FORM-GENERATING ELEMENTS IN ANTON WEBERN'S STRING QUARTET (1905)

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The following analysis draws heavily upon the work of Sebastian Wedler in his 2015 article "Thus Spoke the Early Modernist: *Zarathustra* and Rotational Form in Webern's String Quartet (1905)." Of the ideas presented in his article, I find Wedler's interpretation of Webern's quartet within sonata paradigms to be the most promising. Such an approach appears to shed much more light on the formal organization of the quartet than any attempt to understand it as a programmatic expression of the Segantini triptych noted in Webern's formal plan of July 13, 1905.[1] Indeed, Wedler argues that " . . . the formal draft was no more than the ladder which Webern was ultimately to push away from once he had redeemed the ideas there expounded . . . "[2] and further declares that " . . . the final version . . . no longer bears any reference to Segantini's triptych . . . "[3] Yet because Wedler's motivations for this analysis are largely philosophical—indeed, he seems most interested in the sonata paradigm for what it can tell us about Webern's engagement with the so-called "*Zarathustra* trope"[4]—he is content to mainly problematize the quartet's sonata structure and understand it as some sort of vague "*dialogue* with the sonata paradigm."[5] I believe the finer details that are overlooked in this process have important implications for our understanding of Webern's music language and its influence on Arnold Schoenberg and the development of atonal music.

Example 1 reproduces Wedler's Example 1, which displays the important themes of the quartet. To begin, we must recall that sonata form, from a classical perspective, is as much a set

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[1] See Hans Moldenhauer's prefatory note in Anton Webern, *String Quartet (1905)* (New York: Carl Fischer, 1961), 3.

[2] Sebastian Wedler, "Thus Spoke the Early Modernist: *Zarathustra* and Rotational Form in Webern's String Quartet (1905)," *Twentieth-Century Music* 12, no. 2 (2015): 242.

[3] Wedler, "Thus Spoke the Early Modernist," 248.

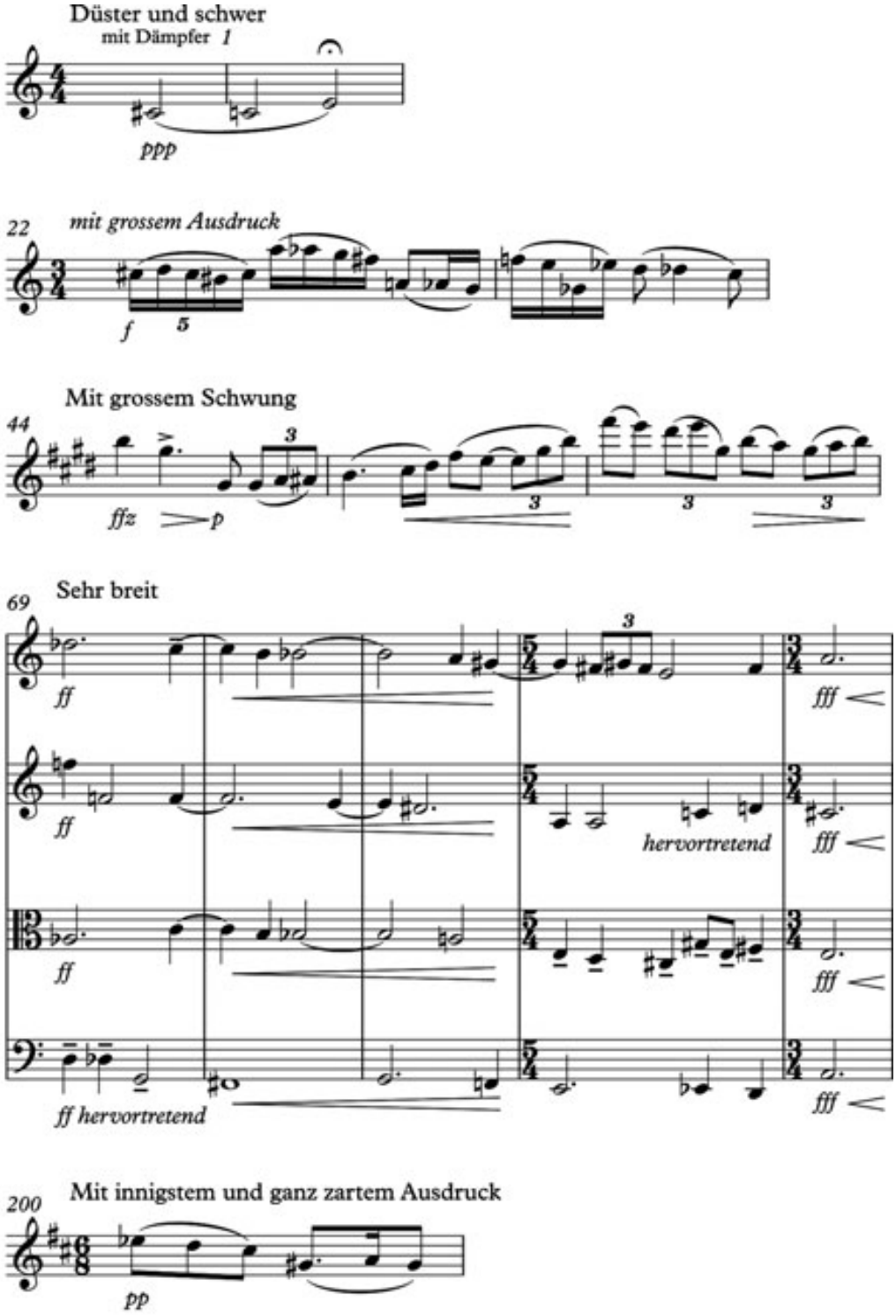
[4] See Wedler, "Thus Spoke the Early Modernist," 237–47.

[5] Wedler, "Thus Spoke the Early Modernist," 231 & 234, emphasis original.

of tonal expectations as it is thematic ones. Indeed, according to Joseph Straus, it was not until the 19th century that the thematic concept of sonata form with which we are familiar today came to prominence.[6] Because there was no such thing as "atonal music" in 1905, tonality would still have played an enormous role in Webern's thinking and in the quartet's construction in general. In all likelihood, Webern would have conceived of this quartet as being "in E." From this perspective, while both the three-note motive in measure 1 and the theme in stated in the viola from measure 22–23 are important for the rest of the quartet (see Example 1), their chromaticism (even atonality) undermines their thematic status within a tonal sonata. From a rhetorical standpoint as well, the fragmented nature of the music up until measure 44 seems far more characteristic of an introduction than a P space. The E-major theme beginning in measure 44, on the other hand, does conform to our expectations of a P space both tonally and rhetorically. If this is to be understood as the start of the exposition, then the return of this theme in measure 152 likely indicates the beginning of the recapitulation.[7]

[6] Joseph Straus, *Remaking the Past: Musical Modernism and the Influence of the Tonal Tradition* (Cambridge: Harvard University Press: 1990), 96–8.

[7] That fact that this theme appears in the "wrong" key of F# will be addressed later.



Example 1. The themes of the quartet[8]

[8] Originally Wedler's Example 1, last theme excluded, in Wedler, "Thus Spoke the Early Modernist," 230.

With these two waypoints established, we need only identify the end of the exposition and recapitulation to complete the broad segmentation of the quartet into sonata form. In a normative sonata, the first strong cadence (usually a PAC) on the tonic in the recapitulation is usually thought to signal the end of the recapitulation and the sonata as a whole (though the cadence may also be followed by a brief closing theme). The first strong cadence on E (or any key, for that matter) after the beginning of the recapitulation is the plagal cadence in measure 185. Though this is only a plagal cadence (which are usually considered too weak to actually articulate closure and are instead used to confirm or reinforce closure already attained by some sort of authentic cadence),[9] I have chosen to identify this moment as the (significantly deformed) ESC and end of the recapitulation for several reasons. First, the only other strong cadence on E does not occur until measure 255, which is very nearly the end of the piece. We must also note that there is not a single PAC in the entire quartet. Given such a situation, and the extensive chromaticism of the quartet's musical vocabulary in general, it is my assertion that weaker cadences like IACs and plagal cadences will tend to assume a greater structural role. Furthermore, this plagal cadence is quite unusual in that it is approached from a cadential six-four harmony, which are usually used only in combination with authentic cadences. Instead of resolving down to the dominant as would be expected, however, this chord expands out until it reaches the tonic on the downbeat of 185.[10] The apparent plagal motion might thus be understood to be a byproduct of the expansion in contrary motion rather than a plagal cadence in the truest sense (see Figure 1).

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[9] See Leonard B. Meyer, *Style and Music: Theory History, and Ideology* (Chicago: University of Chicago Press, 1989), 285–91.

[10] A nearly identical cadence occurs in the antepenultimate measure of Webern's *Langsamer Satz*, which was composed in the months before this quartet.

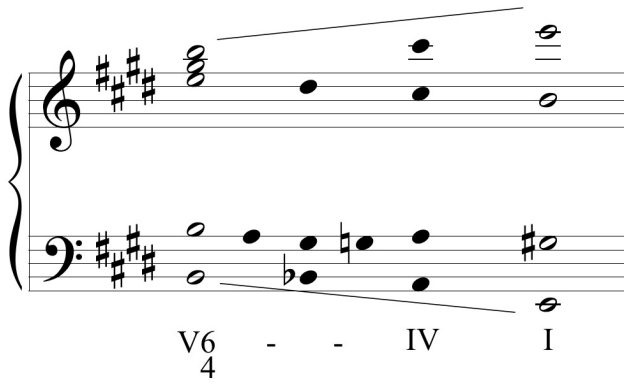

Figure 1. Voice-leading sketch of mm. 184–5

The duration of the chord in measure 185 and the notated pause after it are also worth noting. Leonard Meyer has suggested that so-called "secondary" parameters like register, dynamics, and duration become much more important in the articulation of closure in highly chromatic and non-tonal musical languages.[11] Given the relatively active texture of the quartet in general, any chord held with a fermata for a full measure and followed by a full measure of silence will tend to be quite marked.[12] The music that follows in measure 187 also seems very suggestive rhetorically of the beginnings of a coda, rather than the continuation of the exposition, which would further indicate that the exposition has ended in measure 185.

Given the rotational nature of sonata form, the identification of measure 185 as the end of the recapitulation suggests certain things about the chord in measure 79, which is the exposition's analogue to 185. Here at measure 79, this chord is also marked dynamically and

[11] Meyer, *Style and Music*, 340–2.

[12] Perceptual research would seem to back up this claim. See David Huron, "Are Scale Degree Qualia a Consequence of Statistical Learning?" Proceedings from the 9th International Conference on Music Perception and Cognition, University of Bologna, 2006. 1675–80.

durationally, and the fermata over the barline following it suggests that a brief silence should follow before the beginning of measure 80. But to identify this cadence as the EEC is problematic, to say the least; the main issue being that it is quite difficult to identify what key the cadence is in.

Approached, as it is, by a G# *minor* chord, the C# major chord at the end of measure 79 would first appear to function as V in the key of F# major, which would cause us to interpret this as a half cadence. The impression that this is a half cadence is further enhanced by the presence of F# in measures 70 and 76.[13] But a half cadence is indicative of the exposition's halfway point (or medial caesura), not its end. When a theme in F# fails to materialize in measure 80, however, and the texture instead becomes more characteristic of a development section (particularly the fugato beginning in measure 90),[14] we are forced to conclude that the exposition has indeed ended (or more accurately aborted) in measure 79 without having produced either a secondary theme or a convincing cadence in a non-tonic key. Though not something we would experience in real time while listening to the piece, the parallels between measures 79 and 185 would also suggest that the exposition really does end in measure 79.

Normally an exposition without an MC or S space would suggest a continuous exposition in which the initial move away from the tonic in the transitional space (TR) simply continues to spin out until a cadence can be reached in a secondary key.[15] But because of the emphasis placed upon the thematic facet of sonata form by 19th-century composers, this type of exposition had

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[13] Wedler finds this impression so strong that he marks the whole of measures 69–79 as F# in his analysis of the harmonic pillars of the movement. See Wedler, "Thus Spoke the Early Modernist," 236.

[14] It is true, however, that fugue-like textures may be used as secondary thematic spaces in a sonata exposition. The third movement of the Brahms horn trio, op. 40, is an example of this.

[15] See James Hepokoski and Warren Darcy, "The Medial Caesura and Its Role in the Eighteenth-Century Sonata Exposition," *Music Theory Spectrum* 19, no. 2 (1997): 118–9.

largely gone out of fashion well before 1905.[16] Even from the perspective of a continuous exposition, however, this quartet is problematic since the cadence in measure 79 does not firmly establish any key. Rather, the impression we are left with is that the exposition has been left incomplete; that it has somehow ended without really finishing. While the cadence in measure 185 is certainly more conclusive than that in measure 79, the chromaticism in the preceding measures also makes it difficult to say that E major was firmly established. Furthermore, as in the exposition, this cadence also occurs before the production of a secondary theme.

The establishment of a non-tonic key area through the introduction of a secondary theme and a strong cadence, followed by the final resolution of this non-tonic key via the statement of the secondary theme and cadence on the tonic are the *raison d'être* of sonata form.[17] While the quartet certainly seems to have made an effort toward these goals, it has fundamentally failed to achieve them. This is no insignificant matter, and it seriously calls into question the legitimacy of interpreting the quartet within the sonata paradigm at all.[18] But to jettison the idea of a sonata would leave us without an obvious alternative—particularly one that would account for the rotational structure of thematic events observed throughout the quartet—, and would not explain Webern's apparent efforts to rectify these significant deformations later in the quartet.

In particular, the return of the P theme in the "wrong" key of F# at the beginning of the recapitulation in measure 152 would seem to directly address and finally resolve the half-cadential implications of the cadence on C# at the end of the exposition in measure 79. But merely stating the first theme briefly in F# without any sort of cadence has neither established a

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[16] See Straus, *Remaking the Past*, 96–8 and Hepokoski and Darcy, "The Medial Caesura," 121.

[17] Straus, *Remaking the Past*, 96–8.

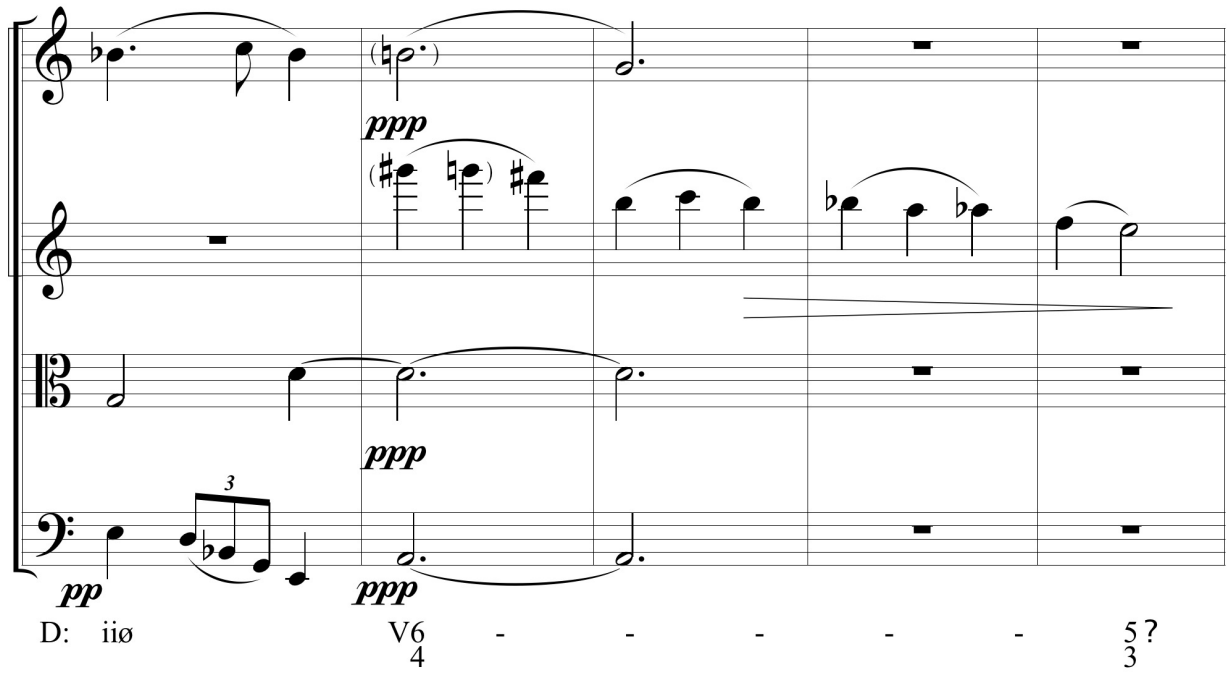
[18] For more on so-called "failed" sonatas, see James Hepokoski and Warren Darcy, *Elements of Sonata Theory: Norms, Types, and Deformations in the Late Eighteenth-Century Sonata* (New York: Oxford University Press, 2006), 177–9.

non-tonic key nor produced a second theme, and thus the cadence on E in measure 185 has not really "resolved" anything since there was no harmonic polarity created in the first place. Instead, the creation and resolution of the sonata's harmonic and thematic polarity is left wholly to the coda, which helps to explain its disproportional size.

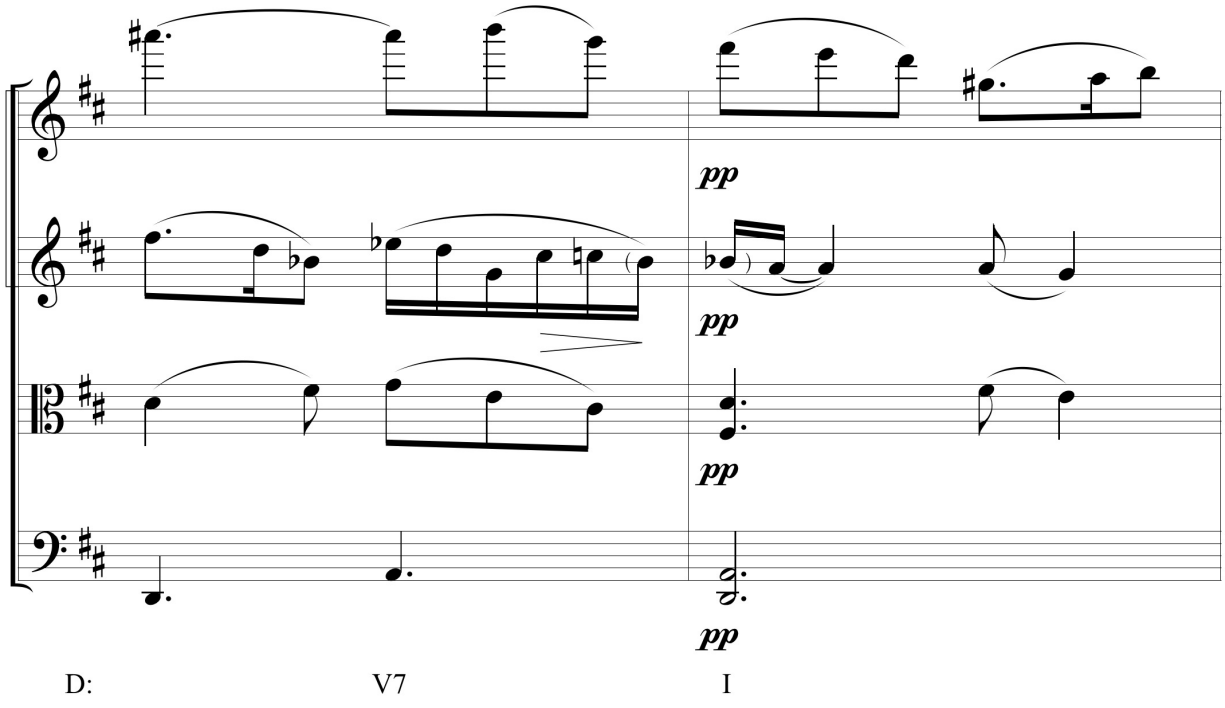
This process begins with the introduction of a brand-new theme in D major in measure 200. This theme is not only lyrical, but it is also prepared by what is essentially a half cadence with caesura fill in measures 195–199 (see Example 2) and goes on to definitively establish and come to a close in D major with what is almost a PAC in measure 213 (see Example 3). This theme has thus fulfilled the normative expectations for an expositional secondary thematic space and has even achieved what could have been understood as the EEC had it happened in the exposition. After a brief transitional episode (mm. 222–248) in which the key of E is prepared by another half-cadential gesture with fill in measures 244–248 (see Example 4), this new theme is then stated in E major beginning at measure 249 and closes with another "almost PAC" in E major in measure 255 (see Example 5). Table 1 displays the form of the quartet as discussed thus far.

Intro	Exposition		Development		Recapitulation		Coda			
1–43	44–79		80–151		152–185		187–279			
	E:	F#: HC	Fugato	C: IAC	F#:	E: PC	D: HC	D: IAC	E: HC	E: IAC
	44	79	90–111	111	152	185	196	213	244	249

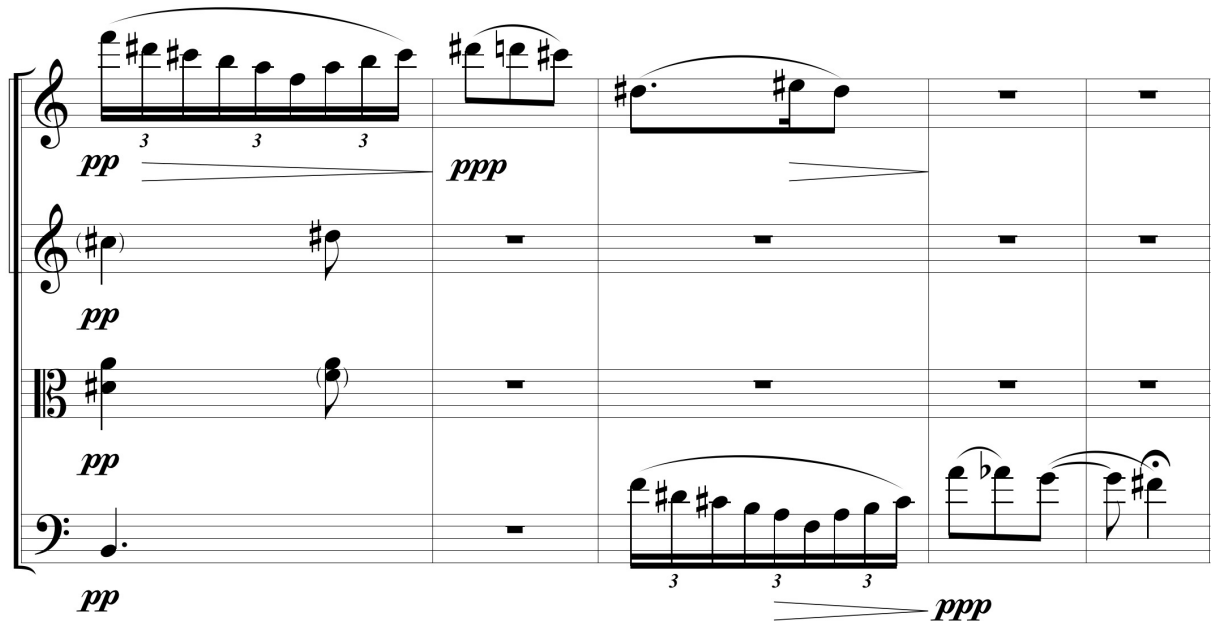
Table 1. Sonata interpretation of the quartet



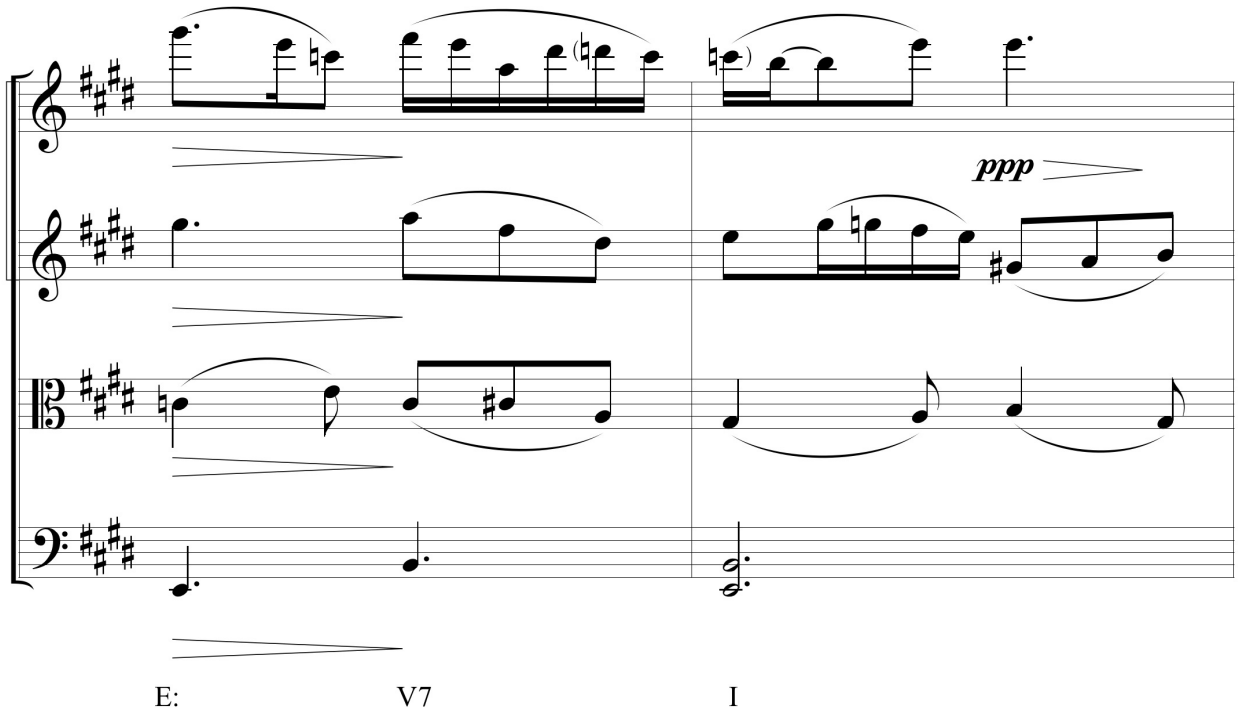
Example 2. HC in D major, mm. 195–199



Example 3. IAC in D major, mm. 212–213



Example 4. HC in E major, 244–248



Example 5. IAC in E major, mm. 254–255

Save the fact that the key of the subtonic (bVII) would be a rather unusual key for the secondary thematic space, these two passages correspond almost perfectly to the normative expectations for the S space in the exposition and recapitulation. It is almost as if Webern has simply extracted the S spaces from both the exposition and the recapitulation and placed them back to back in the coda. What this does, in essence, is to isolate the very moment that creates and resolves the polarity of a sonata. By placing this moment in the coda—and thus outside the sonata space—, Webern has removed that which was most important for generating the sonata form.[19] In place of the form-generating power of harmonic and thematic polarity, I argue that Webern utilizes inversional symmetry and the "composing out" of a fundamental motive to generate the quartet's form.

The choice of D major for the "secondary" key area presented in the coda is significant because it is the symmetrical counterbalance to F# (the key of the P space in the recapitulation) about the axis of E. This might be deemed inconsequential were it not for the important role that symmetry appears to play elsewhere in the quartet. David Clampitt has noted Webern's extensive use of both pitch and pitch-class symmetry in the quartet's introduction.[20] The first two statements of the three-note motive in the first violin and cello in measures 1–3, for example, are symmetrical around the pitch E3, as is the [C, E, G#] augmented triad held by all parts in measure 3.[21] Measures 8–12 and 17–20, on the other hand, present harmonies that are symmetrical about the axes of D#, D, and E.[22] We may also note the introduction's nearly

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[19] See Straus, *Remaking the Past,* 96–8.

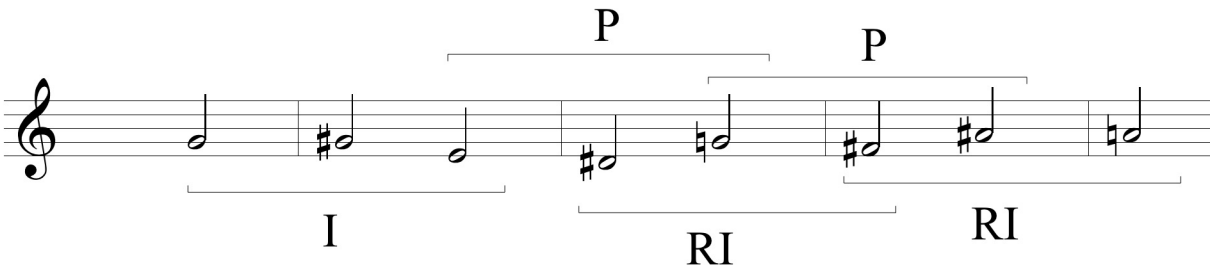
[20] See Clampitt, "Webern's Music for String Quartet," in *Intimate Voices: The Twentieth-Century String Quartet*, vol. 1: *Debussy to Villa-Lobos*, ed. Evan Jones (Rochester: University of Rochester Press, 2009), 196–200.

[21] Clampitt, "Webern's Music for String Quartet," 198.

[22] See Examples 7.2 and 7.3 in Clampitt, "Webern's Music for String Quartet," 199–200.

exclusive use of augmented (048), French six sonorities (0268), and other whole-tone sonorities, each of which are symmetrical. From this perspective, the whole-tone symmetry of F# and D around the "home key" of E would appear to be derived right from the introduction.

Even more fundamental the quartet's organization, however, is the three-note motive (a member of set class 3-3 (014)) first stated by the first violin at the opening of the piece. A cursory glance at the first page of the quartet is enough to reveal this motive's importance. In some cases, transformed statements of the motive overlap with each other within a single line, as in the second violin, measures 8–12 (see Example 6).



Example 6. Overlapping statements of 3-3 (014) in second violin measures 8–12

While certainly at its most concentrated in the introduction, this motive continues to have a surface presence throughout the entire quartet. Prominent examples can be found in the exposition (mm. 65–67), development (mm. 126–148), recapitulation (m. 171–173), and coda (mm. 260–264), and variants of this motive also function as the cadential theme in measures 74–77 (see Example 1) and 178–181 (now expanded to 3-4 (015)) and the transition to and head motive of the fugato in measures 80–111 (further expanded to 3-5 (016) with the change of direction removed). With some allowance for more extreme variants, it would likely be possible to derive nearly every important thematic and motivic idea from this one motive. Most importantly, however, this motive is also "composed out" *in its original pitch classes* (C#, C and

E) over the course of the whole sonata space by the three prominent cadences in measures 79, 111, and 185 (see Figure 2).

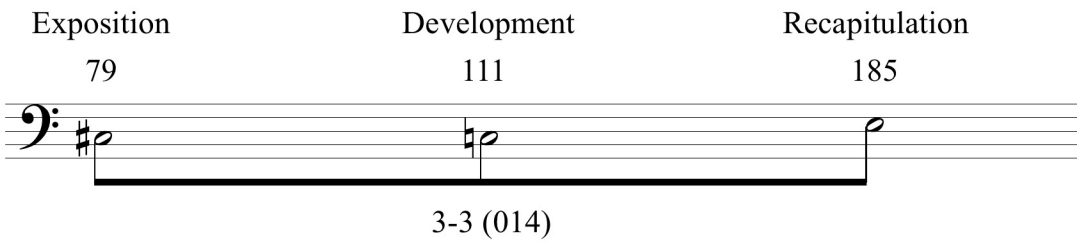


Figure 2. Background statement of set class 3-3 (014) over the course of the sonata

While tonal centricity obviously still plays an important role in the structure of the quartet, the fact that Webern has placed the tonal polarity that Straus takes to be a sonata's "essential form-generating element" outside of the sonata space (in the coda), means that something else has taken its place as the generator of form.[23] This, combined with the quartet's extremely chromatic harmonic language, the conspicuous absence of PACs, and the dearth of the dominant—both as a harmony and as a key center—in general seems to indicate that the quartet has broken free from tonality at its deepest levels. By unmooring the structure from tonality, Webern has made it possible to construct a unified and coherent piece entirely from non-tonal musical materials. Though he would not fully explore the implications of this for some time, these innovations essentially paved the way for his future compositional language as well as that of Schoenberg, Berg and virtually all composers of non-tonal music. The use of a motive as a structural determinant, in particular, would come to be the *modus operandi* of the twentieth century.[24] Interestingly, set class 3-3 (014), to which this quartet's fundamental motive belongs,

[23] Strauss, *Remaking the Past*, 96.

[24] See Straus, *Remaking the Past*, 21–43.

proved to be quite popular in the non-tonal repertoire.[25] David Lewin has also noted the important role that inversional symmetry plays in the music of Schoenberg.[26]

It is quite unlikely that anyone but possibly Schoenberg ever saw Webern's 1905 string quartet before it was rediscovered in 1961. To assert that this quartet had any sort of direct influence on composers other than Schoenberg would thus be unreasonable.[27] The influence on Schoenberg should not be discounted, however, especially given that both this quartet and the rondo for string quartet from the next year (both of which contain significant passages in which it would be difficult to ascertain *any* tonal center at all) predate any of Schoenberg's published atonal works. Indeed, Schoenberg's own writings seem to allude to his anxiety about the possibility of Webern's influence on him.[28] We should thus be open to the idea that learning often went both ways in the Schoenberg-Webern teaching relationship. In any case, this quartet certainly seems to be an important turning point in Webern's musical thought when compared to the *Langsamer Satz* that immediately preceded it. While the quartet itself may not have had a large impact upon the musical world, I believe the ideas developed therein were hugely important for Webern's own musical development and thus the course of music in general.

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[25] See Schoenberg *Drei KlavierStücke* Op. 11, No. 1, *Pierrot Lunaire* Op. 21, No. 8, and Webern *Drei Lieder nach Gedichten von Hildegard Jone* Op. 25, No. 1 for just a few examples.

[26] See David Lewin, "Inversional Balance as an Organizational Force in Schoenberg's Music and Thought," *Perspectives of New Music*, 6, no. 2 (1968): 1–21.

[27] Wedler indicates that Webern composed the quartet during his summer break in 1905 while away from Schoenberg. Wedler, "Thus Spoke the Early Modernist," 226. It seems rather unlikely that he never showed it to Schoenberg, however, given that he had just recently begun studying with him.

[28] See Anne C. Shreffler, "'Mein Weg geht jetzt vorüber' : The Vocal Origins of Webern's Twelve-Tone Composition," *Journal of the American Musicological Society*, 47, no. 2 (1994): 281.

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