup>35</sup> Johann Mattheson, *Der vollkommene Capellmeister* (Hamburg, 1739), trans. Ernest C. Harriss (Ann Arbor: UMI Research Press, 1981), 380–404.

Here, he relates music to language, and likens various punctuation marks to levels of cadential articulation within phrases, sections, and whole movements.<sup>36</sup>

Mattheson considers melody to be "the basis of everything in the art of composition."<sup>37</sup> Harmony, therefore, is subservient to melody, because it is derived from the melodic line and because a melodic line could stand well without its accompanying harmony, but the reverse would not be true.<sup>38</sup> Thus, his comments on phrase structure fit well into his discussions of melodic composition<sup>39</sup> and hierarchical structure.

In writing a melody, Mattheson instructs composers to consider in advance the possibilities for different note values, inversion or permutation, repetition or reiteration, and canonic passages.<sup>40</sup> Since the latter two concepts pertain to phrase structure, I will focus on those, in addition to Mattheson's ideas on musical structure.

Mattheson defines repetition and reiteration by stating that "simple repetition uses the same pitches; but reiteration and imitation are used sometimes higher, sometimes lower."<sup>41</sup> He equates reiteration and imitation, and later in his discussion, the latter term usurps the former completely. Therefore, reiteration or imitation transposes a portion of the melody—and may also alter it slightly—while a repetition is an exact recurrence of that portion of the melody.

In his discussion on repetition and imitation, Mattheson instructs readers where in the melody they should be used. He states that composers should use them, "yet not too frequently. True repetitions occur more frequently in the beginning of a melody than in its continuation: for there they often follow one another literally, and also without transposition; here however there

<sup>&</sup>lt;sup>36</sup> Mattheson literally terms them "caesuras." Earlier, in Chapter 6 (344–363), Mattheson also discusses the construction of melodic rhythms according to poetic feet.

<sup>&</sup>lt;sup>37</sup> Ibid., 301.

<sup>&</sup>lt;sup>38</sup> Ibid., 301–302.

<sup>&</sup>lt;sup>39</sup> Chapters 4 and 5 of Part II: ibid., 281–343.

<sup>&</sup>lt;sup>40</sup> Ibid., 286.

<sup>&</sup>lt;sup>41</sup> Ibid., 338.

is always something intervening."<sup>42</sup> This is as close as Mattheson gets to describing a Caplinian sentence; his statement implies that the best melodies should be comprised of a portion of a melody (the basic idea), and that this portion is usually repeated immediately (the repetition of the basic idea). Then, other things happen in the "continuation" of the melody, although what else happens, Mattheson does not specify.

When Mattheson discusses canonic passages, he refers not to strict canon, but to passages of canonic imitation, which do not necessarily have to be at the same pitch level. Canonic imitation differs from repetition and imitation in that the latter two can occur in a single voice, while canonic imitation requires two or more voices.<sup>43</sup> This type of imitation can also yield sentential statements; however, Mattheson does not provide examples which are long enough to show the continuation.

To describe the structure of a melodic composition on several levels, Mattheson invokes a metaphor between language and music, a popular strategy in the eighteenth century. He briefly likens "word-phrases," or sentences, to musical periods, paragraphs to musical sections comprised of two to six periods, and a whole chapter to the entire composition.<sup>44</sup> After this introduction, he then goes on to describe in depth the different types of grammatical resting points in a sentence that also appear in a musical period.<sup>45</sup>

A period, to Mattheson, is any "brief statement which includes a complete idea or an entire verbal concept," no matter its length in measures. It ends with a formal cadence, but a "full formal cadence" only occurs at the end of the musical section. Mattheson does not specify the

<sup>&</sup>lt;sup>42</sup> Ibid. By "there," he almost certainly means the beginning of the melody, since his definition of repetition does not include transposition.

<sup>&</sup>lt;sup>43</sup> Ibid., 287, 289–290.

<sup>&</sup>lt;sup>44</sup> Ibid., 381.

<sup>&</sup>lt;sup>45</sup> Ibid., 383–404.

constitution of a cadence except that it serves as a pause.<sup>46</sup> Within the period, smaller resting points may occur, which Mattheson terms "caesuras."<sup>47</sup> Caesuras correspond to commas in a written sentence and can be achieved through short rests or through relatively longer note values.<sup>48</sup>

An interjection, or parenthetical insertion, may also appear in a written sentence. Mattheson terms this type of caesura an "interpolation, where certain words which are isolated from the rest through an enclosure () interrupt the continuity of performance a little." However, he considers interpolations not to be very musical.<sup>49</sup>

Many of the musical examples that Mattheson includes in his treatise exhibit sentential characteristics, but few are longer than the Caplinian presentation phrase. Example 7 shows one instance that does continue to the end of the musical period. This example comes from his discussion on semicolons; Mattheson states that the first two phrases relate to each other and thus should be "expressed through like melodies," while the last phrase "contains a contrast, and thus also requires a certain counter-movement in the sounds and keys."<sup>50</sup> Therefore, since the first two lines of text (which translate as "Infinite is the stars' host; Infinite is the sand on shore;") are so similar, the melody of the second line should imitate the melody of the first. This type of text-setting can be seen as a Caplinian sentence, as Example 7 shows. The first phrase of text presents the basic idea, which is repeated (in Caplin's terms) in the second phrase to end the presentation.

<sup>&</sup>lt;sup>46</sup> Ibid., 382–383.

<sup>&</sup>lt;sup>47</sup> Not to be confused with the metric caesura which is the "orderly division of every tactus," ibid., 321.

<sup>&</sup>lt;sup>48</sup> Ibid., 384, 386. Mattheson also discusses semicolons and colons, which correspond to different degrees of the caesura, although that portion of the chapter pertains more to text-setting than to phrase structure.

<sup>&</sup>lt;sup>49</sup> Ibid., 401. Mattheson's concept of interpolation corresponds to Caplin's definition, without the former theorist's accompanying metaphor to written language.

<sup>&</sup>lt;sup>50</sup> Ibid., 392.

The third phrase forms the continuation by presenting the first rhythmic idea three times and then coming to a cadence (also following Caplin's definition).<sup>51</sup>



Example 7: Sentential analysis of an unnamed example from Mattheson<sup>52</sup>

## Joseph Riepel

Joseph Riepel's *Anfangsgründe zur musikalischen Setzkunst*<sup>53</sup> was published as five separate chapters between 1752 and 1768. In each chapter, Riepel writes in the guise of a conversation between student and teacher, imitating Johann Joseph Fux's treatise *Gradus ad Parnassum*.<sup>54</sup> Unlike Fux, however, Riepel does not present his ideas in any sort of systematic fashion; in fact, he often breaks off into long tangents. Therefore, this discussion will merely summarize his contributions, rather than provide a detailed description of his concepts.

Like Mattheson, Riepel's main concern is melody, although in terms of the classification of phrase structure, he also values keys and cadential harmony. His main contributions include distinguishing the organization and content of phrases by rhythmic activity, motives and motivic unity, overall melodic contour, underlying harmonic support, degree of melodic closure, and

<sup>&</sup>lt;sup>51</sup> Many examples in the eighteenth-century treatises, including this one in Mattheson's work, contain only a melodic line. Therefore, the beginning of the Caplinian cadential function must be determined without the help of a bass line.

<sup>&</sup>lt;sup>52</sup> Ibid., 392–393. I have broken up the text syllabically and updated the font for ease of reading.

<sup>&</sup>lt;sup>53</sup> Joseph Riepel, Anfangsgründe zur musikalischen Setzkunst (Regensburg, 1752–1768).

<sup>&</sup>lt;sup>54</sup> Johann Joseph Fux, Gradus ad Parnassum (Vienna, 1725).

length in measures. He is the first writer to establish the four-measure phrase as the desired length.<sup>55</sup> In relation to this normative length, Riepel introduces the ideas of extension, expansion, and contraction that Caplin later espouses. He also breaks down these phrases into segments, not motives like Mattheson.<sup>56</sup> This difference in terminology expands the basic components of phrase structure, but it does not affect the fundamental sentential characteristics which were beginning to emerge in these theorists' writings.

#### Johann Philipp Kirnberger

Kirnberger's seminal work, *Die Kunst des reinen Satzes in der Musik* (1771–1779), centers on harmony, rather than melody. His most original and influential writing is "his theory of harmonic progression and of the art of constructing harmonic periods, including modulation to both near and remote keys."<sup>57</sup> Kirnberger was very influenced Riepel's work—many of his concepts are derived from Riepel—and also by Mattheson's writing on form and phrase structure. In the midst of his own writing concerning melodic rhythm and caesuras, Kirnberger even suggests that composers follow up with Mattheson's ideas, saying, "it may not be entirely unnecessary to recommend to young composers that they carefully read the ninth chapter of the second part of Mattheson's *Der vollkommene Capellmeister*."<sup>58</sup>

Kirnberger studied composition with Johann Sebastian Bach, and although he wrote his treatise during the Classical era, he used musical examples by Baroque composers such as J.S.

<sup>&</sup>lt;sup>55</sup> Caplin 2002, 671.

<sup>&</sup>lt;sup>56</sup> Lester 262, 266.

<sup>&</sup>lt;sup>57</sup> Claude V. Palisca, preface to *The Art of Strict Musical Composition*, by Johann Philipp Kirnberger (Berlin and Konigsberg, 1771–1776), trans. David Beach and Jurgen Thym (New Haven and London: Yale University Press, 1982), vii. This writing is contained in Volume I and the first part of Volume II; these are the volumes translated into *The Art of Strict Musical Composition*.

<sup>&</sup>lt;sup>58</sup> Johann Philipp Kirnberger, *The Art of Strict Musical Composition* (Berlin and Konigsberg, 1771–1776), trans. David Beach and Jurgen Thym (New Haven and London: Yale University Press, 1982), 417. This chapter of Mattheson's work covers musical sections and caesuras.

Bach and Handel in addition to excerpts from Classical composers such as Havdn. Therefore, Kirnberger's work has relevance to Baroque compositional practices as well as those of the Classical period.

Kirnberger is much more thorough than Mattheson in his discussion of phrase structure, which includes descriptions of typical harmonic progressions in a period, cadence types, and phrase lengths. He, too, uses an analogy between music and speech, although not nearly as extensive as Mattheson's; he briefly likens a sentence to a musical period and states that "just as a paragraph in speech consists of segments, phrases and sentences that are marked by various punctuation symbols such as the comma (,), semicolon (;), colon (:), and period (.), the harmonic [equivalent of the] paragraph can also consist of several segments, phrases, and periods."<sup>59</sup>

Kirnberger gives much more import to harmony than Mattheson; as a result, his discussion of phrase structure centers on the harmonic support for a melody, rather than on the melody itself, and his musical examples often merely consist of a figured bass line. He states that a period must begin with a tonic triad, unless it follows another period ending with that triad. In this case, an inversion of the tonic triad or another chord may be used. After the tonic triad, inverted chords and suspended notes can be used so that the listener does not feel a point of rest too early in the period.<sup>60</sup>

Each period ends in a cadence, of which Kirnberger classifies three types, but the strength of each type can vary, depending upon the relative importance of the period.<sup>61</sup> Kirnberger writes that the last chord of a period "must be the tonic triad" if the phrase exists completely in one key. The progression from the dominant triad to the tonic triad, and especially the dominant seventh chord progressing to tonic, provides the strongest cadence. This cadence, with the leading tone

<sup>&</sup>lt;sup>59</sup> Kirnberger, 109, 114. <sup>60</sup> Ibid., 110–111.

<sup>&</sup>lt;sup>61</sup> Ibid., 116.

placed in the top voice and resolving to tonic, "is suitable only at the end of a whole piece; for this reason it is called the *final cadence* or *principal close*."<sup>62</sup> He classifies the progression from the subdominant to the tonic as a slightly weaker cadence than dominant to tonic, but the dominant-tonic progression might also be placed directly after the subdominant-tonic progression, which "establishes complete repose through a double cadence." This double cadence can also be shortened, producing the progression from the subdominant to the dominant and then to tonic, which occurs "at the end of a principal section in the middle of a composition."<sup>63</sup> A principal section always ends with the progression from dominant to tonic, which Kirnberger terms a "full close" or "perfect cadence."

The second type of cadence marks the end of a less conclusive period. This cadence consists of a progression from tonic to dominant, and causes a point of rest noticeable enough to call it a "half close" or "half cadence."<sup>64</sup> The last category occurs during an "unexpected progression," where the dominant "does not proceed to tonic after everything has been prepared for a cadence." Instead, it moves to the sixth scale degree. Kirnberger states that the Italians call this type of cadence "deception" (*inganno*), while the French call it an "interrupted cadence" (*cadence rompue*). He uses the latter term.<sup>65</sup>

Kirnberger mentions two ways of weakening a cadence. First, all three cadence types may be inverted. A full cadence may also be weakened, and its feeling of rest removed, by adding the seventh to the tonic triad, which turns it into the dominant of a new key.<sup>66</sup>

Kirnberger expresses his views about period and phrase structure by saying, "in music, as in speech, it is always better to write longer rather than shorter periods and to divide them,

<sup>62</sup> Ibid., 112.

<sup>&</sup>lt;sup>63</sup> Ibid., 113.

<sup>&</sup>lt;sup>64</sup> Ibid., 114.

<sup>&</sup>lt;sup>65</sup> Ibid., 115–116.

<sup>&</sup>lt;sup>66</sup> Ibid., 116–117.

depending upon their length, into phrases and segments by way of weaker half and interrupted cadences."<sup>67</sup> A "phrase," or "rhythmic unit," is an incomplete unit that ends only with a melodic break, or "caesura." Just as a piece is composed of several periods, each period should consist of several phrases.<sup>68</sup> He further states that four-measure phrases are the most pleasing to the ear, although "if the break at the last phrase is made by the dominant chord in such a way that the close to the tonic absolutely requires an additional measure, the final period acquires an odd number of measures."<sup>69</sup> Here, Kirnberger refers to the concluding period of a composition, but the idea carries through the whole piece; thus, although phrases with the same number of measures are preferable, especially four-measure phrases, a phrase may contain anywhere from one to five measures, and sometimes even more than five measures.

Two other devices may be used to lengthen a phrase: extension and insertion. Extension occurs when "certain principal notes that are to be given a special emphasis" are lengthened, thus producing a five-measure phrase out of what would have been a four-measure phrase.<sup>70</sup> Kirnberger states that an extended phrase should still be considered a four-measure phrase, since it does not offend the ear. Example 8 shows his illustration of extension.





Example 8: A four-measure phrase extended to five measures<sup>71</sup>

<sup>&</sup>lt;sup>67</sup> Ibid., 118.

<sup>&</sup>lt;sup>68</sup> Ibid., 405.

<sup>&</sup>lt;sup>69</sup> Ibid., 407–408. This concept is what Caplin terms an expansion of the cadential idea.

<sup>&</sup>lt;sup>70</sup> Ibid., 411.

<sup>&</sup>lt;sup>71</sup> Ibid.

A five-measure phrase may also arise when a measure is inserted "without disrupting the grouping of the remaining units of equal length."<sup>72</sup> Kirnberger adds that an inserted measure should be given to a subordinate voice or marked with a different dynamic level, in order to distinguish it from its surroundings. This type of phrase should also be counted as only four measures. An instance of insertion is provided in Example 9, where the third measure is an echo of the second.



Example 9: An inserted measure in a four-measure phrase<sup>73</sup>

#### Heinrich Christoph Koch

Koch's treatise, *Versuch einer Anleitung zur Composition*, was published in three volumes, in 1782, 1787, and 1793, respectively. His most important work centers on the mechanical rules of melody, which cover modulation, meter, melodic sections, and how those sections are connected to form a piece. In his discussion of melody, Koch "describes the smallest melodic units, which are the true building blocks of music, and joins them together; through this process he abstracts rules of composition."<sup>74</sup> Koch continued Riepel's pioneering work regarding melodic segments

<sup>&</sup>lt;sup>72</sup> Ibid., 409.

<sup>&</sup>lt;sup>73</sup> Ibid. This concept is similar to Caplinian interpolation, although a true interpolation does not relate to the material before or after the interjection. In this example, the interjection simply echoes the measure before it, which connects it to the previous measure.

<sup>&</sup>lt;sup>74</sup> Nancy Kovaleff Baker, introduction to *Introductory Essay on Composition*, by Heinrich Christoph Koch (Leipzig, 1787, 1793), trans. Nancy Kovaleff Baker (New Haven and London: Yale University Press, 1983), xviii.

(in contrast to Mattheson's emphasis on motives); in fact, Koch's symbols for phrase segments are derived from Riepel's, although Koch presents them in a much more coherent manner.<sup>75</sup>

Koch is by far the most comprehensive writer on phrase structure in the eighteenth century. He devotes an entire section of his second volume to classifying different types of phrases and another section in volume three to period structure and how sections connect together. Koch strikes a middle ground in the debate between harmony and melody, giving them each the same level of importance in composition; however, his discussions of phrase and period structure center mostly on melodic criteria.<sup>76</sup>

In his discussion of phrase structure, Koch states that "every melodic section which takes three or four measures of a simple meter is usually called a phrase, without distinction; the thought may or may not be complete."<sup>77</sup> He lists three types of complete thoughts or phrases: the basic phrase, extended phrase, and compound phrase.<sup>78</sup> A basic phrase can stand alone, without a segment connected either before or after it. Examples 10 and 11 show two of Koch's basic phrases. The excerpt in Example 10 is an "internal phrase," because, although the thought is complete, it cannot conclude an entire section, since it does not end on tonic. Example 11, however, does end on tonic, and so it is called a "closing phrase."<sup>79</sup>

<sup>&</sup>lt;sup>75</sup> Baker, xi, xv, and xviii. Because Riepel was the first to touch on the small units of melody, his work in this matter is disorganized and contains much uncertain terminology. Koch builds upon Riepel's contribution, and his work is much easier to understand.

<sup>&</sup>lt;sup>76</sup> Ibid., xv–xvi.

<sup>&</sup>lt;sup>77</sup> Heinrich Christoph Koch, *Introductory Essay on Composition* (Leipzig, 1787, 1793), trans. Nancy Kovaleff Baker (New Haven and London: Yale University Press, 1983), 4. Koch goes on to state here that this "insufficient definition of the nature of phrases makes the teaching of musical period structure more difficult with regard to the punctuation sequence of sections and the rhythm," showing his distaste for the vague description put forth by musicians of his time.

<sup>&</sup>lt;sup>78</sup> Ibid., 3.

<sup>&</sup>lt;sup>79</sup> Ibid., 5, 7.



Example 10: A basic internal phrase<sup>80</sup>



Example 11: A basic closing phrase<sup>81</sup>

Resting points within phrases are not called caesuras, but "incises."<sup>82</sup> To Koch, an incise is "an incomplete segment of a phrase which becomes noticeable through a resting point." He uses a  $\Delta$  to designate an incise and a  $\Box$  to show the end of an internal phrase.<sup>83</sup> He does not use a symbol for a closing phrase, since "the cadential formula distinguishes them enough."<sup>84</sup> An "incomplete" incise lasts for one measure in simple meter, while a "complete" incise takes up two or more measures.<sup>85</sup> Koch provides an example containing two incomplete incises, which, when joined together, constitute a complete incise. This example can also be seen as a fourmeasure sentence, as shown in the analysis of Example 12.

<sup>&</sup>lt;sup>80</sup> Ibid., 5.

<sup>&</sup>lt;sup>81</sup> Ibid.

<sup>&</sup>lt;sup>82</sup> As will be shown later, Koch reserves the term "caesura" for a stronger resting point in a melodic section, namely, a phrase ending.

<sup>&</sup>lt;sup>83</sup> Koch's symbols are similar to Riepel's system of black and white squares, which denote complete and incomplete phrases, respectively (Lester, 287). <sup>84</sup> Koch, 9.

<sup>&</sup>lt;sup>85</sup> Ibid., 10. Baker notes here that Koch defines simple meter as a measure which contains only one downbeat (2/4, 3/4, 3/8, etc.). A compound meter combines two measures of a simple meter by omitting a barline (4/4, 6/4, 6/8, etc.)



Example 12: Sentential analysis of a basic phrase with two incomplete incises<sup>86</sup>

Like Kirnberger, Koch writes that a basic phrase usually lasts four measures, since a fourmeasure phrase is the most pleasing.<sup>87</sup> Sometimes, however, the thought does not become complete until the fifth, sixth, or even seventh measure. This can happen in three ways: by lengthening the rhythmic values of several notes, by joining two unequal segments, and by continuing a one-measure motive into another measure.<sup>88</sup>

The first device, called extension, is synonymous with Kirnberger's concept of extension, although Koch considers this type of phrase to actually consist of five or more measures, rather than trying to subsume those measures into a phrase of normal length. A four-measure phrase can be transformed into a five-measure phrase by lengthening the rhythmic values of two notes, thus giving them more emphasis. Example 13 shows this alteration by using two of Koch's examples.

<sup>&</sup>lt;sup>86</sup> Ibid. Koch uses this example multiple times. The first time, it lacks the  $\Box$ , marking the internal phrase, but the next place it appears, on p. 14, it has the  $\Box$ .

<sup>&</sup>lt;sup>87</sup> Ibid., 11. Koch also states that a four-measure phrase may appear as two measures in compound meter.

<sup>&</sup>lt;sup>88</sup> Ibid., 14–16.



Example 13: A five-measure phrase obtained through extension of rhythmic values<sup>89</sup>

A five-measure phrase can also occur when two unequal, incomplete phrases join together to form a complete phrase. Example 14 provides an instance of such a five-measure phrase. Here, the first segment lasts three measures and the second lasts two. This is the most common combination.<sup>90</sup>



Example 14: Two unequal segments joined to form a five-measure phrase<sup>91</sup>

The third way to obtain a five-measure phrase is through true extension, by repeating a one-measure motive in a phrase that would otherwise last four measures. Although this device impinges on Koch's definition of an extended phrase, he lists it here as well because "this repeated measure is often so very altered that the repetition becomes thereby unrecognizable."<sup>92</sup> The progression from a four-measure phrase to a five-measure phrase containing an "unrecognizable" repetition is shown in Example 15, which combines three of Koch's examples.

<sup>&</sup>lt;sup>89</sup> Ibid., 15. The five-measure phrase was written by Carl Heinrich Graun (c. 1704–1759).

<sup>&</sup>lt;sup>90</sup> Ibid.

<sup>&</sup>lt;sup>91</sup> Ibid., 16. This phrase was also written by Graun.

<sup>92</sup> Ibid.



Example 15: Two five-measure phrases constructed by repeating and altering the second measure of a four-measure phrase<sup>93</sup>

An extended phrase differs from a basic phrase in that it "contains more than is absolutely necessary for its completeness."<sup>94</sup> A phrase can be extended in several different ways. First, a portion of the phrase could be repeated, either on the same scale degrees, or, as in the second staff of Example 15, on different scale degrees, but this requires a change in harmony.<sup>95</sup> Koch states that it is much more common to repeat and alter a two-measure segment than a onemeasure segment. This type of repetition produces a six-measure phrase that resembles a Caplinian sentence with a compressed continuation. Example 16 highlights these sentential qualities by analyzing an example by Koch.

<sup>&</sup>lt;sup>93</sup> Ibid. Koch presents these phrases in Examples 45, 46, and 48.

<sup>&</sup>lt;sup>94</sup> Ibid., 41.

<sup>&</sup>lt;sup>95</sup> Ibid., 42. Koch states that an extended phrase which repeats a measure exactly (with the same melodic scale degrees and underlying harmony) has "the value of a four-measure phrase" in relation to connecting melodic sections.

Koch does not deem a repetition of a melodic segment occurring on different scale degrees to be a transposition. He mentions the idea of transposition, but defines it as a repetition occurring in a new key. He also discusses sequence in conjunction with repetition; a "sequence" occurs when a one-measure segment of the melody is repeated twice, each time on different scale degrees (ibid., 43–44).



Example 16: Sentential analysis of a six-measure extended phrase<sup>96</sup>

Koch's second type of extended phrase occurs when an appendix is added to a basic phrase; he also treats this type as a four-measure phrase. The appendix "further clarifies the phrase" by repeating a segment of the phrase or stating a new idea which relates to the previous material. An instance of the latter type is provided in Example 17.



Example 17: An extended phrase created by adding an appendix<sup>97</sup>

A phrase can also be extended by continuing a melodic or rhythmic idea past four measures.<sup>98</sup> This type of extended phrase tends to be the longest, and since the continuation usually involves fragmenting the melodic or rhythmic idea, it relates the most to a Caplinian sentence. Koch's examples, however, do not show this relationship to its fullest extent. One example can be seen as a sentence that both extends the continuation through extra fragmentation and expands the cadential idea by lengthening the dominant to a full measure. This phrase is analyzed in Example 18.

<sup>&</sup>lt;sup>96</sup> Ibid. The placement of the  $\Delta$ s in this example is curious, because the point of rest occurs on beat 3 of mm. 2 and 4, not on beat 1. It is unclear whether this placement is Koch's or Baker's, however, since Koch originally marked in these symbols rather inconsistently, and Baker had to alter many of their locations.

<sup>&</sup>lt;sup>97</sup> Ibid., 46. Koch adds the  $\Box$  for an internal phrase because he considers the phrase up to that point to be a basic phrase of four measures, and if the appendix were missing, the phrase would end there. <sup>98</sup> Ibid., 52.


Example 18: Sentential analysis of a phrase extended through continuation of a rhythmic idea<sup>99</sup>

Koch terms the final type of extended phrase "parenthesis," which is "the insertion of unessential melodic ideas between the segments of a phrase."<sup>100</sup> This idea relates to Mattheson's "insertion" and Kirnberger's "interjection," although Koch does not add any stipulations as to dynamics or voicing, as does Kirnberger. Therefore, parenthesis resembles Caplinian interpolation much more than either of the two earlier writers' ideas. Example 19 illustrates how parenthesis can make a six-measure extended phrase out of a four-measure basic phrase. In this particular example, the basic phrase resembles a four-measure sentence; the two measures inserted through parenthesis transform the phrase into a longer sentence with a compressed continuation.

<sup>&</sup>lt;sup>99</sup> Ibid.

<sup>&</sup>lt;sup>100</sup> Ibid., 53.



Example 19: Sentential analysis of a phrase and its extension through parenthesis<sup>101</sup>

A compound phrase occurs when two or more complete phrases are connected to form a single phrase. Compound phrases arise most commonly from stifling or suppressing a measure, or combining the end of one phrase with the beginning of another. When this happens, one measure must be counted twice in order to preserve the rhythmic relationship of the phrases. Example 20 presents two phrases which meld together into a compound phrase through this process. According to Koch, the fourth measure must be counted twice: once as the end of the first phrase and again as the beginning of the second phrase.<sup>102</sup>



Example 20: Two phrases combined into a compound phrase by suppressing a measure<sup>103</sup>

- <sup>102</sup> Ibid., 54–55.
- <sup>103</sup> Ibid., 55.

<sup>&</sup>lt;sup>101</sup> Ibid., 54.

Two phrases may also form a compound phrase by changing the ending of the first phrase so that it becomes an incomplete phrase. The second phrase must then be present to complete the thought. This type of compound phrase can only happen when the first phrase "consists of two segments that contain a repetition on a different harmonic basis."<sup>104</sup> Compound phrases of this type fulfill the requirements for a Caplinian sentence more than any other type of phrase that Koch classifies. Example 21 uses two of Koch's examples to illustrate the slight change—a deletion of three notes—which transforms two phrases into a compound phrase; the analysis demonstrates how this compounding also creates a sentence.



Example 21: Two complete phrases compounded into one by changing the ending of the first phrase<sup>105</sup>

The last type of compound phrase happens when "the segments of two complete phrases are mixed so that a segment of the first phrase is brought into the second, and a segment of the second phrase is used in the first." This can also be called an "entangled phrase."<sup>106</sup> Example 22 shows this process; in the second excerpt, mm. 3–4 are switched with mm. 5–6 to form an entangled phrase.

<sup>&</sup>lt;sup>104</sup> Ibid., 56.

<sup>&</sup>lt;sup>105</sup> Ibid., 57.

<sup>&</sup>lt;sup>106</sup> Ibid.



Example 22: An entangled phrase formed by switching mm. 3-4 with mm.  $5-6^{107}$ 

All phrases, whether they are classified as basic, extended, or compound, end with certain patterns, or "ending formulas." Koch refers to these ending formulas as "caesuras," or "the place where one section of the melody can be separated from the following one."<sup>108</sup> The caesura note, or the last note in a phrase, usually falls on a strong beat, unless it is decorated by arpeggiations and/or stepwise motion.<sup>109</sup> Example 23 shows the caesura in one of Koch's examples; this instance consists of two phrases, which combine to form an ideal Caplinian sentence. The caesuras occur on the downbeat of the fourth measure in each phrase.



Example 23: Sentential analysis of two phrases with quarter-note caesuras<sup>110</sup>

Caesuras can only consist of a pitch belonging to the tonic or dominant triad of the presiding key. Koch terms a caesura ending on a member of the tonic triad a "I-phrase" and one

<sup>110</sup> Ibid., 23.

<sup>&</sup>lt;sup>107</sup> Ibid., 58.

<sup>&</sup>lt;sup>108</sup> Ibid., 19.

<sup>&</sup>lt;sup>109</sup> Ibid., 22–23.

ending on a member of the dominant triad a "V-phrase."<sup>111</sup> Therefore, the first phrase in Example 23 would be a I-phrase and the second phrase would be classified as a V-phrase.

Although a caesura happens at the end of each phrase, Koch states that a "cadence" only occurs at the end of a phrase that closes a section.<sup>112</sup> A cadence contains three melodic components: the preparation, which occurs on the strong part of the measure; the cadential note, which falls on the weak part of the measure; and the caesura note, which happens on the strong part of the next measure. The cadential formula can occur in its simplest form, or parts of it could be decorated, augmented, or diminished in length.<sup>113</sup> Example 24 shows a simple cadence in both 2/4 and 3/4 time.



Example 24: Three melodic components of a cadence in 2/4 and  $3/4^{114}$ 

Koch mentions two deviations from the cadential norm: the half cadence and the deceptive cadence. A "half cadence" occurs when a closing V-phrase follows another V-phrase, or when the appendix of an extended closing phrase ends with a V-phrase. This type of cadence is usually marked by a fermata, as well.<sup>115</sup> Example 25 illustrates an extended phrase ending with a half cadence.

<sup>&</sup>lt;sup>111</sup> Ibid., 36.

<sup>&</sup>lt;sup>112</sup> Therefore, as alluded to above in the discussion of Examples 10 and 11, what we now think of as an imperfect authentic cadence, Koch would classify as a caesura, and it would only end an internal phrase. A perfect authentic cadence, however, Koch addresses as a cadence, which happens in a closing phrase.

<sup>&</sup>lt;sup>113</sup> Ibid., 38–39. Koch discusses cadences at length in the first volume, but only the cadential concepts relating to phrase structure are treated here. <sup>114</sup> Ibid., 39.

<sup>&</sup>lt;sup>115</sup> Ibid., 36, 49.



Example 25: An extended closing phrase with a half cadence appendix<sup>116</sup>

A "deceptive cadence" occurs when another pitch is substituted for an expected pitch. According to Koch, "whenever several cadences follow one another in a closing phrase by means of either an appendix or the repetition of the cadence, one often places a different tone than the caesura note in one of the last cadences and thus deceives the ear in its expectation of the closing tone." This happens in the melodic line when a note other than tonic (or tonic in an unexpected octave) occurs in place of the caesura note.<sup>117</sup> Example 26 shows this type of deceptive cadence. The bass contains a deceptive cadence when it moves to an interval other than tonic for the caesura or when "the cadential note is accompanied by a dissonant interval which necessitates another unessential bass note."<sup>118</sup> The latter type is shown in Example 27; in this and the previous example, the asterisk marks the location of the deceptive note.<sup>119</sup>



Example 26: A deceptive cadence in the melodic line<sup>120</sup>

<sup>&</sup>lt;sup>116</sup> Ibid., 49.

<sup>&</sup>lt;sup>117</sup> Ibid., 50.

<sup>&</sup>lt;sup>118</sup> Ibid., 50–51.

<sup>&</sup>lt;sup>119</sup> I have added the asterisks to Koch's examples for clarity.

<sup>&</sup>lt;sup>120</sup> Ibid., 50.



Example 27: A dissonant deceptive cadence in the bass<sup>121</sup>

# Implications for the Baroque

Even in Koch's thorough and methodical phrase descriptions, no clear concept resembling a Caplinian sentence or period occurs. The fact that no such concept was put into writing in the Baroque and early Classical eras does not mean that sentences were nonexistent. Quite the contrary—Mattheson's discussion of repetition and imitation and his accompanying musical examples hint that sentential structures were composed in the early eighteenth century. In truth, composers throughout the Baroque period used sentences and periods in their repertoire, as will be shown in the next chapter through examples from Corelli, Vivaldi, and J.S. Bach.

#### CHAPTER 3. THE BAROQUE SENTENCE AND SENTENTIAL CYCLING

Many theorists recognize sentential tendencies in the music of J.S. Bach. Schoenberg uses an example from the *St. Matthew Passion* in his discussion of sentences in *Fundamentals of Musical Composition*,<sup>122</sup> Ratz focuses his treatise on the music of Bach and Beethoven, and recent works by theorists from BaileyShea and Broman to Riitta Rautio<sup>123</sup> mention in passing the existence of sentences in Bach's music. Most of these theorists, however, speak of Bach's music as a transition to the Classical era, rather than as wholly belonging to the Baroque. I posit that earlier Baroque composers not only use sentences in ways similar to Bach, but that they sometimes even utilize the concepts of the sentence and the period on different structural levels. Before addressing multiple structural levels, however, I will first highlight simple sentences in the music of Bach, Vivaldi, and Corelli, to show that this compositional device is indeed used throughout the Baroque era, although, as in the Classical period, the ideal type is rare.

# The Baroque Sentence

Two examples highlighted by the above theorists follow Caplin's Classical definition of the sentence. Schoenberg's excerpt from Bach's *St. Matthew Passion* (1727), mm. 1–9 from Aria No. 12, translates into a Caplinian sentence with a slight extension, as shown in Example 28. The first two measures constitute the basic idea, which is transposed up a third for the repetition in

<sup>&</sup>lt;sup>122</sup> Schoenberg, 68.

<sup>&</sup>lt;sup>123</sup> Riitta Rautio, "*Fortspinnungstypus* Revisited: Schemata and Prototypical Features in J.S. Bach's Minor-Key Cantata Aria Introductions" (PhD diss., University of Jyväskylä, 2004). BaileyShea, Broman, and Rautio discuss sentential tendencies in Bach in relation to Wilhelm Fischer's concept of *Fortspinnungstypus*, a Baroque compositional structure consisting of three parts: the *Vordersatz*, the *Fortspinnung*, and the *Epilog*. The *Vordersatz* introduces a basic motive, the *Fortspinnung* "spins out" that motive or a contrasting motive by sequencing it, and the *Epilog*, which may or may not be present, closes the unit. See Wilhelm Fischer, "Zur Entwicklungsgeschichte des Wiener klassischen Stils," *Studien zur Musikwissenschaft* 3 (1915): 24–84 for a more detailed discussion. BaileyShea 2004 develops four categories of sentences which exhibit looser sentential characteristics than Caplin's; one of these, which he calls "Sentence as *Fortspinnungstypus*," can be thought of as a particular kind of *Fortspinnungstypus*. The Bach examples he uses, and also the example that Broman mentions, are discussed in terms of this sentential type (see BaileyShea 2004, 17–21 and Broman, 130).

mm. 3–4. Thus, mm. 1–4 form a relatively normal presentation phrase. In the continuation, however, Bach fragments the basic idea by using syncopation, which causes the domino effect of extending each portion of the continuation one eighth note further than normal. As a result, the cadential function spills over into the first eighth note of m. 9, rather than ending in m. 8.



Example 28: J.S. Bach, St. Matthew Passion, Aria No. 12, mm. 1–9<sup>124</sup>

BaileyShea discusses the first eight measures of the Sarabande from Bach's Fifth English Suite (written before 1720), shown in Example 29. In this sentence, the presentation phrase begins with a normal two-measure statement of the basic idea, followed by a two-measure repetition, but the statement is in E minor, and the repetition modulates to G major. The continuation phrase moves to B minor by sequencing a portion of the basic idea through D minor, back to E minor, and finally ending on a half cadence in B minor.

<sup>&</sup>lt;sup>124</sup> This example is found in Schoenberg, 68, but the analytical notations are mine. Schoenberg's analysis mainly follows the development of several motives throughout the sentence, because he primarily sees the sentence as a vehicle for motivic development.



Example 29: J.S. Bach, Fifth English Suite, Sarabande, mm. 1–8<sup>125</sup>

Vivaldi begins many of his sonata movements with sentences, or sentential structures, and spins the motives off from there by using other developmental techniques. The first eight measures of the Corrente from his Sonata in C Major for Violin and Basso Continuo, RV 3 (not published during his lifetime; date of composition unknown), shown in Example 30, exemplify a sentence ending in an imperfect authentic cadence. The presentation phrase consists of a two-measure basic idea and its exact repetition.<sup>126</sup> The continuation phrase has only one fragment of this basic idea before the cadential idea takes over. Although the first measure of this cadential idea actually slows down the harmonic rhythm as compared to the previous measure, the harmonic rhythm does speed up in m. 27 in preparation for the IAC.

<sup>&</sup>lt;sup>125</sup> BaileyShea 2004, 16. The analytical notations are mine. BaileyShea analyzes this under his category of "Sentence as *Fortspinnungstypus*," which slightly alters the analytical terminology.

<sup>&</sup>lt;sup>126</sup> The quarter-note Gs on beat 3 of mm. 24 and 26 serve as both the end of one segment and the beginning of the next.



Example 30: Vivaldi, Sonata in C Major for Violin and Basso Continuo, RV 3, Corrente, mm. 23–30<sup>127</sup>

The final movement from Vivaldi's Sonata in G Major for Violin and Basso Continuo, RV 25 (not published during his lifetime; date of composition unknown), presents an interesting example. The first half of the movement, mm. 200–204, comprises an obviously sentential design, but Vivaldi makes a few adjustments to the structure for melodic and harmonic clarity. Example 31a provides a sentential analysis of these measures. The movement is written in 12/8, which, at a slow tempo, causes one notated measure to sound like two measures of music.<sup>128</sup> Therefore, the basic idea and its repetition each last only one notated measure. The presentation phrase forms a statement and response in that the basic idea moves from tonic to dominant harmony, and the repetition begins on dominant harmony and moves back to tonic harmony.

<sup>&</sup>lt;sup>127</sup> The measures are numbered consecutively throughout each sonata in Vivaldi's complete works; they do not restart at the beginning of each movement.

<sup>&</sup>lt;sup>128</sup> Caplin 1998 refers to this phenomenon as *real* versus *notated* measures (35). In this case, the listener perceives that two measures have passed in the time span of one notated measure.

Vivaldi alters the melody in the repetition, however; in m. 201, b. 1, the violin plays C, D, C instead of C, D,  $E_{\flat}$  to avoid a tritone leap up to the A on beat 2. Also, the A and C on beat 2 are presented in reverse order from that of m. 200 for a smoother contour at the end of the phrase.

The continuation phrase consists of three full measures instead of the expected two, which would balance the two-measure presentation. This added measure arises from a modulation from G minor to D minor; Vivaldi fragments the basic idea once to begin the continuation, but then he inserts an interpolation, a new motivic idea supported by a chromatic bass line descending from G to E<sup>t</sup>, to smooth the transition between G minor and D minor. Beat 2 of m. 203 begins the cadential idea in D minor, a complete cadential progression which first evades the cadence on the downbeat of m. 204, but then arrives on a perfect authentic cadence in the second half of the measure.

Although this sentence may seem imbalanced, taking out the interpolation causes a rather abrupt shift from G minor to D minor. Example 31b produces a four-measure sentence from this material by taking out the interpolation and changing the second bass note in m. 202 to a C for a smoother line. Rhythmically, this version resembles a sentence much more than Example 31a, but the cadence seems to begin before the listener has aurally established D minor, resulting in a slight jolt at the end of the phrase. Thus, the insertion of a new idea into this sentential structure guides the listener into D minor and provides a more satisfying sentence than the "balanced" sentence.



Example 31a: Vivaldi, Sonata in G Major for Violin and Basso Continuo, RV 25, mm. 200–204



Example 31b: Recomposition of mm. 200–204 without interpolation

Several of Corelli's concerti grossi (published posthumously in 1714) utilize sentences at or near the beginning of a new tempo marking. In the first movement of Op. 6, No. 5, the final Adagio<sup>129</sup> begins with a sentence, as shown in Example 32. The first group of staves presents the concertino group: violin I, violin II, and cello. The grand staff below this group shows the concerto grosso by combining violin I, violin II, and viola into the treble staff and showing the bass in bass clef. In this example, the presentation phrase consists of a two-measure basic idea stated in B<sup>J</sup> major, followed by a two-measure repetition transposed to G minor. The continuation modulates to C minor, fragmenting the basic idea twice before the cadential idea closes the theme in C minor.

The opening of Corelli's Op. 6, No. 7, III, Andante largo, presents a motivically-saturated sentence. Example 33 provides an analysis of mm. 1–5. Corelli composes the movement in common time, but, like the excerpt from Vivaldi's G Major Sonata, the slow tempo causes each notated measure to be experienced as two measures. The basic idea, introduced in m. 1, is tossed canonically between the two concertino violins, while the cello carries a bass line of steady eighth notes; the concerto grosso quartet closes out the idea by stating V–i in B minor. When the basic idea repeats in m. 2, this entire unit is transposed down a step in m. 2 to the key area of A major.

This presentation phrase uses a single motive, lasting two beats or one "real" measure: two (or three) sixteenth notes that enter on the offbeat (or second sixteenth note), followed by two eighth notes. When the first violin states the motive, on beats 1–2 and 3–4, the sixteenth notes descend in thirds, and the eighth notes descend in fifths (except for the first statement of m. 2, in which the eighth notes are stated an octave apart to prevent a repeated note). The second

<sup>&</sup>lt;sup>129</sup> Movement numbers are designated by a full close; references to portions of a movement are given by their tempo markings.





violin alters the motive by stating two sixteenth notes in a descending fourth, followed by two eighth notes that descend by third on beats 2–3; on beats 4–1, its group of three sixteenth notes descends by second and fourth, followed by a quarter note instead of two eighth notes. Thus, the two violins saturate the listener with a canonic motive that is heard every beat, but the whole statement of the basic idea takes an entire notated measure.

In the continuation phrase, instead of fragmenting the basic idea twice, each time transposing it down a second, Corelli transposes the entire basic idea down a third to facilitate the modulation to F# minor.<sup>130</sup> The cadential formula then enters in m. 4 with a complete cadential progression, which extends the cadence to the first beat of m. 5.



Example 33: Corelli, Op. 6, No. 7, III, mm. 1–5

<sup>&</sup>lt;sup>130</sup> BaileyShea 2004 would call this "Sentence as *Fortspinnungstypus*" because a third statement of the basic idea spins out into the cadence.

The fifth movement of Corelli's Op. 6, No. 10, Minuetto Vivace, utilizes a sentence, although not at the very beginning of the movement (mm. 1–8 form a period). Example 34 illustrates this sentence; in this excerpt, the concerto grosso violins and bass simply double the concertino violins and cello, so that when the concerto grosso enters in m. 13, only the viola is added to the example. In the presentation phrase, the concertino group first states the basic idea in D minor, then repeats it up a step, but in C major. The concerto grosso joins the concertino for the continuation, which fragments the basic idea once in retrograde, then moves on to the cadential idea with a complete cadential progression. Since the cadential progression begins so early, this sentence is not extended like in previous examples, but lies within the ideal eightmeasure span.



Example 34: Corelli, Op. 6, No. 10, V, mm. 9-16

The previous examples have shown that the compositional device of the sentence extends back throughout the Baroque period, not just to Bach. The second half of this chapter will explore the Baroque use of sentences and periods on hierarchical structural levels culminating into entire movements.

# Sentential Cycling

The idea that sentences and periods can nest inside each other is not new; Caplin mentions such a phenomenon, terming it a *compound theme*. Specifically, he addresses the nesting of two sentences or hybrids inside a sixteen-measure structure, which he calls a *sixteen-measure period*. He writes:

The first theme (built as either a simple sentence or a hybrid) acquires an antecedent function by closing with a weak cadence, normally a half cadence but also possibly an imperfect authentic cadence. The second theme (also a sentence or a hybrid) becomes a consequent by repeating the first theme but concluding with the stronger perfect authentic cadence.<sup>131</sup>

Vivaldi's Trio Sonata in D Minor, "Follia," RV 63 (published in 1705), provides a prime illustration of Caplin's sixteen-measure period. The sonata is composed as a theme and variations, and the theme forms a sixteen-measure period; therefore, each variation harmonically conforms to a sixteen-measure period, although some of them develop their melodic ideas so fluidly as to almost cloud the structure, if not for the theme. The sixteen-measure period structure is clearest in the first variation, shown in Example 35.<sup>132</sup> The analysis shows that this variation is composed of two parallel ideal sentences. Each begins with a two-measure basic idea that is immediately repeated with a slight harmonic variation in the fourth measure. The continuation fragments the basic idea twice before closing off with the cadential idea. In the first sentence, however, the violins continue the fragmentation while the cello begins the cadence. This functional overlap between the melody and bass line occurs frequently in Baroque sentences, as a result of their motivic nature.

The first sentence forms the antecedent of a sixteen-measure period, ending on a half cadence, while the second sentence, the consequent, closes with a perfect authentic cadence.

<sup>&</sup>lt;sup>131</sup> Caplin 1998, 65. Caplin also defines the *sixteen-measure sentence*, but this structure is not central to my discussion.

<sup>&</sup>lt;sup>132</sup> The movements are numbered beginning with the theme; therefore, the first variation is labeled "II."





Thus, the repeated basic ideas become the larger basic idea of the compound period, and the continuation of each sentence becomes the higher-level contrasting idea. Likewise, each variation is composed in a similar fashion.

Although Caplin ends his discussion with sixteen-measure structures, I posit that this type of nesting can be continued to other hierarchical structural levels. I do not mean to suggest that these larger structures exhibit the same aural characteristics as a simple sentence or period; in other words, I do not expect the listener to hear a thirty-two- or sixty-four-measure unit as a period. However, the same organizational principles guide the simple structures on the foreground level as do the nested structures on a higher level. These principles—the repetition and development of an idea, or the alternation of two main ideas—come to a head in the cyclic music of the Baroque.

As I will show, Baroque composers not only use compound themes, but in some works, they compose several of these structures in a row to form an entire movement. I will term this construction *sentential cycling* for two reasons. First, the movement forms a continuous cycle of sentences on the foreground level so that the listener does not know for sure when the movement will end until the composer introduces the conventional closing material. But these structures are also organized hierarchically so that with each successive cycle through the movement either visually or aurally, one can group them together on a higher and higher level, until finally the entire movement can be seen or heard in terms of this type of structure.

Corelli employs this technique, although most of the movements he structures in this way are so short that, in their entirety, they still amount to little more than compound themes. The Sarabanda Largo from Op. 6, No. 11, III, shown in Example 36, illustrates sentential cycling in its simplest form. On the foreground level, the first half of this movement forms a simple

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sentence. Measures 25–28 constitute the presentation phrase, which consists of a statementresponse repetition of the basic idea. The continuation fragments the basic idea once before moving on to a complete cadential progression. Because this section is repeated, however, it can also be seen as a higher-level period structure. The first four measures become the higher-level basic idea of both the antecedent and the consequent, while mm. 29–32 serve as the contrasting idea in both phrases. Since this section is completely repeated, without a first and second ending to differentiate cadential strength, the cadential dependence of this period structure is lost in the strictest sense, but the second cadence is still heard as "more final" than the first, because it is the last statement before moving on to something new.<sup>133</sup>

The second half of this movement also forms a sentence on the foreground level. Measures 33–36 form the presentation phrase, containing a two-measure basic idea, followed by a slightly altered repetition. The continuation phrase uses an expanded cadential progression, a complete progression lasting four measures. This section is repeated as well, however, and Corelli restates this progression at a *piano* dynamic after the repeat to end the Sarabanda Largo. I will use Caplin's term for this phenomenon: *continuation repeated*.<sup>134</sup>

This section can also be described in terms of a higher-level period, where the antecedent consists of the presentation (basic idea) and continuation (contrasting idea) from the first statement of mm. 33–40, and the continuation is formed from the repeat of this material. The restatement of the continuation slightly hinders this interpretation, but if a continuation can be repeated, then a contrasting idea may be repeated as well, serving as a Baroque ending formula.

<sup>&</sup>lt;sup>133</sup> Cadential dependence in Caplin's definition becomes less of an issue in the higher levels of sentential cycling; multiple perfect authentic cadences can often occur as part of the same period structure, but the listener still perceives a difference in cadential strength, depending on where in the movement the cadence is located and the instrumentation and/or dynamics at that particular point. The issue of instrumentation will take more prominence in the example from Vivaldi.

<sup>&</sup>lt;sup>134</sup> Caplin 1998, 107. Caplin discusses this concept in relation to more loosely-constructed themes, such as the subordinate theme in a sonata movement, but since sentences in these simpler Baroque movements exhibit the same looser construction toward their middle and end, the same principles apply.



Example 36: Corelli, Op. 6, No. 11, III, Sarabanda Largo

The first half of the Giga Allegro from Corelli's Op. 6, No. 12, IV also utilizes sentential cycling, but on a slightly larger scale, because it can be broken down into three levels. Example 37 illustrates two of these cyclic levels. This portion of the movement forms four simple sentences on the foreground, the first of which occurs in mm. 1–8. Its four-measure presentation phrase contains a statement-response repetition of the basic idea. Instead of fragmenting the basic idea, the continuation simply liquidates the motivic elements before moving into the cadential idea and ending with a half cadence in F major (preceded by a secondary dominant).

Measures 9–16 present a slightly more loosely-constructed sentence; although this structure metrically and motivically contains every component of an ideal sentence, its harmonic progression functions more like an eight-measure continuation. This is because these measures contain three complete statements of the basic idea—two in the presentation and one that begins the continuation—which are harmonized by a descending-fifth sequence of seventh chords. Therefore, the listener may not recognize the sentential structure until the cadential idea enters, closing the sentence with another half cadence preceded by a secondary dominant.

The two remaining sentences, mm. 17–24 and 25–35, also utilize sequential progressions in their presentation phrases, but their continuation phrases liquidate the basic idea; thus, these sentences are slightly more tightly-constructed than the one described above. Their presentation phrases are very similarly-constructed, in that they both use two-measure basic ideas that are transposed up a step in every measure, but their continuations are even more alike. In fact, they are identical, except that Corelli ends this portion of the movement by restating and slightly altering mm. 29–32, beginning on the second beat of m. 32 into m. 35. Curiously, instead of finishing this portion of the movement with a perfect authentic cadence, as he does in mm. 24 and 32, he chooses to end with an imperfect authentic cadence.







Example 37: Corelli, Op. 6, No. 12, IV, Giga Allegro, mm. 1–35





Although its foreground structure yields an unusual sentential arrangement, the motivic saturation in the Giga Allegro permits a second-level cyclic reading. On this level, mm. 1–8 form the antecedent for a higher-level period, and mm. 9–16 provide the consequent.<sup>135</sup> Since both the antecedent and the consequent end in a half cadence, strict cadential dependence is lost, much

 $<sup>^{135}</sup>$  The basic idea is melodically altered in the consequent, but mm. 9–12 are still distinctly heard as a return to the basic idea, because of the previous foreground sentential liquidation and the identical accompanimental texture in mm. 1–4 and 9–12.

like in the previous example. However, the ensuing rhythmic and textural change causes the listener to retrospectively hear a stronger close in the consequent.

Another higher-level period structure is formed in mm. 17–35. Here, the contrasting ideas share a closer connection to each other than the basic ideas, because the foreground continuations are almost identical, but the sequential transpositions provide a harmonic link between the basic ideas. The consequent yields a stronger cadential close in this period because of the repeated contrasting idea, despite the fact that Corelli employs an imperfect authentic cadence the second time.

A third-level cyclic reading arises from examining the structure of this entire portion of the movement. Since the first two foreground sentences are so intimately connected through rhythm, motive, and cadence, they can each be seen as a basic idea on the highest level. Thus, the third and fourth foreground sentences fulfill the role of continuation in this overarching sentence structure. In this light, their sequential properties naturally propel this portion of the movement to a close. The continuation contains two identical perfect authentic cadences, but each time, the music presses on, leaving something to be desired, until finally Corelli alters the path in mm. 32–35 to end this portion of the movement.

Although Vivaldi often begins a movement with a sentential structure and then spins out into passage work, a few of his sonata movements utilize sentential cycling. The Largo from Vivaldi's Sonata in C Minor for Violin and Basso Continuo, RV 5 (not published during his lifetime; date of composition unknown), is one such movement. Two cyclic levels are shown in Example 38. On the foreground level, it is composed of a chain of five simple sentences, two in the first section and three in the second. The opening sentence, mm. 1-4,  $^{136}$  clearly establishes the key of C minor; the presentation phrase states and repeats a one-measure basic idea, and the continuation phrase fragments this idea three times before closing with a perfect authentic cadence in C minor.

The rest of the first repeated section comprises the next sentence, which Vivaldi constructs more loosely, since it closes the section. The presentation phrase, mm. 5–6, begins directly in Eb major with a statement-response repetition of the basic idea. The continuation progresses to a half cadence in m. 8, but Vivaldi adds extra material afterward for a more final close to the section. This repetition of continuation function begins on the third beat of m. 8 and lasts through m. 12; it forms a mini-sentential structure by stating and repeating the basic idea (metrically displaced from the original by one beat) before moving on to the perfect authentic cadence in Eb. By adding this extra material, Vivaldi employs the same type of ending formula as Corelli, but at the end of every section instead of saving it for the movement's close.<sup>137</sup>

In the second section, the sentences become more developmental in nature, much like in the previous example, but they still retain the same rhythmic, motivic, and metric structure (except for the final sentence, which again contains ending material). The sentence in measures 13–16 is based in F minor, but instead of centering on tonic, the presentation phrase hovers around the dominant function. The basic idea begins with a leading-tone seventh chord which fails to resolve to tonic until the cadence; instead, the dominant triad begins the repetition of the basic idea, and dominant function holds throughout the three fragments of the basic idea in the

<sup>&</sup>lt;sup>136</sup> This movement provides another example where one *notated* measure equates to more than one *real* measure, but since this movement is written in 3/8, one notated measure cannot equal two real measures; the ratio is more along the lines of one notated measure to three real measures.

<sup>&</sup>lt;sup>137</sup> Or for the close of the portion of a movement governed by a specific tempo marking.





first half of the continuation. Only at the perfect authentic cadence in m. 16 (i–V–i) does the F minor triad finally enter.

Measures 17–20 modulate again, this time to G minor. Dominant function governs this sentence as well, but this time, the tonic triad appears in the presentation to start the repetition of the basic idea (m. 18), and in the continuation, in the second fragment of the basic idea (m. 19, b. 2). Measure 20 yields the same cadential formula, ending in another perfect authentic cadence.

The final sentence returns to C minor, but begins much like the previous two sentences in that the first statement of the basic idea (m. 21) is based on dominant harmony. The repetition, however, moves back to tonic harmony, causing a sort of response-statement relationship, rather than the normal statement-response repetition. The continuation maintains the pattern of fragmenting the basic idea three times before moving on to a perfect authentic cadence, but afterward, Vivaldi repeats the continuation function in a similar fashion to the close of the first section. First, he restates the basic idea, but in a slightly altered rhythmic form, then he repeats the first continuation verbatim. This is not enough to end the movement, however; to finally bring the movement to a close, Vivaldi transforms his altered basic idea into one final perfect authentic cadence which does not follow the previous cadential formula either melodically or rhythmically.

The profound motivic similarity between the sentences in this movement leads to higher levels of structural relationships. In the second-level reading, three larger period structures emerge. The first, formed from mm. 1–12, contains a normal antecedent in C minor that consists of the presentation (basic idea) and continuation (contrasting idea) from the first simple sentence. Because the second simple sentence (in  $E^{\downarrow}$ ) contains extra closing material, the consequent has

an extended contrasting idea (mm. 7–12) that incorporates motivic material similar to the basic idea.

Measures 13–20 constitute the second larger period structure. Metrically, both the antecedent and consequent are straightforward, each consisting of a two-measure basic idea and contrasting idea. Harmonically, however, this structure appears continuational, since the antecedent occurs in F minor, while the consequent modulates to G minor, and since each portion relies more heavily on dominant function than on its respective tonic.

The final larger period structure, mm. 21–29, contains another metrically normal antecedent which also seems to have continuational properties. Its consequent, however, is quite abnormally constructed from the repetition of the lower-level continuation in mm. 25–29. The altered foreground basic idea in m. 25 forms the larger basic idea (compressed into one measure instead of two). The contrasting idea is literally repeated from the antecedent. This, combined with the basic idea, yields a relatively normal consequent, but Vivaldi does not stop there. He repeats the motive of the altered basic idea, but transforms it into a perfect authentic cadence to end the movement, resulting in a peculiar period structure, but an aurally satisfying ending.

On a third level (not shown in Example 38), each section in this movement can be seen as its own higher-level structure. The first section employs a higher-level period. Since this section is repeated, its first statement establishes the antecedent, where the first simple sentence forms the basic idea and the second creates the contrasting idea. The repeat of this section yields the consequent, and, much like in the Corelli examples, the last cadence is heard as more final than the end of the antecedent, because it closes the section before moving on to something new.

The second section is composed of a higher-level sentence. Measures 13–20 form the presentation, in which the basic idea is first stated in F minor and then repeated in G minor. The

continuation, mm. 21–29, restates the entire basic idea before fragmenting and rearranging it in mm. 25–29 to end the movement.

None of these cyclic readings speaks to the continuational characteristics of the simple sentences in mm. 13–16, 17–20, and 21–24. A formal reading of the entire movement, however, addresses those very qualities. From this perspective, the first section can be seen as the presentation, and the second the continuation, in an overarching sentence structure. The first statement of mm. 1–12 forms the basic idea, and the repeat restates this idea verbatim. In the continuation, the simple sentences in the above measures fragment the basic idea three times, first in F minor, then G minor, and finally returning to the tonic key of C minor, before moving on to the final cadential formula in mm. 25–29.

The previous examples have illustrated sentential cycling on two, three, and four hierarchical levels, respectively, in relatively clear-cut movements. The final example, however, will apply this device to a complicated movement, specifically the *Andante con moto* section from J.S. Bach's Motet II, "Der Geist hilft unsrer Schwachheit auf," BWV 226.

#### "Der Geist hilft"

Bach wrote this motet in Leipzig for the funeral of the Thomasschule headmaster, Johann Heinrich Ernesti, in 1729. "Der Geist hilft," written to the text of Romans 8: 26–27, calls for double chorus, and as in most of his other motet movements, the voices in the *Andante con moto* section interlock in a polyphonic and canonic construction. In this sense, Bach composed the section in an instrumental style, using motives passed between the voices to unify the work.<sup>138</sup>

<sup>&</sup>lt;sup>138</sup> Christoph Wolff, "Bach, III: (7) Johann Sebastian Bach, 15: Motets, chorales, songs," *Grove Music Online*, http://www.grovemusic.com.

The *Andante con moto* section of the motet consists of four major subsections, which are distinguished through text and motivic content. I will focus first on the opening subsection, mm. 1–40. Throughout this subsection, and continuing through the entire *Andante con moto*, the choirs are used in canon, where one choir enters and the other follows with a similar statement two measures later. These canonic entrances make up the foreground level of structural markers. The text here is the title of the piece, "Der Geist hilft unsrer Schwachheit auf," or, "The Spirit helps us in our weakness." Each statement of the text comprises one sentence.

Example 39 highlights the sentence structure in mm. 1–8, using a reduction that contains the voice from each choir that carries the melody, plus the basso continuo part. Choir 1 enters alone for two measures; the lower three voices sing, "Der Geist hilft," with a short melisma on "Geist," while the sopranos carry on the melisma. These two measures constitute the first basic idea in the B<sup>J</sup> major presentation phrase. The second basic idea occurs in the next two measures, when the lower three voices of choir 2 have a similar statement of "Der Geist hilft," and the sopranos join the continued choir 1 melisma. Measures 5–8 comprise the continuation, in which the ascending line continues, but the sixteenth notes are liquidated, in order to prepare for the cadence. Bach also modulates to the key of E<sup>J</sup> here, ending on a half cadence. This move to the subdominant key rather than to the dominant seems strange, but he establishes a firm pattern by repeating the modulation in the next phrase and making a similar key change in the two following statements.

Measures 9–16 translate directly from mm. 1–8, except that Bach reverses the roles of the two choirs, and adds an interpolation of three eighth notes in choir 1 during the beginning of choir 2's entrance. The same sentence structure applies here; Bach even ends with the same half cadence in  $E_{P}$  major.



Example 39: Sentential analysis of "Der Geist hilft," mm. 1-8

The next two phrases, mm. 17–24 and 25–32, use the same basic sentence structure as the first two phrases, including the melismatic motive in the melody line, similar harmonies, and identical role reversal. Two important changes occur, however. First, Bach moves the melody to the altos, adding an eighth-note countermelody in the soprano line. The function of the phrases also changes. Bach explores the key of F major here, moving up a fourth to get back to B<sup>J</sup> for the half cadences in mm. 23–24 and 31–32. Thus, these two phrases establish the secondary key area of the dominant.

The last eight measures of the A section, mm. 33–40, develop the sixteenth-note "Geist" motive through a unison bass melisma lasting five measures. Over this, the top three voices in each choir canonically alternate eighth-note statements of "Der Geist hilft." This phrase can also be divided into a sentential structure, as shown in Example 40. Following the previous model, the first two measures of the melisma, which also include the two "Der Geist hilft" statements in the upper voices, present the first basic idea. Then, mm. 35–36 comprise the second basic idea, but this time, no second voice enters with an echo of the first two measures, because the basses





sing in unison. Instead, all the voices continue to sequence down a step each measure until m. 37, when the phrase smoothes out through a lengthening of the statement in preparation for the  $B_{\flat}$  half cadence in mm. 39–40. Thus, mm. 37–40 function as a continuation.

Because of the short, fragmented, sequential pattern in mm. 33–36, however, mm. 33–40 seem to function more clearly as the continuation of some larger idea. This leads to a reevaluation of the entire A section to determine whether these phrases group together to produce a unit of larger structural significance. A second-level cyclic reading arises by examining the pairs of corresponding sentences that utilize role reversal between the choirs. Example 41 shows two structural levels in the A section. The dotted vertical lines represent obvious divisions within this section, where either the key area or text setting differs. On the second level, the beginning of the movement establishes an eight-measure antecedent when the two basic ideas in mm. 1-2 and 3-4 unite into one larger basic idea. The remaining four measures then form a contrasting idea presented in eighth notes. Similarly, mm. 9-16 meld to form the consequent portion of a larger period. Because Bach chooses to arrive on another half cadence in m. 16, strict cadential dependence is lost on this level, but the listener still perceives the latter cadence to be stronger, since afterwards Bach alters the texture and voicing. This broader level also groups the entire four-measure "Geist" melisma into one idea, revealing a more convincing delineation of the motive.

The phrases in mm. 17–24 and 25–32 combine to form a similar periodic structure. The difficulty here, however, lies in the "leftover" phrase in mm. 33–40. Caplin provides no definitive explanation, but, because the text and motivic material clearly carry over from the previous measures, and because of the sequential nature of this phrase, it can be labeled, as suggested above, as a continuation. This classification extends the previous period into an

asymmetrical hybrid that contains an antecedent and a consequent, followed by an eight-measure continuation that seeks to rectify the consequent's ending, but still comes up short with another half cadence.

If this solution seems unsatisfactory, the A section may find more coherence at an even broader level; Bach's numerous repetitions of the same text encourage higher-level grouping structures. Therefore, the antecedent phrase in mm. 1–8 can also be considered an even larger basic idea that is repeated in mm. 9–16 to create a substantial presentation of a massive asymmetrical sentence. Measures 17–24 form a third repetition of the basic idea in the presentation, but a dominant "response" leading to the continuation. Measures 25–40 can then be grouped together as a continuation that begins like a basic idea, but spins out into the half cadence in mm. 39–40. Thus, the last eight measures of the A section fulfill their expected role as a continuation.

The B section (mm. 41–69) is not nearly as structurally complex as the A section. In fact, the entire section comprises a single sentential phrase, as shown through the analysis of the soprano lines and basso continuo part in Example 42. The text here reads, "denn wir wissen nicht, was wir beten sollen, wie sichs gebühret," or, "for we know not what we ought pray for, how we are entitled." The statements also overlap canonically in this section, but in four-measure increments, in contrast to the two-measure fragments in the A section. First, in mm. 41–45, choir 1 enters with a five-measure basic idea, singing, "denn wir wissen nicht, was wir beten sollen." At the same time, choir 2 sings a short counterstatement on "denn der Geist hilft," carrying over the text from the A section. The melody is passed to choir 2 in mm. 45–49 for the repeat of the basic idea, overlapping one measure with the first statement. Measure 49 marks the start of the continuation for choir 1, which sings the entire text for this section, repeating "wir wissen nicht"


Example 41: Two structural levels in the A section, mm. 1-40



## **Example 41 continued**

in mm. 58–59. Choir 2 joins in the continuation phrase two measures after choir 1's initial statement. Here, the sopranos sing a countermelody that is harmonized in the other three voices. Thus, this continuation begins similarly to a basic idea, but the statement is lengthened in preparation for the cadence that should come at the end of choir 2's text in mm. 58–59.

Measures 58–59 metrically resemble a cadence, because m. 59 contains the first eighthnote pause shared by both choirs, and choir 2's stepwise descending line seems to prepare for an arrival, but choir 1's text of "wir wissen nicht" does not permit a resting point here; instead, Bach evades the cadence by ending on a dissonant secondary leading-tone chord. He then repeats the continuation, fragmenting each choir's statements to two or three measures, and ending with an imperfect authentic cadence in F major in mm. 66–67. Choir 2 carries over for two measures after the beginning of the next section, ending with its own perfect authentic cadence, now back in the home key of B<sup>J</sup> major.

After the B section, Bach returns to the opening text and motivic material in mm. 69–92. The first eight measures of this A' section quote almost exactly the beginning of the piece, but the tenors now have the melody. The rest of the section unfolds likewise, except that Bach opts not to repeat the phrases to reverse the roles of the choirs. Also, the second statement modulates to  $E_{P}$  instead of F, with the melody in the bass, and pushes the melody to the sopranos for the sequential statement. Thus, the A' section comprises three sentences that can be melded together in a manner similar to the A section.

The final section of the *Andante con moto* begins by reprising the B material to form a twelve-measure sentential statement in mm. 93–109 (choir 1 ends in m. 110). This "sentence" produces no cadence, however, eliding instead with the final 15 measures, mm. 110–124, which contain a very canonic sentential coda to end this section of the piece. Four overlapping basic ideas occur here, alternating between the choirs and beginning with choir 2 in mm. 110–113. Choir 1 enters for mm. 112–115, followed by choir 2 again in mm. 114–117 and choir 1 in mm. 116–119. The continuation, mm. 118–124, lengthens these fragmented statements in preparation for the cadence in mm. 123–124—the only perfect authentic cadence shared by both choirs.

This in-depth discussion reveals that sentential cycling occurs on several hierarchical levels in the *Andante con moto* section. The foreground level arises in conjunction with the canonic statements in each choir. These statements can then be melded together, in every







Example 42: Sentential analysis of the B section, mm. 41-69

subsection but the first B section, to produce higher-level periods and hybrids. The two periods in the first A section can also merge to form a massive sentence with three statements of the basic idea, followed by a continuation that begins like a basic idea. Overall, the form of the *Andante con moto* section comprises a true periodic structure as well: the first A and B sections serve as the antecedent, containing a basic idea and a contrasting idea, while the A' and B' sections comprise the consequent, ending with a satisfying perfect authentic cadence.

## CHAPTER 4. CONCLUSION

Although Caplin's theory of formal function encompasses only instrumental music written during the Classical period, the preceding chapters have shown that the concepts he espouses extend back to instrumental and vocal music of the early- and mid-eighteenth century. Historical writers such as Mattheson, Riepel, Kirnberger, and Koch introduced in their compositional treatises many of the structural concepts and devices that Schoenberg and Ratz later developed and classified into what we now know as sentence and period structure.

These building blocks were not merely discussed in writing, however. Composers including Corelli, Vivaldi, and J.S. Bach incorporated simple sentences into many of their works, some of which involved a hierarchical organization that employed sentence and period structures on multiple structural levels. My analysis of the *Andante con moto* from Bach's "Der Geist hilft" illustrates that this method of sentential cycling, as I term it, applies to vocal as well as instrumental works, and also to complex pieces as well as more simple movements. It is worth reiterating here that I do not mean to imply that this technique was widely used, only that sentence structure in general, and sentential cycling in particular, existed in the arsenal of devices that Baroque composers used to organize motivically-driven compositions.

This study is limited to motivically-saturated works; numerous additional movements by Corelli, Vivaldi, Bach, and other Baroque composers contain some of the qualities inherent in sentential cycling, but many of these works are not nearly as tightly organized as the examples provided in this document. Further research can broaden the scope of this inquiry by incorporating a wider variety of similarly-organized works and by reshaping Caplin's Classical definitions—as MacKay, BaileyShea, and Broman have done for their studies of Byrd, Wagner, and Bartók—so that they adhere more closely to the motivic and canonic Baroque repertoire. For example, BaileyShea discusses the prominence of *Fortspinnung*, or "spinning out," in Wagner's operas, but this technique has its roots in the Baroque. Thus, a further study that reconciles BaileyShea's category of "Sentence as *Fortspinnungstypus*"<sup>139</sup> with the motivic devices, harmonic language, and overlap of functional boundaries between the melody and bass line utilized in the Baroque would provide a more era-specific view of the sentence. In addition, further research will identify common characteristics within a larger body of repertoire, making it possible to formulate a Baroque theory for hierarchical structure that applies at least to motivically-saturated movements, but possibly also to pieces governed by multiple paths of motivic development.

<sup>&</sup>lt;sup>139</sup> BaileyShea 2004, 17.

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