Functions of Silence in the Twelve-tone Music of Anton Webern

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Abstract

Silence in Webern's music has been noted and commented upon by music and cultural scholars alike, including Stephen Kern, Otto Deri, and David Metzer, who consider silence to have aesthetic significance in Webern's works. The interaction between formal placement and expressive potential of these silences has however received little attention in the existing literature. Drawing upon prior studies on musical silence by Clifton (1976), Pearsall (2006), Margulis (2007), and Cooper (2011), as well as informed by Bailey's (1991) analyses of Webern's serial music based on Baroque and Classical formal archetypes, my thesis aims at examining how silences engage with their surrounding formal structure and various musical processes to create various expressive and dramatic effects.

My thesis first examines Webern's employment of silence from the formal-structural standpoint, and attempts to understand Webern's decision in deploying silence at certain formal locations. Based on observations from my analyses of six of his twelve-tone instrumental works—*Symphony* Op. 21, *Quartet* Op. 22, *Concerto* Op. 24, *Variations* for Piano Op. 27, *String Quartet* Op. 28, and *Variations* for Orchestra Op. 30, I categorize these silences into three basic types—beginning, closing, and transitional silence. These three types of silence take on different structural functions, sometimes interrupting the ongoing musical processes before their closure. This disruptive nature of silence results in various expressive effects such as suspense and surprise. Silence in Webern's music often eludes clear categorization, resulting in situations that are ambiguous and more complex. These situations may involve more than one particular type of silence, a close succession of two or more silences of the same functional type, or an interpolation through the use of two framing silences. I will analyze each of these situations from myriad perspectives and by catering to different textural layers, unravelling those musical features that correspond, to certain degrees, to the three basic silence types.

Résumé

L'utilisation du silence dans la musique de Webern a fait l'objet de nombreuses études et commentaires par différents chercheurs appartenant au domaine de la musique ou de la culture tels que Stephen Kern, Otto Deri et David Metzer. Pour eux, les silences weberniens possèdent une signification en rapport au contenu esthétique de ses œuvres. Dans la plupart des discussions évoquant ce sujet, les explications données s'orientent soit vers une interprétation imagée, les silences étant associés à la mort, soit vers une interprétation contextualisée où la prévalence du silence dans l'œuvre de Webern est représentative de l'environnement artistique contemporain. Les fonctions formelles et expressives de ces silences dans l'œuvre de Webern ont été, jusqu'à présent, que vaguement étudiées. En m'appuyant sur les travaux de Clifton (1976), Pearsall (2006), Margulis (2007) et Cooper (2011) sur le silence musical, mais aussi sur les analyses effectuées par Bailey (1991) sur la musique sérielle de Webern et son interprétation formelle basée sur les modèles Baroque et Classique, ma thèse a pour but d'étudier l'interaction du silence avec la structure formelle et d'autres paramètres musicaux tels que le tempo, le rythme, la métrique, l'articulation et les dynamiques, dont résultent des qualités expressives et dramatiques variées.

Ma thèse examine l'emploi par Webern du silence à partir d'un point de vue théorique et tente de découvrir les raisons qui se trouvent à l'origine de son utilisation du silence dans différentes locations formelles. En m'appuyant sur les différentes observations que j'ai pu effectuer à partir d'analyses de ses œuvres

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instrumentales dodécaphoniques—la Symphonie op. 21, le Quatuor op. 22, le Concerto op. 24, les Variations pour Piano op. 27, le Quatuor à cordes op. 28 et les Variations pour Orchestre op. 30, j'ai classé ces exemples de silence en trois catégories que j'ai nommé silence d'ouverture, de clôture et de transition. Situées dans leur location formelle particulière, ces trois catégories de silence endossent différentes fonctions structurelles, interrompant certains processus musicaux avant qu'ils aient pu atteindre leur aboutissement. Cette nature disruptive du silence entraine différents effets expressifs tels que le suspens et la surprise. Ces trois catégories sont ensuite utilisées comme cadre de référence pour expliquer les silences impliquant des situations plus complexes, telles que celles ou plusieurs interprétations deviennent possibles ou lorsque deux (voire plusieurs) silences se retrouvent en succession rapprochée.

(traduit par Mylène Gioffredo)

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Chapter 1: Theoretical Framework

May this silence sound for them.

- from Schoenberg's introduction to Webern's Six Bagatelles, Op. 9

INTRODUCTION

Silence in Webern's music has been noted by music and cultural scholars alike. Stephen Kern discusses the prevalence of silence in Webern's music in light of the modernist aesthetics of space.¹ For Kern, silence attains such significance that it contributes to the formal structure and aesthetic meaning of Webern's works, a musical element that stands on equal footing with the sounding pitches. Webern's silence not only manifests itself by way of gaps in between certain pitches, it is also passed around among instrumental lines, which gives rise to the quality of sparseness and textural transparency so emblematic of Webern's music. In explicating the importance of silence in his music, Kern comments:

The most daring composer of negativities was Anton von Webern. The extreme brevity of his compositions (whole movements less than a minute long) echoes with all that is left out, and what can be heard is laced with frequent breathtaking silences. [...] And even when notes are sounding there are suggestions of silence, as one instrument tosses the melody to another and begins a long rest. Musicians playing such works become intensely aware of those rests as they wait to take up the melody again.²

¹ Space, according to Kern, is no longer an empty background to be occupied with objects; instead, it is actively constructed, as in the hands of architects or artists, by enclosing it with constituent components.

² Kern (1983), p. 175.

David Metzer adopts an aesthetic and hermeneutic perspective in his discussion, claiming that properties such as stillness, soft dynamics and fragmentation in Webern's music "place the listener at the border realm between music and silence."³ In his discussion of the sparse orchestration and fragmented texture of Webern's *Five Orchestral Pieces*, Op. 10, Metzer interprets Webern's evocation of silence as a way of expressing the loss of his mother:

[Silence] emerges especially in the third and fourth movements of the Orchestral Pieces, where musical depletion offers a way to interpret Webern's sparse titles. The person or object "returned"—perhaps Webern's mother—now exists as a "remembrance." Yet memory falters. Everything falters, the musical fragments and even silence. The object or person can never be restored. The piece underscores a larger modernist statement about the fragility of memory.⁴

Most discussion concerning Webern's use of silence participates in aesthetic or hermeneutic discourses. Examination of the locations of silence within the formal structure, however, is underexplored in the scholarly literature. In the present study, I endeavor to probe the reasons behind the composer's decision of employing silences at various formal locations in his pieces. By taking a music-theoretical perspective, I attempt to investigate how silence interacts with the musical passages to which it belongs and performs various formal and expressive functions. I believe this study can complement the existing scholarship on silence by grounding those aesthetic and hermeneutic interpretations in the score.

This study is largely based on analytical observations from six twelve-tone instrumental works by Webern: *Symphony* Op. 21, *Quartet* Op. 22, *Concerto* Op.

³ Metzer (2006), p. 337.

⁴ Ibid., pp. 349–350.

24, *Variations* for Piano Op. 27, *String Quartet* Op. 28, and *Variations* for Orchestra, Op. 30. The decision to limit the repertoire to his twelve-tone instrumental pieces instead of surveying all of Webern's works is guided mainly by two considerations. First, silences in his atonal pieces are not as ubiquitous and conspicuous as in his twelve-tone pieces.⁵ Second, by leaving out vocal works, I can avoid additional complications arising from the text.

In **Chapter 1**, I review the relevant scholarly literature on musical silence and survey how scholars have attempted to grapple with the notion of musical silence in general. First, I consider Elizabeth Margulis's tripartite schema that defines the three aspects of musical silence—notational, acoustic, and perceptual. I then survey four major approaches by which scholars describe and analyze the meanings of musical silence: pictorial, narrative, aesthetic, and structural. Following this, I lay out the analytical approaches for my examination of musical silence in Webern's music, which focuses on the grouping structure in and formal functions of the surrounding musical units.

In **Chapter 2**, based on analytic observations from Webern's twelve-tone pieces, I present three functional types of silence, namely opening, closing, and transitional silence. I show that each of the three types appears in different formal locations and performs different formal and expressive functions. I present a couple of representative examples to illustrate how each type of silence manifests itself in Webern's works.

⁵ Commenting on Webern's *Five Orchestral Piece*, Op. 10, Metzer claims that true silence in Webern's music, i.e. rests and pauses, "appears only here and there." (p. 337)

Silence in Webern's music, however, is far from straightforward, easily assigned to neat categories. In **Chapter 3**, I examine a number of cases of silence that involve intersections of two or more functional readings. Based on the three categories of silence discussed in the previous chapter, I explore cases in which two or more interpretations are equally legitimate concerning the silence in question. It is my intention here to shed light upon the nuances and complexity underlying Webern's music.

The purpose of this study is to investigate musical silences from a musictheoretical standpoint, and to delve into the reasons behind the composer's decision to employ silences in various formal locations.⁶ While silence in music has aroused much interest from scholars during recent years, an in-depth analysis of its functions in Webern's twelve-tone music has yet to be undertaken. I hope the present study will illuminate the intricacy and richness of some of those ineffable yet striking silences in Webern's music.

DEFINING MUSICAL SILENCE

Silence is commonly conceived of as the absence of sound, but the criteria for defining musical silence may vary depending on our perspective. In her discussion of our perception of silence within a piece, Elizabeth Margulis divides the notion of musical silence into three aspects—notated silence (based on the musical score), acoustic silence (based on actual performance or recordings), and

⁶ Although we can never know for sure what is in Webern's mind during composition, the patterns that we observe across cases of silence in his works may shed light upon his reasoning behind the employment of silence at certain formal locations.

perceived silence (in the mind of the listeners).⁷ These three aspects of silence are illustrated in the following diagram (**Figure 1.1**):



Figure 1.1 The three aspects of silence

The three aspects of silence are clearly related to one another, i.e. a notated silence is transformed into acoustic silence by the performer, which is then experienced by the listener as a cognitive event. However, certain complications may arise during the translation process. For example, performers can insert silence additional to what is indicated in the score at locations such as sectional boundaries (especially when they are indicated with double barlines) to highlight the separation of the two formal units.⁸ Conversely, performers can pedal through a notated rest. Moreover, in a physical performance space, reverberation is always present and absolute acoustic silence is therefore not to be found in real life.⁹

⁷ These three definitions of silence are elucidated in Margulis (2007a), pp. 245–252.

⁸ See discussion of Schubert's *Moment Musicale*, Op. 94, No. 2 in Margulis (2007a), p. 248.

⁹ This idea runs along the same vein as Cage's discussion of his experience in an anechoic chamber; see Cage (1961), p. 8.

Similarly, acoustic silence is not always perceived as such by listeners. Listeners with musical training can infer silence even if the performer pedals through a notated rest. Moreover, silence that is shorter than a certain threshold of duration may be perceived as belonging to the previous notes, as for example following a staccato attack.

Because my goal here is to delve into Webern's reasoning behind his employment of silence in his compositions, I focus only on notational silence in my analyses for my present study. Focusing on silences as notated in the score allows me to avoid complexities that arise from performance decisions and issues of perception. Instead of examining silence as performed or perceived, my scorebased analytical observations can be used as a foundation upon which performers can, at their own discretion, decide whether a particular musical silence should be emphasized or downplayed.

DESCRIBING MUSICAL SILENCE

Given the amorphous and plastic nature of silence in music, scholars have taken a number of approaches to describe its meanings and functions. I summarize their major perspectives concerning musical silence, organizing them into four broad categories as shown in the table below (**Figure 1.2**):

Metaphorical	Perceptual	Narrative	Structural
 <u>Signifying:</u> loss, despair, disintegration uncertainty, indecision, staggering, improvisation death, transcendence absence of emotion 	<u>Inducing effects</u> <u>such as:</u> - pregnant pause - psychologically manipulated time - surprise and humor - new focus of our attention	Acting as: - emotional turning point - musical idea that recurs	Interacting with: - formal function - grouping structure - row structure - meter

Figure 1.2 Four categories of silence.

The analytical approach focusing on metaphor examines the resemblance of silence to certain human expressions and extra-musical ideas, and proposes hermeneutic readings of pieces based on those metaphorical associations. For example, the way silence fragments the musical surface can be viewed as signifying the psychological disintegration of the imagined composer and representing a feeling of loss and despair.¹⁰ Silence can intrude upon a continuous musical texture and result in the feeling of music stopping and starting intermittently, suggesting the uncertainty and indecision of a piece's protagonist.¹¹ Silence can be said to portray death, gradually eroding and engulfing the sounding texture. A timeless and meter-less silence might evoke a

¹⁰ See the discussion of Beethoven's *Pathétique* Sonata, Op. 13 in Cooper (2011), pp. 28–29; see also comments on Alban Berg's *Lyric Suite* and Mahler's Ninth Symphony in Clifton (1976), pp. 163–164.

¹¹ See discussion on Beethoven's Piano Sonata, Op. 10, No. 3 in Cooper (2011), p. 29 and p. 36.

feeling of transcending into the ethereal.¹² In certain circumstances, silence is employed simply to depict the absence of emotion.¹³

The perceptual and emotional approach to studying silence focuses on the psychological effect and perception of silence by listeners, involving not only the silence *per se* but also the expectation established in the musical passage that precedes it, as well as the silence's impact on the later course of the piece. For example, silence that falls on a downbeat after an energetic upbeat will most likely be perceived as "loud" or "fierce."¹⁴ Composers can create humor and surprise by substituting an expected arrival or resolution with silence.¹⁵ Silence can also influence our experience of time, suspending the musical motion or heightening the tension of the passage, respectively prolonging or shortening the psychological (or musical) time.¹⁶

The narrative approach engages with the ways silence takes part in the narrative trajectory of a given passage. For example, silence that abruptly cuts off the previous passage and is succeeded by a contrasting section can act as a

¹² See discussion of silence's signification of death in Clifton (1976), pp. 176–177. Stan Link examines the portrayal of death in film scoring in his chapter "Going Gently: Contemplating Silences and Cinematic Death" in Losseff and Doctor (2007). For an exploration of Messiaen's religious connotation and the notion of transcendence in his use of silence, see Matthew Hill's "Faith, Silence and Darkness Entwined in Messiaen's 'Regard du silence'" and Jan Christiaens's "Sounding Silence, Moving Stillness: Olivier Messiaen's *Le banquet céleste*," both in Losseff and Doctor (2007), pp. 37–52 and pp. 53–68.

¹³ See discussion on Beethoven's use of silence to depict the absence of emotion in his ballet *Die Geschöpfe des Prometheus* in Cooper (2011), pp. 30–31.

¹⁴ See an analysis of the pregnant pause in Haydn's Symphony No. 104 in D major, III in Margulis (2007), pp. 249–250.

¹⁵ See discussion on Beethoven's "Bonny Laddie" Variations, Op. 107, No. 2 in Cooper (2011), p. 30.

¹⁶ On the relationship between psychological time and musical silence, see Clifton (1976), p. 167.

dramatic turning point in the emotional trajectory of a piece.¹⁷ In certain cases, silence embedded within a main theme may sometimes be singled out as one of the primary musical ideas of a piece, reappearing in certain climactic locations.¹⁸

The formalist or structural approach examines how silence interacts with and highlights certain features of row structure, musical grouping, and underlying metrical framework. For example, Beethoven often employs silence to segment the two basic ideas within a sentence.¹⁹ A silence placed between the introduction and the exposition, such as the one near the beginning of Chopin's Nocturne in B major, Op. 62 No. 1, clarifies and accentuates the separation of these two formal sections.²⁰

Each of the four approaches discussed above is not compartmentalized, isolated, and unrelated to the others. Rather, scholars often bring together two or more ideas from various approaches in their discussion of musical silence. For example, a silence that interrupts the middle of a phrase (from a structural point of view) is felt to be abrupt and surprising (from an emotional point of view), the effect of which can represent a significant turning point in the narrative trajectory of the piece (from a narrative point of view).

In the present study, I will employ the formalist or structural approach as the basis to examine the purposes and functions of silence in Webern's twelvetone music. I will invoke observations from the other three perspectives as appropriate, showing how silence, situated at a particular formal location,

¹⁷ See Cooper (2011), pp. 31–35.

¹⁸ See Cooper's discussion of Beethoven's Ninth Symphony, II, in Cooper (2011), pp. 37–38.

¹⁹ For example, Beethoven's Piano Sonata Op. 2 No. 3, I, and Op. 7, II.

²⁰ Margulis (2007), pp. 255–256.

occasions certain psychological effects, performs narrative functions, and evokes various imageries and metaphorical associations.

METHODOLOGY

My analyses of Webern's twelve-tone music engage not only with aspects such as row structure, formal functions, and grouping structure, but also with other features such as motivic recurrences, tempo, meter, dynamics, and articulations. Since the determination of grouping structure is crucial to my reading of musical silence, I will outline the principles that guide my reading of a musical unit's beginning and ending, which are based on ideas by René Leibowitz and Christopher Hasty.²¹

Leibowitz advances the notion of "serial function," where formal functions, i.e. the sense of being in the beginning, middle, and end of a musical unit, can be supported by and reflected through the row structure. Factors such as row forms (**P**, **I**, **R**, **RI**), partitioning of the row (symmetrical or asymmetrical), and aspects of the musical texture (linear or chordal) can give rise to different formal functions and provide a sense of formal orientation.

Hasty identifies two structural properties that influence the segmentation of grouping units in post-tonal music: structural symmetry and the notion of return.²² If a grouping unit is repeated, listeners expect the end of the second statement to be more or less parallel to the first, and the location of the unit's

²¹ Leibowitz (1948, 1950) and Hasty (1981)

²² Hasty (1981), pp. 62-63.

ending in its second iteration is anticipated accordingly.²³ Another way of closing off a musical unit is by bringing back the opening materials near the end: if the opening materials "move away" to some contrasting areas, the return to the original materials can suggest a sense of conclusiveness and completion that brings the formal unit to an end.

Sense of beginning in twelve-tone music

Several features are more likely to appear towards the beginning of a piece. These features include simple manipulation and symmetrical partitioning of the rows. A representative case is the opening of the first movement of Webern's *Variations*, Op. 27 (**Example 1.1**). These seven measures are constructed out of two rows, which are retrogrades of each other. The rows are partitioned into successive trichords, which are further split into a dyad and a single note. The surface grouping reflects the row partitioning, where the first two trichords from the two simultaneous rows, i.e. $\langle E, F, C \notin \rangle$ and $\langle B, G, F \notin \rangle$, make up a rhythmic group of five 16th notes in mm. 1–2, which is repeated three times in the next five measures (mm. 3–7).

²³ Given Webern's penchant for symmetrical (both parallel and retrograde) structuring in both pitch and rhythm, segmentation of phrases and sections is often informed by formal symmetry.





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Because the ways in which musical units begin vary greatly according to the composer's creative impulses, the features described above may not always be present in every piece. The onset of new (or contrasting) materials, which are then further developed, is sometimes taken as the beginning of a new formal unit. In other cases, we simply determine the beginning of a section as following the end of the previous one, the principles of which will be discussed in the following.

Sense of ending in twelve-tone music

While composers have much flexibility in deciding how to begin a musical unit, the ending of a unit tends to follow certain sets of conventions. I will

summarize the ideas by Leibowitz²⁴ and Hasty along five principles. I will then illustrate the closing features through an examination of the opening theme from the first movement of Schoenberg's String Quartet No. 4, Op. 37.²⁵

Principle 1. Immediate repetition of two to four notes at the end of a phrase

The repetition of pitches at the end of a phrase slows down the unfolding of the rows. It creates a sense of fragmentation in which the ending two to four pitches, as a group, are restated in close succession.

Principle 2. Chordal presentation following a passage of linear figures

The chordal texture appearing after a series of linear figures resembles the typical ending chords that are found in Classical music. For example, the "hammer blows" chords are often used to mark the end of the transition in a sonata-form movement (as in Haydn's Symphony No. 104, I, mm. 63–64) or to articulate the end of a movement (as in Beethoven's Symphony No. 3, Op. 55, I). While chordal formations are common in twelve-tone music, the shift from linear to chordal texture within one phrase often implicates a sense of ending.

²⁴ Leibowitz refers to the closing function of a formal unit as "cadence."

²⁵ My choice for a piece by Schoenberg instead of Webern here is guided by the fact that much of Leibowitz's concept of "serial function" was influenced by Schoenberg's writings and music, and therefore it will be clearer to illustrate the correspondence between formal functions and row structure in Schoenberg's music here.

Principle 3. Liquidation and serial loosening

For Schoenberg, the function of liquidation is to "neutralize the obligations of previous motivic materials, by gradually depriving the motive forms of their characteristic features and dissolving them into uncharacteristic forms, such as scales and broken chords."²⁶ Leibowitz draws on Schoenberg's concept of liquidation and proposes the idea of "serial loosening," a technique where rows with a more remote relationship are used, often partitioned asymmetrically. The grouping structure is also more flexible, sometimes featuring phrase extension and fragmentation. While this is not strictly a feature that articulates the ending of a unit, it nevertheless leads the music to its final closure, a process that prefigures the impending ending of a phrase.

Principle 4. Symmetrical structure

If a musical unit is immediately repeated, listeners anticipate the ending of the restatement in the same formal location as in the first presentation. As shown in **Figure 1.3**, this symmetry comes in two ways: parallel and retrograde. In a parallel symmetrical structure, the ending of the (exact or varied) repetition should more or less correspond to that of the first statement. In retrograde symmetry, the second unit unfolds as the first but in reverse, and we can anticipate the impending closure of the second unit by the appearance of the beginning portion of the first unit.²⁷

²⁶ Schoenberg (1995), p. 53.

²⁷ The return of the opening pitch in retrograde symmetry is also related to the idea of return.

Figure 1.3 Symmetrical structure illustrated.



Principle 5. Return of the beginning rows, pitches, or motivic figures

The return of the opening rows, pitches, or motivic figures creates a sense of conclusiveness in that the musical journey, after moving away to a foreign realm, returns to the original materials and completes itself. This property sometimes results from a palindromic structure, in which the last pitch of the retrograde row returns to the first pitch of the original row. Often Webern also brings back earlier rhythmic materials. For example, the last section of the third movement of the *Variations*, Op. 27 restates the opening rhythmic pattern from the first movement in augmentation.

Schoenberg's String Quartet No. 4, Op. 37, I, mm. 1-16

These five principles will now be illustrated in the opening theme of the first movement from Schoenberg's String Quartet No. 4, Op. 37 (**Example 1.2**). The first phrase (mm. 1–6) presents the twelve pitch-classes of row **P**₂ in the first violin. Each trichord in the melody is accompanied by the remaining three trichords of the row in the accompaniment. The strong articulation of the









(e.g., <B, C, Eb> in Vcl. is restated as <Eb, C, B> in mm. 15-16.)

melody in *fortissimo* (*ff*) suggests a sense of initiation. The accompanying trichords are consistently placed on every beat but the first of each of the first three measures (mm. 1-3).

We can observe the process of "serial loosening" in the next phrase (mm. 6–9). Melody and accompanying chords use an inversion of the opening row (I₇), which results in different trichords.²⁸ The pattern of chord change also shows less consistency compared to that of the opening phrase. For example, whereas only one trichord [G, A_b, C] is found in m. 7, the harmonic rhythm speeds up in the following measure (m. 8), which has two different trichords, i.e. [B, E, F#] and [F, A, C#], on the first and fourth beats. This breaking away from the regularity of

²⁸ Row I₇ belongs to the same hexachordal region as the opening row P₂; that is that the two rows have the same hexachordal content. In fact, all the rows used in this passage (mm. 1–16) belong to the same hexachordal region as well.

chordal articulation found in the opening theme suggests that this phrase (mm. 6– 9) functions as an "intermediate structure," a section that "moves away" from the opening materials.

The melody moves back to the violin in m. 10 using a similar rhythmic pattern as at the beginning. Both the melody and the chords are derived from the retrograde of the opening row (\mathbf{R}_{e}). The four constituent trichords have the same pitch-class content as the ones in the opening phrase. The rhythmic similarity with the opening phrase allows us to anticipate the long note D in mm. 14–15 as being the end of the phrase. The sense of ending is further reinforced by the fact that this note D refers back to the opening pitch of this movement (m. 1) in the same register.

In m. 13, the rhythm of the melodic line of Violin I, which corresponds to m. 4 of the opening phrase (mm. 10–13 is a varied repetition of mm. 1–4), is stretched out in time, with notes falling on each successive quarter-note beat. This evening out of the long-short-short rhythmic pattern can be regarded as a form of "liquidation," which dissolves the motivic identity of its prior presentation and leads the phrase to its upcoming closure.²⁹

The three chords boxed in mm. 15–16, which come from the tetrachordal partitioning of the opening row P_2 , can be deemed a cadential gesture that articulates the end of the whole opening theme (mm. 1–16). Not only does the opening row return here, the vertical chords also contrast with the linear texture so

²⁹ The pattern in m. 13 can also be interpreted as rhythmic augmentation, in which the three eighth notes at the end expand into quarter notes.

far in the passage. This shift to chordal texture, involving all four of the instruments, marks the ending of the entire musical phrase.

Besides the change in musical texture, the three successive pitches in each of the four instrumental lines in mm. 15–16 are the same as the ones in mm. 13–15, but in retrograde. For example, the cello plays the notes $\langle B, C, E_{\flat} \rangle$ in mm. 13–15, which are repeated in reverse in mm. 15–16 as $\langle E_{\flat}, C, B \rangle$ in the same register.³⁰ The immediate repetition of the last three pitches undermines any urge for further continuation of the previous materials, and suggests a potential end to the opening theme.

In the following chapter, I will analyze cases of silence in six of Webern's instrumental pieces (Op. 21, 22, 24, 27, 28, and 30) and will classify these silences into three categories—opening, closing, and transitional. These three types of silence are associated with different locations within the grouping structure, which is interpreted along the principles of beginning and ending discussed earlier. Other musical parameters, such as dynamics, tempo, meter, and texture, are also brought into consideration when necessary. I will then discuss the way musical silence, by occupying particular formal locations, possesses different expressive effects and brings out certain structural and motivic relationships, which often have special significance in the overall structure and emotional trajectory of a work.

 $^{^{30}}$ The only exception is the first violin, in which the second note C# is transposed down an octave in its second iteration.

Chapter 2: Three Functional Types of Silence

In this chapter, I will discuss the three functional types of silence in Webern's twelve-tone music, each of which is determined by its location within the phrase structure and the musical form. Silence may be placed in certain locations that may or may not coincide with the boundaries between phrases or rows, and sometimes is employed to separate certain musical figures and ideas, drawing listeners' attention to those groups of pitches. By partaking in various formal situations, silence acquires different expressive effects that impact listeners' experience, such as surprise and suspense.

The three functional types are opening, closing, and transitional.³¹ I will discuss silence of each type separately; in particular, I will focus primarily on its formal location and its associated functions. Its expressive effects during one's moment-to-moment listening experience will also be considered, illustrating how the three types of silence differ from each other with respect to their expressive effects. Following a general description of each type, two or three short analyses will be presented to illustrate how the three types of silence manifest themselves in Webern's twelve-tone instrumental pieces.

Our reading of the three types of silence depends largely on the way we segregate formal units. For my analyses, I focus primarily on the way silence interacts with the row structure, phrasing, and formal functions of the musical

³¹ It is worth noting that even though silences can also be found occurring near the opening, ending, and between two formal units in pieces by other composers, their associated formal functions and expressive effects may not be identical to those discussed here, which are contextspecific to Webern's twelve-tone instrumental pieces.

unit, in conjunction with other musical parameters such as meter, tempo, dynamics, and rhythm. The location of each type of silence and its associated function are summarized in the following table (**Figure 2.1**).

Opening	Location:				
	• Near the beginning of a formal unit				
	Functions:				
	• Isolate and highlight the initial idea(s)				
	• The initial idea, the "subject," becomes the kernel of				
	motivic materials, which is further developed in the				
	subsequent continuation, the "predicate"				
Closing	Location:				
	• Near the end of a formal unit				
	Functions:				
	• Delay the impending closure				
• Isolate and highlight the closing idea, which articulat					
	unit's ending				
Transitional	Location:				
	• At the boundary between two formal units				
	Functions:				
	• Intensification in dynamics, rhythm, and/or tempo before				
	the silence propels the music forward, which is then				
	interrupted by the silence				
	• This silence acts as a turning point in the musical				
	trajectory, after which new and contrasting materials (or a				
	new texture) are introduced				

Figure 2.1 Summary of the three types of silence.

TYPE 1: OPENING SILENCE

Figure 2.2 Illustration of the placement of opening silence.

Subject Silence Predicate

An opening silence occurs near the beginning of a formal unit (such as a phrase, section, or a row). In Webern's twelve-tone pieces, this type of silence is used to segment the initial group of pitches from its subsequent continuation. Inasmuch as silence heightens a listener's attention, an opening silence highlights the initial figure, which, in retrospect upon the completion of the whole phrase or section, functions as the kernel of musical materials upon which the rest of the formal unit is based.

For an opening silence in Webern, I will label the initial group of pitches as the "subject" and its subsequent continuation after the silence as the "predicate." The motivic, rhythmic, or harmonic materials of the "predicate" are often directly related to, or an elaboration of, those presented in the opening "subject."

Because the opening idea is often self-contained, an opening silence is at first perceived as a segmentation pause. Upon the completion of the phrase or section, listeners then recognize that the silence actually occurs in the middle of (as an interruption to) the overarching musical process of the whole phrase or section. An opening silence is therefore an insertion used to highlight the initial "subject"; in other words, the subject and the predicate could connect smoothly and form one larger unit even if the silence were removed. The level of

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interruption of an opening silence is fully grasped by the listeners only in retrospect. It is therefore less dramatic compared to the other two functional types (i.e. closing and transitional), which will be discussed in detail later in this chapter.

<u>Op. 24, II, mm. 1–21</u>

Example 2.1 shows the opening section of the second movement of the Concerto, Op. 24. As pointed out by several scholars such as Christopher Winter and Kathryn Bailey, the opening 21 measures can be divided into two parallel halves, a structure that is analogous to the antecedent and consequent phrases in a Classical periodic structure: mm. 1–11 constitute the antecedent phrase, followed by a consequent phrase in mm. 11–22. The rows are partitioned into two layers, with pitch classes in order positions 1, 4, 7, and 10 distributed across the winds and strings, making up one melodic line (shown in the upper staff in **Example 2.1**). The rest of the pitch classes are played by the piano as harmonic accompaniment.

A quarter-note rest is inserted after the first seven pitches, isolating that initial group of pitches as an opening "subject," which presents the first statement of the (014) linear figure in the melodic voice, obtained from a particular partitioning that selects pitch classes from order positions 1, 4, and 7 of the first row \mathbf{R}_7 (see Figure 2.3).



Example 2.1 Op. 24, II, mm. 1–28, reduction.



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This particular partitioning of the (014) trichord in the melodic voice also allows for (014) trichords to be formed from consecutive pitch classes of the row, heard as simultaneities between the melodic line and the dyadic piano accompaniment (such as the [G, B, B_b] in m. 1, drawing from the first three pitch classes of the first row **R**₇). This "cross-partitioning" of (014) trichords becomes the guiding principle for the construction of the rest of the melodic line.³² For example, the next five-note group in the melodic line in mm. 4–6, <C, B, E_b, D,

³² The notion of "cross-partition" in twelve-tone music is proposed and discussed by Brian Alegant in Alegant (2001).

F♯>, can be broken up into three interlocking (014) trichords, i.e. <C, B, E♭>, <B, E♭, D>, and <E♭, D, F♯>.

The melodic trichords $\langle B, E_{\flat}, D \rangle$ and $\langle E_{\flat}, D, F_{\sharp} \rangle$ are derived from pitch classes in positions <1, 4, 7> and <4, 7, 10> of row **RI**_e (shown in **Figure 2.3**), a property that is inherent in this particular row. As a corollary, pitch classes in order positions <1, 4, 7> and <4, 7, 10> from any **R** and **RI** row forms always yield (014) trichords. Nevertheless, the (014) trichord in the melody of mm. 4–5 spans across two different rows (R7 and RIe), which can only be created by selecting rows in particular transpositions and inversions such that the pitch classes in positions 1 and 4 of the second row (e.g., B and E_{\flat} in **RI**_e) can combine with the tenth pitch class of the first row \mathbf{R}_7 (C on the first beat of m. 4) to form an (014) trichord. Out of the 48 row forms under transposition, inversion, retrograde, and retrograde-inversion, only eight can form an (014) trichord with pitch C of the first row, and out of these eight rows only four can preserve the (014) cross-partitioning scheme as in the first row (all possible row forms are listed in Figure 2.4, rows in parentheses do not yield (014) trichords in positions <1, 4, 7> or <4, 7, 10>). This hints at Webern's decision in carefully picking rows to maximize the number of (014) trichords in the melodic voice, a principle that guides the construction of the rest of the theme. In this light, the silence on the first beat of m. 3 can be interpreted as an opening silence, isolating the first linear presentation of the (014) trichord in the melodic voice, which functions as the "subject" for its ensuing continuations over the rest of the theme-the "predicate" (Example 2.1).

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G	В	Bb	Eb	D	F#	Г Е	F	Db	C	Ab	А
B	G	Ab	Eb	E	С	D	Db	F	 F#	Bb	A
Eb	G	F#	B	Bb	D	C	C#	A	Ab	E	F
(E	F)	Db	C i (cadent	Ab i ial figur	A re)	G	В	Bb	Eb	D	 F#
Ē	Ab	G	C	В	Eb	C#	D	Bb	A	F	 F#
G#	С	В	E	Eb	G	F	F#	D	C#	A	Bb
[I					
D	F#	F	Bb	А	C#	В	С	Ab	G	Eb	E
	G B Eb (E E G#	G B B G Eb G (E F) E Ab G# C	G B Bb B G Ab Eb G F# (E F) Db E Ab G G# C B	G B Bb Eb B G Ab Eb Eb G F# B (E F) Db C i	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	G B Bb Eb D F# E F Db C Ab B G Ab Eb E C D Db F F# Bb Eb G F# B Bb D C C# A Ab E (E F) Db C Ab A G B Bb Eb D (E F) Db C Ab A G B Bb Eb D E Ab G C B Eb C# D Bb A F G# C B E Eb G F F# D C# A

Figure 2.3 Row table for Op. 24, II, mm. 1–22. (brackets above certain pitch classes indicate the cross-partitioning of (014) trichords in the melodic voice)

While the two phrases (an antecedent followed by a consequent) are parallel to each other in most aspects, the silence on the first beat of m. 3 in the antecedent phrase does not recur in the corresponding location in the consequent phrase, which hypothetically would fall into m. 14. The silence in m. 3 is the only moment throughout the entire theme where all of the instruments stop sounding. In this sense, the opening silence has a special significance for the whole theme (mm. 1–22), highlighting the initial "subject" as the germinating idea not merely for the antecedent phrase alone, but for the entire opening theme.

Order Position:	1			4			7			t		
RIe	В	G	G#	Eb	Е	С	D	C#	D	F#	Bb	A
(P_e)	В	Bb	D	Eb	G	F#	Ab	Е	F	C	C#	А
(I ₃)	Eb	Е	С	В	G	G#	F#	Bb	А	D	C#	F
R ₃	Eb	G	F#	В	Bb	D	C	C#	А	G#	Е	F
RI9	Α	F	F#	C#	D	Bb	C	В	С	Е	Ab	G
(P ₇)	Α	Ab	С	C#	F	Е	F#	D	Eb	Bb	В	G
(I_1)	C#	D	Bb	А	F	F#	Е	Ab	G	C	В	Eb
R 1	C#	F	Е	А	Ab	С	Bb	В	G	F#	D	Eb
	l	:		<u>.</u>								

Figure 2.4 Possible row forms capable of forming (014) trichords with the tenth pitch class C of the first row **R**₇.

<u>Op. 30, mm. 1–21</u>

Another instance of opening silence can be found in the opening section (mm. 1–20) of the *Variations*, Op. 30 (**Example 2.2**). Two rows unfold at the same time, each of which is partitioned into three tetrachords that are passed among different instruments. The upper layer, the "main voice," has a more regular and symmetrical row structure. As presented in **Figure 2.5**, the main voice comprises the original row (**P**₉) and its inversion (**I**₉) in the first half of the section (mm. 1–9), followed by the retrograde of the first two rows (**R**₈ and **RI**_t) in the second half (mm. 10–20).

The second layer, counterpoint to the first layer, shares certain similarities in rhythm and pitch to the main voice. For example, for the second tetrachord of **P**₉, <**B**, D, Eb, Gb> and the first tetrachord of **RI**_t, <**B**b, B, D, C \ddagger >, both of which appear in m. 2, pitch classes B and D in both voices are fixed in the same register, and the two tetrachords share the same rhythmic pattern, <3,1,2,6>.³³





³³ The notation <3,1,2,6> represents the proportion of the durations of the four notes within the tetrachords; in this case, the numbers represent durations as multiples of 32nd notes.







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P 9			I9				
A B _b D _b C	$B D E\flat G\flat$	F E G Ab	A A♭ F F♯	G E Eb C	C# D B Bb		
α <-23, +15, +11>	β <-9, -11, +3>	RI(α) <+11, +15, -23>	I (α) <+23, -15, -11>	Ι(β) <+9, +11, -3>	R(α) <-11, -15, +23>		
a	b	½ R(a)	½ a	2b	R(a)		
	RIt						
	B♭ B D C#		C E♭ E G		G♭ F G # A		
	<+23, -9, -25>		RI(β) <+3, -11, -9>		<+23, -21, -11>		
	b		½ a		R(a)		
R ₈			RIt				
R ₈ A♭ G E F	G♭ E♭ D B	C D, B, A	RI _t B♭ B D C♯	C E♭ E G	F# F A♭ A		
R ₈ Α, G E F I (α) <+23, -15, -11>	G, E, D B R(β) <-3, +11, +9>	C D _b B _b A R(α) <-11, -15, +23>	RI t B \land B D C# $\alpha < -23, +15, +11 >$	C E _b E G RI(β) <+3, -11, -9>	F# F A♭ A RI(α) <+11, +15, -23>		
R8 A♭ G E F I(α) <+23, -15, -11> ½ R(a)	G♭ E♭ D B R(β)<-3 , +11, +9> b	C D, B, A R(α) <-11, -15, +23> a	RI _t B _b B D C# α <-23, +15, +11> R(a)	C E♭ E G RI(β) <+3, -11, -9> 2b	F# F Ab A RI(α) <+11, +15, -23> ¹ / ₂ a		
R8 A♭ G E F I(α) <+23, -15, -11> ½ R(a)	G♭ E♭ D B R(β) <-3, +11, +9> b	C D♭ B♭ A R(α) <-11, -15, +23> a	RI _t Bb B D C# $\alpha < -23, +15, +11 >$ R(a) P9	C E _b E G RI(β) <+3, -11, -9> 2b	F# F Ab A RI(α) <+11, +15, -23> ¹ / ₂ a		
R8 F A♭ G E F I(α) <+23, -15, -15	G♭ E♭ D B R(β)<-3 , +11, +9> b [G E E♭ C]	C D♭ B♭ A R(α) <-11, -15, +23> a C# D B B♭	RI_t B_{\flat} B D $C#$ $\alpha < -23, +15, +11 >$ $R(a)$ P_9 [A B_{\flat} D_{\flat} C]	C E _b E G RI(β) <+3, -11, -9> 2b B D E _b G _b	F# F A _b A RI(α) <+11, +15, -23> $\frac{1}{2}$ a [F E G A _b]		
R8 $A > G$ E F $I(\alpha) <+23, -15, -11>$ $1/2$ $R(a)$ $1/2$ $R(a)$ T I_2 $R(a)$ T F A G # F F # $<+11, -3, +25>$ T T	G♭ E♭ D B R(β) <-3, +11, +9> b [G E E♭ C] 	C D β B β A R(α) <-11, -15, +23> a C# D B B β <+25, -15, +25>	RI_t B_{\flat} B D $C#$ $\alpha < -23, +15, +11 >$ $R(a)$ P_9 [A B_{\flat} D_{\flat} C]	C E _b E G RI(β) <+3, -11, -9> 2b B D E _b G _b β <-9, -11, +3>	F# F A \flat A RI (α) <+11, +15, -23> ¹ / ₂ a [F E G A \flat] 		

Figure 2.5 Row Table of Op. 30, mm. 1–20.

a, **b**: durational patterns (**a**: <2,2,1,2> **b**: <3,1,2,6>)

α, β: melodic contours (α: <-23, +15, +11> β: <-9, -11, +3>)

In contrast to the main voice, the contrapuntal voice has a less symmetrical and looser construction. Whereas all the tetrachords in the main voice are presented linearly, certain tetrachords in the contrapuntal voice manifest themselves as vertical chords, the first of which occurs in m. 12, [G, E, C, E_b], played by the brass.³⁴

A fermata occurs over the barline of m. 3, separating the first two tetrachords from the rest of the section, each of which has its own rhythmic profile: **a** <2,2,1,2> for the first tetrachord (<A, B_b, D_b, C>) and **b** <3,1,2,6> for the second (<B, D, E_b, G_b>).^{35,36} Observed also by Bailey, these two rhythmic patterns not only recur throughout the first section, but also throughout the entire piece.³⁷ Taking the third tetrachordal figure of **P**₉ in m. 3—<F, E, G, A_b>—as an example, this tetrachord has a rhythmic pattern of <2,1,2,2>, the rhythmic retrograde of the original pattern **a** with half the original duration (indicated as ¹/₂R(**a**) in **Example 2.2** and **Figure 2.5**).

Besides the two rhythmic patterns **a** and **b**, the opening idea also introduces the two tetrachord types—set classes 4-3 [0134] and 4-17 [0347], both of which are the only two tetrachord types that are explicitly outlined and

³⁴ In the row table of **Figure 2.5**, I indicate the simultaneous attacks of different pitch classes with square brackets.

³⁵ Even though an 8th-note rest is found at the end of m. 1, it is presumably considerably shorter than the fermata over the barline of m. 3. The short pause in m. 1, as well as in multiple locations within this opening theme, functions as a segmentation pause that clarifies the tetrachordal grouping of the main voice. On the other hand, the fermata over the barline of m. 3 is more pronounced and thus significant because it is much longer in duration and it suspends the underlying meter (as indicated by the fermata).

³⁶ Here I am using the same labeling scheme as Bailey (1991), p. 225.

³⁷ See Table 5.2 in Bailey (1991), p. 225.

delineated throughout this section.³⁸ For the main voice, the rhythmic pattern **a** and its variants are always connected with tetrachord [0134] (see **Figure 2.5**); similarly, pattern **b** and its variants are always associated with tetrachord [0347]. The opening silence not only spotlights the two principal rhythmic ideas **a** and **b** in the first two measures, it also introduces, at the very beginning, the two primary tetrachords that recur throughout the entire first section.³⁹

Furthermore, the opening idea, highlighted by the opening silence, also introduces the two melodic contours— α and β (see Figure 2.5). All tetrachords of the main voice are related to one of the two contours via inversion, retrograde, or both. For the main voice, the first and third tetrachords of each row, both of prime form [0134], are associated with α , whereas β is related to the second tetrachord, [0347]. For example, the third tetrachord of **P**₉ in m. 3, <F, E, G, A \triangleright >, has the contour <+11, +15, -23>, which is the retrograde inversion of α (indicated as RI(α) in Figure 2.5).

³⁹ The two tetrachords, however, are not different entirely from each other in sonority. Taking into account the registral placement of the pitches, the first tetrachord [A, Bb, Db, C] can be conceived as combining an (03) dyad higher in register, [A, C], with another (03) dyad lower in register, [Bb, Db]. The second tetrachord [B, D, Eb, Gb] can be segregated in a similar manner, one (03) dyad higher ([B, D]) and one lower ([Eb, Gb]), as shown in the following diagram:



³⁸ This economy of chord type is not a coincidence: the first and last tetrachords of any row are of prime form [0134] whereas the middle one is a [0347].

By effecting a gap between the opening idea ("subject") and its continuation ("predicate"), the opening silence becomes an important structural marker that highlights the two tetrachords, rhythmic patterns, and melodic contours. Perceptually speaking, this opening silence is more reflective than dramatic: the two tetrachordal figures in the opening subject form a quasi "statement-and-response" relationship, suggesting a certain degree of completeness.⁴⁰ The silence is perceived as being *in medias res* only after the end of the opening section in retrospect.

<u>Op. 24, I, mm. 1–10</u>

The opening silence in the first movement of the *Concerto*, Op. 24 (**Example 2.3**), is less conspicuous than the previous example but is still worth noting. As read by Leibowitz, the first ten measures of this movement suggest a structure analogous to a Classical sentence: mm. 1–3 present the initial idea followed by its retrograde-inversion in mm. 4–5, succeeded by a continuation phrase (with rhythmic condensation and increasing dynamics) in mm. 6–7, leading to a conclusion in mm. 9–10.⁴¹ This interpretation is also reflected through the multiple *ritardandos* placed near the end of each unit (e.g., the first *ritardando* appears on the upbeat to m. 3, coinciding with the end of the initial basic idea). The opening theme can thus be segregated into two halves, the

⁴⁰ That is, the first tetrachordal statement <A, B_b, D_b, C> seems to be answered by the following tetrachord <B, D, E_b, G_b>, forming a statement-and-response relationship.

⁴¹ Leibowitz (1948), restated in McKay (1996), p. 98.

presentation and the continuation phrases, both of approximately the same length (5 measures).

In addition to the reading of a sentence structure as in **Example 2.3**, the silence in m. 3 makes possible another formal division—the subject-predicate structure (see **Example 2.4**). This rest, lasting more than a quarter note (it sounds longer in performance due to the *ritardando*), is more pronounced than the others within this theme. Inserted after the completion of the initial idea (after the end of the first row **P**_e), the silence separates the first presentation of the four rhythmic cells—labeled as **a**, **b**, **c**, and **d**—from the rest of the theme. These four rhythmic cells are the primary rhythmic motives that make up the latter half of the theme (see **Example 2.4** and **Figure 2.6**). For example, all four rhythmic cells are restated in mm. 4–5 in retrograde order <d, c, b, a>, followed by a concatenation of **a** in mm. 6–7. This subject-predicate reading can be further articulated via performance, where the conductor can prolong the pause in m. 3 by emphasizing the *ritardando*, making this silence perceptually longer, and more prominent, than the one between mm. 5–6.







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Example 2.4 Op. 24, I, mm. 1-11, opening silence indicated.

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Figure 2.6 Row table of Op. 24, I, mm. 1–11.

TYPE 2: CLOSING SILENCE

Figure 2.7 Illustration of the placement of closing silence.

Ongoing phrase	Silence	Closing idea

A closing silence occurs toward the end of a formal unit. It interrupts the ongoing musical processes such as the unfolding of the row, rhythmic canonic imitation, and ongoing motivic development, separating the last few pitches to form a closing idea that articulates the closure of the entire unit. The sense of impending closure is often suggested by a gradual liquidation of the foregoing musical materials and a decrease in musical tension (such as thinning-out of texture and decrease in dynamics). In the case of a rhythmic canon, this silence intrudes as a dramatic pause that stops the ongoing musical activity across all canonic voices.

Similar to the opening silence, the components of a closing silence are: "ongoing phrase," "silence," and "closing idea," as illustrated in **Figure 2.7**. For the ongoing phrase, I will attend to its surface features such as dynamics, texture, and articulations, parameters that suggest a sense of impending closure or lack thereof. The closing silence halts all musical processes unexpectedly before closure is attained. The silence is followed by a closing idea, which often deviates from, or contrasts with, the previous passage, sometimes suggesting the possibility for the closing idea to become the beginning of a new section via a return to the original dynamics or to prior tempo. Instead of projecting a gradual "coming-to-an-end," Webern's closing ideas are often surprising, akin to a suspenseful twist at the end of a plot.

Closing silence is more striking and dramatic than the opening silence because it throws off our expectation of the impending closure hinted at by certain musical features in the foregoing passage, such as structural symmetry or a gradual liquidation of musical materials. This silence also breaks the imitation between individual voices in a pitch or rhythmic canon, interrupting the interwoven contrapuntal lines. This interruption is particularly salient because all the canonic voices unexpectedly stop midway.

Closing silence is similar to a certain degree to a pause for fragmentation, which is used to shorten the grouping units. The closing silence, however, is perceptually more salient and striking given its unexpected nature and its often

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longer duration. It also has a more specific and substantial structural role, separating and highlighting the following closing idea, which often deviates from, sometimes contrasts with, prior materials. It is possible that a pause occurring near the end of a phrase potentially functions simultaneously as a pause partaking in the process of fragmentation and as a closing silence. In those cases, I will compare the two readings and determine what can be gained from each of the two interpretations.

<u>Op. 28, I, mm. 96–112</u>

The last section of the first movement from Webern's *String Quartet*, Op. 28, is shown in **Example 2.5** with its row structure laid out in **Figure 2.8**. Two rows unfold simultaneously (starting with P_2 and P_e), forming a pitch-class canon three semitones apart. Each row is passed between two instruments: Violin I and Violin II share the upper row (starting with P_2) while the viola and cello share the lower row (starting with P_e). Each row is joined to the next via elision: the last tetrachord of one row is elided with the first tetrachord of the subsequent row.

A caesura is inserted after the first beat of m. 111, creating a temporary cessation of the ongoing musical processes—the unfolding of the rows and the rhythmic imitation among canon voices. This pause also separates and isolates the last four pitch classes from the previous stretto-like rhythmic canon. As a result of the caesura, these four ending pitch classes form a group that acts as a closing idea, articulating the end of the entire canonic section.



Example 2.5 Op. 28, I, mm. 96–112.

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Figure 2.8 Row Table of Op. 28, I, mm. 96–112

	P_2	D	C#	Е	Eb	G	Ab	F	F#	Bb	А	С	В	
	Pe	В	Bb	C#	С	Е	F	D	Eb	G	F#	А	G#	$\left(\right)$
T_4														
	P _t	Bb	А	С	В	Eb	Е	C#	D	F#	F	Ab	G	
(P ₇	G	F#	А	G#	С	C#	Bb	В	Eb	D	F	E	1-4
T-4														
	P ₆	F#	F	Ab	G	В	С	А	Bb	D	C#	Е	Eb	
	P ₃	Eb	D	F	Е	Ab	Α	F#	G	В	Bb	C#	С	

The two-part canon begins in *ff* in m. 96, gradually fading toward *ppp* at the end (mm. 111–112). Yet the return to the original tempo after the caesura works against the overarching drop in dynamics: the *ritardando* starting at m. 110 does not continue till the very end; instead, the original tempo resumes immediately after the caesura in m. 111.

The ambiguity between ending and beginning goes hand-in-hand with the circularity of the row structure. Due to the way the successive row-pairs are connected via elision, the new pair is four semitones lower, or eight semitones higher, than the previous pair (e.g., the third row-pair, P_6/P_3 , is T-4 related to the second row-pair, P_t/P_7). If we continue this row succession in the same manner, the next row-pair after the last (P_6/P_3) would be P_2/P_e , the same row-pair as the first. The last two tetrachords (<D, C[#], E, E)> in mm. 110–112 for the upper row and <B, B_b, C[#], C> in mm. 109–111 for the lower row) thus have the same pitch-class content as the ones that begin this section (marked by the dotted boxes in

Example 2.5). The return of the opening tetrachords of this section, together with the resumption of the original tempo, yield a sense of beginning anew after the closing silence, a contradiction of formal functions that is typical of Webern's closing ideas.

<u>Op. 28, II, mm. 36–55</u>

Example 2.6 shows the recapitulation of the second movement from the *String Quartet*, Op. 28. The rows and canonic texture of the opening section return here in m. 36. Each row is assigned to one instrument, and the four rows form a rhythmic canon at the time interval of one quarter.⁴² The successive rows are elided via overlapping tetrachords.

A caesura with a fermata is inserted after the first beat of m. 52. This silence freezes the ongoing unfolding of the rows and the constant motoric quarter-note pulse.⁴³ The last few pitches (from the second beat of m. 52 to m. 55) are isolated from the foregoing rhythmic canon, acting as a closing idea that articulates the end of the recapitulation and the movement as a whole.

The sense of surprise by the intrusion of the closing silence can be attributed to three factors. First, every quarter beat has an attack throughout this passage, and the silence throws off our entrained metrical pulse by suspending the

 $^{^{42}}$ The order of the canonic entries is however rearranged compared to that in the opening section. For example, the first entry of the canon in the recapitulation, starting with row **P**₈, comes in third in the opening section.

⁴³ Even though there are fluctuations in tempo prior to the closing silence, e.g., *poco rit.* in m. 44 and m. 48, they do not throw off the underlying metrical pulse. This is because we perceive these changes as expansion and contraction of musical time rather than implying a different metrical framework.

constant metrical drive. Second, rests can also be found in multiple locations in the four instrumental lines (such as on the second beat of m. 39 in Violin I) as a way of defining or clarifying the internal grouping and phrasing, yet their saliency is weakened by the presence of simultaneous attacks in the other instruments. The closing caesura, however, cuts across the musical surface irrespective of the imitative texture. Lastly, while the first ending has the same pitch content as the beginning of the second, it lacks a caesura in the same location. Inasmuch as listeners have expectations regarding how the section would end after hearing the first ending, the interruption of the closing silence is felt to be even more surprising.

The closing idea introduces a surprising twist to the foregoing passage. First, a new tempo marking (d = 112) is inserted after the caesura, doubling the previous tempo (d = 56). This tempo change results in a faster metrical pulse underlying the closing measures compared to the rest of the section. Second, the dynamics also show a significant jump after the closing silence. While the *pizzicato* is scored *pp* in the first ending in mm. 50–51, the dynamics unexpectedly leap to *f* at the start of the second ending, articulated further by the cello playing an agitated *sforzando* note F. This jolt is dramatized by the silence, prolonged by a fermata, where listeners are more focused and attentive. Webern in this movement creates a totally different sense of closure, one that sounds as if the music intends to continue but instead dissipates quickly afterward.

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Figure 2.9	Row Table	for Op.	28, II,	mm.	36-3	55
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	ſ	- P8	Ab	G	Bb	Α	C#	D	В	С	Е	D#	F#	F		
		I5	F	F#	D#	Е	С	В	D	C#	(A)	Bb	G	Ab		
		P4	Е	D#	F#	F	А	Bb	G	Ab	С	в	D	C#	1	
		I ₁	C#	D	В	(C)	Ab	G	Bb	А	F	F#	D#	Е		
T+4/ T-4		_														
-	\ [- P4	Е	D#	F#	F	А	Bb	G	Ab	С	В	(D)	C#		
	\mathbf{X}	I9	(A)	Bb	G	Ab	Е	D#	F#	F	C#	D	В	С		
		P ₀	С	В	D	C#	F	F#	D#	Е	Ab	G	Bb	А		T_4
		I5	F	F#	D#	Е	С	В	D	C#	А	Bb	(G)	Ab		
T+4/		_														
1 -4	\ [- P0	С	В	(D)	C#	F	F#	D#	Е	Ab	G	Bb	А		
	\mathbf{n}	I ₁	C#	D	В	С	(Ab)	G	Bb	А	F	F#	D#	Е	/	
	×	P7	Ab	G	Bb	А	C#	D	В	С	E	D#	F#	F		
		I 8	А	Bb	(G)	Ab	Е	D #	F#	F	C#	D	В	С		
	L	-														

The feeling of beginning in the closing gesture also corresponds to the circularity in the row structure. As shown in the row table in **Figure 2.9**, the last tetrachords of the last four simultaneous rows are the same as the first four tetrachords at the beginning of the section. For example, the last tetrachord of Violin I $<A_{\flat}$, G, B_{\flat}, A> in mm. 52–54 refers back to the opening tetrachord of this section (mm. 36–38), in the same register and with the same melodic contour.⁴⁴ On this basis, the closing idea can potentially be regarded as an opening idea, which quickly recedes into the void of silence, a moment of ephemeral exultation succumbing to the inescapable end.⁴⁵

Op. 27, II, mm. 10-22

The second half of the second movement from *Variations*, Op. 27 (shown in **Example 2.7**), consists of two pairs of rows, **I**₈/**P**_t and **P**₁/**I**₅.⁴⁶ The two rows within each pair unfold concurrently and are passed between the two hands (see **Figure 2.10**). The first row pair (**I**₈/**P**_t) starts on [B_b, G#] and ends on [F, C#] in m. 17; the second row pair, overlapping with the first, starts on [F, C#] and ends on [B_b, G#]. The return to the same pitches [B_b, G#] creates a formal ambiguity, amplified by the help of a closing silence in mm. 21–22.

⁴⁴ There is one exception: the last pitch class of the cello, C, is replaced by a rest in the opening tetrachord because it is elided with the C in the second violin in m. 39.

⁴⁵ It is also possible to interpret this ending figure as the piece breaking away from the previous discourse and transcending to higher realm.

 ⁴⁶ The exact beginning of the second half is somewhat ambiguous because the two pitches <B♭,
 G♯> in m. 11 are also the ending pitches of the first half, according to the row structure.

Here the last two pitches $[B_{\flat}, G_{\#}]$ are delayed by two quarter-note rests.⁴⁷ This silence is particularly salient because it is the longest rest within this movement. It separates the last two pitches from the previous section, and suspends the rhythmic activities of the 8th-note pulse. The last two pitches $[B_{\flat}, G_{\#}]$ thus function as a closing idea, an articulation that marks the end of the movement.

Example 2.7 Op. 27, II, mm. 10–22.







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⁴⁷ If we take into account the overall triple-meter rhythmic pattern in the ongoing passages, then the dyadic figure $\langle (E_b)D, (D_{\#})E \rangle$ in m. 21, just before the closing silence, would include the following 8th-note rest as a group. Based on this reading, the closing silence, spanning only one-and-a-half quarter, is still the longest silence throughout the entire second half.

Figure 2.10 Row Table for Op. 27, II, mm. 10–22.

I 8	(G#)	G	В	A	С	Bb	E	Eb	D	F#	F	(C#)	
P _t	(Bb)	В	G	А	F#	Ab	D	Eb	Е	С	Db	(F)	
P ₁	(C#)	D	Bb	С	А	В	F	F#	G	Eb	Е	G#	
I 5	(F)	E	G#	F#	А	G	C#	С	В	Eb	D	Bb	

These two pitches $[B_{\flat}, G_{\#}]$ at the end recall the very same pitches at the start of this section (on the second beat of m. 11), both of which share the same register, dynamics, and articulations. The return of this figure in m. 22 after the long silence may hint at the possibility of the beginning of a new section. This formal ambiguity is further complicated by the repeat sign at the end, by which the ending figure $[B_{\flat}, G_{\#}]$ is heard as the beginning of the following repeated section, a figure that functions like the one on the second beat of m. 11. Yet toward the end of the repeat, i.e. the second iteration of the section, the ending figure ceases to continue, creating a surprising jolt at the end.

TYPE 3: TRANSITIONAL SILENCE

Figure 2.11 Illustration of the placement of transitional silence.

Intensification / Change Silence New materials and/or new texture

A transitional silence occurs between two phrases or sections, or falls between two successive rows. Instead of being a segmentation pause, a transitional silence is preceded by intensification in certain musical domains such as dynamics, register, and tempo, engendering a forward drive and propulsion. The transitional silence interrupts and intrudes upon the forward momentum occasioned by the intensification in the prior passage, stopping the music before reaching a conclusive goal. After the interruption, a dramatic and often unexpected change is observed. The transitional silence thus functions as a significant turning point in the ongoing musical discourse, where new motivic materials and texture contrasting with the previous section are introduced after the silence. I will label the three portions of the transitional silence as "intensification / change," "silence," and "new materials and texture" accordingly as shown in **Figure 2.11**.

The transitional silence is often more dramatic and energetically charged compared to the other two types discussed earlier (i.e. opening and closing). The intensification prior to the silence provides the forward drive that propels the music onward. The goal of this forward motion is cut short by the interruption of the silence. The momentum created by the intensification is sustained through the

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silence as listeners anticipate the arrival of its conclusion and resolution. It is no coincidence that most cases of transitional silence have exact measured durations, possibly due to the fact that the underlying metrical pulse is sustained through the silence, heightening its emotional intensity.

<u>Op. 27, III, mm. 33–47</u>

An instance of transitional silence can be found in the third movement of the *Variations*, Op. 27, Variation IV (**Example 2.8**). Only one row unfolds at a time in this section, and is shared between the two hands. As shown in **Figure 2.12**, the first two successive rows, **I**₀ and **RI**₇ (as well as the next two rows, **I**_e and **RI**₆), form a pair, in which the second row is the rhythmic and pitch retrograde of the first, resembling an antecedent-consequent relationship. The last row **P**₃ stands on its own without being succeeded by its complementary retrograde row (presumably **R**₈). This truncated **P**₃/**R**₈ pairing is dramatized by the insertion of a whole-measure rest in m. 44.

The last row before the whole-measure rest in m. 44 (**P**₃) is underscored with intensification in dynamics and tempo. An accelerando is placed at the beginning of m. 43 leading up to m. 45, indicating a speeding-up of the metrical pulse. A fortissimo marking (*ff*) is placed on the last four pitches of m. 43, <G, F, A, G \ddagger >, appearing for the first time in this variation (and indeed in this movement so far). This increase in dynamics and tempo propels the music forward to the whole-measure rest in m. 44, after which appear contrasting rhythmic patterns (predominantly dotted-quarter note and quarter note rhythms) and texture (alternating between left and right hands, which together constitute a single melodic line).

Besides drawing on the row structure, we can also demarcate formal units by taking into account the various placements of "*molto rit*." and "*tempo*" markings, indications that do not always correspond to row boundaries. As indicated by the solid brackets in **Example 2.8**, Grouping **A** comprises two 8thnote slurred dyads ending with two long notes supported by an (016) trichord, whereas Grouping **B** is characterized by the retrograde symmetrical four 8th-note figure (e.g., <F#, G, G, F#> across mm. 35–36).⁴⁸ Both of these groups end with "*molto rit.*," and the beginning of the next group is signaled by a return of the original tempo.

From the beginning of this variation up until the last quarter-beat of m. 41, the two groups (**A** and **B**) alternate and form pairs, where **A** is succeeded by **B**. Grouping **A** returns on the last quarter-beat of m. 41, starting with $\langle E, D \notin \rangle$ in the right hand. This restatement of **A** in m. 41 creates an expectation for **B** to follow due to the previous **A**/**B** pairing. Yet the following **B** is curtailed by the intrusion of the whole-measure rest in m. 44. The sense of surprise is further heightened by the last four pitches, $\langle G, F, A, G \notin \rangle$, on the second half of m. 43, which suggests the beginning of **B** and creates an expectation for **B** to complete itself. The feeling of interruption is further buttressed by the increase in dynamics and tempo in the previous two measures (mm. 42–43), infusing substantial intensity and tension to the silence in m. 44.

⁴⁸ As a clarification, groupings A and B do not line up with the boundaries of the antecedent and consequent rows.



Example 2.8 Op. 27, III, mm. 33–47.







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Figure 2.12 Row Table of Op. 27, III, mm. 33-47.

Var. IV

Beginning of Var. V

R₉ (A G#) C Bb C# B F E Eb G F# D

The sense of intensification is further enhanced by the registral ascent of the slurred eighth-note dyads. In Grouping **A** starting on the last quarter beat of m. 33, the major-seventh leaps reaches E as the highest pitch. The following group (**B**) gets up to Ab, which then recedes back to E and G in the next two groups (mm. 37–41). A new high point is attained on the last quarter beat of m. 43, immediately preceding the intruding silence, with the appearance of the slurred eighth-note pair <A, G $\neq>$.⁴⁹ This gradual ascent in register, coupled with the "breaking-through" of the pitch A before the silence, creates a strong sense of excitement and forward thrust.

This transitional silence has a defined duration (a whole-note rest) instead of being indicated with a fermata. As a result, the metrical pulse in the previous section is projected into the moment of silence, rendering the silence more intense to listeners. The defined duration of the silence also compels performers to count the succession of pulses during the rest, a state of anticipation of the impending arrival of the upcoming pitches.

Compared with the other two types of silence (i.e. opening and closing), the transitional silence creates a different effect on our psychological time. Silence with non-defined duration, such as those that involve fermatas, usually creates an expansion, or even cessation, of psychological time. Rests with defined duration, such as the one in this example, invoke a totally different temporal

⁴⁹ We may also consider the grace note B_b that leads up to the following D in m. 42 as an expansion of register, one that appears earlier than the A in the m. 43. However, the short duration of this grace note, coupled with the dynamic emphasis (*sf*) of the main note D, render the B_b as being more a prefiguration of the registral "breaking-through" of the high A in m. 43 than a melodic tone itself.

affect, a feeling that listeners' consciousness is brought closer to the physical time, resulting in a shortening of psychological time.⁵⁰

<u>Op. 24, III, mm. 1–13</u>

Another dramatic transitional silence can be found in the opening theme of the third movement of the *Concerto*, Op. 24 (**Example 2.9**). Each row is segregated into two layers, forming a two-part rhythmic canon as notated on the two staves.⁵¹ As shown by the upper (half-note) metric layer in **Example 2.9**, constant pulses are established by the regular note onsets on the first and second half-note beat of each measure. The groupings of the (014) trichords give rise to the whole-note layer (indicated by the whole-note metric layer in **Example 2.9**).⁵²

The constant pulses of the half-note layer are thrown into disarray on the last beat of m. 12, where the last trichord into m. 13, $\langle G, B, B \rangle$, arrives one quarter note too soon (indicated by the backward-pointing arrow), shifting the strong beat to the last off-beat of m. 12. This creates a moment of metrical disruption that throws off our entrained regular half-note metrical grid established earlier in this theme.

The sense of metrical surprise is coupled with other musical parameters to enhance the sense of unexpectedness. First, dynamics increase from the preceding

⁵⁰ To further condensing the experienced time, an *accelerando* is placed in mm. 43–44 to speed up the metrical pulse.

⁵¹ In my hearing, the odd-numbered trichords within each row are grouped into one canonic voice, while the even-numbered trichords make up the other.

⁵² While the half-note metric layer stays constant until the very end of this theme (m. 13), the whole-note layer shows a larger degree of flexibility. For example, the first metric disruption occurs in m. 4, where the onset of the (014) grouping in the upper voice is shifted a half-note earlier.

f to *ff* on the last quarter-beat of m. 12, coinciding with the onset of the last trichordal figure. Second, *poco ritardando* is placed on the last two pitches (<B, $B \downarrow$ >) to slightly delay their onsets, further disrupting the regular succession of metrical pulses.

Example 2.9 Op. 24, III, mm. 1–13, reduction.





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The transitional silence in m. 13 functions as a turning point that thrusts the music onward to the next section, where new rhythmic features and texture are introduced. First, it starts off with a new texture, consisting of three vertical (014) trichords in simultaneity (mm. 14–15), repeated twice afterwards in mm. 16–17 and mm. 18–19.⁵³ Second, while the metrical framework of the opening theme is

⁵³ The three chords at mm. 14–15 can also be interpreted as a closing idea to the opening theme, a principle of ending where the (014) linear figures in the previous passage are transformed into vertical chords towards the end. From this perspective, the silence in m. 13 is conceived now as a closing silence and the three chords in mm. 14–15 function as a closing idea. The sense of closure in mm. 14–15 is also supported by the *poco rit*. in m. 13. This kind of formal ambiguity will be further explored in the following chapter.

strongly anchored on the first and second beat of each notated measure up till the last trichord, the next section turns this regular half-note meter topsy-turvy by constantly shifting the half-note metrical pulse back and forth between the notated down-beats and off-beats.⁵⁴

I ₅	F	F#	D	C#	А	Bb	Ab	С	В	Е	Eb	G
R ₆	F#	Bb	А	D	C#	F	Eb	Е	С	В	G	Ab
R9	А	C#	С	F	Е	G#	F#	G	Eb	D	Bb	В
RI ₀	С	G#	А	Е	F	Db	Eb	D	F#	G	В	Bb
Variatio	ı I:											
P9	[A	F	F#]	[Db	D	Bb]	[C	В	Eb]	Е	G#	G
I9	[A	Bb	Gb]	[F	C#	D]	[Eb	Е	C]	В	G	G#
P ₀	[C	G#	A]	[E	F	C#]	[D	F#	F]	Bb	В	G
P ₈	[Ab	E	F]	[C	C#	A]	[B	Bb	D]	Eb	G	F#

Figure 2.13 Row Table of Op. 24, III, mm. 1–13.

Opening Theme:

⁵⁴ This fluctuation of metrical pulses attains its resolution in the final section of this movement, where the half-note metric grid ultimately settles on the second beat of the notated measures.

Chapter 3: Complexities and Ambiguities

In the previous chapter, I categorized silence in Webern's twelve-tone music into three broad types, namely opening, closing, and transitional silences. Silence of each type articulates formal structure and engages with ongoing musical discourse, resulting in various expressive and dramatic effects. Yet there are situations where silence is employed in more complex manners, defying direct mapping onto the three functional types. These situations include: (1) coexistence of multiple possible interpretations; (2) a succession of silences around the same formal location; and (3) interpolation of a contrasting passage via two framing silences.

Based on the aforementioned conceptual framework of the three functional types, I will illustrate how silences interact and negotiate with different layers of musical parameters, sometimes adapting their functions to new formal circumstances. It seems that complexities and ambiguities may undermine a piece's clarity and comprehensibility. One may be even tempted to call into question our previous categorization of the three functional types, for the examples in this chapter are regarded as exceptions and outliers. I however believe that it is these complexities that imbue Webern's music with much nuance and richness, frequently questioning conventions and inviting multiple readings. I will illustrate in the following the three situations where silence (or multiple silences) interacts with several musical parameters, allowing us to interpret the silence in two or more divergent, or even conflicting, ways. Excerpts from Webern's music will be presented as illustration.

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1. INTERSECTION OF TWO OR MORE FUNCTIONAL TYPES

Silences in Webern's music occasionally invite two or more equally valid interpretations, situations where musical parameters do not align with one another, giving rise to contradictory readings for the silence in question. In the case of phrase overlap, where the ending pitches of one phrase are derived from the following row, a silence occurring after the end of the first phrase represents both a punctuation, delineating the two phrases, and possibly an opening silence that highlights the beginning pitch classes of the upcoming rows, the saliency of this opening idea depending on the music's contextual treatment in register, rhythm, and contour. When parameters do not align with one another, multiple interpretations become possible. In the situation above, the incongruity between tone rows and phrase structure gives rise to two different readings. Besides tone rows and phrasing, other musical parameters, such as tempo alternation, rhythmic patterning, and retrograde in pitch and rhythm, can also interact with one another especially when misaligned, inviting divergent formal readings for the silence therein.

Sometimes silence of one particular type may possess features that are reminiscent of another type of silence—a hybrid. For example, a silence falling near the end of a phrase, with respect to both the surface grouping as well as the row structure, is considered a closing silence. Yet the passage leading to this closing silence may show contradictory qualities as opposed to a typical one, with features such as increasing dynamics and an acceleration of rhythmic activity, characteristics that are associated with transitional silence. This conflation of

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transitional features with closing function complicates our categorization of the three distinct silence types, and simultaneously enriches the interpretive potential of Webern's music.

The following diagram summarizes the three ways in which two silence types intersect with each other as manifested in Webern's works.

Figure 3.1 Three typical cases where silence(s) invite(s) two possible interpretations.

1. Overlap between closing idea (after a closing silence) and subject (before an opening silence)



2. Ambiguity between transitional and opening silence



3. Ambiguity between transitional and opening silence


In the moment-to-moment listening experience, the two (or more) interpretations may not be simultaneously present in our conscious mind; rather, they are often perceived successively as we switch our attention among different aspects of the texture. Depending on their saliency and structural significance, different parameters come to the fore of our consciousness at a given time. Rehearing the same piece again also allows us to focus on elements that had yet to be considered in the first hearing, allowing us to come up with a new reading of silence that differs from our previous one. This retrospective reinterpretation yields a sense of ambivalence and bewilderment in listeners, often leaving them pondering after the end of the piece, especially given Webern's concise musical pronouncement.

Op. 21, II, Variation II, mm. 23-35

The first case here offers an example of two possible interpretations of a given silence, which can be considered as either an opening or a transitional type. This silence appears near the end of the second variation of the second movement of the *Symphony*, Op. 21, shown in **Example 3.1**. This variation consists of two textural layers: (1) the leaping texture, starting with **P**₃ and **I**₇, is constructed out of two pairs of consecutive rows that are retrogrades of each other (on the upper two staves); (2) the horn ostinato, starting with an interpolation of **P**₅ and **I**₄, consists of a pair of rows that are inversion of each other around pitches E and F (the bottom staff).





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Variation II

	Main Vo	ice:											
	- P3	Eb	С	C#	D	Bb	В	F	Е	G#	G	F#	А
	I_7	(G	Bb)	А	Ab	С	В	F	F#	D	D#	Е	C#
R	_												
		А	F#	G	G#	Е	F	В	Bb	D	C#	С	Eb
*	\mathbf{RI}_1	C#	Е	D#	D	F#	F	В	С	Ab	А	Bb	G
– Horn Ostinato:													
	P ₅	F	D	Eb	E	С	C#	G	Gb	Bb	А	G#	В
	I ₄	Е	G	Gb	F	А	G#	D	Eb	В	С	C#	Bb
Variation III (subject)													
	P ₈	Ab	F	F#	G	Eb	Е	Bb	А	C#	С	В	D
	P ₂	D	В	С	C#	А	Bb	Е	Eb	G	F#	F	Ab
					-								

trichordal partitioning; 16th-note pulse

Toward the end of this variation, we can observe an increase in dynamics in the horn ostinato in m. 33, reaching *ff* in the second half of m. 34. The surface rhythm is also accelerated in m. 34 with the introduction of 16th notes (with pitch classes F and B) for the first time in this section. This increase in dynamics and surface rhythm creates a sense of intensification and forward momentum. The goal of this forward drive is cut short by the silence over the barline of mm. 34– 35 and is substituted by the introduction of contrasting materials in the following measure (m. 35). From the above musical observations, the silence fits neatly into the classification of transitional silence, acting as a turning point in the musical trajectory across the two sections.

At the same time, the last six pitches before the silence, $\langle A \rangle$, F, F#> and $\langle D, B, C \rangle$ in m. 34, are obtained from the beginning three pitch classes of the next pair of rows (**P**₈ and **P**₂). These two rows continue to unfold after the silence in m. 35, introducing contrasting rhythmic material and texture. The introduction of the 16th notes in m. 34 prefigures the faster rhythmic value in the next variation, where 16th notes become the predominant rhythmic pulses. These six pitches also foreshadow the particular partitioning of the row in the following section: before m. 34, the rows are partitioned into their two halves (hexachords); the next section, starting at m. 35, features trichordal partitioning, with trichords being presented as three-note arpeggiating figures. The six pitches circled in m. 34, forming two (013) trichordal figures, adumbrate the trichordal partitioning scheme of the subsequent section. On this basis, the pause in m. 35 functions as an opening silence, highlighting the six opening pitches in m. 34 as the "subject," followed by the next variation as its "predicate."

The silence can be interpreted as performing both transitional and opening functions. This overlap is reflected by the two indications on the score: "III Var." is placed above m. 34 to correspond to the onset of the following row pair (P_8 and P_2), whereas the tempo marking "*wieder mässiger*" is placed above m. 35 after the silence to articulate the proper commencement of the next variation. As listeners, we would perceive the silence first as a transitional silence when it interrupts the forward drive brought forth by the prior intensification. After we

recognize the connection of the musical materials between m. 34 and the following variation, we will then reinterpret the silence (also) as an opening silence.

Op. 21, II, Variation III, mm. 35-46

This example offers an instance of a closing idea that is later reconceived as the opening subject of the following variation. **Example 3.2** shows, with annotations above the staves, the third variation of the second movement from the Symphony, Op. 21. Toward the end of this variation, a fermata appears over the barline at the beginning of m. 44. After this fermata, the basic rhythmic pulse slows down from 16th note to 8th note, further delayed by the *molto ritardando* at the start of m. 44. This receding rhythmic activity suggests this measure to be a potential closing idea, bringing the foregoing variation to an end.⁵⁵ The phrase structure of this variation also allows us to hear m. 44 as a closing figure. This section can be divided into two parallel phrases, an antecedent (mm. 35–39) and a consequent (mm. 40-44), with the second phrase being the retrograde of the first with respect to pitches (not just pitch classes). Each phrase starts with a quick succession of 16th notes, followed by a tranquil and peaceful slow passage of one measure's duration (mm. 39 and 44 respectively). The parallelism between these two phrases creates an expectation of a closing idea in m. 44, recalling the corresponding closing idea of the first phrase in m. 39. The silence over m. 44 thus functions as a closing silence, articulating the end of the foregoing variation.

⁵⁵ The closing idea also coincides with the end of the rows P_8 and P_2 , the last pair of rows in Variation III.





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	Figure 3	.3 Row	table for	r Op. 2	1, II, V	Variation	III, mm	. 35–46.
Variatio	n III							

	P 8	Ab	F	F#	G	Eb	Е	Bb	А	C#	С	(B	D)	
	P ₂	D	В	С	C#	А	Bb	Е	Eb	G	F#	(F	Ab)	
с с														
	Ie	(B	D)	C#	С	Е	Eb	А	Bb	F#	G	(Ab	F)	
	I_5	(F	Ab)	G	F#	Bb	А	Eb	Е	С	C#	(D	B)	
	P ₈	(Ab	F)	F#	G	Eb	Е	Bb	А	C#	С	(B	D)	
	P ₂	(D	B)	С	C#	А	Bb	Е	Eb	G	F#	(F	Ab)	
	Ie	(B	D)	C#	С	Е	Eb	А	Bb	F#	G	(Ab	F)	
	I_5	(F	Ab)	G	F#	Bb	А	Eb	Е	С	C#	(D	B)	
	_										Closin	g Idea	/ Subjec	t
	P8	(Ab	F)	F#	G	Eb	E	Bb	А	C#	C	В	D	ļ
	P ₂	(D	B)	С	C#	А	Bb	Е	Eb	G	F#	F	Ab	-
	-										:			!
Va	riation	IV												
	Iı	C#	Е	Eb	D	F#	F	В	С	G#	А	Bb	G	
	Ie	В	D	C#	С	Е	Eb	А	Bb	F#	G	G#	F	
	Po	С	А	Bb	В	G	G#	D	C#	F	E	D#	F#	

The interpretation of a closing idea here in m. 44 is complicated by the ensuing passage, which shares certain rhythmic and motivic ideas with m. 44. For example, the pitches in mm. 45-49 are grouped into slurred two-note figures that overlap with one another to form a contrapuntal texture. This dyadic partitioning of rows, as opposed to the trichordal partitioning in the previous variation, is

 \mathbf{F}

A

G#

G

Bb

Pt

F#

С

В

D#

D

С#

Е

prefigured in m. 44. Secondly, the underlying regular triplet-quarter pulse of the next section is similar in pace to the 8th-note pulse in m. 44, taking into account the change in tempo across the two sections. These two factors lead us to read m. 44 as the "subject," followed by its subsequent continuation—the "predicate," which, in this case, refers to the following variation (Var. IV). The silence at the beginning of m. 45 functions as an opening silence, demarcating and highlighting the initial musical idea (m. 44) vis-à-vis its ensuing elaboration. Measure 44 thus takes up two functional roles, as a closing idea of the previous variation and, subsequently in retrospect, as an opening idea that introduces the primary rhythmic feature and partitioning scheme of the next variation.

<u>Op. 24, I, mm. 63–69</u>

The silence at the end of the first movement of the *Concerto*, Op. 24, invites two interpretations with respect to its function—closing and transitional silence. Shown in **Example 3.3**, the closing theme of the first movement restates the opening theme and the four rhythmic cells **a**, **b**, **c**, and **d**.⁵⁶ The opening tempo $(\checkmark = ca \ 80)$ is also brought back at the start of the theme.

A fermata is observed over the barline of m. 69, right before the very last measure of this movement. This ending measure transforms the horizontal (014) figures that permeate the foregoing passage into four vertical *sforzando* (014) trichords, the last two of which are attacked together. This liquidation of prior

⁵⁶ See **Example 2.4** for the identification of the four rhythmic figures **a**, **b**, **c**, and **d** in the opening phrase of this movement.

linear figures into chords suggests a sense of closure, in which the motivic identity of the (014) figures gets transformed and dissolved.⁵⁷

The sense of ending is also suggested via a return of the opening trichordal region, where each of the four (014) trichords in m. 69 can be mapped onto one of the respective trichords in the opening two rows of this movement, P_e and RI_2 , possessing the same pitch-class content. The first three rows of the closing theme (R_8 , I_e , and RI_7) belong to the same trichordal region, all trichords fixed in register in all three row statements (the same trichords are indicated by connecting lines, shown in **Figure 3.4**). Yet this trichordal region is not the same as the one from the beginning of the movement. The opening region is ultimately brought back in the very last measure via the row RI_8 in m. 69. This ending measure is therefore a concluding idea, bringing back the opening trichordal region that represents the notion of "returning home." The fermata over the barline of m. 69 is then interpreted as a closing silence, highlighting the last measure as an ending articulation.

This reading of closing silence is however contradicted by the rhythmic grouping in the prior passage. By and large the passage leading up to a closing silence usually demonstrates a decrease of dynamic level and a slowing down of tempo, features that hint at the impending closure.⁵⁸ The passage in mm. 67–68,

⁵⁷ Even though we are still capable of hearing the chords in m. 69 to be (014) trichords, thus relating back to the foregoing (014) linear figures, these ending chords throw off our expectation of the (014) motif as a linear configuration and obliterate the rhythmic component (while holding the harmonic component intact) of the three-note figure. See the discussion in **Chapter 1** on serial function postulated by Leibowitz.

⁵⁸ See the examples of closing silence in **Chapter 2**. In the first two examples, Op. 28, I, mm. 96– 112 and Op. 28, II, mm. 36–55, the closing silence is preceded by a drop in dynamics and/or a *ritardando*, creating a sense of dissipation. A surprise is often observed after the silence by an

presenting the four overlapping (014) trichords in 16th notes, is however infused with escalating musical tension via an increase in rhythmic activity (the concatenation of 16th-note figures) and a shortening of grouping units. The sense of intensification is further enhanced by the ascending melodic contour and the *stringendo* indication over the penultimate measure (m. 68). This forward drive leads us to read the silence over the barline of m. 69 as a transitional silence, a turning point in the musical trajectory. The measure after this transitional silence (m. 69) also demonstrates features that fit in with our earlier formulation of this silence type. On one hand, the appearance of chords in the last measure stands in opposition with the rest of the closing theme. The trichordal region, on the other hand, is shifted after staying in the same region for the first three rows. The last measure therefore contrasts with the previous passage, and the silence between the two contrasting passages acts as a transition, and also as a gasp of surprise, that unexpectedly steers the music to a different affective state.

unexpected appearance of a fast and energetic passage, throwing off our expectation of a conclusive end.



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Figure 3.4 Row structure of Op. 24 I, mm. 63–69.

The abruptness of this silence is also reinforced by the structural similarity of the closing (mm. 63–69) and the opening themes (mm. 1–10), which are shown aligned in **Example 3.4**. The statement-response structure in mm. 63–67 (downbeat) corresponds to mm. 1–5, and mm. 67–68 contain similar patterns of running 16th notes as mm. 6–7. The transitional passage found in mm. 8–9 is omitted in the closing theme, where the music skips directly to the closing chords that correspond to m. 10 of the opening theme. The silence at the beginning of m. 69 can be conceived as a substitution for the "missing" passage from mm. 8–9, unexpectedly terminating the theme with the three *sforzando* chords. The sense of surprise goes hand in hand with our previous interpretation of transitional silence, where the silence acts as an unexpected turn of event.

Example 3.4 Structural comparison between the opening (mm. 1–10) and closing theme (mm. 63–69) of Op. 24, I.



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<u>Op. 27, I, mm. 19–36</u>

This example offers a slightly more complex case that, similar to the previous example from Op. 24, involves readings of transitional and closing silence. **Example 3.5** shows the middle section in the first movement of the *Variations*, Op. 27. Two rows, which are retrogrades of each other, unfold simultaneously, and each row is assigned to one hand separately. As is always the case between a row and its literal retrograde, each half of both rows is the retrograde of the other half in both pitch-class and rhythm.⁵⁹

The first three row pairs share the same rhythmic pattern, except for an elision between the first and the second pairs (across mm. 22–23). The fourth pair, P_t and R_3 , starting at m. 30, and the following I_9 and RI_2 (mm. 32–34), are more rhythmically compressed. Dynamics are raised to *fortissimo* (with indications placed over mm. 32 and 34) during these last two row statements. This increase in dynamics and rhythmic density, contributing to a sense of intensification, engenders a teleological drive that propels the music to the two 32^{nd} -note rests (before and after the barline of m. 35). That silence is particularly salient because the middle section has so far been continuous without any pause. The intensification leading up to the pregnant pause suggests the reading of a transitional silence. This reading suggests a twist in the musical trajectory, with the introduction of contrasting materials and/or a different texture.

⁵⁹ The first row pair, I_e and RI_4 , has an axis of retrograde symmetry at the beginning of m. 21, indicated by the vertical dotted line on the score.







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Figure 3.5 Row table for Op. 27, I, mm. 19–41 (middle section).

		Middle Se	ection											
		Ie	В	Bb	D	С	Eb	C#	G	F#	F	А	Ab	F
		RI4	Е	Ab	А	F	F#	G	C#	Eb	С	D	(Bb	B)
11		P5	F	C#	С	Е	Eb	D	Ab	F#	А	G	В	Bb
		R ₁₀	(Bb	B)	G	А	F#	Ab	D	Eb	Е	С	C#	F
		I4	Е	Eb	G	F	Ab	F#	С	В	Bb	D	C#	А
-		RI9	А	C#	D	Bb	В	С	F#	Ab	F	G	(Eb	E)
Т ₁		Pt	Bb	F#	F	A	Ab	G	C#	В	D	С	Е	Eb
		R3	(Eb	E)	С	D	В	C#	G	Ab	А	F	F#	Bb
		I9	А	Ab	С	Bb	C#	В	F	E	Eb	G	F#	D
		RI ₂	D	F#	G	Eb	Е	F	В	C#	Bb	С	Ab	А
T ₁		Retransitio	on (Inte	erpola	tion /	Closi	ng Ide	ea)						
	$\left \right $	P ₃	Eb	В	Bb	D	C#	С	F#	Е	G	F	(A	Ab)
		R ₈	Ab	А	F	G	Е	F#	С	C#	D	Bb	В	Eb
T ₀		Recapitula	tion											
	7	R ₈	(Ab	A)	F	G	Е	F#	С	C#	D	Bb	В	Eb
		P3	Eb	В	Bb	D	C#	С	F#	Е	G	F	А	Ab

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Our expectation of contrasting materials and textures is frustrated in the following two measures (mm. 35–36), which are indeed, as a surprise, a serial transposition of mm. 30–32 (indicated by the vertical arrow in **Example 3.5**). This recalling of the earlier passage annihilates any sense of starting off a new section.⁶⁰ Dynamics also contribute to a release of musical tension, dropping from *f* at the beginning of m. 36 to *pp* at the end of that measure. The tempo and rhythmic pulses are slowed down by the *ritardando* over mm. 35–36. These musical features coalesce to evoke a sense of dissipation and decline, hinting at a potential closural function over these two measures. The silence across mm. 34–35, in this sense, can be interpreted as a closing silence, with the two measures isolated as an ending articulation.

The recapitulation commences at m. 37, bringing back the opening rhythmic pattern and slurring gesture. Our earlier reading of transitional silence, as well as our expectation for contrasting materials after that silence, is now fulfilled. Measures 35–36 are now deemed an intrusion, inserting themselves between the silence and the anticipated arrival of the "contrasting" (in relation to the middle section) materials (the recapitulation from m. 37 onwards). The transitional reading of this silence points across its subsequent two measures to the "new" theme commencing at m. 37.⁶¹

⁶⁰ The transposition is not exact in pitch-space. While most of the pitches are transposed down by seven semitones in mm. 35–36 (e.g. the beginning dyad [B♭, G♭] is moved down to [E♭, B]), the middle tritone jump, i.e. <C♯, G, C♯> in m. 31 and its counterpart <F♯, C, F♯> in mm. 35–36, is transposed up five semitones.

⁶¹ The feeling of a distinct division between the two sections is ameliorated by the various linkages in pitch, dynamics, and tempo. For example, the row pair in mm. 35–36 (**P**₃ and **R**₈) is repeated at the beginning of the recapitulation (**P**₃ and **R**₈), albeit with a different rhythmic and grouping pattern. *Pianissimo* at the end of m. 36 allows the music to transit smoothly to the onset of the

2. CLOSE SUCCESSION OF SEVERAL SILENCES OF THE SAME FUNCTIONAL TYPE

Two or more silences sometimes occur in close proximity around the same formal location. Yet these silences often differ from each other by engaging with different formal scopes and/or involving different musical processes. Consider, for example, two silences located near the end of a theme, both functioning as closing silences (**Figure 3.6**, first case). They however differ in their formal scope in effecting closure: the first silence brings an end to the theme, whereas the second one operates on the sectional level, isolating its closing idea that articulates the end of the section to which the theme belongs.

Apart from formal scopes, different musical processes, such as formal, rhythmic, and thematic processes, can be articulated by two or more silences, each independently engaging with one particular process. Consider, for example, another case of two silences situated at the end of a theme (**Figure 3.6**, second case), the first of which isolates a closing idea that brings back the opening motivic ideas, effecting closure to the motivic process. The second silence highlights another following closing idea that presents the remaining rhythmic figure, which completes the rhythmic patterning that has been established by previous recurrences. At certain instances, a silence may function at a more abstract level, where the closing idea brings back certain pitch classes from the

recapitulation, which starts off at the same dynamic level. A *ritardando* is placed in mm. 35–36, via which the 32nd-note pulse gets slowed down, morphing into the 16th-note pulse in the recapitulation. These two measures (mm. 35–36) act as mediation between the contrasting materials in the two contiguous sections, providing a smooth transition bridging the two divergent affective states.

opening row of that piece. These silences of the same functional type operate along different parameters and engender closure in relation to various musical processes.

Figure 3.6 Two closing silences in close succession with functional differentiation.

1. Two silences involving different formal scopes



2. Two silences involving different musical processes



It is worth noting that most of the examples discussed here concern closing silence. This may come as no surprise because closure is one of the crucial components in shaping formal divisions in music, particularly in the context of twelve-tone compositions in which pitches often lose their hierarchical differentiation and centricity.⁶²

A succession of closing silences sometimes mimics the process of fragmentation, especially when they are situated near the end of formal units, where grouping structure is gradually shortened and motivic materials get liquidated. It will do injustice to Webern's music if I downplay the significance of fragmentation in favor of focusing on the silences in question. Silence is, in fact, part and parcel of fragmentation, and both should be taken into account when studying how closure (or lack thereof) is achieved. This multivalence and multiplicity in interpretations is a characteristic of Webern's music, where one musical element (such as silence) may engage in several processes and perform different functions accordingly, forming an intricate web of relations. In the following analyses, I will examine how two or more silences with the same function, while fragmenting the musical surface, articulate different formal scopes and musical processes.

<u>Op. 22, I, mm. 37–41</u>

Three instances of silence, scored with fermatas, can be found near the end of the first movement from the *Quartet*, Op. 22 (**Example 3.6**). These pauses break up the musical surface and halt the ongoing rhythmic activities, gradually

⁶² One argument against this proposition is the notion that pitches at the start of a piece attain greater significance (or centricity), much akin to the tonic in common-practice music. Yet the pitches in tonal pieces are still more highly stratified, both functionally and structurally, in terms of distinctions involving diatonic and chromatic pitches, tonal functions, and non-harmonic tones, which are categories not found in twelve-tone pieces.

bringing the theme to an end. We can however discern a slight functional differentiation amongst these three silences, each of which isolates its respective closing idea that articulates the end of the theme in a different way.

As shown in **Figure 3.7**, two rows, inversionally symmetrical around pitch class C, unfold concomitantly throughout the movement.⁶³ In addition to this pairing of rows, a single melodic line (indicated by curly brackets), first played by the saxophone in mm. 6–14 and later across the three melodic instruments (violin, saxophone, and clarinet) in mm. 28–36, is overlaid on top.⁶⁴ The two rows of each pair share the same internal partitioning, yet the order of entry (*dux* and *comes*) of each partition is not consistent within each pair. The opening phrase, for example, consists of two concurrent rows, **P**₁ and **I**_e (shown in **Example 3.7**). The first trichord of **P**₁ <D_b, B_b, A> enters first in m. 1, and is then imitated by its inversion, <B, D, E_b>, from row **I**_e in m. 2. The order of entry is exchanged for the second trichords, where **I**_e comes first with <C, C[#], A>, followed by <C, B, E_b> from **P**₁ (m.3). This conflict between tone rows and order of entries persists throughout the later portion of the piece (**Figure 3.7**).

The point of resolution of this conflict occurs at the second repeat in the recapitulation (mm. 36b–37b), a turning point where the second-to-last trichords, i.e. $\langle E, F, G \rangle$ of **P**₁ and $\langle G \#, G, F \# \rangle$ of **I**_e, are switched in order in m. 36b—the first measure of the second ending. This switching of the order of entry is particularly discernible, for the first and second endings are almost identical in

⁶³ For example, the first two rows, Ie and P1, are symmetrical around pitch class C.

⁶⁴ This single line melody, one in the exposition and the other in the recapitulation, can be understood as the main theme of the movement. Bailey reads this theme as the subordinate theme of a sonata-form design (Bailey 1991, pp. 171–178).

pitch and rhythm.⁶⁵ This results, for the first time in this movement, in a "proper" alignment between order of entry and tone rows; that is, the *duxes* and *comes* stay constant for the two concurrent rows. This stands as a moment of resolution, a turning point in the underlying conflict that was present since the beginning of the movement.

This moment of resolution, while bringing an end to the overarching conflict, coincides with the first occurrence of closing silence across the barline of m. 38, prolonged by a fermata. The silence separates the subsequent passage as a closing idea (mm. 38–41), which brings back the opening rows in retrograde (**RIs** and **R**₇, the retrograde of I_e and **P**₁ in mm. 1–5). While the opening phrase is irregular in its order of imitative entries, the conflict is "corrected" in the closing idea, where **RIs** is always the *dux* whereas **R**₇ remains the *comes*. Together with the return of the opening rows (albeit in retrograde), the first closing idea affirms and stabilizes the "proper" alignment between tone rows and order of entry.

The second fermata is inserted on the second-to-last 16th-note beat of m. 39, separating the last trichords of **RI**₅ ($\langle E_{\flat}, D, B \rangle$) and **R**₇ ($\langle A, B_{\flat}, C_{\sharp} \rangle$), the same sonorities that begin the movement with approximately the same short-longlong rhythmic pattern. The second closing silence (m. 39) thus highlights the correspondence between the ending and the opening trichords, creating a feeling of return and conclusiveness.

⁶⁵ One difference between the two endings is the octave displacement in the two trichords in m. 36b, whereby the G# is moved up an octave and the E is transposed down an octave. In m. 37b, the two trichords in the piano are shifted closer to the central register. This contraction of registral range in the second ending creates a sense of recession, a quality that usually suggests a stepping-down from a climax. It also ties back to the register of the beginning of the movement (m. 1), a resemblance that implies the sense of return.









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Figure 3.7 Row table for Op. 22, I ("X" indicates crossing between *dux* and *comes*).

comes: dux:	I _e P ₁	B Db	D Bb	Eb 、 A /	× c	C# B	A Eb	Ab E	G F	^{F#} , , ^E _{F#} , ^E _{G#}	Bb D	F G	
	$\left\{ \begin{array}{c} \mathbf{I}_1 \\ \mathbf{I}_7 \end{array} \right.$	C# (G)	E Bb	F B	D G#	D# A	B F	Bb E	A Eb	Ab F# D C	C F#	G C#	Melodic Line (<i>Cl</i> .)
dux: comes:	P ₇ I ₅	G F	E Ab	Eb A	Gb _v F# <i>*</i>	K G G	A Eb	Bb D	B C#	C D C Bb	Ab E	C# B	
dux: comes:	P ₁ I _e	C# B	Bb D	A Eb	C C	B C#	Eb A	E G#	F G	^{F#} X ^{G#} _{F#} X ^{G#}	D Bb	G F	
Middle Section (mm. 16–27)													
dux:	Pt	Bb	G	F#	А	G#	С	C#	D	Eb∖, F	В	Е	
comes:	I_2	D	F	F#	D#	Е	С	в	Bb	$_A \wedge_G$	C#	G#	
dux: comes:	I ₁ P _e	C# B	E G#	F \ G ;	, D ∖\́ _{Bb}	Eb A	B C#	Bb D	A Eb	^{G#} \/ ^{F#} E	C C	G F	
dux:	RI ₆	F#	в	Fι	; G	G#v	, A	Bb	D	С# Е	Eb	С	
comes:	R ₆	F#	C#	G	× _F	E	`Eb	D	Bb	B G#	А	С	
comes: dux:	I ₀ P ₀	C C	D# A	E G#	C# B	D Bb	Bb D	A D#	G# E	${}^{G}_{F} \times {}^{F}_{G}$	B C#	F# F#	
dux:	\mathbf{R}_7	G	D	G#	Gb	F	Е	Eb	В	C _V A	Bb	Db	
comes:	RI ₅	F	Bb	Е	F#	G	G#	А	C#	$_{\rm C}$ $\lambda_{\rm Eb}$	D	В	

Exposition (mm. 1–15)



Example 3.7 Op. 22, I, mm. 1–5.



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The third fermata, on the barline of m. 41, is placed before the very last pitch in the piano, C[#], which is the first pitch class of the movement as well as the first and last pitch class of the single-line melody.⁶⁶ This closing silence draws the listener's attention to the return of this central pitch class, invoking a sense of return that brings the movement to its final conclusion. The *a tempo* indication on the last C[#], typical of Webern's closing ideas, implies a feeling of initiation, even if, somewhat ironically, this tempo change cannot be aurally perceived via a single note.

<u>Op. 24, I, mm. 1–10</u>

Two closing silences, appearing near the end of the opening theme of the first movement from the *Concerto*, Op. 24, bring closure to different musical processes (**Example 3.8**). Two silences are placed in m. 9 and m. 10, each of which lasts two triplet-8th notes, the second longest amongst all rests in this theme.⁶⁷ These two silences fall near the end of the theme, where the linear (014) figures are incrementally transformed into vertical chords.

The first silence in m. 9 is preceded by a drop in dynamics from ff(m. 7) to f(m. 8), followed by a *diminuendo* in both voices.⁶⁸ This silence highlights the next two measures as a closing idea, which witnesses the transformation of (014) trichords from linear to chordal configuration. From the perspective of trichordal

⁶⁶ For example, the melody in the saxophone starts with C# in m. 6 and ends with the same pitch class in m. 14.

⁶⁷ The longest silence within the phrase appears in m. 3, discussed earlier in **Chapter 2** in relation to opening silence.

⁶⁸ The impending closure is also suggested via the decrease in rhythmic density: the concatenation of the 16th-note figures in mm. 6–7 is gradually stretched out in the next three measures (mm. 8–10).

partitioning (see **Figure 3.8** and **Example 3.9**), any of the four (014) trichords of the first row (P_e) can be mapped onto one of the trichords of **RI**₂ with the same pitch-class content.⁶⁹ The trichordal region is shifted in the next two rows (**RI**₁ and **P**₀, mm. 6–8 on the score), where the pitch-class content of each partitioned trichord differs from the ones in the first and second rows.⁷⁰ The original region is brought back in mm. 9–10, for row **I**₀ has the same partitioned trichords as in the two beginning rows. The closing idea thus functions as a return, bringing back the original "tonal region" near the end of the opening theme.

The completion of the rhythmic patterning, however, occurs along a different pathway from the return of the trichordal region. The four rhythmic cells, labeled **a**, **b**, **c**, and **d** on the score, are presented in succession in mm. 1–3 and restated in retrograde in mm. 4–5, each forming a "rhythmic complex" (**Example 3.8**). A series of rhythmic cells **a** (six in total) appears in mm. 6–7, followed by **b** in m. 8 and **c** in the second half of that measure. The triplet pulse of **c** continues in m. 9 when we consider the parts of both hands together. The final rhythmic cell **d** returns in m. 10 with the two (014) chords one triplet-quarter apart.⁷¹ The second closing silence, across the barline of m. 10, isolates the final measure (m. 10) in which the last rhythmic cell is brought back, completing the rhythmic complex. This silence marks the impending end of the rhythmic

⁶⁹ Webern also maintained the four invariant trichords in the same registral space.

⁷⁰ This shift of trichordal region is analogous to the notion of modulation in tonal music. The notion of trichordal region comes from Alegant (2001).

⁷¹ We can include the following F in the trumpet as belonging to **d**, for it is only off from its hypothetical "right" position by 1/6 quarter note.

patterning, a musical process that operates concurrently, yet independently, with the modulation of trichordal regions.



Example 3.8 Op. 24, I, mm. 1–11 (two closing silences and rhythmic cells **a**, **b**, **c**, and **d**).

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Example 3.9 Op. 24, I, mm. 1–11 (showing the trichordal regions of the first five rows).



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Figure 3.8 Row table Op. 24, I, mm. 1–10.

<u>Op. 28, III, mm. 65–68</u>

Three closing silences can be observed at the end of the third movement from the *String Quartet*, Op. 28, each of which effecting closure to different formal and metrical processes. Rows and canonic texture from the movement's opening return in the final section (shown in **Example 3.10**).⁷² Four rows unfold simultaneously in this section; each row is assigned to one instrument. The four voices form a double canon: Violin I and Violin II form one canonic pair, whereas the viola and the cello make up the other. The row structure of this section can be

⁷² The opening rows and the rhythmic double canon returns in the final section but in a different order of entries compared to the opening section. For example, the row that enters first in the recapitulation \mathbf{R}_t , starting with $\langle B \rangle$ B, G#, A> in the Violin 1 in m. 54, corresponds to the second entry at the beginning of the movement played by the cello.

divided into two halves (mm. 54–60 and mm. 61–68), the second of which presents each row from before, inverted around its first pitch class.⁷³

Three caesuras, absent in the opening section, are placed near the end of this section.⁷⁴ In mm. 65–66, the regular 16^{th} -note pulse is stretched out by the *ritardando*, and the dynamics plunge from *ff* in m. 64 to *p* in m. 66. The sense of stepping-down is further reinforced by the elongation of the 16^{th} -note B in the cello in m. 66 via a fermata, temporarily suspending musical time. The first caesura falls right after the fermata, representing a clear break from the previous canonic texture. This caesura creates a halting effect, which hints at the possible cessation of the rhythmic canon.

The original tempo returns after the caesura while the dynamics continue their descent to pp. A second caesura is inserted before the last 16th note of m. 67, immediately after the end of rows **RI**_t and **I**₁ (in Violin I and the viola), the pair of rows that enter first (the *dux*) in the double rhythmic canon. The second caesura marks the end of the first two canonic voices (Violin I and Viola) and distinguishes the close of the *duxes* from that of the *comes*. This delay of the completion of the *comes* is further articulated by the *sforzando* on B in Violin II after the caesura. The closing idea after the second closing silence completes the *comes* rows, filling in the remaining pitch classes.

⁷³ For example, \mathbf{R}_t , the first row of Violin I, is inversionally related to its following row \mathbf{RI}_t (starting in m. 61) around B)—the first pitch class of \mathbf{R}_t .

⁷⁴ Here I regard the 16th-note rest on the first beat of m. 67 as a segmentation pause. It is partly because the constant rhythmic pulse across the rest projects a sense of forward propulsion, as opposed to the elongated silences indicated by the fermatas. Similar 16th-note rests are also found in earlier passages as part of the motive, such as the three-note contour <B_b, B, G#> in mm. 54–55 in the first violin. Thus I perceive this rest in m. 67 as part of the duration of the previous sonority, [C, E_b, F].



Example 3.10 Op. 28, III, mm. 54-68.







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Figure 3.9 Row table of Op. 28, III, mm. 54–68.

	R _t	(Bb)	В	G#	А	F	Е	G	F#	D	Eb	С	(C#)
	\mathbf{R}_4	Е	F	D	Eb	В	Bb	Db	С	Ab	А	F#	G
	P ₁	C#	С	Eb	D	F#	G	Е	F	А	Ab	В	Bb
	P ₇	G	F#	А	G#	С	C#	Bb	В	Eb	D	F	Е
I _{(first}	pc)												
	RI _t	Bb	А	С	В	Eb	E	C#	D	F#	F	Ab	G
	\mathbf{RI}_4	E	Eb	F#	F	А	Bb	G	Ab	С	В	D	C#
-	I_1	(C#)	D	В	С	Ab	G	Bb	А	F	F#	Eb	Е
	I_7	G	Ab	F	F#	D	C#	Е	Eb	В	С	А	(Bb)

An 8th-note pause is placed right before the very last note of the movement, B_b in the cello. This pause is particularly salient because this Bb, according to the rhythmic imitation between the viola and the cello (with a time interval of imitation of one quarter-note), should fall on the second 8th note of m. 68, and thus this pause, though seemingly short and insignificant, is a consequence of delaying the B_b by an 8th note. This very last pitch is thus isolated, and highlighted, by this pause. Inasmuch as the final pitch class recalls the one that begins this section (the first pitch class of Violin I in m. 54 is Bb), this 8thnote rest draws the listener's attention to the circularity of the pitch class Bb, bringing to the movement a sense of completion.

3. SILENCE FRAMING AN INTERPOLATION

To recall, transitional silence, which is situated between two formal units, functions as a turning point, or a moment of disjunction, in the musical discourse. Webern sometimes incorporates two transitional silences before and after a short contrasting passage as an interpolation. The first silence swerves the music to the interpolated passage of markedly different qualities, whereas the second silence steers the music back to the previous discourse. The two silences can be thought of metaphorically as tunnels through which the piece briefly excurses to a foreign affective realm, subsequently returning to the original domain via the second silence. Even if the interpolated passage was, through speculative re-composition, skipped over, the continuity of the musical surface would not be destroyed, for the interpolated passage shares few surface similarities with its surrounding passages.⁷⁵



Figure 3.10 Two silences framing an interpolation.

This interpolation via two transitional silences sometimes shares certain similarities with an overlap of a closing and an opening idea (as shown in **Figure**

⁷⁵ The removal of an interpolation would inevitably disrupt the unfolding of the rows; yet the musical surface, given the same musical material and texture before and after the interpolation, would sound as if continuous.
3.11), especially when overlap occurs over the interpolated passage. In this reading, the interpolation can be conceived both as a closing idea that rounds off the previous phrase, and simultaneously as an opening "subject" for the following phrase. Sometimes the sense of closure is hinted at via a slowing down of tempo and a drop in dynamics. While the reading of functional overlap is also fitting in certain cases, the idea of interpolation has a more precise and unique meaning, in which the phrases before and after the inserted passage are similar enough so that they are deemed as one dominant discourse. The interpolated passage thus becomes a parenthetical insertion of foreign materials that temporarily disrupts this overarching discourse.

Figure 3.11 Comparison between interpolation and an overlap between closing and opening ideas.



<u>Op. 21, II, mm. 35-46</u>

In the second movement of the *Symphony*, Op. 21, the third variation is made up of two parallel halves, the second of which (mm. 40–44) is the retrograde of the first (mm. 35–38) with the axis of symmetry falling on E natural in the middle of m. 39 (see **Example 3.11**). Two fermatas are placed before and after m. 39, framing the four pitch classes, $[E_{\flat}, A, B_{\flat}, E]$, which come from the second tetrachords of rows **P**₈ and **P**₂—the middle pair of rows among the five (in **Figure 3.12** the two tetrachords are inscribed by a dotted rectangle). Even though the separation of these four pitch classes is not evident from the row structure alone, this measure stands apart from its framing passages with regard to dynamics, tempo, and the general musical affect.

The two framing phrases around m. 39 (mm. 35–38 and mm. 40–44) have parallel symmetrical structures and thus possess an inherent completeness: the basic idea in mm. 35–36, that is one measure of trichordal figures in pp (m. 35) followed by *forte* dyadic leaps (m. 36), is repeated in the subsequent two measures (mm. 37–38). This formal symmetry creates a sense of balance and completeness by m. 38.

A great contrast is manifested in m. 39. After the first silence (over the barline of mm. 38–39), we can observe a dramatic change: the motoric drive of the 16th-note pulse is slowed down with the introduction of 8th notes, which is further stretched out by *ritardando* in m. 39. The expressive indication *gedämpft* also suggests a more muffled and subdued affect as opposed to the prior energetically charged passage (mm. 35–39). After the second silence (over the

barline of mm. 39–40), the previous passage unfolds in retrograde, resuming the original vigorous and lively affect. The above observations elicit an interpretation of an interpolation in m. 39, suspending temporarily the dominant musical trajectory. The two framing silences around m. 39 act as points of disjunction, through which the music breaks off to a contrasting realm and subsequently returns to the original jubilant leaping gestures.

Figure 3.12 Row table for Op. 21, II, Variation III, mm. 35–44.

Va	ria	tion	III

Γ	P ₈	Ab	F	F#	G	Eb	Е	C#	А	Bb	С	(B	D)	
	P ₂	D	В	С	C#	А	Bb	Е	Eb	G	F#	(F	Ab)	
Г														
	Ie	(B	D)	C#	С	Е	Eb	А	Bb	F#	G	(Ab	F)	
	I ₅	(F	Ab)	G	F#	Bb	А	Eb	Е	С	C#	(D	B)	
		Interpolation												
ſ	P ₈	(Ab	F)	F#	G	Eb	Е	Bb	А	C#	С	(B	D)	
	P ₂	(D	B)	С	C#	А	Bb	Е	Eb	G	F#	(F	Ab)	
ſ	Ie	(B	D)	C#	С	Е	Eb	A	Bb	F#	G	(Ab	F)	
	I ₅	(F	Ab)	G	F#	Bb	А	Eb	E	С	C#	(D	B)	
_														
	P 8	(Ab	F)	F#	G	Eb	E	Bb	А	C#	С	В	D	
	P ₂	(D	B)	С	C#	А	Bb	Е	Eb	G	F#	F	Ab	



Example 3.11 Op. 21, II, Variation III, mm. 35-43.

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<u>Op. 21, I, mm. 21–44</u>

Example 3.12 shows the middle section (development section) of the first movement from the *Symphony*, Op. 21. This section consists of two parallel halves (mm. 25–34 and mm. 35–44), the second of which is the retrograde of the first in both pitch and rhythm.⁷⁶ The four rows make up a four-part rhythmic canon, with entries one measure apart. A fermata is placed across the barline of m. 34 before the completion of the last canonic voice, row **P**₈ (see **Figure 3.13**). The last four pitch classes of that row, i.e. [C[#], C, B, D] in m. 34, are delayed by the fermata, and the close imitation between the rhythmic canonic voices is suspended temporally.

The subdued quality of mm. 34–35 is brought forth by *ppp* and *sul ponticello* (*am Steg*) of the celli, contrasting with the surrounding passages (i.e. mm. 25–33 and mm. 36–44), whose dynamics hover around *pp* and *p*. The monophonic texture of these two measures also differs from the imitative canon in the two outer passages. The symmetrical structure of these two measures (m. 34 is mirrored by its pitch retrograde in m. 35) suggests a sense of completeness in itself. Starting at m. 36 after the second silence, the previous rhythmic canon unfolds in reverse. Based on these observations, we can interpret mm. 34–35 as an interpolation whose content and texture contrast with their musical surroundings. The first silence in m. 34 functions as a point of disjunction where the music is

⁷⁶ The two halves are not exactly retrograde of each other due to the placement of acciaccaturas, which, while presenting certain pitch-classes of the row, do not possess any duration in notation. For example, the C# in m. 34 is an ornament to the following C, whereas in the retrograde version in m. 35 the C becomes the ornament. The last pitch-classes of I₄ and P₄ (both are B_b) also overlap with the first pitch-classes of the next rows **RI**_t and **R**_t. This overlapping pitch (B_b) only appears in the second half and is absent in the first half.

channeled to a dark and mysterious realm of the two interpolated measures in mm. 34–35, played by celli alone. The original canonic materials are brought back after the brief excursion via the second silence at the end of m. 35.⁷⁷

Figure 3.13 Row table Op. 21, I, mm. 21–44.

	ſ	- I ₄	Е	G	F#	F	А	G#	D	Eb	В	С	Db	(Bb)
		I_0	С	Eb	D	C#	F	Е	Bb	В	G	G#	А	F#
	1	P ₄	Е	C#	D	Eb	В	С	F#	F	А	G#	G	(Bb)
	/	P ₈	G#	F	F#	G	Eb	Е	Bb	А	C#	С	В	D
R	_	_										Interp	olatio	n
	\ [- RI _t	(Bb)	Db	С	В	Eb	D	G#	Α	F	F#	G	Е
	\setminus	RI ₆	F#	А	G#	G	В	Bb	Е	F	C#	D	Eb	С
		R _t	(Bb)	G	G#	А	F	F#	С	В	Eb	D	C#	Е
		R ₂	D	В	С	C#	Α	Bb	Е	Eb	G	F#	F	G#

⁷⁷ It is important to note here that the fermata at the beginning of m. 34 is not placed in the corresponding location in m. 35 with respect to the axis of retrograde symmetry: the fermata should hypothetically fall on the barline between mm. 35-36 (indicated in **Example 3.12**); instead, it is placed on C# in the cello in m. 35. We can propose two reasons for this: first, the durational gap between pitch onsets between the C# in m. 35 and B $_{b}/G$ in m. 36 is much longer than that between the G in m. 33 and the C in m. 34. Second, the cello note C# (m. 35) is played in *ppp* with a diminuendo, as if the pitch is dissolving into silence. By placing the fermata on C# instead of across the barline, the temporal proportion before and after the axis of retrograde is maintained.



Example 3.12 Op. 21, I, mm. 21-44.

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<u>Op. 21, II, mm. 45–55</u>

The fourth variation from the second movement of the *Symphony*, Op. 21, is constructed out of four rows, forming a four-part rhythmic canon (**Example 3.13**). Two fermatas are placed before and after m. 50, the measure that stands in the middle of the entire section. All of the pitches in m. 50, indicated by the dashed rectangular box in the row table (**Figure 3.14**), constitute a collection of nine pitch classes.⁷⁸

The repetition of multiple pitch classes, as well as the ostinato-like figure in the two horns (m. 50 from the second staff of **Example 3.13**), creates a sense of cessation, bringing the previous passage (mm. 45–49) to a halt.⁷⁹ This feeling of impending closure is further supported by the *molto ritardando* and a decrease in dynamics (to *ppp* with *diminuendo*) in m. 50. We can thus conceive of this measure as a closing idea isolated by the fermata over the barline of m. 50—a closing silence.

After the second fermata (over the barline between mm. 50 and 51), the first half (mm. 45–49) is brought back and unfolds in retrograde. Given that the first and the second half have the same musical content (except for the retrograde), m. 50 is now an interpolation that intrudes upon the overarching musical trajectory. This interpolated measure contrasts sharply with its surrounding passages with respect to both texture (chordal versus linear) and

⁷⁸ These nine pitch-classes form a nonachord of prime form (012345679), the complement of (013) trichord.

⁷⁹ Particularly noteworthy is that the number of repeated pitches does not correspond to the number of occurrences of that pitch class appeared in the row table. For example, B_b in the clarinet (top staff) is repeated three times in the score, but this pitch class only appears twice (or once if we take into account the elision of rows) in the row table (see the dotted rectangular box in **Figure 3.14**).

articulation (*staccato* as opposed to *legato* figure, except in the horns), transporting the piece to a suspenseful and eerie territory. The two silences surrounding this measure (m. 50) act as pivots in the emotional trajectory, which changes to a markedly different quality after the first silence in m. 50 and later returns to the original state via the second one at the end of m. 50.

Interpolation С C# Е Eb D F# F В G# I_1 (Bb G) А Ie В С Bb (G# D C# Е Eb А F# G F) С P₀ А В G G# D C# F Е (D# F#) Bb Bb G А F F# С В **P**_t G# i D# D (C# E) **P**_t G) F F# С В Eb D C# Е (Bb G# А **P**₈ (G# F) F# G D# Ε Bb А C# С В D F#) I₃ (D# F Е G# С G C# D Bb В А С (C# D# D F# F В G# А Bb G I_1 E)

Figure 3.14 Row table for Op. 21 II, Variation IV, mm. 45–55.

Example 3.13 Op. 21 II, Variation IV, mm. 45-55.





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Chapter 4: Epilogue

Silence in Webern's music, in particular his twelve-tone compositions, plays an important role for both structural and expressive purposes. From a structural standpoint, silence occurring in different formal locations—at the beginning, the end, or in between two phrases or rows—often articulates certain important pitch and rhythmic materials, and demarcates phrasal boundaries in the absence of pitch hierarchical differentiation. The formal locations these silences occupy often give rise to divergent expressive (emotive) effects, sometimes suspending our expected conclusion of the phrase, while at other times intruding as a surprise upon the continuous unfolding of the music. The expressive potential of silence thus goes hand in hand with the formal locations it appears.

Yet silence in Webern's music often defies straightforward interpretation. By taking into account different musical parameters, one often arrives at multiple, sometimes even conflicting, readings concerning one instance of silence. Confounding as at first these situations may appear, this ambiguity, or uncertainty, invites a multiplicity of expressive meanings in addition to the seemingly mechanical, if not artificial, processes of tone rows, rhythmic canons, and symmetrical phrase structure. Silence, the nothingness or emptiness in music, paradoxically bestows much nuance and intricacy to Webern's works, expanding the emotional potential therein to greater depth.

The conceptual model I propose here should not be taken as a claim for Webern's compositional intent. It however coincidentally coalesces with his obsession with nature and his penchant for mountaineering. In his correspondence

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with Alban Berg, he reflects on the 'indescribable' experience of his trip to the Dachstein:

A week ago I was at Dachstein. The day of the ascent there was bad weather, rain and fog, but nevertheless it was very beautiful. The diffused light on the glacier was quite remarkable (caused by the overcast sky and the fog). Just a few paces in front of you snow and fog blended together into a completely undifferentiated screen. You had no idea whether you were going up or down hill. A most favourable opportunity to contract snow-blindness! But wonderful, like floating in space. And the pastures on the south side! The contrast: luxuriant flora! Nothing but Alpine Roses in full bloom! And lower down the most marvelous Larch woods! Enormous trees growing in the oddest shapes; huge branches. You would have loved it.⁸⁰

Shapes appear peculiar. Time freezes. It is this otherworldly experience that Webern time and again tries to capture in his music.⁸¹ Silence, in conjunction with his characteristic use of sparse musical texture and pointillistic figuration, resonates with this ineffable feeling of being engulfed by the sublime landscape, and his spiritual experience of transcendence and emancipation. In this sense, silence in his music acts more as a presence than an absence, arresting attention and evoking imagination through the gaps between the pristine pitches.

⁸⁰ Johnson (1999), p. 32, quoted from *Die Reihe 2* (Bryn Mawr: Theodore Presser, 1958), also from Webern (1967).

⁸¹ See Johnson (1999) for his discussion on the relation between Webern's musical style and the contemporaneous cultural discourse on nature, the way that he was subjected to, and simultaneously reinforced, the ideology of nature vis-à-vis the increasingly urbanized Vienna.

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