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*Concerning Large-Scale Symmetry in J.S. Bach’s Concerto BWV 1042*

While the title and conclusion of this essay attempts to attribute large-scale symmetrical designs to only one of Bach’s Concertos, it can contended that many, if not all, of Bach’s instrumental works contain similar designs. It is already well known that many of Bach’s vocal works were arranged with chiastic symmetry.¹ Yet, when no programmatic elements are evident, as in the strictly instrumental works of Bach, what unifying factors are there to connect multiple movements? Lawrence Dreyfus is one well-known scholar of Bach who finds “it is difficult to see how architectonic considerations of large-scale form can alone provide any deep understanding of the ways in which Bach’s music actually functions.”² Dreyfus tends to focus on contrapuntal relations and voice leading rather than on the overall form of Bach’s compositions, as his methodology of analysis is saturated with contrapuntal techniques all subsumed under fugal procedure. This concept of ‘invention’, according to Dreyfus, is concurrent in other formal procedures including ritornello form.³ In order to truly understand Bach’s style and compositional organization, a focus on both the contrapuntal invention as a localized progression and elaboration must be coupled with an understanding of large-scale organization of harmony and form. With regard to understanding Bach’s concerto in E major, BWV 1042, it is beneficial to trace the ritornello design or other procedure of invention as well as the large-scale formal and harmonic organization of each movement. The interrelation between these two tools of analysis will shed light on the question of symmetry in this concerto, and its abstraction to the genre of concerto form regarding Bach’s oeuvre.

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What is a Concerto? “In the early eighteenth century the term ‘concerto’ was most commonly applied to an instrumental work for one or more soloists and orchestra.”\textsuperscript{4} Drummond defines the genre of concerto with “the idea of contrasting sonorities” where two distinct instrumental groups are pitted against each other in time. It is this conception of orchestration, which brings about the two categories labeled \textit{concerto grosso} and \textit{solo concerto}. The two are different only in regards to the organization of instrumental groups. J.S. Bach inherits the “three-movement form of the \textit{Italian opera sinfonia}” from Vivaldi and the other Italians who preferred this configuration “to the more traditional designs of the \textit{sonata da camera} and \textit{da chiesa.”}\textsuperscript{5} The reception of the Italian concerto form in Germany was conspicuous in most, if not all, of the major German composers at that time. Yet, its adaptation provided more of a cultural hybrid in which both elements of French dance and Germanic counterpoint became immersed within an Italian shell.

One of the most important procedures used within concerto form was the ‘ritornello principle’. Bach, after studying the Venetian composers, used this procedure as a unifying element in almost every genre of music ranging from sacred cantatas to solo keyboard works. “The term ‘ritornello’…can be traced back at least to fourteenth century Italian verse forms.”\textsuperscript{6} It is quite interesting how the term ‘ritornello’ has only “in recent times…come into general use to denote the opening tutti and its subsequent reappearances in a Baroque concerto.”\textsuperscript{7} Andrew Boyd describes the ritornello’s lack of any clear identity in eighteenth century musical literature, while its current reception is controversial, to say the least. Some scholars tend to define the ritornello in terms of the concerto form;\textsuperscript{8} some limit the definition to only within the context of a

\textsuperscript{5} Pippa Drummond, \textit{The German Concerto}, VI.
\textsuperscript{7} Ibid.
contrasting texture between the orchestra and soloist;\(^9\) while others abstract its identity to that of a recurrent musical passage.\(^10\) It is only with Dreyfus and his article on invention that the ritornello principle begins to gain identifiable parts. Dreyfus unearths Wilhelm Fischer’s description of the melodic organization of ritornello form in Vivaldi. Fischer divides the ritornello in three parts entitled the Vordersatz, Fortspinnung, and Epilog.\(^11\) He is the first scholar to accurately understand the ritornello procedure as a ‘succession of melodic motives’ that can be ‘altered, expanded, transposed, or even omitted’. While Dreyfus focuses on the small building blocks of the procedure, he fails to describe the multitude of configurations in which a ritornello can appear. Drummond, on the other hand, files these configurations under ‘exceptional usages’.\(^12\) Nevertheless, the key to understanding the ritornello principle is by accepting it as a ‘procedure’ and not as a clear-cut ‘form’ of music. This is reinforced by the way that Bach and his Italian contemporaries organized their concerti.

Drummond describes one of the manners in which a ritornello unfolds within her category of exceptions, as a ‘split’ ritornello. This is where a “brief solo passage is allowed to disrupt the normal progress of a tutti.”\(^13\) This type of ritornello procedure is what is worked out within all the subsequent statements of Bach’s E major concerto, its first movement. Yet, Drummond fails to mention this in her analysis of the first movement. The lack of clarity with regards to ritornello design and function also undermines her harmonic outline, which does not account for certain important harmonic events. For a more comprehensive observation of her analytical flaws it would be wise to compare her observations with the analysis portrayed below. She is more concerned with explaining large-scale form and ‘composite structures’ than with

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\(^10\) Pippa Drummond, *The German Concerto*, 53.


\(^12\) Pippa Drummond, *The German Concerto*, 57.

\(^13\) Ibid, 58.
providing an accurate combination of both the local events and background formal organization. What she does point out is how Bach tended to “combine complex structures which unite a number of different formal methods.”\textsuperscript{14} This is one of the ways in which Bach was influenced by the organization of concerti of Italian composers, based on formal layering. The combination of \textit{Da capo} and/or rondo form with a ritornello, fugue, ostinato, and/or other procedure is what creates these complex structures.

The other important organizational tool used by the Italians and acceded to Bach is the large-scale ‘tonal’ harmony. The first Italian associated with both concerto form and functional harmony was Arcangelo Corelli. “…The clearest way to interpret Corelli’s innovative conception of tonal organization is to compare Corelli’s middle ground harmonic plan to that of three-hexachord systems.”\textsuperscript{15} Henry Burnett traces the theoretical norms of the sixteenth and seventeenth centuries in order to understand how “composers understood that the root pitch classes of the reordered central hexachord of earlier modal systems were capable of projecting a background tonic.”\textsuperscript{16} This new conception of harmony is what Bach also builds upon in his organization of background harmony. A modest understanding of the tonal hexachord and its role in this analysis is found within the cited work. Yet, it would be valuable to understand a consequence of following the hexachord’s system of reordered fifths. The tonal hexachord, which evolved from the three-hexachord configuration of modality, “provides most, if not all, of the harmonic motions within a single composition.”\textsuperscript{17} The relation of harmonic fifths shows how the farther away one moves on the hexachord in fifths, the less stable the harmonized area is within the context of the tonic (see Diagram C at the end of this essay). The most instable key

\textsuperscript{14} Ibid, 66.
\textsuperscript{16} Ibid.
\textsuperscript{17} Ibid, 34.
within the Baroque movement is that of iii or the mediant. The motion towards iii implies a shift towards a new hexachord that supports the new harmonic area. The tonal hexachord shows the importance of the tonic and its relative minor as centers for which secondary areas surround each as shown within the diagram.

Another more important concept, essential to the current analysis, is the importance of chromaticism as a fundamental compositional tool in music. The analytical techniques utilized are taken from the elaboration of this notion from Burnett’s observations previously cited. Both the idea than an ascending chromatic octave will unfold over the course of each movement as well as the development of specific chromatic ‘conflicts’ through its elaboration is critical to this analysis. While this essay’s purpose is not to substantiate Burnett’s ‘new theory of tonality’, the result of utilizing his analytical techniques inadvertently confirms how useful it actually is in understanding the compositional process of Bach.

Due to the lack of any original score or parts, the oldest remaining copy of the E major violin concerto is from 1760 by Johann Friedrich Hering who was a copyist employed to Bach’s two eldest sons.\textsuperscript{18} The date of origin for many of Bach’s orchestral works is quite controversial. Peter Wollny assumes “the E major concerto probably originated during Bach’s tenure as court chapel-master in (Anhalt) Coethen: between the years 1718 and 1723.”\textsuperscript{19} Yet, there is no conclusive evidence when Bach actually completed this concerto. Regardless of the actual date of completion, the content of the concerto portrays the composer as someone who absorbed the general principles of the Italian concerto. The template for this concerto is directly taken from the organization of some of Vivaldi’s concertos. The three-movement layout, in which the E major tonic bookends a middle movement in the relative minor, is already organized.

symmetrically with regards to wide-ranging harmony. This multi-movement harmonic scheme is also embedded within the large-scale organization of the first movement by means of *Da capo* form. The A section, represented by tonic harmony and its closely related major mode keys bookends the B section dominated by the relative minor and its closely related minor mode keys. While the exploitation of large-scale harmony and its symmetrical design is attributed to the Italians, Bach expands on its mechanism by embedding similar harmonic structures within different movements.

The concerto is orchestrated with five parts including the soloist. The soloist usually doubles the violin I during the tutti sections. The edition used for this analysis is the *Bach-Gesellschaft Ausgabe* edition. The first movement, in *Da capo Aria* form or ABA, begins with a modular segmented ritornello design in which a clear Vorderstaz, Fortspinnung, and Epilog are straightforward and clearly identifiable. The Vordersatz occurs between m.1-3 and E major tonic harmony is clearly established. It displays two distinct motives: a head motive consisting of the E major triad as successive quarter notes, and an arpeggiated motive. The Fortspinnung begins in m.4 as a series of harmonic descending fifths with melodic figuration, but then changes into a descending melodic sixths progression in m.6. The reason why both patterns of sequencing are subsumed under one titled Fortspinnung in this analysis is because all subsequent repetitions of the Fortspinnung within the first movement are always presented together in the same manner. The Epilog begins in m.9 with a clausula motive that is prolonged with a rising scalar motive and ends with a more conclusive clausula. All identified segments will separate within the subsequent ritornellos of the A section as solo interruptions create a streamlined design between the interaction of the tutti and the soloist.
It would be advantageous to follow Diagram A and B that supplement this essay, in order to clearly see how the ritornello procedure is used concurrently with each movement’s large-scale form and the specific division of each section. The soloist begins in m.12 with a devise, which is a repetition of the opening ritornello head motive. The use of a devise taken from contemporary Italian opera is common in many Italian concertos in which the solo imitates the opening theme of the ritornello. The texture of m.12 is worth mention due to how the head motive occurs over the arpeggio motive simultaneously. While chordal homophony is quite common in the tutti ritornello statements of Italian concertos, this movement seems to slowly introduce and elaborate on the use of chordal homophony within ritornello statements until a breaking point in the B section where the soloist begins to play two distinct melodic lines in the style of distinctly German counterpoint. While it would be a long-shot to claim that Bach may have been consciously imposing this musical narrative within the movement, it is still valuable to keep in mind the thought while following along the rest of the movement. The soloist is interrupted with a small ritornello statement repeating the Vorderstaz for two measures until the soloist returns (m.17). This solo statement introduces the dominant, which is confirmed within the next ritornello statement (m.20). This statement is ‘split’ in the sense that the segments of the opening ritornello statement, now transposed up a fifth, are consistently interrupted by the soloist who prolongs each segment with flourished arpeggiation. This statement ends with a PAC in B major (m.34).

A small solo separates two ritornello statements in which a D-natural is introduced implying V7/IV. The consequence of the D-natural will be elaborated on later with a more comprehensive harmonic analysis of each movement. The fourth ritornello statement, also split, begins in m.38. E major, or tonic harmony is re-established within the statement and ends with a
PAC in m.52 as the A section comes to a close. The use of split ritornello statements in this A section provides an insight into Bach’s compositional thought process. Bach uses the opening ritornello statement as the main material of the A section, which is fleshed out linearly through solo interruptions: by means of split ritornello statements. While Bach is not the only composer to use split statements, its identification in this movement and in other concerti illustrates one type of large-scale invention consistently utilized by Bach.

While the A section of this movement is dominated by ritornello statements creating a more stable, seamless structure, the B section is covered with large solo-episodes that destabilize the movement harmonically and texturally. The section begins with a solo episode in C# minor without any dominant preparation. This is because the relative major and minor are such closely related keys especially when understood contrapuntally as a single 5-6 exchange. However, in order to stabilize the new key introduced first contrapuntally, Bach provides harmonic support via its own dominant preparation. This occurs within the first four measures of the episode where C# minor is, in fact, stabilized with its own fifth as the figuration changes from arpeggiation to oscillation. The sequential treatment of harmony within this episode will have far-reaching consequences throughout the entire B section. The sequence continues up until m.70 where c# is further stabilized with another ritornello statement. This statement is rather unstable when compared with other previous ritornellos due to its harmonically shifting design. C# minor is interrupted with a solo that progresses the harmony towards B major, yet continues this pattern of interruption by shifting to A major or IV (m.76). This statement, assuming its context within a larger episodic background seeped with instability, can be considered split, due to the solo interruptions, and harmonically unstable on account of constant modulation within the statement. The identification of this ritornello statement as split is reinforced by the soloist who
begins another lengthy episode and distinctly interrupts the Fortspinnung in A major. The perception of both large-scale form and smaller divisions of contrast is clearly a crucial synthesis in identifying function within these procedural segments.

This lengthy episode, notwithstanding the harmonic development of the piece itself, is quite developmental on various levels of texture. The solo violin line portrays virtuosic figuration ultimately moving contrapuntally towards F# minor or ii (m.95). The first and second violin lines now portray the opening Vordersatz sequentially accompanying the soloist. In addition, the viola line provides the sequential bass in an eighth note pattern as the continuo line actually provides both its own independent melodic line while maintaining the harmonic implications of the texture through figured bass. The development of polyphony within the movement has now reached a climax as the music approaches an episode with a truncated Epilog articulating F# minor (m.95). The soloist, at this point, breaks into a two-part polyphonic melody similar to textures found in Bach’s solo violin works. This is an instance where German contrapuntal solo writing replaces the essentially Italian texture of the movement. The other textural development expressed is more abstract and requires a more broad conception of the procedure Bach used in the movement. The split ritornello is itself developmental due to the prolongation of solo interruptions within subsequent statements. This is especially illustrated within the ritornello statement of the B section and the large solo episode that interrupts the Fortspinnung in A major and the Epilog in F# minor. While this cannot be considered split in the literal sense of the term, due to both the modulation and the extensive length of the solo, it is interesting to understand how Bach is playing with large-scale invention of procedural elements.

The solo episode (m.95) moves away from f# minor and back towards B major implying V7/I beginning with a Fortspinnung (m.102). This Fortspinnung, and a cadential pedal point
(m.105), implies a motion back to tonic harmony and the A section, but is unrealized due to an interruption by yet another solo episode that harmonically implies a motion towards iii or G# minor. This episode finally comes to a complete close in G# minor (m.122). The A section is then repeated, re-stabilizing tonic harmony and finally ending in E major (m.174). It is not necessary to discuss the repeat because its essential divisions were already discussed. It should be noted that symmetry is an inherent condition of Da capo form.

With regard to harmony and chromaticism within the first movement, an ascending chromatic array (PCA) and a descending diatonic array (PDA) articulate its important harmonic areas. The only chromatic pitch class found within the opening ritornello statement is E# (m.4). This pitch class is important in that it generates all the fifths that become leading tones to all secondary harmonic areas of the movement. Both the juxtaposition of important articulated areas and an ascending chromatic aggregate, as well as the generation of chromatic pitch classes through fifths, are presented visually within Diagram C. The other important chromatic event occurs in the fourth ritornello where D natural is introduced. Both E# and D natural are pitch classes that thoroughly develop the concerto as an entirety. Both pitch classes are constantly worked out and presented within various harmonic entities as a means of background conflict and resolution. Once the B section begins, D natural becomes part of a Neapolitan (m.55) and again later as the seventh of V7/IV within the fifth ritornello (m.75). Both E# and D natural are placed simultaneously as vii7/ii (m.59). The E# becomes a leading tone to F# minor (m.95). The idea that simple chromatic alterations at the onset inform entire harmonic areas of the piece is part of an overall developmental process. In addition, the D natural is enharmonically respelled within G# minor as a Cx (m.121) which resolves the chromatic aggregate up to E (Cx-D#-E) at the beginning of the repeated A section. The D natural and E # both return in different contexts
within the second and third movements, a sign of unity within the concerto as a whole through similar chromatic development.

An interesting aside, which ties in to the symmetry of Bach’s instrumental works, is his use of the Golden Section proportion as a means of division at the point of furthest remove. The correlation between Bach’s music and number theory has been made in the past and with good reason.\(^{20}\) In the first movement of the E major concerto, the closest approximation of the Golden ratio is taken at an Fx (m.107) where the bass signifies a motion towards iii of G# minor, the furthest point away from tonic harmony as seen on the hexachord outlined in Diagram C. The notion is that the augmented second or minor third above the tonic destabilizes major harmony since the minor third implies a minor tonic. Other scholars have already begun to find a correlation between the point of farthest remove in a piece of music and the occurrence of the Golden Ratio.\(^{21}\) This geometrical division of a piece, accenting the portrayal of a harmonic climax, is another manner in which Bach consciously or subconsciously organized his music, creating large-scale symmetry.

The second movement, like the first, is in *Da capo aria* form with an ostinato bass pattern and an Epilog motive constituting the opening ritornello idea. Diagram B presents all the division of the piece with regards to form. The same pattern that appears within the opening six measures is used within the rest of the movement’s A section with the soloist (m.7) and a bass pattern outlining a sequence to other harmonic areas. It is the Epilog motive which helps the listener keep track and identify where the significant cadences towards various localized harmonic goals occur within the movement. The first real cadence outside of tonic harmony occurs as III or E major (m.15). The soloist, accompanied by alternating measures of the original


ostinato pattern, now moves towards a half cadence (m.22). This marks the end of the A section due to the new pattern of quarter notes chordally presented within the tutti. The second important harmonic motion is to that of V minor or G# minor (m.22). The very next measure implies E major, imitating the juxtaposition of iii and I from the first movement. It is apparent that Bach embeds similar harmonic motions from the first movement into a section of the second movement, but within the context of C# minor as the localized tonic. Both D natural and E# are introduced as well, outlining a diminished seventh of F# minor (m.18). The E# is consistently introduced whenever there is a motion back to C# minor because it generates the leading tone B#, a fifth above. This is another instance of how chromaticism plays a very significant role within the contrapuntal organization of this music and the composition at large.

The B section continues by adding the ostinato pattern under the homophonic chordal pattern as it quickly moves back to tonic harmony (m.35). Again an E# is introduced as the leading tone to F# minor to generate a motion back towards C# minor. Yet, the B section does not conclude with the arrival of tonic harmony. It is only where the A section returns, based on the original configuration of the tutti texture, that a conclusion to movement is formally allowed to begin (m.38). However, this measure implies A major as a part of a sequence that ultimately moves back to tonic harmony (m.42). The conclusion of the B section signifies a climax of texture, register, and chromatic development. The solo violin reaches a high D natural (m.36) motioning the movement towards A major. While the E# chromatic implies a motion towards the tonic of the movement, the D natural chromatic implies a motion in the opposite direction: towards VI. In addition, both tutti textures are superimposed on top of each other leading up to this climax. It is interesting how the D natural of the first movement, one that never ultimately resolved within the repeat of the A section, is given further development as the seventh of E
major leading to A major in the B section of both the first and second movements. The resolution of the D natural only occurs within the context of C# minor. The development of the D natural within other harmonic contexts is one of the main features of the piece. An E# (m.48) signifies a motion towards C# minor just as the opening ritornello returns at the last six measures of the movement. While the division of the piece is motivated by the texture contrast within the tutti, the opening and concluding ritornello ideas do provide the symmetry found similarly within the ABA structure of the first movement.

While the first two movements can be portrayed as a working out of the thematic, harmonic, and chromatic development, the third is one of repetition and resolution. It was common for the last movement of an Italian solo concerto to be much more stable and dance-like, emphasizing tonic harmony. The third movement of this concerto can be considered a Rondo due to the through-composed ritornello statement consistently repeated exactly with solo episodes in between. The use of a ‘pendulum’ tonal scheme “was advocated by the eighteenth century German theorist Joseph Riepel, who argued that tonal unity should be maintained through restatements of the tonic.”22 The structure of the rondo itself maintains a constant declamation of tonic harmony, yet the form is rarely used in Bach’s instrumental concertos. In addition, the ritornello statement yields a concise imitation of the harmonic scheme found within the A section of the first movement: I-V-IV (V7/IV). The constant repetition of a D natural within each occurrence of the statement, resolving in IV or A major, is a consistent resolution of one of the main chromatic conflicts of the piece. While the first movement never truly resolves the d natural into a stable harmonic entity, the third movement provides such resolution throughout.

The movement begins with a through-composed ritornello statement that outlines E major within the first four measures, a localized motion to V (B major) between m.5-6, and a restatement of the opening four measures implying IV (m.12-13). The statement ends with a two-measure epilog (m.15-16). While the first episode consists of only the soloist and the continuo, the subsequent episodes consist of more voices becoming ever more independent as individual melodic lines. The first episode begins a tonicization of the dominant (B major), which brings in E# only as a chromatic alteration. It, like the d natural, is explored in a more thorough context within the various episodes. After the next statement of the ritornello, the next episode begins within the context of C# minor, the relative minor of the tonic. The central episode (m.81) explores both the D natural and E# as activated pitch classes implying a drive to a new harmonic area. The D natural is presented as the seventh of V7/IV or A major, which is the governing harmonic area of this episode, while E# is used to tonicize F# minor (m.92). This relationship between A major and F# minor is similar to the relationship between E major and C# minor. This is how both E# and D natural are juxtaposed within the central episode and are developed simultaneously. The final episode (m.113) also builds upon this simultaneous chromatic development where a D natural is presented within the following four measures and then an E# (m.129). This episode expresses the E# within the context of G# minor as part of a sequence which ultimately cadences (m.144). The D natural resolves for its final time into tonic harmony within the last ritornello statement of the piece.

Chromatic development as well as harmonic relationships aims to unify the various movement of this concerto. While the Baroque period by asymmetrical phrasing, it is the larger organization of form, which constitutes the symmetrical elements tying the composition together. Having the background harmonic progression of the first movement (I-vi-I) as the keys utilized
for each movement, or an embedded version of the progression the A section presents within the first movement as the localized harmonic basis for the third movement’s ritornello design, maintains a sense of unity and symmetry not realized in Bach’s utilization of concerto form. With regards to Bach’s concerto in E major, it is beyond a reasonable doubt that symmetry is used as unifying device both within each movement and to unify the movement together into a coherent whole.
Works Cited


