# الدور البنيوي للفقرات البوليفونية في أعمال شومان لموسيقا الصالة من العام 1842 الياد عبدالحفيظ محمد، قسم الموسيقا، كلية الفنون الجميلة، جامعة اليرموك، إربد، الأردن

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# The Structural Role of Polyphonic Episodes in Schumann's 1842 Chamber Music

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### **Abstract**

This paper aims at examining and defining the role and function of contrapuntal techniques and polyphonic episodes in the overall form and structure of the musical compositions under consideration. By applying a combined method of contrapuntal and formal analysis, one is able to examine how diverse principles of polyphonic thematic development are chosen.

The research shows that Schumann's employment of polyphonic techniques had undergone considerable change from free inspired imitations and contrapuntal voices emerging from within the musical flux and enhancing its developmental character in his piano compositions of the 1830s to more thoroughly designed polyphonic techniques and practices invoked to play a structuring role more closely related to both formal procedure and tonal plan.

**Keywords:** Schumann, Chamber Music, Polyphonic Technique, Canonic Sequence, Formal Procedure

### الملخص

يهدف هذا البحث إلى تحديد دور ووظيفة التقنيات الكونترابونطية والفقرات البوليفونية في صياغة قالب وبنية الأعمال الموسيقية قيد الدراسة. وقد تمكنا من خلال تطبيق منهج مدمج من التحليل الكونترابنطي وتحليل القوالب الموسيقية من تحديد كيفية اختيار شومان لمبادئ بوليفونية مختلفة للتطوير اللحني وكيفية تأثيرها على القالب والبنية المقامية للعمل.

يظهر البحث أن استخدام شومان للتقنيات البوليفونية قد مر بتغيرات ملحوظة ابتداء من المحاكاة الحرة والأصوات البوليفونية التي تظهر من داخل الدفق الموسيقي مقوية الطابع التطويري للنسيج الموسيقي في مؤلفات البيانو خلال ثلاثينيات القرن التاسع عشر، وصولا إلى تقنيات وإجراءات بوليفونية أكثر تخطيطا يستخدمها المؤلف لتلعب دورا بنيويا وأكثر قربا من الإجراءات البنيوية والخطة المقامة العامة.

الكلمات المفتاحية: شومان، موسيقا الصالة، التقنيات البوليفونية، التسلسل الكانوني، الإجراءات البنيوية

"There is one composer, whose musical thinking was perceived already by his contemporaries as anarchic, and whose musical language was so spontaneously protruding that he seems to me an ideal manifestation of phantasy itself, that was able to reach without much effort from within to the outside" (Rihm 1997, 23). However, Schumann's individual and ingenious approach to musical language and composition as structure and form has remained for decades related almost exclusively to his earlier piano works of the 1830s. His Davidsbündlertänze and Études symphoniques, the Carnaval and Kreisleriana were and still are considered reference-models for Schumann's groundbreaking experiments with images and structures hitherto unexplored. On the other hand, Schumann's chamber music of the 1840s was for a long time regarded by critics as avery different and distant from, often even inferior to his piano works. He was similarly criticized for being old-fashioned in his turn towards inherited classical forms and genres, and for his unconventional approach to the design and details of traditional formal procedure that was seen to be frivolous, leading to incoherent and blurred structures. Weakness of instrumentation and absence of continuous, fluent development due to lyrical and epigrammatic impulses, were considered to be the works' main shortcomings.

These in many ways contradictory notions continued well into the twentieth and even twenty-first centuries. Joan Chissell, for example, in her 1967 biography of the composer maintains that in his works of the 1840s "spontaneous imagination – was gradually smothered and destroyed" (cited in Brown 2013, 372), and Eric Jensen's 2001 biography asserts that the main danger to Schumann "lay in the degree in which he became dependent on musical tradition, with academism replacing originality" (Jensen 2001, 212). Vladimir Protopopov, on the contrary, criticizes the finale of Piano Quartet op. 47 for its "abundance of episodic structures, and the presence of a second development section as well as a Trio (with all its repetitions), <all of which > protract the overall form of the movement ... undermining the energetic and assertive character of the finale's music" (Protopopov 1965, 353). It is only over the past few years that a clear change in the critics' attitude towards Schumann's works of the 1840s has become obvious, especially in studies concerning structure and formal procedure. Researches by Anthony Newcomb, Joel Lester, John Daverio, and Julie Brown all attempt to explain deviant structures in Schumann's compositions as being alternative formal models. critical of the inherited forms and principles, and influenced by the late works of Beethoven and Schubert, as well as the novels of Jean Paul<sup>1</sup>.

Be that as it may, a clear shift in Schumann's compositional ideals seems to have taken place during the early 1840s; a move from temperamental, even capricious impulsiveness towards a more contemplated design and syntax. In a letter to the composer Robert Franz written in 1846, Schumann, who hitherto seemed to take particular pride in the "obscure and unpredictable nature of his compositions", criticized the composer Julius Schäffer for the absence of a "technician" in his works, the lack of "steadiness and clarity" (Jensen 2011, 206). Such critique clearly indicates a shift in the composer's musical values that was to influence his own work, and become prominent in the chamber music created in 1842 and 1843. Schumann's contemporary critics note distinct changes in Schumann's compositions, in which "Everything is clearer and milder, that which is eccentric has been restrained and blended into an independent style" (cited in Brown 2013, 370). Ernst Friedrich Richter, in his 1845 review of the three String Quartets op. 41, maintains that "the musical ideas are given a clearer shape and do not lose themselves so readily in the mystical profundities and obscure reveries of earlier compositions" (cited in Brown 2013, 370).

Schumann's first attempts in chamber music date back to as early as the second half of the 1830s, and include a piano quintet and a trio contemplated in late August 1836, two

string quartets started in early April and June 1838, and the beginning of two others in June 1839. By 1840, as his interest in audacious experiments and poetic-literary models decreases, Schumann turns towards the works of Haydn, Mozart and Beethoven, a path that inevitably leads him to both symphonic and chamber music, and away from his previous concentration on piano cycles and lieder. Thus, in 1842, after the completion of his Symphony in B b Major and the first version of the Symphony in D Minor a year earlier, Schumann finally makes a decisive turn to chamber music. Despite the skepticism expressed by his wife Clara, and thanks to the encouragement he received through the letters of Franz Liszt, Schumann began working on the three String Quartets op. 41 in June 1842.

Schumann's oeuvre in general, and maybe above all his earlier piano compositions, is characterized by vibrant polyphonic texture: imitations emerge under the melodic surface from the voice-leading of the homophonic functions, animating the texture and enhancing its developmental character. Imitative and contrapuntal voices are intertwined into the musical flux, born from the same impulses as the melody, and dissolve back into it. As Eric Jensen writes in his monography, "Clarity and independence of line were notable characteristics of much eighteenth-century chamber music. And ... Schumann used imitation and fugue as a means of achieving this independence" (Jensen 2001, 206-207). But, as this research will show, imitations, canons and fugati are not just a means of achieving independence of voices within the musical texture, but aspects of formal structure; simple imitations, fugati, and more complex polyphonic forms and genres serve different purposes within the procedure of musical form.

# Three String Quartets op. 41

Generally speaking, clarity and independence of lines, achieved by means of dense polyphonic texture rich in inspired contrapuntal lines might be more characteristic of Schumann's piano compositions, while his chamber music shows a more "technical" approach, depending more on traditional polyphonic procedures and forms. Generic trends in Schumann's use of polyphonic techniques are already present, though in rudimentary form, in the three String Quartets op. 41, written in July 1842. Simple imitations are a common feature of Schumann's musical texture that is independent of a concrete section's location and function in the musical form. More complicated polyphonic forms, on the other hand, tend to serve more precise purposes in accordance with their inherit characteristics and possibilities. If we consider, for example, the Introduzione to the first movement of String Quartet No. 1, we find that it opens with a simple imitation, leading to an intertwined imitative-polyphonic texture with several occurrences of the opening motif. The imitation is in unison since it introduces the section's main theme and provides it with only a minimal degree of development moving from A Minor to D Minor and back, before a short transition links it to the following exposition (Example 1).

محمد

# Introduzione Andante espressivo ( = 69) Violin II Viola Viola Violoncello Violoncello

(Example 1, String Quartet Op. 41, No. 1, I, mm. 1-6)

More sophisticated types of imitation are generally common to developmental sections in Schumann's work. Such is the beginning of the development of the first String Quartet's finale, where the process of imitation gradually accelerates, acquiring sequential features en route (Example 2a). The episode starts with a simple canonic imitation in unison between the first and second violin with a two-measure delay, based on the movements main theme (mm. 84-91). The episode is repeated before, in its last recurrence, being transposed down a major second, transforming the imitation into a canonic sequence. A short ascending four-voice canonic sequence with a one-measure delay follows, with each instrument answering a perfect fourth above the previous; the whole canon is then repeated a major third lower. Thus, with the help of a polyphonic sequence Schumann develops the theme's intonation starting in B Minor through A Minor towards D Minor (Example 2a). In a later stage of the development Schumann continues exploring the theme in a transposing two-voice canonic sequence moving from C Minor to E \( \bar{b} \) Major on a pedal point on the note G. Here the viola imitates the first violin, a perfect fifth lower with a one-measure delay, so that in the sequences first leg the first violin's G in answer by the viola's lower C, while in the second leg the first violin's  $E \triangleright$  is answered by the viola's lower  $A \triangleright$  (Example 2b).



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(Example 2b, String Quartet Op. 41, No. 1, IV, mm. 132-139)

A similar method of development is found at the beginning of the development in the finale of String Quartet No. 2, where instruments enter successively in a descending imitation in A  $\triangleright$  Major, each instrument entering an octave below its predecessor (with the exception of the cello entering a major third below the viola), and with the first violin and the viola forming an inexact canon. The whole episode is then repeated, a fourth higher in D  $\triangleright$  Major, forming a sequence, followed by two ascending sequential imitations based on the same opening interval of the octave (Example 3). As we shall see further, the transposition of whole episodes, including polyphonic structures, is a characteristic procedure for developmental sections in Schumann's work.



(Example 3, String Quartet Op. 41, No. 2, IV, mm. 48-64)

Analogous imitations can also be found in developing sections of the second and fourth movements of String Quartet No. 3 in A Major. Thus the development of the quartet's second movement (mm. 97-144) opens with a rising four-voice imitation at the intervals (F# - C# - B - F#) at a one-measure delay, and imitative texture remains the dominating feature till the end of the section. Similarly, the second section of the fourth movement Trio (mm. 89-96) opens with a two-legged rising three-voice canonic sequence with a one-measure delay, that develops the Trio's opening statement starting on the notes (A - E - A / F - C - F) respectively. Thus, as in the previous examples, motivic imitation and imitations with sequential features are employed by Schumann mainly in developmental sections for the tonal elaboration of thematic material and motifs derived from it.

Returning to the first String Quartet we encounter another significant and traditional polyphonic genre favored by Schumann – a fugato in the first movement's exhibition. The fugato, unlike the canonic sequence, is used by Schumann for the purpose of exhibiting and recapitulating thematic material. In the exhibition of the quartet's first movement the transition begins with a fugato, starting in the main key of F Major. It is based on the opening motif of the movement's main theme, with answers in the dominant (C Major) and subdominant keys (B \( \beta \) Major), a characteristic tonal plan for the composer's fugati (Example 4). As a result, the key of C Major already appears at the beginning of the transition before any modulation to it as secondary key actually takes place in the transition leading to the secondary theme. The fugato then is not employed in this case to facilitate the process of modulation as did canonic sequences considered earlier, but, on the contrary, to further exhibit the movement's main theme before moving on to the modulation leading to the secondary theme's key of C Major per se.



We can thus discern a clear pattern in Schumann's use and deployment of polyphonic procedure within the overall structure of inherited musical forms, on the one hand exhibiting themes with the use of simple imitations and fugati, while drawing on canonic

sequences to further develop musical material, on the other. Parallel trends can also be found in Schumann's Piano Quintet op. 44 and Piano Quartet op. 47 written in the same year as the string quartets.

# Piano Quintet op. 44 in E b Major

The Piano Quintet op. 44 in E b Major was written in September and October of 1842 and consists of four-movements. Eric Jensen finds the Piano Quintet's finale to be "particularly ingenious <as it> combines in a fugue the primary theme from the opening movement (now in augmentation) with that from the finale" (Jensen 2001 206-207). Similar to other compositions of Schumann that have been the focus of the numerous studies already mentioned, the Piano Quintet has a distinct bi-tonal axis with the fundamental home key of E b Major set as an end-goal rather than a point of departure. As we examine the architecture and function of the two fugati in the coda of the work's finale, we shall at the same time explore their tonal structure in relation to the tonal plan of the work as a whole.

Apart from the finale's two fugati and the second return of the slow movement's refrain (with its rather straightforward combination of the themes of the refrain and its second episode), the quintet makes considerably less use of polyphonic technique than did the String Quartets preceding it. The first movement is a "brilliant" Sonata-Allegro opening with an eight-measure antecedent that ends with a perfect cadence, the tonic down-beat coinciding with the beginning of the consequent. Already the antecedent's second chord is the dominant seventh to the key's fourth degree (F minor) that is the beginning of a persistent tendency towards the subdominant group. The first two measures of the consequent, starting on E \( \bar{b} \) Major's (ii<sub>7</sub>), are turned into a pattern for a modulating sequence leading away from E \( \bar{b} \) Major towards G \( \bar{b} \) Major, which simultaneously serves as the lowered sixth of the secondary key of B \( \beta \) Major and as the Neapolitan sixth of its dominant. Tonal instability thus begins before the transition, inside the main theme, and links the latter to the formal transition that leads to the lyrical secondary theme. Hence, right after it is first established, the home key tonal focus is obscured in favor of the secondary key of B \( \bar{b} \) Major and the exposition of the main theme is left tonally open. All this manifests a beginning in medias res, typical for many of Schumann's piano works. Interestingly, the same deviation to G \( \bar{b} \) Major is maintained, though in an abridged form, for the recapitulation, where the key of E b Major is more convincingly stabilized as a result of the transposition to it of both the transition and secondary theme. Similar cases of the compromised tonic were found by J. H. Brown in the finale of Schumann's String Quartet No. 1 and the first movement of String Quartet No. 3 (Brown 2013, 393-422).

The second movement is a Funeral March in F Major written in the sonata-rondo form with a lyrical first episode in C Major, and an agitated dramatic second episode in F Minor, directly after which the first episode is recapitulated in the home key. The movement establishes C Minor/Major (alongside its subdominant satellite F Minor/Major, already present in the first movement's exposition) as a counterpart of E  $\flat$  Major. Though this is still not obvious, the reasons for such an interpretation will become clear as we continue our analysis of the remaining movements.

The third movement is an energetic Scherzo in the form of a simple five-part rondo with two contrasting Trios. The table below reflects its tonal plan (Chart 1). As we can see, the third movement makes a rather convincing return to the work's home key of E  $\,\flat\,$  Major. Its two Trios recall the key of G  $\,\flat\,$  Major from the first movement, and the tonic F from the second movement (as well as the first movement's exposition), reproducing at the same time the tonic-subdominant relation (E  $\,\flat\,$  Major/ A  $\,\flat\,$  Minor) from the second

movement. These observations assign the Scherzo the unexpected features of a summarizing and concluding movement. But in that case, what is the role of the finale?

Scherzo	Trio I	Scherzo	Trio II	Scherzo
E ♭ Major	G ♭ Major-F Minor -G ♭ Major	E ♭ Major	A ♭ Minor	E ♭ Major

(Chart 1. Piano Quintet op. 44: Structure of the 3rd Movement)

The Quintet's finale is a recurring recollection of the hitherto exposed tonal axis E \( \beta \) C that retraces its development with a higher degree of intensity and tension (Chart 2). The juxtaposition of the two tonalities is now more immediate. While the first movement had E b Major as a goal-key after a blurred starting key, the finale has the same key exclusively as its goal-key, reached from a less than conclusive point of departure and, therefore, the more demonstratively does it begin in medias res. The main theme opening statement begins in C Minor and modulates to the dominant key of G Minor, although all of its strong beats already assert the minor dominant from its very beginning. Only the transition implies the goal-key of E b Major, later modulating through G minor to D minor. If we consider the movement's secondary key of G Major, the dominant of C Minor, the tonic G becomes prevailing in the finale's exposition, as was the case with B b in the Quintets first movement. It remains for the recapitulation to reestablish the home tonic of E | starting with an abridged statement of the main theme in E | Minor, followed without a transition by the secondary theme in E \( \bar{\rmathbb{b}} \) Major. This being the case, one would assume that the fundamental goal-key of E b Major has been reached and irreversibly established, were it not for the coda, in which the Quintet's bi-tonal opposition is retraced once more with all subsidiary keys expunged.

Main	Episode 1	Fugato 1	Episode 2	Fugato 2	Episode 1
theme	(transition)		(transition)		(conclusion)
C Minor	E ♭ Major	C Minor	E ♭ Major	E ♭ Major	E ♭ Major
12 m.	24 m.	26 m.	44 m.	60 m.	49 m.

(Chart 2. Piano Quintet op. 44, IV: Structure of the Coda)

Opening in C Minor, the finale's coda brings the work's tonal dichotomy to a direct encounter, alternatively juxtaposing the keys of C Minor and E \( \bar{\text{Major}} \) Major in a series of consecutive episodic structures. The coda's function is to offer a more convincing tonal and thematic conclusion of the Quintet as a whole by recalling thematic material from its previous movements and combining it with the main theme of the finale in two separate fugato episodes.

The first fugato is a twenty-six measure double-fugato, combining the main theme of the finale with a contrapuntal theme that in some aspects recalls the theme of the second Trio of the Scherzo with its energy, distinct articulation, and general motion (Example 5). After five entrances of the themes in the tonic and dominant keys (including one in the piano part without the contrapuntal eighths' theme) the development dissolves back into the mainly homophonic texture of the coda, leading to a transitional episode in the home key.



The second fugato is more elaborate (60 measures) and combines the main themes of both the finale (transposed to E 
ightharpoonup Major) and the first movement, the latter in augmentation (Example 6). This section, called by many researchers a "double-fugue" is actually a double-fugato that almost meets the requirements of the canon, followed by a developmental section, in which the finale-theme is omitted and only the opening minor seventh interval is preserved from the first movement's main theme. It is noteworthy from the technical point of view that in the third entrance of the two themes (in the parts of the viola and  $2^{nd}$  violin) a relatively more complex counterpoint is used, that of the ninth (Index verticalis = -16 [equal to -9]). By twice juxtaposing C Minor and E 
ightharpoonup Major in the coda, the final assertion of the home key is thus related to the "prevalence" of both the home key and the first movement's main theme.



(Example 6. Piano Quintet op. 44, VI, 7 Measures after 319)

Thus, the two double-fugati are used by Schumann as a means for achieving a final concentrated recollection of the quintet's bi-tonal structure. The first fugato is built on the main theme in C Minor, while the second is based on two, in the beginning, equal themes: the eventually prevailing main theme of the first movement, and the finale's main theme, yielding to it by being transposed to its home key of E b Major. This fugato thus sublimes the contradiction of the work's fundamental dichotomy of two tonalities, previously juxtaposed on the three levels of "work", movement, and coda.

### The Finale of Piano Quartet op 47 in E b Major

Schumann wrote the Piano Quartet op. 47 in E b Major directly following the Quintet, during October and November of 1842. As was the case in the Piano Quintet, the finale contains the work's most concentrated polyphonic texture requiring rigorous technique and sophisticated notion of design. According to Protopopov's analysis, the finale is written in the sonata form with the main theme expunged in the recapitulation (Protopopov 1965, 350). It also includes a second development section between the recapitulation and the coda; it is transposed a fourth higher, emphasizing the crucial role of the subdominant key for the current movement. The movement's intonations are closely related to the work's other movements, especially the Andante, which turns the whole Quartet into a "polyphonic composition of a higher level" (Protopopov 1965, 353). The overall form of the movement is illustrated in the table below (Chart 3).

Exposition (1 - 58)

Main Theme	Transition	Secondary Theme	Closing Theme
Measures 1 - 22	23 - 39	40 - 58	59 - 62
E ♭ Major	E ♭ - B ♭ Major	B♭ Major	B♭ Major

1<sup>st</sup> Devoplment (59 – 143)

Trio (144 – 175) A b Major

# Recapitulation (176 - 203)

Transition	Secondary Theme	Closing Theme
176 - 184	185 - 203	204 - 207
E ♭ Major	E ♭ Major	E ♭ Major

2<sup>nd</sup> Development (204 – 267) Coda (268 – 314)

"Fugue"	Conclusion
268 – 196	197 - 314
E ♭ Major	E ♭ Major

(Chart 3. Piano Quartet op. 47: structure of the 1st movement)

Julie Hedges Brown in her article, "Higher Echos of the Past in the Finale of Schumann's 1842 Piano Quartet" suggests an alternative interpretation of the finale's structure. According to Brown's analysis, the recapitulation starts at measure 140 with a short restatement of the main theme in the home key, the Trio-Arabesque in A b Major replacing the subdominant answer in the original fugato (Brown 2004, 525). Brown reads the rest of the form in coincidence with the table above, revealing an underlying parallel structure to the movement. As both readings seem plausible and as neither interferes with our current analysis or the conclusions based upon it, we shall commence without further elaborations regarding the movement's overall structure.

The finale opens with the main theme, in Protopopov's words an Epigragh-theme (Protopopov 1965, 350), consisting of a strong three-chord motive followed by a descending sixteenth note figuration that leads to a cadence. It is directly followed by a fugato which starts with the violas stating the theme in E b Major, answered by the piano in the dominant key (B b Major). Then the violin enters without intermission in the tonic key, answered again by the piano, this time a fourth higher in the subdominant key (A b Major) using an (Iv = -7). The fugato ends with a perfect cadence in E  $\flat$  Major. Similarly to the Piano Quartet, the subdominant answer is of fundamental importance for Brown's analysis of the movement's tonal plan and form, as it is linked to the key of the Trio-Arabesque located within the recapitulation (or at the end of the development, according to Protopopov). The fugato as a form of exposition is essential in asserting the home key and its tonal plan foresees the crucial role to be played by the dominant and, especially, subdominant keys. The further development of the main theme following the fugato will be the concentration of polyphonic techniques employed throughout most of the movement, with special emphasis on various forms of canonic sequences (numbered seq. 1).

The main theme returns on the two-beat anacrusis to measure 74 (seq. 1a), shortly after the beginning of the first development section, in the form of a transposing three-voice canonic sequence. The sequence starts in D Minor and ends in B Minor, having moved through A Minor and E Minor (Example 7). It begins with the violin, followed by the viola and the piano, answering a fifth and a compound fifth lower respectively. The sequential pattern is repeated thrice, each time transposed a fifth higher and ending in a homophonic texture in B Minor that, in its turn, leads a few measures later to a perfect cadence in C Major (not included in Example 7).



(Example 7. Piano Quartet Op. 47, IV, mm. 74-81)

The second return of the main theme is on the anacrusis to measure 107 (seq. 1b), forming another transposing three-voice canonic sequence, started by the violin, with the viola and cello, answering an octave and a compound prefect fifth lower respectively. Here the pattern is repeated twice, transposed first a Major third and afterwards an additional perfect fifth higher. Thus the sequence leads from  $G \triangleright Major$  through  $B \triangleright Minor$  to F Minor/Major. Still in the first development section, this episode is repeated thirteen measures later (starting on the anacrusis to measure 126) a perfect fourth higher (seq. 1c). It starts in  $C \triangleright Major$  and ends conveniently with a pedal point on  $B \triangleright A$ , a retransition anticipating a recapitulation, but instead leading to the Trio-Arabesque.

Eleven measures into the second development section that follows the Trio and the recapitulation, the fourth statement of the main theme begins, this time as a transposing four-voice canonic sequence (seq. 1d). It opens with the violin's statement in G Minor with the viola, cello and piano answering a fourth higher with only a one-beat delay (Example 8). As can be seen, this is a four-legged transposing sequence with each leg starting in the part of the first violin transposed a perfect fifth higher. Thus, the first leg starts on the note D, answered by the remaining three instruments, all starting on the note G. This is followed by the second leg starting on the note A answered by three imitations, all starting on D, while the second leg starts on the note E answered by three imitations, all starting on the note A. The last leg is incomplete and starts on the note B, but is answered only by the viola and only with a singly note E



(Example 8. Piano Quartet Op. 47, IV, mm. 218-226)

The main theme returns for a fifth time in the form of a transposing three-voice canonic sequence that starts once more in C  $\, \flat \,$  Major (mm. 252-257, Seq. 1e) and leads directly to a pedal point on B  $\, \flat \,$ . The viola and the cello answer the violin an octave and a compound fourth lower respectively. The sequential pattern is raised first a major third, then a perfect fourth.

The following pedal point forms a retransition leading to the sixth and last restatement of the main theme in E b Major, also a three-voice canonic sequence, which directly precedes the coda. The viola and cello answer the violin an octave and a compound fifth lower respectively, in a stepwise, descending, and diatonic sequence distinctly different from all previously analyzed. This signifies a discernable recapitulative moment that supports Protopopov's interpretation of the movement's overall structure. It functions as the recapitulation of the main theme, absent in the general recapitulation that followed the Trio-Arabesque.

Apart from these concentrated polyphonic textures associated with the refrain-like returns of the main theme, there is an additional section, not directly related to any of the previous themes, that also employs polyphonic technique, but functions more as a transition than as an independent episode. The first one is a two-phase chromatic canonic sequence played by the cello and answered by the viola a fourth higher, with both voiced doubled by the piano. Altogether the sequence has seven legs (with a tonal shift after the fourth leg) starting in f Minor and ending in G  $\flat$  Major (Example 9). This sequence is repeated a fourth higher and with some modifications in measures (213 -135) of the second development section, after the third return of the main theme mentioned earlier, this time staring in B  $\flat$  Major and ending in C  $\flat$  Major. Both canonic sequences are thus of the modulating kind, covering the wide interval of a major  $7^{th}$ . Yet the actual distance of the scales each of them starts and end in is very different in range. While the first sequence leads from F Minor to G  $\flat$  Major, adding only two flats to the key signature, the second sequence leads from B  $\flat$  Major to C  $\flat$  Major, adding five flats to the key

signature. The modulating function of the second sequence is thus much stronger and farther reaching than that of the first, indicating a much deeper developing function.



(Example 9. Piano Quartet Op. 47, IV, mm. 93-106)

Thus we can see that transposing canonic sequences function as the primary catalyst and main principle of development in the finale, as they allow Schumann to easily change keys and reach remote tonalities while moving through the circle of fifths. Each of the two development sections uses the two above-illustrated sequences to move, first, in the sharp direction of the circle, and then backwards in the flat direction much deeper than the home key of  $E \triangleright Major$ , reaching tonalities such as the major keys of the lowered sixth and lowered third degrees, as well as the minor dominant key. Following is the tonal plan of the first development section: d - a - e - C [=V/f]  $- f - G \triangleright - b \triangleright - C \triangleright - V/E \triangleright$  [retransition]. The second development section, as said, retraces almost the same route a fourth higher with the intermediate keys of F Minor and  $G \triangleright Major$  being omitted (Chart 4).

First Development Section (64-140)								
Opening	Seq. 1a	tr.	M. Theme	Seq. 2a	Seq. 1b	Seq. 2b	Seq. 1c	Retransition
64-73	74-81		87-89	94- 106	107-112	113- 125	126-131	132-140
	d-a-e-b		С	f	G ♭ -b ♭ -f	b ♭	C b -e b -b	Pedal point

Second Development Section (214-287)							
Opening	Seq. 1d	tr.	M.	Seq. 2c	Seq. 1e	Retransition	M. Theme
			Theme				(seq.)
214-218	219-		232-234	239-251	252-257	258-265	267-287
	226						
	g-d-a-e		F	b b	C b -e b -b	Pedal point	Diatonic seq. E
					b		b

(Chart 4. Piano Quartet op. 47m Finale: Structure of the Two Development Sections)

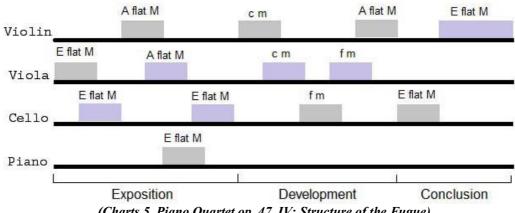
Both series of canonic sequences thus form the contour-knots in a continuous twophased line of development. The sequences alternate as smaller transitional episodes are interpolated between them. Consequently, contrapuntal sequencing is the primary method of development in both sections; most sequences are transposing and are applied mainly to the movement's main theme. The secondary and closing themes take no part in the finale's development.

The central polyphonic event of the movement, however, is the final fugue located in the coda, which comes as a climactic conclusion of the movement, as well as the Quartet as a whole. It is a relatively small fugue with most themes entering stretto, and almost every second theme being incomplete altogether (6 out of a total of 13 theme-entrances). An alternative interpretation of the fugue's design would be to consider the incomplete entrances as a second theme, and thus the whole fugue as a double fugue. This, however, would mean for the "second theme" to be identical to the first half of the first theme and not contrasting to it, and to allow it to end on the second degree of the scale, i.e. the traditionally avoided dominant of the dominant. Neither of these two allowances seems acceptable to us (Example 10).



The chart below illustrates the overall ternary structure of the fugue and its tonal plan, consisting of an exposition that includes two redundant entries, a development mainly in the subdominant-sphere keys, and a conclusion returning to the main key (Chart 5). It is noticeable that the fugue has no intermissions, a fact that, in combination with the stretto

technique, accounts at least partly for its small overall scale. This is an unconventional fugue in several ways: the three subdominant statements, two in the exposition and one directly prior to the conclusion, lead to a complete replacement of the dominant by the subdominant key, reemphasizing the latter's crucial role in the tonal plan of the movement as a whole; most theme-entrances (including in the exposition) are answered by incomplete entrances in the same key; the traditional order of the voices entering is not observed with the piano generally playing a secondary and unequal role, mostly in unison with other voices and only once entering independently.



(Charts 5. Piano Quartet op. 47, IV: Structure of the Fugue)

The fugue occupies a central place in the coda, and, together with the preceding last statement of the movement's main theme functions as a concluding and summarizing return to the sphere of the main theme bringing with it a final stabilization of the home key of E \( \bar{b}\) Major, simultaneously touching upon the alternative, secondary key of A \( \bar{b}\) Major.

As we have shown, the two fugal sections of the Quartet function as part of the exhibitional and recapitulating sections, neither of which requires significant thematic and tonal development, leaning almost exclusively on tonal and harmonic juxtaposition. The subdominant answers (the key already present in the finale's exposition) play a stabilizing role in the coda, and strengthen the concluding function of the whole section, as they are generally considered less contrasting compared to dominant answers.

### Conclusion

The current research shows that Schumann's employment of polyphonic techniques has undergone considerable change from free inspired imitations and contrapuntal voices emerging from within the musical flux and enhancing its developmental character in his piano compositions of the 1830s, to more thoroughly designed polyphonic forms and methods invoked to play a structuring role more closely related to the work's formal procedure and tonal plan. Within this paradigm simple imitations, fugati, and fugues are deployed in exhibitional and recapitulating sections, allowing for simple inherent structural and harmonic characteristics and aspects of the musical material to be more clearly revealed and exhibited to the listener. Diatonic and transposing canonic sequences, on the other hand, are more appropriate, and thus more often employed, to explore the developmental potential of themes and motifs by ways of more extensive contrapuntal, harmonic, and tonal elaboration.

### **Footnote**

See J. Lester "Robert Schumann and the Sonata Form", A. Newcomb "Once More between Absolute and Program Music: Schumann's Second Symphony", J. Daverio "Beautiful and Abstruse Conversations: The Chamber Music of Robert Schumann", as well as the analyses of the first movement of String Quartet op. 41, No.3, the finale of String Quartet op. 41, No. 1, and the first movement and the finale of Piano Quartet op. 47, carried out by Julie Hedges studies of Brown her publications cited in this article.

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