

# Tonality or Atonality in Bartók's Sonata for Violin and Piano no. 2? From Folk Modalities to a Twelve-tone Language

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## ORIGINAL RESEARCH PAPER

Received: October 8, 2017 • Accepted: November 3, 2017

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### ABSTRACT

External political circumstances as well as Bartók's personal activities in the early 1920s were decisive in contributing to the expansion of the basic principles of his musical language. Bartók's Second Sonata for Violin and Piano (1922) may be considered a focal point in his evolution toward ultramodernism. Concomitant with this tendency, both Sonatas for Violin and Piano of this period have become paradigmatic of the controversial notion set forth by certain scholars regarding the existence of an atonal Bartók idiom. Within the ultramodernist style of the Second Sonata, the essence of Eastern-European folk music is still very much in evidence. The intention of this article is to show how Bartók's move toward synthesis of varied folk and art-music elements in this work produces a sense of an organic connection between atonality and tonality. The close connection between these two principles was suggested by Bartók in an essay of 1920. I intend to show how both contradictory principles are conjoined within a highly complex polymodal idiom based on the tendency toward equalization of the twelve tones. Within the stanzaic structure of the Romanian "long song," stylistic elements of recitation, improvisation, and declamation are essential in the gradual unfolding between these two contrasting concepts of pitch organization. Despite tonal ambiguity on both local and large-scale levels, the sense of polymodal tonality is ultimately established as primary.

### KEYWORDS

Bartók, musical language, tonality, atonality, Sonata for Violin and Piano no. 2

External political circumstances as well as Bartók's personal activities in the early 1920s were decisive factors in the expansion of the basic principles of his musical language. Significant

changes in Bartók's approach to tonality as well as melodic style and instrumental writing are exemplified in his two Sonatas for Violin and Piano (BB 84, 1921 and BB 85, 1922). Prevented from any further folk-music investigations after the signing of the Treaty of Trianon in 1920, Bartók was forced to shift his activities more toward composition and an intensive concert career. This change of activities is partly reflected in the increasingly abstract transformations of the folk-music sources that he had investigated prior to World War I. Although Bartók still incorporated authentic folk tunes in his *Improvisations*, op. 20, for piano (BB 83, 1920), he shifted musical interest from the folk tunes to their accompaniments. This tendency was to lead to greater harmonic complexity and abstraction in his two Violin Sonatas, which abandon the use of authentic folk tunes. The significance of this evolution of Bartók's musical language from the folk modes to a highly systematic and integrated use of abstract pitch formations lies in the growth toward a new means of establishing tonal priority within an atonal harmonic fabric.

Bartók's two Violin Sonatas may be considered a focal point in his move toward ultramodernism in the early 1920s based on an intensified sense of harmonic dissonance. Concomitant with this tendency, these Sonatas have become paradigmatic of the controversial notion set forth by certain theorists of the existence of an atonal Bartók idiom.<sup>1</sup> Bartók wrote an essay in 1920 that provides insight into his new musical language, his commentary being directly relevant to these Sonatas:

The music of our times strives decidedly toward atonality. Yet it does not seem to be right to interpret the principle of tonality as the opposite to atonality. The latter is much more the consequence of a gradual development, originating from tonality, absolutely proceeding step by step – without any gaps or violent leaps.<sup>2</sup>

Bartók's move toward synthesis of varied folk and art-music sources is fundamental in understanding how these two contradictory principles – *tonality vs. atonality* – can be conjoined within the same context. The duality is exemplified in his Sonata for Violin and Piano no. 2, in C major. Bartók's musical language may be approached from either of two points of view – one in which the concepts and terminology are derived from folk-music sources, the other in which the concepts and analytical tools are derived from certain currents in contemporary art music. It is important to realize that the assumptions underlying *both* approaches are essential in understanding the musical language of the Second Sonata, since fundamental relationships exist between the modal tonalities of folk music (either diatonic or non-diatonic) and various atonal pitch formations commonly found in contemporary compositions. On the one hand, the modal tonality of Eastern European folk music is still very much in evidence within the otherwise ultramodernist context of the Second Sonata. Modal, rhythmic, and structural elements from Romanian and Hungarian folk music contribute to the distinctive styles of the various passages

<sup>1</sup>See Paul WILSON, "Violin Sonatas," *The Bartók Companion*, ed. by Malcolm GILLIES (London: Faber and Faber, 1993; Portland, OR: Amadeus Press, an imprint of Timber Press, Inc., 1994), 244. See also "Atonality and Structure in Works of Béla Bartók's Middle Period," Ph.D. diss. Yale University, 1982. See also Allen FORTE, "Bartók's 'Serial' Composition," *Musical Quarterly* 46, no. 2 (April 1960), 233–245, and others.

<sup>2</sup>See Béla BARTÓK, *Essays*, ed. by Benjamin SUCHOFF (New York: St. Martin's Press, 1976), 455. Originally in Béla BARTÓK, "Das Problem der neuen Musik" [The problem of the new music], *Melos* 1/5 (April 1920), 107–110.



within the two movements based on the *Lassú* [Slow] and *Friss* [Fast] of the *verbunkos*. On the other hand, these folk-related elements are transformed into the more complex polymodal contexts that tend toward the equalization of the twelve tones that borders on an atonal, though nonserialized idiom.

Bartók's use of the twelve tones has little or nothing to do with Arnold Schoenberg's twelve-tone series conception.<sup>3</sup> The use of the twelve tones in the Second Sonata and other works of Bartók is analogous to the pre-compositional assumptions of the major and minor scales in traditional tonal music. Just as the major and minor scales had served as the basis for deriving major and minor triads in traditional tonal music, the twelve-tone scale serves as the basis for deriving new kinds of harmonic construction in the Bartók idiom. The present discussion centers around Bartók's creation of a new tonal conception that unfolds within the Classical framework of sonatina-rondo and scherzo-trio movements. These Classical forms serve as the framework for certain structural principles found in Eastern European folk music. The latter includes the quaternary stanzaic structure and melodic style of the Romanian *hora lungă*, its recitations, improvisations, and declamations<sup>4</sup> providing a vehicle for establishing Bartók's tonality within his twelve-tone polymodal contexts.

Tension between *tonal* and *atonal* perceptions is partly produced by the juxtaposition of the two independent instrumental layers. Bartók's student Gisella Selden-Goth recalled that "[Bartók] believed strongly that the music written for each instrument should be thematically independent – for example, in a duo-sonata the violin and piano should work out completely different thematic material, thus violating the constructive principles of traditional composition."<sup>5</sup> The opening violin theme recalls the spun-out improvisational quality of the Romanian "long song," the piano material differing in its more segmented rhythmic counterpoint and almost mutually exclusive harmonic content. Tonal priority is often blurred by the contrasting instrumental narratives as well as the continuous spinning out of the melodic fabric. However, the tendency toward equalization of the twelve tones by means of modal transformation into more abstract cyclic-interval constructions is essential in undermining the voice leading so basic to traditional tonality. On the other hand, tonic assertions within the Second Violin Sonata are strongly reliant on the melodic recitations and declamations of the Romanian *hora lungă*. Beyond that, various articulative devices (in contour, rhythm, phrasal position, and other parameters), which contribute to modal identity, are essential in establishing the primacy of a given modal permutation.

## THE TWELVE-TONE SCALE AS GENERATED BY MODALITY, POLYMODALITY, AND CYCLIC-INTERVAL CONSTRUCTIONS

What is this twelve-tone conception in Bartók's Second Violin Sonata? How does it serve as the basis for harmonic construction and progression, and how does it establish either a sense of

<sup>3</sup>Arnold SCHOENBERG, 1941 essay "Composition with Twelve Tones (I)," in id., *Style and Idea: Selected Writings of Arnold Schoenberg*, ed. by Leonard STEIN, transl. by Leo BLACK (London: Faber and Faber, 1975), 219.

<sup>4</sup>See footnotes 7 and 8 below.

<sup>5</sup>Malcolm GILLIES, *Bartók Remembered* (London: Faber and Faber, 1990), 49.



tonality or atonality? In the twentieth century, the coordination of modes within a common octave boundary, or on a common “tonic,” has become the basis in many compositions – especially those influenced by folk-music sources – for a new way of subdividing the octave. In such polymodal contexts, the octave boundary for combined modes serves primarily to establish a given order of modal intervals and only secondarily to establish a “tonic,” or “key center,” if at all.

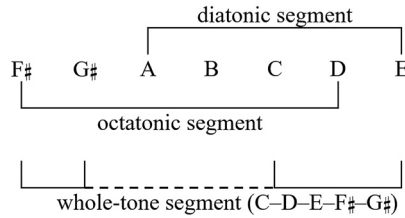
It is often assumed that the boundary pitch class of a scale is also its tonic. However, these do not necessarily coincide, as we know not only from practice, but also from the theory of the Church modes. Although presented here only as an analogy, this principle contributes to the sense of ambiguity between tonality and atonality in Bartók’s Second Violin Sonata. In early music, the Church modes provided not only for “authentic” forms in which boundary pitch class and tonic coincide, but also for “plagal” forms in which the fifth above the tonic is the boundary pitch class. Thus, any given scale might represent either the authentic mode or the plagal mode of the same pitch-class collection. For instance, the same scale that may be identified as C Ionian may also represent the plagal form of F Lydian. In practice, the relation between ambitus and tonic and the assignment of a specific modal name to a piece of Medieval or Renaissance polyphonic music turn out to be problematical indeed. Such ambiguity is essential to the idiom of Bartók’s Second Violin Sonata.

Within the stanzaic constructions and *hora lungă* melodic formulae of Romanian folk music implied in Bartók’s Second Violin Sonata, the means by which the modes (both diatonic and non-diatonic) mark out the twelve-tone musical space is dependent upon the techniques of modal variation, transposition, rotation, and extension. The principle of extension is essential for the transformation of the folk modalities into non-traditional, often symmetrical, cyclic-interval pitch constructions. In his earliest studies of Hungarian, Romanian, and Slovak folk music, Bartók was already aware that the traditional major and minor scales were generally absent from the authentic folk melodies. Instead, he had found a prevalence of the Greek or Medieval Church modes as well as some that were entirely unknown in modal art music.<sup>6</sup> The latter, unlike the Church modes, are non-diatonic. One instance (F♯–G♯–A–B–C–D–E) is given in Fig. 1, where certain overlapping segments of the mode (A–B–C–D–E and F♯–G♯–A–B–C–D) are isolated by brackets. These segments are often extended by Bartók in his own compositions in order to generate larger modal and symmetrical pitch collections (Fig. 2a and b). Among these, the most significant are complete diatonic and octatonic scales. If we rotate the basic mode to C–D–E–F♯–G♯–A–B (Fig. 2c), five of the six notes of a whole-tone scale (C–D–E–F♯–G♯) come into adjacency. All of these extensions of the basic mode (diatonic, octatonic, and whole-tone) are exploited both melodically and harmonically by Bartók in his Second Violin Sonata as pitch sets divorced from traditional tonal functions.

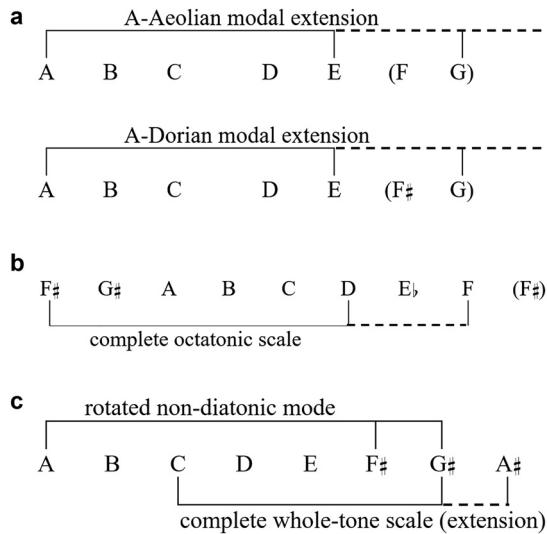
As Fig. 3 shows, this non-diatonic folk mode belongs to a larger family of modes related to each other by systematic rotation. Bartók referred to these constructions as non-diatonic modes, whereas modern Hungarian scholars have referred to the system as “Heptatonía Secunda.” Both terminologies are appropriate in emphasizing special attributes of this family of modes. I shall use the “non-diatonic” term because of its broader implications for extension and

<sup>6</sup>See BARTÓK, “Harvard Lectures,” in *Essays*, 363.





**Fig. 1.** Non-diatonic folk mode found by Bartók in Hungarian peasant music, with divergent overlapping modal segments (*Essays*, 363)



**Fig. 2.** Diatonic, octatonic and whole-tone extensions of non-diatonic folk mode in Fig. 1. a) two diatonic extensions; b) octatonic extension; c) rotation of non-diatonic mode and whole-tone extension

transformation into more abstract non-diatonic constructions. The rotations in Fig. 3 produce seven different non-diatonic modal forms analogous to the seven rotations of the “white-key” diatonic scale. The mode shown in Fig. 1 appears as rotation 3 in Fig. 3. Several ways of varying the non-diatonic modes that make up this family of modes, i.e., by rotation, extension, and polymodal combination, take us beyond the folk sources into greater modernistic abstraction. This is demonstrated below in Bartók’s Second Violin Sonata.

The question arises as to how these pitch constructions and their harmonic interactions produce either tonal priority or tonal ambiguity. The stanzaic folk-like structure, which forms the framework for polymodal unfolding, is essential to both the tonal and atonal concepts. The Second Violin Sonata opens with a long winding melody in the style of the Romanian *hora*



Intervals	Rotation 1	Rotation 2	Rotation 3	Rotation 4	Rotation 5	Rotation 6	Rotation 7
2	D						
2	E	E					
2	F♯	F♯	F♯				
1	G♯	G♯	G♯	G♯			
2	A	A	A	A	A		
1	B	B	B	B	B	B	
2	C	C	C	C	C	C	C
2	(D)	D	D	D	D	D	D
2		(E)	E	E	E	E	E
2			(F♯)	F♯	F♯	F♯	F♯
1				(G♯)	G♯	G♯	G♯
2					(A)	A	A
1						(B)	B
							(C)

**Fig. 3.** Family of non-diatonic modes, related to each other by *systematic rotation*

*lungă*, in which ambiguity (or non-synchronization) between mode and tonic is apparent from the outset.<sup>7</sup> The parlando-rubato style of this type of theme provides the necessary melodic elongation and rhythmic diversity for generating the increasingly dense twelve-tone complex. Characteristic recitations, improvisations, and declamations of the *hora lungă*, discussed by Bartók in his study of Romanian folk music,<sup>8</sup> unfold as successive melodic subdivisions within

<sup>7</sup>According to Bartók, in “Romanian Folk Music” (1935), in *Béla Bartók: Studies in Ethnomusicology*, ed. by Benjamin SUCHOFF (Lincoln and London: University of Nebraska Press, 1997), 166–167, “The *hora lungă* is a melody type altogether improvisatory in form, highly ornamented, and in a kind of rubato performance which reminds us of instrumental music.”

<sup>8</sup>See Béla BARTÓK, *Volksmusik der Rumänen von Maramureş* (Munich: Drei Masken Verlag, 1923); also in English translation in *Rumanian Folk Music*, ed. by Benjamin SUCHOFF, vol. I: *Instrumental Melodies* (The Hague: Martinus Nijhoff, 1967) and vol. V: *Maramureş County* (The Hague: Martinus Nijhoff, 1975), for Bartók’s discussion of these characteristics of the *hora lungă*.



321b.

1. Hei D-în fun-du gră-di-nai me-lé, ei D-în fun-du-gră-di-nei  
me-lé, Nu na na ai Na-na-na do-nu-le nu-mai,

2. Hei Câm-tă do-yă pă-să-re-lé, ei Câm-tă do-yă pă-să-  
re-lé, Nu na na ai Na-na-na do-nu-le nu-mai.

**Example 1.** *Hora lungă, Rumanian Folk Music, vol. II, vocal melody no. 321b*

the stanzaic constructions of the opening movement.<sup>9</sup> These melodic styles from the Romanian folk source are essential in articulating the principal tones within the polymodal complex. A *recitation* appears as an opening succession of figural encirclings of a single, sustained focal tone, analogously to a “psalm-tone” in early music. An *improvisation* follows as a rhapsodic continuation of variants on one or more figures that culminates at a cadence. A *declamation* articulates a passage with an emphatic repetition of a short figure that ends a section on a primary cadential tone.

The contour and ornamented, improvisational melodic characteristics of the opening theme may be compared to a Romanian folk song transcribed by Bartók (Example 1).<sup>10</sup> The quaternary stanzaic outline of the main theme of the Second Violin Sonata (Example 2) provides the framework for the intersection of various modes and tonalities. Within the stanzaic outline, tonal ambiguity is produced by the combined modalities, which contribute to chromatic fluidity within the twelve-tone complex. This fluidity draws our attention away from tonal primacy to sonic construction, so the Sonata elicits the concern for harmonic color rather than tonal

<sup>9</sup>The first movement is based on a larger Classical sonatina design (i.e., without Development section): Exposition-Introduction (measures 1-4), First Theme (measure 5-fig. 2, measure 4), Transition (fig. 2, measure 5-fig. 4, measure 2); Introduction to Second Theme (fig. 4, measures 3-5), Second Theme (fig. 5-fig. 6, measure 8), Closing Theme (fig. 7-fig. 8, measure 4); Recapitulation-First Theme (fig. 8, measure 5-fig. 10, measure 5), Transition (fig. 11-fig. 12, measure 4), Second Theme (fig. 12, measure 5-fig. 14, measure 9), Closing Theme (fig. 15-fig. 15, measure 6); Coda-false recap of Th. 1 - (fig. 15, measure 6-fig. 18, measure 6) - real recap of Th. 1 (fig. 18).

<sup>10</sup>See Béla BARTÓK, *Rumanian Folk Music*, ed. by Benjamin SUCHOFF, vol. II: *Vocal Melodies* (The Hague: Martinus Nijhoff, 1967), x.



The musical score is divided into three systems, each with a vocal line and a piano accompaniment.

- System 1:**
  - Vocal: *Molto moderato. (♩ = 116)*, *mf espr.*, *dim. calando*, *poco rall.*, *a tempo*. Recitation on E. Includes annotations: "Th. I a", "RFM rotation 7 on C (C-D-E-F#-G#-A-[])", "RFM rotation 2", "A-B-C#-D-E-F-[G]", "WT0".
  - Piano: *Molto moderato. (♩ = 116)*, *f*, *poco rall.*, *a tempo*. Includes annotation: "RFM rotation 5 (on F#): F#-G#-A-B-C#-D#-E#", "F# and black key chords = segment of 5th cycle: F#-C#-G#-D#-[]-E#-B#".
- System 2:**
  - Vocal: *mf*, *p*, *ritard.*. Recitation on G. Includes annotation: "A Phrygian: A-B-C-D-E-F-G", "b", "improvisation".
  - Piano: *ritard.*, *mf*, *p*. Includes annotation: "3".
- System 3:**
  - Vocal: *a tempo*, *ritard.*, *a tempo (più vivo) (♩ = 132)*, *rallent.*, *(♩ = 80)*, *quasi a tempo (♩ = cca 96)*. Recitation on D. Includes annotation: "c".
  - Piano: *a tempo*, *ritard.*, *a tempo (più vivo) (♩ = 132)*, *rallent.*, *(♩ = 80)*, *quasi a tempo (♩ = cca 96)*. Includes annotations: "3", "mf subito", "f", "mf dim.", "espr.", "p", "dolce".

Example 2. Quaternary stanza of *hora lungă* theme, to fig. 2, m. 4





The image displays a musical score for a vocal line and piano accompaniment. The vocal line is written in a 7/8 time signature and includes a 'declamation ending on E' marked with a 'd'. The piano part is in a 7/8 time signature and features complex rhythmic patterns with triplets and sixteenth notes. Performance instructions include 'poco rall.', 'Meno mosso. (♩ = 76)', 'ritard.', and 'a tempo (♩ = 116)'. Dynamics range from *pp* to *f*. The score concludes with a 'C-E-G' chord and a 'poco stringendo' section in 8/8 time, marked 'rallent.' and 'al (♩ = 98) con sord.'.

**Example 2. (continued)**

directedness. Halsey Stevens aptly observed in the mature scores of Bartók that “key-designations must be considered only as points of reference and of final cadence, while the terms ‘major’ and ‘minor’ are hardly useful in identifying tonalities as complex as these.”<sup>11</sup>

In view of Bartók’s own tonal designation for the Second Sonata, the question arises as to the status of C major, in which the presence of the tonic triad is only implied from the outset. As in much of Bartók’s music, the Second Sonata is based on the principle of “emergent tonality,”<sup>12</sup> in which the primary tonality of the work is only gradually established toward the end of the second movement. The C-major triad forms the exclusive content at the final cadential point. The tonic triad only gradually emerges from its implied presence in the opening theme to its final foreground assertion. Despite its ambiguity at the opening, it is the structure of the *hora lungă* theme that points to the tonic triad as primary referent, although it does not appear as an integrated harmonic entity nor traditional functional construct within Bartók’s polymodal context. The initial thematic recitation in the violin encircles the third degree (E) of the C-major triad. This note is prolonged (through the opening of measure 6) before the final descent of the phrase to what appears to be a tonic ambiguity between C and A. The importance of C as tonic

<sup>11</sup>Halsey STEVENS, *The Life and Music of Béla Bartók* (New York: Oxford University Press, 1964), 205.

<sup>12</sup>David GOW, “Tonality and Structure in Bartók’s First Two String Quartets,” *The Music Review* 34 (August–November 1973), 259.



is already suggested in the preceding modal descent, A-G#-F#-E-D-C (measure 5).<sup>13</sup> The descent to the tonic note in phrase-a is more explicitly confirmed in the Recapitulation (see Example 4c; fig. 18, measures 2 and 4), where the final thematic declamation encircles the complete tonic triad. Phrase-b of the opening stanza then presents a new recitation (measures 6–8), on the fifth degree (G) of the C-major triad.

In the *hora lungă* movement (III) of the Fourth String Quartet (BB 95, 1928), recitation, improvisation, and declamation unfold in a clear succession. In contrast, the Second Sonata presents the three styles in contrapuntal overlap (Example 2). In this case, these styles are articulated separately by the mutually exclusive figural and harmonic materials between the two instruments. Against the violin recitation of phrase-b (measure 6), the piano unfolds an improvisatory figuration that seems to grow from the violin recitations. The improvisatory style continues against new recitations in the violin, phrase-c (fig. 1) on D, then the more elaborated flourish on D#. These pitch encirclings have only local tonal significance. The stanza ends with a cadential declamation (fig. 1, measure 5–fig. 2, measure 4). This cadences at the *a tempo* on the original recitation tone, E, where we get the first clear cadential articulation of the C-major triad at the glissando on C–E. Echoes of the E recitation tone (in the glissandi) continue against the piano improvisation.

Within the static tonal framework of the C-major triad, as articulated by the *hora lungă* structure, a sense of atonal progression is produced by changing figures and pitch-set elements. The opening phrases (a and most of b) unfold two different transposed rotations of the Romanian folk mode (RFM in the following, see Fig. 3, above) and their complete, symmetrical whole-tone extensions to produce all twelve tones. This draws our perception of harmonic motion away from any sense of traditional tonal functions to a musical fabric based on changing polymodal colorings and their extensions to the whole-tone collections. The sustained tones, F# and E, are ambiguous in that they imply multiple pitch-set roles. While these two sustained notes (E–F#) together imply the presence of whole-tone-0 (WT0 in the following), they linearly initiate in the opening violin phrase a six-note segment (C–D–E–F#–G#–A) of rotation 7 of the non-diatonic RFM. This rotation reveals the explicit connection between RFM and WT0. In contrast, the entire pitch content of the piano improvisation (measures 1–7) unfolds F#–G#–A–B–C#–D#–E# [F]. This collection, except for one “odd” pitch class (D), is the complete form of RFM rotation 5, transposed to F#. Whereas RFM rotation 7 (on C) of the violin consists of a five-note segment of WT0, C–D–E–F#–G#–[ ], RFM rotation 5 of the piano (at the tritone, on F#) consists of a five-note segment of the other whole-tone collection (WT1: A–B–C#–D#–E# [F]). WT0 is completed in the violin figure by the addition of Bb in the whole-tone cadential descent (measure 6), to give us G#–F#–E–D–C–Bb. WT1 is completed by the overlapping violin recitation on G, to give us A–B–C#–D#–E# [F]–G. These contrasting modal rotations at different transpositional levels, together with their whole-tone extensions, make it difficult to discern any overall tonic note, thereby producing a general atonal sense.

The modal changes produce a sense of harmonic movement around the static recitation tones of the C-major triad. In polarity to the opening dyad, E–F#, which belongs simultaneously to WT0 and RFM rotation 7, the initial chord, F–A–B, implies the presence of the other whole-tone collection, WT1 (F–[G]–A–B–[C#–D#]), and also RFM rotation 5 ([F#–G#]–A–B–[C#–

<sup>13</sup>The phrasal contour recalls the descent from elaborated psalm tone to *tonus finalis* in early music.



D#]-F), the latter being completed in the unfolding piano material. The construction of these two contrasting RFM rotations is essential in establishing the whole-tone quality of the opening material. RFM rotation 7 on C (C-D-E-F#-G#-A-[ ]) and RFM rotation 5 transposed to F# (F#-G#-A-B-C#-D#-E#) are inversions of each other, the former outlining the WT0 segment in its lower five notes, the latter the WT1 segment in its upper five notes. No sense of a tonic in this occurrence of the RFM rotation 5 is possible without the articulation by other structural factors. Thus, it is not the combined RFM rotations nor their symmetrical whole-tone extensions that can establish tonality, but rather the recitation tones and the opening phrasal contour that assert the C-major triadic elements. Hence, the emerging sense of tonality is produced within an otherwise ambiguous atonal polymodal, cyclic-interval (i.e., whole-tone) fabric.

In the violin melody (measure 5), pitch-class F of the initial chord from WT1 is the first melodic disruption of RFM rotation 7 (C-D-E-[F]-F#-G#-A), in which WT0 prevails. As phrase-a descends to the cadence on A (F-E-D-C-Bb-A), both RFM rotation 7 and its WT0 segment are transformed into the local diatonic area of A Phrygian. The latter is completed by the new recitation tone on G (A-Bb-C-D-E-F-G). At the same time (at measure 5), the improvisatory piano figure, A-B-C# (measure 5), together with the violin figure, D-E-F, imply the presence of RFM rotation 2, transposed to A (A-B-C#-D-E-F-[ ]). Thus, the polarity between the C-major triad (as static tonal frame) and the octave-boundary A of the bimodal theme produces tonal ambiguity. The octave boundary (A) is relegated to an obscure tonic role by the cadential assertions of the primary tonic elements, C-E-G. Thus, the successive polymodal and whole-tone changes as well as the contrapuntal combination between the two instruments within this twelve-tone fabric invoke contradictory atonal and tonal perceptions. Thus, analogous to early music, where we have authentic and plagal modes, in which the octave boundary differs from the *tonus finalis*, the polymodal boundary (A) and the primary tonic element (C) in the Second Violin Sonata are not synchronized. As mentioned above, the modified return of this phrase in the Recapitulation confirms the more explicit priority of the C-major triad.

Emergence of symmetrical pitch formations from these pitch-set interactions also contributes to an atonal sense against the otherwise static tonal assertions. In alternation with the two occurrences of tritone F-B (downbeats of measures 5 and 6), which was shown to be a manifest detail of the larger WT1 cycle, two perfect-fourth/fifth chords are reiterated, C#-G# and F#-C#, which imply the presence of a segment of the interval-5/7 (perfect-fourth/fifth) cycle. Except for the white-key tritone chord (F-B) and the local occurrence of the A-B chord (end of measure 7), which together imply the presence of WT1, the entire pitch content of the vertical piano articulations (to downbeat of measure 8) unfolds a gapped seven-note segment of the interval-5/7 cycle, F#-C#-G#-D#-[ ]-E#-B#. This collection spans the cyclic-interval range between F# and C (=B#). Except for the successive improvisatory figures that embellish these piano phrases chromatically, the cyclic-interval aspect of the piano contrasts with the modal organization of the violin line. The contrapuntal juxtaposition of symmetrical vs. modal formations heightens the duality between the two instruments. Such juxtaposition contributes to tonal ambiguity and lack of tonal priority. Furthermore, cyclic-interval constructions eliminate leading-tone functions so essential to tonality.

The intervallic complexity of the pitch sets and the static tonal framework of the folk-like phrases draw our attention to the new sonic and structural conception of the Second Violin Sonata. In addition to both whole-tone and perfect-fourth/fifth cycles, the focus on interval



construction is also evident in the melodic articulation of another cyclic interval – the minor third. The octave-boundary A of phrase-a is approached by the anacrustic F#–A and cadential C–A. Together, these two minor-third boundaries imply the presence of an interval-3 cycle (F#–A–C). The initial and cadential thirds of phrase-b, D–F/E–G and A#–C# (measures 6–8), similarly imply the presence of another interval-3 cycle, A#–C#–E–G, in this case as part of a larger octatonic outline, A#–[ ]–C#–D–E–F–G–[ ]. The general move from whole-tone to octatonic constructions contributes to a sense of progression based on intervallic compression. Such melodic occurrences of minor thirds continue throughout the remainder of this stanza.

Bartók's stated conception of "chromatic compression" of a diatonic theme is manifested in the overall interactions between polymodal constructions and the more abstract whole-tone and octatonic extensions of RFM (see Fig. 3, rotations 7 and 3). The compression from RFM whole-tone emphasis to RFM octatonic emphasis emerges more decisively in the opening stanza of movement II (Example 3). RFM rotation 7 (C–D–E–F#–G#–A–[ ]) of the theme, which begins with the tonic-note C, cadences on a transposition of RFM rotation 2, D♭–E♭–F–F#–G#–A–B–[C] (fig. 1, measures 8–9). This cadential declamation begins with a WT1 segment, D♭–E♭–F, and is extended by the addition of the cadential tonic-note C to seven notes of octatonic-1 (E♭–F–F#–G#–A–B–C). This cadence is approached by a chromatic tetrachord in the piano, against the dominant-ninth chord of C major in the violin, the suggested resolution of the dominant occurring at the last two notes (B–C) of the RFM declamation. Such combined modal transpositions and their symmetrical (whole-tone and octatonic) extensions produce tonal ambiguity, thereby pointing to an atonal fabric enframed by a traditional tonal assertion. As described in my analysis of movement I, it is primarily in the recitation tones (that outline the C-major triad) and the declamation on the violin C–E (end of First Theme) that the basic tonality of the work is touched upon. The more emphatic rendition of the tonic triad, C–E–[ ], occurs at this cadential declamation of the Second Theme (fig. 6, measures 5–8, violin), as well as the Closing Theme (at fig. 8) and Recapitulation of the First Theme (fig. 18) (Examples 4a–c). Thus, changes of pitch-set colorings are conjoined with traditional harmonic elements for producing a sense of modulation. Tonal priority is established by the static folk-like stanzaic recitations and declamations. Secondary tonal assertions are produced by local modal constructions, which become increasingly evident in the course of movement II. However, such local tonalities have no relevance to any large-scale traditional tonal scheme.

The new octave-boundary B–B that opens the Second Theme (Example 5; fig. 5) is given only local tonal significance by its role in defining the modal rotation. Within this octave boundary, the violin ascent and piano part together imply the presence of two different RFM rotations. The violin suggests an incomplete form of rotation 3, B–C#–D–E–[ ]–G–A–B, while the piano segment (E–F#–G#–A#) extends the lower tetrachord (B–C#–D–E) of the violin mode to a complete transposition of rotation 5, B–C#–D–E–F#–G#–A#–B. The latter is significant in that it is a transposed inversion (B–C#–D–E–F#–G#–A#) of RFM rotation 7 (C–D–E–F#–G#–A–[B]), which defined the First Theme (measure 5). In turn, the opening theme of movement II re-establishes RFM rotation 7 of movement I, but now unfolded in retrograde (C–D–E–F#–G#–A) in the inverted thematic contour, where the tonic-note C is more prominently articulated as such by its emergence as the initial modal element (see Fig. 3, rotation 7). The primacy of C in this theme of movement II is prepared by the cadential declamation around the C-major triad at the end of movement I. At the same time, the two inversionally related RFM rotations between the first and second themes of movement I each bring together five of the six notes of WT0:



(a) b) RFM rotation 7 (C-D-E-F♯-G♯-A-[I])  
Whole tone on C to octatonic ---

Allegretto. (♩ = 80)

Allegretto. (♩ = 80)

*p*

Rea \* Rea \* Rea \* Rea \*

a)

accel. al ----- poco più vivo (♩ = 100)

*mf sf*

accel. al poco più vivo (♩ = 100)

*mf*

Rea

c)

dominant 9<sup>th</sup>/C

poco più vivo (♩ = 112)

poco più vivo (♩ = 112)

*sf sf sf sf*

*mf dim p*


chromatic to F-F♯-G-A →


octatonic-0 E-[I]-G→A→A/


RFM rotation 2 on D> D>-E>-F-F♯-G♯-A-B-[C] octatonic-0 [I]-E>-F-F♯-G♯-A-B-C

**Example 3.** Mov. II, opening thematic stanza, from whole-tone emphasis of RFM rotation 7 to octatonic compression at cadence



**A** 

**B** 

**C** 

**Example 4.** a) Cadential declamations of Second Theme (fig. 6, mm. 5–8, violin); b) Closing Theme (at fig. 8); c) Recapitulation of First Theme (fig. 18): encircling tonic triad, C–E–[G]



**Example 5.** Mov. I, Theme 2, violin ascent and piano together imply presence of two different RFM rotations: violin rotation 3, B–C♯–D–E–[ ]–G–A–B, piano segment (E–F♯–G♯–A♯) extends lower violin tetrachord (B–C♯–D–E) to complete transposition of rotation 5, B–C♯–D–E–F♯–G♯–A♯–B

C–D–E–F♯–G♯ from rotation 7 (on C), A♯–G♯–F♯–E–D from rotation 5 (on B). Both five-note segments together produce the complete WT0 cycle, its symmetrical structure obscuring the sense of tonality.

Principles of intervallic expansion and compression are essential to the organic process of the work, which occurs within the otherwise static sonatina-rondo framework outlined by the C-major triad. Octatonic compression at the end of the Transition is reversed in the whole-tone expansions of the RFM rotations (at fig. 5) of the Second Theme. Then, whole-tone segments in both parts are chromaticized by Bartók's filling-in principle to produce a sense of intervallic compression again. However, while interval classes compress, the technique of octave displacement in the improvisational style of both parts permits intervals to expand



simultaneously. The quaternary structure of the theme culminates on a declamation around the C-major triad, C-E-[ ] (see [Example 4c](#); fig. 6, measures 5-8).

This organic process continues throughout on both intervallic (modal) and textural levels. Polymodal and cyclic-interval progression (whole-tone and octatonic scales and cycle of fifths being most prominent) replaces the traditional conception of functional tonal progression. Tonicity is determined by departures and returns to the C-major framework, all within the flow of polymodal and cyclic-interval colorings, the chromatic complexity of which produces an atonal fabric. It is in the folk-like recitations and declamations that the sense of tonality is produced, whereas a kind of atonal ambiguity is felt more in the improvisatory passages.

