Musical Exchange and Interaction between Eisler and Schoenberg, Evidenced by their Serial Music¹

So-Yung Ahn

Konkuk University 120 Neungdong-ro, Gwangjin-gu, 05029 Seoul, Korea E-mail: asyung@konkuk.ac.kr

(Received: March 2017; accepted: June 2017)

Abstract: This study demonstrates that Hanns Eisler's serial music composed in the early 1920s and his cantatas created in the 1930s are interrelated with Arnold Schoenberg's serial music. The specific purpose is to reveal the musical interactions between the two composers, such as how Eisler was influenced by Schoenberg, and how Eisler himself influenced Schoenberg. The former aspect is highlighted by the analysis of Schoenberg's *Suite für Klavier* (1923) and Eisler's *Zweite Sonate für Klavier* (1925). The latter is shown while Eisler's *Deutsche Symphonie* from the 1930s and Schoenberg's *A Survivor from Warsaw* (1947) are subjected to a comparative analysis. Eisler was not simply a pupil who renounced Schoenberg's teachings, but a "true disciple" who succeeded Schoenberg's serial technique in a manner comparable to that of Webern and Berg and who, in addition, was a musical companion of Schoenberg, influencing Schoenberg's later music.

Keywords: Hanns Eisler, Arnold Schoenberg, serial music, *Deutsche Symphonie*, *A Survivor from Warsaw*

German composer Hanns Eisler (1898–1962) was a politically committed artist. He sympathized with Communist ideas, was a member of the German Communist Party, and composed Communist mass songs. His militant mass songs were performed at rallies calling for revolution and struggle against the regime and translated or parodied in political movements around the world. He was the composer of the national anthem of the German Democratic Republic (GDR), *Aufer*-

1. This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2016S1A5A2A01022255).

standen aus Ruinen (1949). His best-known piece in Hungary was *Roter Wedding* (1929) translated as *Vörös Csepel*, one of the favorites of the Communist dictatorship between 1949 and 1989, while in South Korea, the refrain of *Der heimliche Aufmarsch* (1929) was used in parody for rallies and protests during Korea's democratic movement in the 1980s.

Meanwhile, it is also remarkable that, along with Anton Webern and Alban Berg, Eisler was a pupil of Arnold Schoenberg and a composer of serial works.² As a pupil of Schoenberg, Eisler studied atonal and serial music for a short period between 1919 and 1923. However, the two composers had artistic differences: Eisler thought that music should reflect social and political changes; Schoenberg persevered in pure art music. Consequently, Eisler ceased collaborating with Schoenberg in 1926, even though the master and the pupil retained respect for each other.³ After his split from Schoenberg, Eisler renounced Schoenberg's serial technique and changed the direction of his pure art music to genres such as mass songs and political choir pieces.

However, after Adolf Hitler came to power in 1933, Eisler positively re-evaluated and re-embraced the serial technique. As the Nazis perceived it as chaotic, ugly, and not suited to their political intentions,⁴ Eisler seemed to use serial technique as a form of anti-Nazi music. To popularize serial music, Eisler composed it in a consonant and tonal manner, rather than dissonant:⁵ Piano Sonatine *Gradus ad Parnassum* (Op. 44) and String Trio *Praeludium und Fuge über BACH* (Op. 46) were composed in 1934 for pedagogical purposes to provide an introduction to the twelve-tone technique. Eisler continued to use the serial technique until 1941, including after his emigration to the USA in 1938, where he worked as a movie soundtrack composer.

It is notable that, after resuming composing serial music in the 1930s, Eisler's personal relationship with Schoenberg improved. For example, in 1935, Eisler expressed his gratitude and respect for Schoenberg in an essay, praising Schoenberg as the greatest composer in modern musical history regardless of his political views, stating that much was still to be learned from him.⁶ The friend-

^{2.} Georg Knepler, "Hanns Eisler the Thinker," in *Hanns Eisler – A Miscellany. Contemporary Music Studies*, ed. David Blake (New York: Harwood Academic Publisher, 1995), 441; Albrecht Dümling, "Hanns Eisler und Arnold Schönberg," in *Hanns Eisler der Zeitgenosse. Positionen – Perspektiven*, hrsg. Günter Mayer (Leipzig: Deutscher Verlag für Musik, 1997), 34; Theodor W. Adorno, "Eisler. Klavierstücke, op. 3," in *Gesammelte Schriften*, Bd. 18., hrsg. Rolf Tiedemann und Klaus Schultz (Frankfurt am Main: Suhrkamp, 1894), 522.

^{3.} Knepler, "Hanns Eisler the Thinker," 442. See also Albrecht Betz, *Hanns Eisler: Political Musician*, transl. Bill Hopkins (Cambridge: Cambridge University Press, 1982).

^{4.} Joseph Wulf, *Musik im Dritten Reich. Eine Dokumentation* (Gütersloh: Mohn, 1963), 443–444. Quoted by Korean musicologist Kyung-Bun Lee, "Hanns Eisler and Exile Music," *Music Theory Research* 5 (2000), 155.

^{5.} Kyung-Bun Lee, "Arnold Schoenberg's Twelve-tone Technique and Hanns Eisler's Modified Twelve-tone Music," *Music and Ethnic* 18 (1999), 153–168.

^{6.} Ashley Pettis, "Eisler, Maker of Red Songs," New Masses 14/9 (26 February 1935), 18-19.

ship between Eisler and Schoenberg developed even further during Eisler's exile in the USA between 1938 and 1949.⁷ After moving to western California in 1942 – Schoenberg had already been in exile in California since 1934 – Eisler continued his musical career by becoming a movie soundtrack composer. Perhaps it was only natural that the two composers formed a special bond as exiled musicians in California; further, Eisler, to an extent, became a confidant of Schoenberg. For example, when Schoenberg taught a summer course at the University of California in 1942, Eisler attended the event with Bertolt Brecht, and they were invited to Schoenberg's house after the lecture. Before they met with Schoenberg, Eisler pleaded with Brecht, who tended to be somewhat direct and critical, to accept their political differences and refrain from making ill-intentioned comments to Schoenberg.⁸ The urgency Eisler displayed toward Brecht shows that he certainly retained great respect for Schoenberg. Eisler also realized Schoenberg's financial hardships and donated 300 dollars to Schoenberg to help him pay for his son's surgery at that time.⁹

It is noteworthy that Schoenberg also confided to Eisler regarding his frankness about his work. According to Brecht's journal, on 29 July 1942, when Eisler suggested that Schoenberg complete his unfinished works, Schoenberg had a somewhat negative view of his works, saying "they wouldn't be performed anyway,"¹⁰ which contrasted with his earlier uncompromising attitude. By the end of October 1944, Brecht also mentioned in his journal that Schoenberg thought his pieces to be "awful" and "hard to understand."¹¹ Through Schoenberg's confession about his works, we can gauge how amicable Schoenberg was toward Eisler as a colleague.

Commissioned by the Serge Koussevitzky Music Foundation in New York, Schoenberg composed in 1947 *A Survivor from Warsaw* which portrayed the socio-political condition of the time and expressed his anti-Nazi point of view; this helped him find his voice as an exiled artist. This piece is considered to be consonant serial music, similar to his work in the early 1940s, such as *Ode to Napoleon Bonaparte* (1942). It is also notable that this piece is a cantata, a vocal genre preferred by Eisler during his exile in Europe between 1933 and 1937; for Eisler, the cantata with lyrics was more suitable for expressing his political views. *A Survivor from Warsaw*, with its socialist and widely approachable character, represented a

7. For more about the relationship between Eisler and Schoenberg, see Dorothy Lamb Crawford, "Arnold Schoenberg in Los Angeles," *The Musical Quarterly* 86/1 (Spring 2002), 13–14; Hans Bunge and Hanns Eisler, "Conversation 2," in *Brecht, Music and Culture*, eds Sabine Berendse and Paul Clements (London: Bloomsbury 2014), 26–27; Bunge, "Conversation 3," in *Brecht, Music and Culture*, 47–52.

8. It was the first meeting between Schoenberg and Brecht, facilitated by Eisler, despite their opposing views in regard to politics and art. Brecht seemed to have gotten a good impression of Schoenberg. Bunge, "Conversation 3," 47–48.

9. Bunge, "Conversation 2," 27.

10. Ibid., 26.

11. Bunge, "Conversation 3," 51.

turning point in the artistic ideology of Schoenberg, who previously insisted on pure art music. The fact that Schoenberg was in close contact with his pupil Eisler when he composed *A Survivor from Warsaw* implies that it is possible that this piece was influenced by Eisler's cantatas.

In fact, Schoenberg's influence on Eisler is already well known. This influence is evidently shown in Eisler's early works, especially during the 1920s. For example, in *Palmström* (1924), Eisler borrowed similar instrumentation and the "Sprechstimme" technique from Schoenberg's *Pierrot Lunaire* (1912). A more interesting point is that Schoenberg-style instrumentation is also present in Eisler's late music composed during his exile in the 1940s, such as the silent film *14 Arten*, *den Regen zu beschreiben* (1941) directed by Joris Ivens. Eisler dedicated *14 Arten* to Schoenberg for his 70th birthday, and Schoenberg gave great praise to this piece.¹² As seen in the above examples, Schoenberg's musical influence on Eisler is evident across his work from the 1920s to the 1940s.

However, the notion that Schoenberg was in turn influenced by Eisler is quite new. Considering the close relationship between the two composers, this paper comes to the conclusion that Schoenberg's music was also influenced by Eisler's. In order to objectively prove this hypothesis, this paper comparatively considers the bilateral relationship between Schoenberg's and Eisler's serial music of the 1920s and 1930s.¹³ To begin, Eisler's *Zweite Sonate für Klavier* (1925) is examined to determine how Eisler's music was influenced by Schoenberg's early serial music, which then leads to a comparative analysis of Eisler's *Deutsche Symphonie* (1936–1947, 1957) and Schoenberg's *A Survivor from Warsaw* (1947) to establish Eisler's influence on Schoenberg. Thus, this paper attempts to prove a mutual influence between Eisler and Schoenberg's serial music.

Evidence of Schoenberg's influence in Eisler's Zweite Sonate für Klavier (1925)

After having studied atonal and serial music with Schoenberg between 1919 and 1923, Eisler completed several serial music pieces, such as *Palmström* (1924), *Zweite Sonate für Klavier* (1925) and *Klavierstücke* (1925). The musical influence of his teacher might be present in all of these works, they were composed just after Schoenberg wrote his first serial music piece in 1923. Serial technique is used consistently, like in most of Schoenberg's early serial music, only in Eisler's

^{12.} Hans Heinz Stuckenschmidt, "Changes Due to War," in Arnold Schoenberg: His Life, World, and Work, transl. Humphrey Searle (NY: Schirmer Book, 1974), 467.

^{13.} Eisler's serial technique is also found in the film music of the 1940s. Although film music was an important genre in Eisler's musical life, I would like to exclude it from this research. This is because, in view of the fact that Schoenberg did not compose film music, it deviates from the purpose of the study.

Zweite Sonate; it is only partly shown in *Palmström* and *Klavierstücke*.¹⁴ In this respect, Eisler's *Zweite Sonate* can be considered to be the most similar to Schoenberg's early works. In this chapter, I analyze Eisler's *Zweite Sonate* examining the influence of Schoenberg's early serial music.

Eisler's *Zweite Sonate*, on the surface, is very much related to one of Schoenberg's early serial music piece *Suite für Klavier* (1923) in terms of the structure of the principal rows. *Example 1a* shows the prime series presented in integer notation.¹⁵

EXAMPLE 1a Prime series in Schoenberg's *Suite für Klavier* (1923) and Eisler's *Zweite Sonate* (1925)

		H1					H2					
Schoenberg, op. 25:	4	5	7	1	6	3	8	2	Е	0	9	Т
		SC 6-2(012346)					SC 6-2(012346)					
Eisler, op. 6:	<u>E</u>		2	1 2346)	5	0	8	9 SC 6-	6 2(012	7	4	T

As shown in *Example 1a*, the first hexachord (hereafter H1) and the second hexachord (hereafter H2) of the principal rows in Schoenberg's and Eisler's pieces both consist of two SC 6-2(012346).¹⁶ Two pieces share the same hexachordal set class: Eisler seems to have replicated the hexachord used in Schoenberg's *Suite*. In addition, H2 of Eisler's work is related to Schoenberg's H2 by inversion (I6), containing the same intervallic pattern, counting intervals upward in semitones between the two adjacent pitch classes, <6-3-1-3-1> (see *Example 1b*). Thus, it is possible to assume that Eisler intentionally applies the same row structure as that shown in Schoenberg's *Suite*.

Eisler creates the row segmentations in H1 and H2 to emphasize SC 6-2(012346), clearly demonstrating Schoenberg's influence. *Example 2* shows

14. Eisler's *Palmström* consists of a total of five movements. In the first four movements, serial technique appears only in the instrumental parts and not in the vocal parts. In *Klavierstücke*, which comprises eight songs, the first, second, fourth, sixth, and eighth songs are based on series.

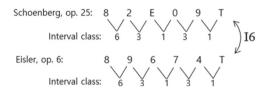
15. Pitch classes are numbered from 0 through 11: pitch class (or pc) of C, B-sharp, and D-double flat is numbered as 0; pc of C-sharp and D-flat is 1; pc of D, C-double sharp, and E-double flat is 2; and so on. In addition, pc 10 and 11 are respectively marked as T and E (the initials of TEN and ELEVEN).

16. In the analysis, I use the term "set-class" (or SC) from the atonal set theory devised by Allen Forte. A SC consists of two numbers separated by a dash followed by its prime form written in parentheses: the first number indicates the cardinality of the pitch classes; the second gives the position of the set on Forte's list. Thus, SC 6-2(012346) given in *Example 1a* is the second set on Forte's list of hexachords. (012346) is the prime form of SC 6-2, one of the pitch-class sets, beginning with pc 0 and being most packed to the left. For more about the atonal set theory, see Joseph N. Straus, *Introduction to Post-Tonal Theory* (New York: W.W. Norton & Company, 2016).

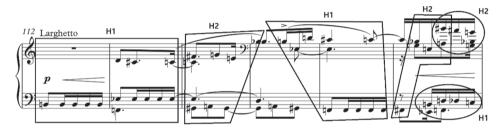
how the segmentations of P11 {E, 3, 2, 1, 5, 0, 8, 9, 6, 7, 4, T} are achieved in the opening of Eisler's Variation $4^{.17}$

As shown in *Example 2*, Variation 4 begins with a regular alternation of H1 and H2. In measures 112–113, H1 appears with a duration of two measures, leading into H2 and a return to H1, respectively, with one and half measures present in measures 114–116. Finally, in measure 117, H2 and H1 alternate along the length of dotted

EXAMPLE 1b Relation of Eisler's H2 and Schoenberg's H2



EXAMPLE 2 Eisler, Zweite Sonate, the beginning of Variation 4, mm. 112-117



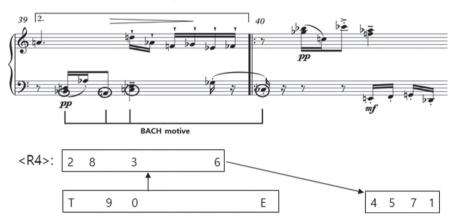
eighth notes, and this appears to be shorter than previous measures; thus, the hexachord SC 6-2(012346) is emphasized, along with a gradual acceleration in harmonic rhythm. As the emphasis of SC 6-2(012346) appears thoroughly in Eisler's *Zweite Sonate*, it can be considered that Eisler's plan was to utilize his master's technique.

Another feature of Eisler's work in the above passage is the internal setting of the row. Although Eisler only uses P11 in this passage, he freely rearranges the pitches in H1 and H2 rather than presenting the row in regular order. For example, H2 appears in a different order in measure 117: after pc 6 (F-sharp) is presented, pc 7 (g) and 10 (b-flat) are listed; then, pc 8 (g-sharp¹) and 9 (a) are finally set after pc 4 (e). It is interesting to note that Eisler rearranges the pitches in the row, which is a technique used in Schoenberg's early serial music. *Example 3* shows

^{17.} There is a family of 48 series forms including 12 primes (Pn), 12 retrogrades (Rn), 12 inversions (In), and 12 retrograde-inversions (RIn). In the case of P11, it is the prime series beginning on pc 11. Including P11, there are twelve different prime forms from P0 to P11. The retrograde form of the series is a collection of pitches in reverse order: R0 is the retrograde of P0; R1 the retrograde of P1; and so on. The inversion form inverts a collection of pitches in the series: I0 is the inversion of the prime beginning on pc 0; I1 is the inversion of the prime beginning on pc 1. The retrograde-inversion form inverts a collection in reverse order: R10 is the retrograde of P1, and so on.

how Schoenberg freely manipulates the pitches of the row R4 {T, 9, 0, E, 2, 8, 3, 6, 1, 7, 5, 4} in measures 39–40 of "Menuett" from his *Suite*.¹⁸

The diagram under the music demonstrates the pitch structure on the bass staff, divided into two voices according to their registers. As described in the diagram, Schoenberg reorders the row, dividing it into three tetrachords by ranges, as



EXAMPLE 3 Schoenberg, Suite für Klavier, "Menuett," mm. 39-40

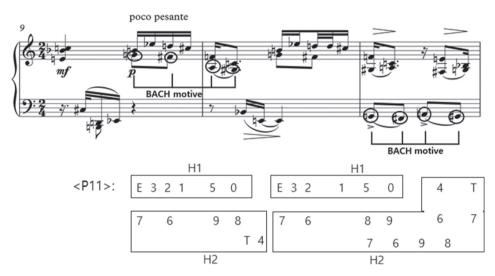
indicated by arrows, rather than setting the pitches in order:¹⁹ the first tetrachord {T, 9, 0, E} clearly shows the B-A-C-H motif, being used for the lowest voice over measures 39–40; the second tetrachord {2, 8, 3, 6} is used for the inner voice; finally, at the last beat of measure 40, {1, 7, 5, 4} appears in its retrograde form.²⁰ Thus, Schoenberg applies a flexible setting in the series to emphasize the B-A-C-H motif, considering the registers rather than the order of the row itself.

Eisler also uses the unique setting of the series and B-A-C-H motifs in his *Zweite Sonate*, as seen in Schoenberg's early serial music. *Example 4* shows his application of P11 over the three voices in measures 9–11 with *poco pesante*. The diagram below the music explains how the hexachords H1 and H2 of P11 are set for voices: H1 {E, 3, 2, 1, 5, 0}, for the top voice, is repeated twice in order, but H2 {8, 9, 6, 7, 4, T} appears inconsistently. The first tetrachord of H2 {8, 9, 6, 7}

18. Schoenberg applied the subtitles used in the Baroque suite in his *Suite für Klavier*: no. 1 "Präludium," no. 2 "Gavotte," no. 3 "Musette," no. 4 "Intermezzo," no. 5 "Menuett und Trio," no. 6 "Gigue.

20. Schoenberg used the last four notes of series P4 {4, 5, 7, 1, 6, 3, 8, 2, E, 0, 9, T} to honor Johann Sebastian Bach: the last tetrachord {E, 0, 9, T} is set as the retrograde of the B-A-C-H motif (B-flat, A, C, B-natural). For details of the B-A-C-H motif, appearing in "Menuett," see Arnold Whittall, *The Cambridge Introduction to Serialism* (New York: Cambridge University Press, 2008), 32.

^{19.} Schoenberg tends to divide the twelve-tone series into three tetrachords in his *Suite für Klavier*. In Eisler's *Zweite Sonate*, the series is usually divided into hexachords, but it is also divided into tetrachords similar to Schoenberg's. For example, in measures 73–77 of Variation 2 and in measures 89–91 of Variation 3, the series is divided into three tetrachords.



EXAMPLE 4 Eisler, Zweite Sonate, mm. 9-11

appears in the form of the B-A-C-H motif under a minor third or above a major sixth, presenting in retrograde form ($\{7, 6, 9, 8\}$) for the inner voice (measures 9–10) and the lowest voice (measure 11). Thus, Eisler freely reorders H2 to emphasize the B-A-C-H motif.

In addition, Eisler applies Schoenberg's method of choosing series. In his first piece of serial music, "Walzer" of *Fünf Klavierstücke* (1923), Schoenberg consistently uses only one out of the 48 series, P6 {6, T, 2, 4, 3, 0, 5, 1, 9, E, 7, 8}. Later in his *Suite*, Schoenberg limits his choice of series forms, using mainly P4, I4, R4, and RI4, which are the rows starting from pc 4.²¹ Eisler also pursues simplicity in his selection of the series for *Zweite Sonate*: he uses P11, I11, R11, and RI11, starting from pc 11. Thus, Eisler's *Zweite Sonate* shows some influences of Schoenberg's early serial music in terms of the choice of series as well as the pitch structure and setting of the rows.

Musical interrelations between Eisler's Deutsche Symphonie and Schoenberg's A Survivor from Warsaw

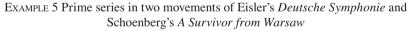
In the 1930s, Eisler began composing cantatas using the serial technique, considering them suitable for accommodating his political intent and the approachability of his music. Among these, *Deutsche Symphonie* in particular, composed over

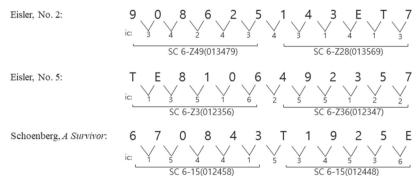
^{21.} Schoenberg used four series forms starting from pc 10 (P10, I10, R10, R110) in addition to the four starting from pc 4 (P4, I4, R4, RI4) in his *Suite*. Interestingly, the series forms starting from pc 10 have a relationship with the series from pc 4: the last notes of P4 and I10 are pc 10 and pc 4, respectively.

20 years starting in 1936, is celebrated as a masterpiece. The work comprises 11 pieces including an *Epilog*. Seven pieces, nos. 1, 2, 4, 5, 7, 8, and 9, were composed between 1936 and 1937, along with other cantatas;²² no. 3, *Etüde I*, is an orchestral piece based on the last movement of *Suite* no. 1 (Op. 23) composed in 1930; no. 6 was composed in 1939; no. 10 in 1947; and no. 11 *Epilog* was composed in 1957.²³

Meanwhile, Schoenberg composed socialist works in the 1940s, such as *Ode* to Napoleon and A Survivor from Warsaw. In particular, A Survivor from Warsaw is a combination of atonal and serial music that represents the composer's voice of resistance, similar to Eisler's cantatas. It is true that Schoenberg's A Survivor from Warsaw is based on his political experiences. However, it can be suggested that the change in Schoenberg's musical style from apolitical to political was influenced by his frequent exchanges with Eisler after the mid-1930s, which may have caused Schoenberg to present his social consciousness as an exiled artist through his music. This study identifies Eisler's musical influence as another factor that contributes to the change in Schoenberg's musical philosophy.

The following comparison of *A Survivor from Warsaw* with Eisler's *Deutsche Symphonie*, seeks to evaluate Eisler's influence on Schoenberg's later music. To conduct an objective analysis, I analyze two pieces from *Deutsche Symphonie*, no. 2 *An die Kämpfer in den Konzentrationslagern* and no. 5 *In Sonnenburg*, which have similar plots – the concentration camps – to *A Survivor from Warsaw*. Before comparing the two composers' works, an introduction to each work's prime series





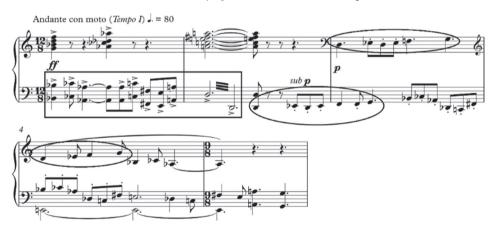
22. Eisler's representative cantatas composed at this time are as follows: Gegen den Krieg (1936), Kantate auf den Tod eines Genossen (1937), and Kriegskantate (1937).

23. The titles of the 11 songs are as follows: 1. Präludium, 2. An die Kämpfer in den Konzentrationslagern, 3. Etüde I, 4. Erinnerung, 5. In Sonnenburg, 6. Etüde II, 7. Begräbnis des Hetzers im Zinksarg, 8. Bauernkantate, 9. Das Lied vom Klassenfeind, 10. Allegro, and 11. Epilog. is necessary. *Example 5* shows the original rows from Eisler's *Deutsche Symphonie* and Schoenberg's *A Survivor from Warsaw*.

Most obviously, each row consists of a different hexachord. Eisler's rows consist of Z-related hexachords, which Schoenberg rarely uses in his serial music. In terms of the unordered pitch-class interval or interval class (ic),²⁴ Eisler emphasizes ic 3 and 4 in his series in no. 2 and ic 1, 2, 5 in no. 5, while Schoenberg noticeably uses ic 4 and 5 in his *A Survivor from Warsaw*. Thus, Eisler's rows lack some triadic aspects in regard to their sound: only no. 5 contains a dominant ninth chord in the pentachord of order numbers 5 to 9 ({0, 6, 4, 9, 2}). On the other hand, Schoenberg's row is filled with triadic sounds, such as an augmented triad in order number 3, 4, and 5, and minor and diminished triads in the final tetrachord.

Tonal implication in the series

On the surface, Eisler's and Schoenberg's rows seem to have no relation at all, but there are similarities in regard to how the composers manipulate the series. The most common aspect of the rows by the two composers is that the series are set



EXAMPLE 6 Eisler, *Deutsche Symphonie*, mov. 5, mm. 1–5 (piano reduction)

to have tonal implications. *Example 6* shows the opening of no. 5 *In Sonnenburg* from Eisler's *Deutsche Symphonie*.

The melody shown for the cello and contrabass in measures 1–2, as indicated in the square, consists of eight pitch classes, except for pc 1, out of the first nine

24. In atonal set theory, the interval class (abbreviated ic) is the distance between two pitch classes, measured by the number of semitones counting upward or downward by the shortest way.

of the original row ({T, E, 8, 0, 6, 4, 9, 2}). As the tonal interpretations, a-flat, which has the longest duration in measure 1 and is enharmonically g-sharp, leads to a-natural in the same measure and finally progresses to d (and D) in measure 2. It is interesting that the pitches a and d in the bass staff of measures 1–2 delineate the outline of dominant and tonic in D major (or D minor). At this point, Eisler emphasizes d, which is interpreted as the tonic, setting it on the first strong beat of the measure as well as stressing it using a long duration – two dotted half notes – in order to create tonal implications.

The tetrachord $\{2, 3, 5, 7\}$ in measures 2–4, as indicated in the circles, consists of the last four pitch classes of the original row and plays a crucial motif in No. 5. This motif comprises the last four notes of the G-natural minor scale, suggesting a G minor tonality through imitation. Thus, the progression of dominant to tonic in D major, which has just been analyzed for measures 1–2, can be reinterpreted



EXAMPLE 7a Eisler, Deutsche Symphonie, mov. 5, mm. 36-39

as the secondary dominant to the dominant in G minor. The tonality of G minor is more apparent in measures 36–39 (see *Example 7a*).

As shown in the piano reduction of *Example 7a*, the phrase in measures 36–38 begins with the tonic of G major (or G minor) and ends with a half cadence; then, a new phrase begins in measure 39. The distinction of the phrases becomes obvious with the change of series: the phrase in measures 36–38 shows P10, I6, and RI6; the new phrase starting at measure 39 consists of I6, R10, and RI6. At this time, Eisler rearranges the rows for baritone, violin, and viola to strongly suggest a sense of tonality in all parts of measures 36–38. The following examples show

EXAMPLE 7b Eisler, Deutsche Symphonie, mov. 5, mm. 36-38, original series

<p10>: T</p10>	Е	8	1	0	6	4	9	2	3	5	7
< 6>: 6	5	8	3	4	Т	0	7	2	1	Е	9
<ri6>: 9</ri6>	Е	1	2	7	0	Т	4	3	8	5	6

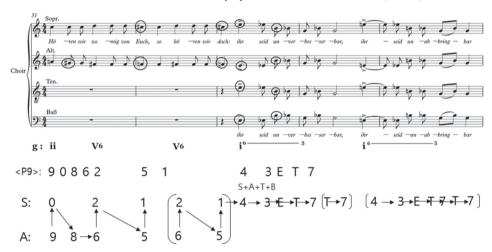
EXAMPLE 7c Eisler, Deutsche Symphonie, mov. 5, mm. 36-38, rearranged series

a comparison of the original rows (*Example 7b*) and the rearranged rows of the actual music (*Example 7c*).

First, the baritone's part in measures 36-38 is rearranged from the original row, P10, starting with the last tetrachord of the row and ending with pc 9. The strings that accompany the solo in measures 36-38 are presented as P10, I6, and RI6, and these also begin with a different pitch class than the first of the original: the violin and viola begin with d¹, the ninth pitch class of P10 and I6; meanwhile, the cello and bass begin with g, the fifth pitch class of RI6. It is noteworthy that b, the first note of measure 36 in the cello, is not related to the row (the notes that appear outside of the row are underlined in *Example 7c*). Eisler begins with a different note than the first of the original row, so that the first chord of the phrase constitutes a G major triad. Thus, Eisler's tonal implication is achieved by his rearrangement of the rows and his adding of notes that are not related to the row.

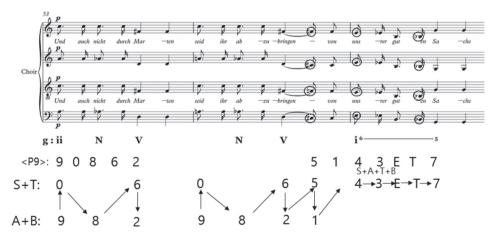
In this example, G major is heavily emphasized by the supertonic and dominant ninth chords in measure 38. In this case, for the baritone and violin, pc 0 of the first beat in measure 38, as the third of the supertonic, appears as a member of the row; however, for the viola pc 0 is superimposed with no relation to the row. After this, the dominant ninth chord is embellished at the second strong beat by an altered half-diminished seventh chord with a duration of two dotted quarter notes, meaning Eisler strongly emphasizes the implication of the tonality, G major. Thus, Eisler rearranges the rows in consideration of the setting of the beat and duration, which ultimately devises tonal implication. Eisler's tonal implication is also shown in no. 2, *An die Kämpfer in den Konzentrationslagern*. The piece is in ternary form (ABA) with the solo part representing section A (measures 1–30, 56–74) and the chorus representing section B (measures 31–55). *Examples 8a–b* show the beginning and the end of Section B, respectively.

P9 {9, 0, 8, 6, 2, 5, 1, 4, 3, E, T, 7} is used in both passages shown in *Example* 8. Eisler utilizes pitches to create the row in turn in the second movement but, unlike the fifth movement, he sets the rows to produce triads that cross between voices and uses non-harmonic tones to produce tonal implications of G minor. The phrases of *Example* 8 finish with the tonic in order to confirm the feeling of tonality. The diagram presented below the music shows how P9 is rearranged and



EXAMPLE 8a Eisler, Deutsche Symphonie, mov. 2, mm. 31–35 (chorus)

EXAMPLE 8b Eisler, Deutsche Symphonie, mov. 2, mm. 53-55 (chorus)



Studia Musicologica 59, 2018

repeated (repeated pitch classes are indicated by brackets). With the first seven notes of P9, the opening of the chorus in measures 31–32 shows the harmonic progression of supertonic to dominant through 1:1 counterpoint between two voices, and thus the tonal implication of G minor is enhanced by non-harmonic tones (denoted by circles): a^1 and c^2 of the supertonic progress to f-sharp¹ and d^2 of the dominant embellished by the passing note g-sharp¹, and the dominant is prolonged by the neighboring notes, c-sharp² and f¹. Then, in measures 33–35, the final pentachord of P9 is arranged as a 6-5 progression of the tonic. Interestingly, in terms of the 6-5 progression, e^2 in the soprano of measure 33 should progress to d^2 in the next measure, but d^2 is actually omitted to maintain the regular order of the row, and only the root (g¹ and g) and the third (b-flat¹ and b-flat) of the tonic are presented. In spite of this omission of d^2 , there is a strong sense of tonality by arranging the root on the strong beat of the measure.

The ending of section B (*Example 8b*) shows a harmonic progression similar to the beginning, but the series is processed differently: at the beginning of the phrase, measure 53, the progression from the supertonic to the dominant in G minor is still in two-voice counterpoint; after the supertonic, a-flat¹ (and a-flat) implies a chromatic intermediate harmony, Neapolitan sixth chord. Thus, Eisler demonstrates the progression of supertonic and Neapolitan chords to dominant using the first pentachord of P9. After c-sharp¹ and f¹ function as non-harmonic tones, as in the beginning of section B, the final pentachord of the row is performed in unison, ending with 6-5 progression of the tonic.

The technique of suggesting tonality through series is also found in Schoenberg's late-period serial music. *Example 9* shows the chorus in measures 80–84 of Schoenberg's *A Survivor from Warsaw*.

The phrase shown in *Example 9* consists of the first hexachord (H1) of P10 ({T, E, 4, 0, 8, 7}) and shows the tonal implication of C major (or C minor): the first

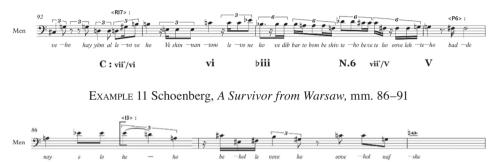
EXAMPLE 9 Schoenberg, A Survivor from Warsaw, mm. 80-84



note, b-flat, enharmonically interpreted as a-sharp functioning as an appoggiatura, leads to b; b and e in measure 81 imply the mediant chord, which is prolonged through 5-6 progression; a-flat in measures 82–84 implies minor subdominant and supertonic and finally leads to the dominant g, which is set on the second strong beat in measure 84. It is interesting that the quarter rest at the end of the phrase intensifies the implication of half cadence. Schoenberg, unlike Eisler, suggests the tonality without rearranging the row, instead maintaining the order of the row. Schoenberg's tonal implication of C is also found in measures 92–95.

Unlike the previous example, in the vocal melody shown in *Example 10* all twelve notes of the row PI7 {2, 8, E, 4, 0, 3, T, 9, 5, 1, 6, 7} are used. However, the tonality C is also implied by the dominant g with half cadence on the first strong beat in measure 95, after the mixture chords – flatted mediant and Neapolitan sixth – and secondary diminished triad. This implication of the tonality is also

EXAMPLE 10 Schoenberg, A Survivor from Warsaw, mm. 92-95



present in the part where the row is not used. *Example* 11 shows measures 86–91, presenting the rows I3 and P2, and the non-serial part connecting them.

h

C : N.6

v

Although the melody in measures 89–90 functioning as a transition between I3 and P2 seems to be arbitrarily composed, the tonal implication is still strong in terms of the chord progression from the intermediate harmony, Neapolitan sixth to dominant in C major (or C minor); here, b natural in measure 90, a constituent of the dominant, is embellished by the suspension of c¹. In this way, Schoenberg clarifies the tonal implication even in the non-serial part in a manner that is similar to Eisler's method, as he carefully takes into account the settings of the rhythm, rests, etc., in order to particularly emphasize the cadence of the phrase.

Triads in the series

In addition to tonal implications, Eisler and Schoenberg also use triadic sounds constructed using thirds. As shown in *Example 5*, the outline of the triad appears on the surface itself in Schoenberg's series. Thus, in P6 of *A Survivor from Warsaw*, the trichord comprising order number 3, 4, 5 {0, 8, 4} creates an augmented triad; meanwhile, the trichords in 9, 10, 11 {9, 2, 5} and 10, 11, 12 {2, 5, E} produce minor triads and diminished triads, respectively. Here, Schoenberg seems to have attempted to directly expose triads through the series. On the other hand,

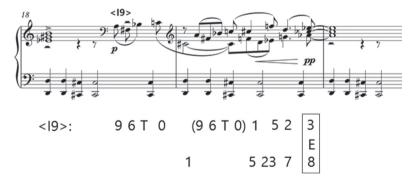
Eisler reveals triadic sounds by rearranging the series rather than through the series itself. Eisler, in measures 36–38 of the fifth movement in his *Deutsche Symphonie (Example 7)*, rearranges P10, I6, and RI6 to begin with a G major triad. The piece ends with the dominant ninth chord being built using thirds from the pentachord in order number 5, 6, 7, 8, 9 ({0, 6, 4, 9, 2}) of P10 (see *Example 12*).

In the second movement of his *Deutsche Symphonie*, Eisler also appropriately rearranges a row to produce triads and sometimes intentionally combines two series. Example 13 shows that I9 {9, 6, T, 0, 4, 1, 5, 2, 3, 7, 8, E} in measures 18–20 is rearranged in the upper part: pc 4, which is in order number 5, is omitted, and

EXAMPLE 12 Eisler, Deutsche Symphonie, mov. 5, mm. 46-48 (piano reduction)



EXAMPLE 13 Eisler, Deutsche Symphonie, mov. 2, mm. 18-20 (piano reduction)



the last chord of the passage is set to an A-flat minor triad consisting of the pitch classes of order number 9, 11, and 12 of the row (see *Example 13*).

In addition, Eisler combines two rows to reveal the triad, as shown in *Example 14a* from the opening of the same movement. In measures 1–8, P9, R9, and RI9 of the main melody are presented over the ostinato bass. P9 appears in the inner voice of measures 6–8, in which the first dyad {9, 0} is omitted and the order is also rearranged, as opposed to the main melody demonstrated in the regular order of measures 1–3. *Example 14b* is a schematic representation of the serial arrangement of the rows RI9 and P9. Eisler combines the two series RI9 and P9 to form a triad: pc 9, the final pitch class of RI9, and the dyad of order number 6 and 7 of P9

 $\{5, 1\}$ comprise a C-sharp augmented triad, as shown in the square. At the end of the phrase, the trichord of order number 9, 11, and 12 of P9 $\{3, T, 7\}$ is arranged vertically to generate another triad, E-flat major.

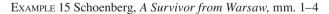
Eisler, thus, produces triads by rearranging the pitches in a single row or by combining two rows. On the other hand, Schoenberg uses superficial and direct

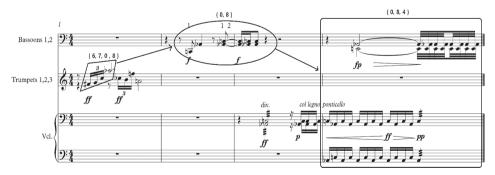
EXAMPLE 14a Eisler, Deutsche Symphonie, mov. 2, mm. 1-8 (piano reduction)



EXAMPLE 14b Eisler, *Deutsche Symphonie*, mov. 2, mm. 6–8, serial arrangement of RI9 and P9







Studia Musicologica 59, 2018

triads in the row itself, without rearrangement. A Survivor from Warsaw, for example, begins with the first tetrachord of the row for the trumpet, $\{6, 7, 0, 8\}$, where pc 8 is emphasized by a dotted half note; pc 8 constitutes a major third (c and A-flat) with pc 0 in measures 2–3; with the entrance of pc 4 (order number 5) in measure 4, an augmented triad (A-flat, c, E) is finally produced. In so doing, Schoenberg gradually introduces the first five pitch classes of P6 one-by-one, producing an augmented triad (see *Example 15*).

Like Eisler, Schoenberg also uses triads to create more harmonious serial music. However, unlike Eisler, Schoenberg simply arranges the series in sequence and uses triads directly, which results in a simpler use of triads.

Since research on Eisler became more common in the 1990s, much of it has been limited to biographical research of his life as an exiled composer and the influence of the rapid social changes on his music. Research on his serial technique has been also examined using actual analysis. However, most previous studies on Eisler's serial music suggest that Eisler's early serial technique was influenced by Schoenberg in the 1920s and his technique in the 1930s simply modified Schoenberg's series to become more consonant. However, such an evaluation oversimplifies Eisler's serial music. As an extension of previous research, this study analyzed Schoenberg's influence on Eisler's serial technique in the 1920s-1930s, as well as how Eisler's own approach influenced Schoenberg's music. Eisler seems to have been directly influenced by Schoenberg's early serial music starting in the 1920s. With regard to the structure of its series, Eisler's Zweite Sonate shows great similarities to one of Schoenberg's early serial music pieces, Suite. Both works show series composed of SC 6-2(012346) and contain identical patterns of interval succession, which verifies that Eisler wished to directly reflect the serial technique of his teacher, Schoenberg. The internal settings within the series also show Schoenberg's influence: in Suite, Schoenberg set his series freely to emphasize the B-A-C-H motif and this approach is mirrored in Eisler's work. Like Schoenberg, Eisler also maximally limited his choice of series.

Unlike those of the 1920s, Eisler's works in the 1930s seem to have influenced Schoenberg's later serial music. Especially, the reciprocal influence the two composers had on each other is evident in Eisler's *Deutsche Symphonie* and Schoenberg's *A Survivor from Warsaw*. Both pieces reflect their respective composer's prudent approach to setting each note of the series to reveal the tonality. While Eisler shows tonality by rearranging the notes that form a row, Schoenberg achieved tonality through the sequential arrangement of series. However, both composers consciously created tonality by taking rhythm, duration, rest, and phrase structure into consideration. Setting series in triads is another common fea-

ture of their works. Such a result strongly supports the hypothesis that Schoenberg was musically influenced by Eisler's cantatas.

Eisler was greatly influenced in the early 1920s by Schoenberg but ceased collaborating with him due to differences in musical ideology. However, Eisler reincorporated Schoenberg's serial technique into his music in the 1930s and his cantatas composed during this period seem to have influenced Schoenberg's later works during the 1940s. To Schoenberg, Eisler was not a pupil who abandoned him, but rather a true successor of his series, as well as a musical comrade who influenced his later works.