

Neo-Riemannian and Schenkerian Theories: Priority of Interpretation or Method*

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1. Neo-Riemannian and Schenkerian Theories

Since the latter half of the 20th century in America, various kinds of music theory have been developed. Along such development, studies on the tendencies and changes within the American music theory have been published since the 1970s (e.g. Rahn 1980, McCreless 1998, Christensen 2002), promoted by the establishment of the Society for Music Theory. These studies prompted the publication of several specific journals by various institutions and, as a result, diversified the theoretical methods. This work attempts to understand how these diverse spreading theories relate among each other.

As a case study, this work selects Neo-Riemannian theory, which is one of the recent mainstream theories, and reveals the collaborative or competitive relationship of such theory to an existing one. Specifically, it examines the effects of methodological arguments proposed by Neo-Riemannian theory on Schenkerian, which is an established theoretical empire.

Neo-Riemannian theory is derived from the transformational theory proposed by David Lewin's *Generalized Musical Intervals and Transformation* (1987); it is among the music theoretical clans represented by a series of discussions by Brian Hyer, Henry Klumpenhouwer, and Richard Cohn beginning in the 1980s. In this work, transformational and Neo-Riemannian theories are regarded as almost synonymous.¹

Schenkerian theory concerns mainly the tonal music, whereas Neo-Riemannian theory, the post-tonal and the late-Romantic chromatic music. In this way, as seen from the analytic objects, Neo-Riemannian and Schenkerian theories cannot be compared in the same horizon. Although Julian Hook emphasized the fundamental difference of both theories, Hook pointed out '[the]

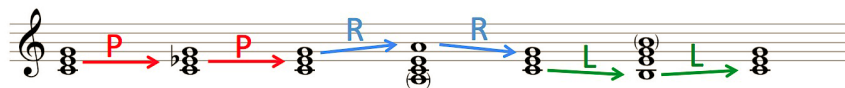
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¹ The first use of the term 'transformation' was seen in Lewin's *Generalized Musical Intervals and Transformation* in 1987, whereas that of the term 'Neo-Riemannian' was in Cohn's article in 1996. (In the eighth chapter of *Generalized Musical Intervals and Transformation*, Riemann's concepts are introduced). Transformational theory is often called Neo-Riemannian theory. Combinations, such as 'Transformational Riemannian theory' (e.g. Klumpenhouwer 2002, 473) or 'Riemann transformation' (e.g. Klumpenhouwer 1994) are also often employed. In most cases, Neo-Riemannian theory is named as a subdivision of theories by certain theorists among transformational theorists (e.g. Nolan 2002, 296). In *Journal of Music Theory* Vol. 42 No. 2 in 1998, which is a special volume for Neo-Riemannian theory, Cohn stated that 'the papers collected in this issue represent an emerging species of transformational theory drawn together under the *Neo-Riemannian* designation' (Cohn 1998, 167). From this description, Cohn used both terms almost without distinguishing them. Although 'Neo-Riemannian theory' is used in this work in principle, the context and terminology of the terms Neo-Riemannian and transformational theories are used.

mistake to regard “transformation” and “prolongation” as antithetical conceptions’ (Hook 2007, 168). Thus, several studies have either integrated or differentiated them, referring to the boundary pieces.²

This work focuses on the studies that examined the relationship of the two theories. By referring to these studies, this work examines the effects of methodological arguments, which were proposed by the new theory against the existing one, on the development of the relevant discipline.

The term ‘Neo-Riemannian’ is derived from German music theorist Hugo Riemann’s (1849–1919) conceptions, which were shown in his harmonic theory (cf. Riemann 1880 & 1916). His main conceptions refer to the three kinds of transformation, namely, ‘parallel’ (‘P’), ‘relative’ (‘R’), and ‘Leittonwechsel’ (L).³ In Example 1, the P transformation transforms major triad to minor and minor triad to major by moving the third tone by semitone. The R transformation transforms major triad to minor by moving the fifth whole tone up, and minor triad to major, by moving the root whole tone down. The L transformation transforms major triad to minor by moving the root semitone down, and minor triad to major, by moving the fifth tone semitone up.



Example 1. Three kinds of transformation in Neo-Riemannian theory (Mason 2013, 7)

Riemann’s conceptions have been employed as a method to analyse chromatic progressions and progressions based on mediant relations, which cannot be grasped in the framework of traditional functional theory and atonal music.⁴ By using the conceptions derived from Riemann, the ‘Tonnetz’⁵ (cf. Klumpenhouwer 1994; Cohn 1998),⁶ Neo-Riemannian theory has been developed. Neo-Riemannian theory is not as explicitly systematic as Schenkerian theory.

In contrast, Schenkerian theory is derived from the conceptions of Austrian theorist Heinrich Schenker (1868–1935), and has been applied since the end of the Second World War. It is an analytic method to extract structurally important tones in a musical piece and, finally, reduce the tone to a fundamental structure called ‘Ursatz’. Schenkerian theory’s history is a half century

² As seen in Hook’s study in the first and second sections of this work, Neo-Riemannian and Schenkerian theories tend to be contrasted as ‘transformation’ and ‘prolongation’. However, the characteristics of the latter theory cannot be reduced only to the concept of prolongation. One must keep in mind that, in the process of contrasting both theories, Schenkerian theory is simplified.

³ Although ‘Leittonwechsel’ is translated into English as ‘leading-tone exchange’ or ‘leading-tone change’, the German term is also frequently used. For this reason, this work uses the German term. ‘Leitton’ means chromatic progression, and ‘Wechsel’ means the exchange of major and minor. P and R correspond to Riemann’s ‘Variante’ and ‘Parallele’ (Riemann 1880).

⁴ For example, in Figure 1 in the second section of this work, one can see ‘mm.154–59 (=PL)’ with an arrow. The note b means the triad b d f-sharp. Its P is b d-sharp f-sharp. Moreover, its L is b-flat d-sharp f-sharp. If this is transformed enharmonically, it becomes b-flat e-flat g-flat, which is designated as e-flat in Figure 1.

⁵ It is simply called ‘network’.

⁶ On the misinterpretations of Hyer and Lewin, and Klumpenhouwer’s application and explanations of concepts, see Klumpenhouwer 1994.

longer than Neo-Riemannian's.

Individual discussions on the expansion of analytic objects and methodological refinements and applications in both theories have been active. Especially, Neo-Riemannian theory, which appeared later than Schenkerian theory, has recently been argued in *Journal of Music Theory* Vol. 4 No. 2 (1998), a publication dedicated to the discussion on such theory, and *The Oxford Handbook of Neo-Riemannian Music Theories* (2011). The historical aspects of both theories have also been examined (e.g. Christensen [ed.] 2002).

As individual arguments have been promoted, studies on the relationship of the two theories have emerged sporadically. The best example is the *Journal of Schenkerian Studies* Vol. 2 (2007), titled 'Special Volume on Schenkerian and Neo-Riemannian Methodologies'. This work deciphers the characteristics of the arguments on theoretical methodologies observed in these studies, which focused on the relationship between the two theories.

2. Arguments on Neo-Riemannian and Schenkerian Theories

In this section, the arguments on the relationship between the two theories are examined. As certain studies did not compare the two explicitly, this work selects only those that focused clearly on the comparison (Cohn 1999, Samarotto 2003, Hook 2007, Goldenberg 2007, Rings 2007, Baker 2008).⁷ In most cases, these arguments were carried out by Neo-Riemannian theorists; because it is more recent than Schenkerian theory,⁸ its difference from the existing theories is, naturally, emphasized.

This work classifies the arguments into two standpoints:

1. Studies that consider the integration of both theories impossible (2.1)
 - (1) those that attempt to segregate them methodologically and do not attempt to integrate them (through a specific analysis)
 - (2) those that attempt to integrate through a concrete analysis and then demonstrate the incompatibility of both theories
2. Studies that integrate both theories through a concrete analysis (2.2.)

2.1. Studies that do not integrate the methods

First, Hook's study (2007) is selected as one that attempts a methodological segregation. This study regarded the comparison of the two theories as impossible, as their characters and analytic methods are fundamentally different. This standpoint does not attempt at integration at all, because its argument starts from the premise of the difference of both theories.

Neo-Riemannian theorist Hook has three points. The first one is the difference in nature of both theories:

⁷ Excluded in this work are Warren Darcy's study in 2005, Hyer's in 1995, and David Kopp's in 2002, in which the comparison is not explicit. Steven Rings' dissertation in 2006 [2011] is used as a complement of his study in 2007.

⁸ Among a series of studies covered by this work, the scholars who can be regarded as Schenkerian are only Frank Samarotto and Michael Baker. However, other scholars can be considered to have fundamental knowledge and analytic practice of Schenkerian theory.

Transformation theory is a large and varied toolbox; there are only some minimal instructions for using the tools, and no designs at all for what one can build with them. Schenkerian theory, in contrast, is a smaller and more specialized toolbox, but it comes with more instructions and even some partial sets of blueprints. If we assign a piece to a class and instruct them to “do a Schenkerian analysis,” the students will not all produce identical (or equally good) graphs, but we have a reasonable idea in advance of the steps they will go through and the results they will get, because they will all be using the same tools and reading from the same plans. If we give instead the instruction “do a transformational analysis,” we can have no such preconceptions: the results will be as diverse as the students’ imaginations. (Hook 2007, 166)

Using the toolbox as an analogy to the nature of the theories and the amount of instructions for their uses, the difference of the theories is highlighted; thus, when one uses transformation theory, the analytic result depends highly on the individual. Moreover, according to Hook, the Schenkerian theory is based on rigorous guidelines in advance, whereas the Neo-Riemannian theory lacks such guidelines:

While Schenkerian analysts have (fairly) rigorous guidelines and well-honed intuitions for making the required decisions, transformational analysts may not. We may be able to arrive at such guidelines and intuitions, but only after making some more fundamental decisions about what types of objects and transformations will be used in a network, and probably only after acquiring some experience at working with these objects and transformations in a variety of situations. An analytical approach in which each analysis must write its own rules may seem inefficient ...; indeed, such an approach may well be imperative in those broad swaths of the post-tonal repertoire in which it seems that each *piece* writes its own rules. (Hook 2007, 166)

Based on the difference in their nature, difference of analytic objects in both theories is expressed by Hook. After differentiating both theories in this way, Hook employed the transformational graph of Beethoven’s First Symphony, the first movement into ‘quasi-Schenkerian graph’, and then pointed out its incompatibility:

... as a Schenkerian graph, Example 4 [Example 2] is ill-formed. The C-C slur marks the intervening G as structurally subordinate, while the G-G slur marks the second C as subordinate. Either slur is possible by itself, but the two are incompatible. In transformational theory, such associations are perfectly permissible; it is up to the analyst to decide when they are meaningful. In this way, at least, the transformational analysis is more flexible and less prescriptive than the Schenkerian; the transformational approach suggests a reading to which a rigidly Schenkerian approach may have blinded us, and is certainly more amendable to the possibility of accommodating multiple interpretations within a single analysis. (Hook 2007, 167)

Example 4. A quasi-Schenkerian reconfiguration of the network in Example 1.



Example 2. Displacement of transformational graph into quasi-Schenkerian graph (Hook 2007, 167)

In the Schenkerian theory, the hierarchy of tones must have a logical consistency; in contrast, the transformational theory does not depend on the hierarchical relationship, that is, the context. This is Hook's third point. The latter stresses not the hierarchical consistency but the meaningfulness that an analyst finds. The statement that the transformational theory accommodates more multiple interpretations can be considered part of the difference in theoretical nature (Hook's first point).

Next, this work focuses on Richard Cohn's article in 1999 and Frank Samarotto's oral presentation in 2003,⁹ as examples of studies that provided a concrete analysis to show the methodological incompatibility of the two theories.

Cohn is a leading figure that has developed Neo-Riemannian theory widely after Lewin had set up transformational theory. He used the first movement of Schubert's piano sonata b-flat major, demonstrated the transformational analysis by a Schenkerian graph, and pointed out its insufficiency, as follows:

... if a Schenkerian model were to label harmonies, it would simply measure distances between roots along a diatonic spectrum. To do so here [in Schubert's sonata] would be problematic, since ... the exposition is diatonically paradoxical. The relatively uninterpreted labels [by Neo-Riemannian theory] liberate the triads from their commitment to a particular diatonic context. (Cohn 1999, 220)

Schenkerian theory is an inappropriate model for the analysis of pieces that contain diatonic contradictions, as it performs the harmony analysis in the diatonic framework. In contrast, the diatonic contextualization is unnecessary in employing the Neo-Riemannian theory. In this sense, Cohn insisted that the latter is suitable for analysing this kind of pieces. Cohn's first point of view is identical with Hook's third point on the 'contextual dependence', which also highlights the difference in the objects to be analysed in both theories, that is, Hook's second point.

Moreover, in the conclusion of his article, Cohn shattered the 'organicist vision' of each layer's (foreground, middle ground, and background) organic coherence in Schenkerian theory:

It is typical of much of Schubert's music that diatonically indeterminate progressions governed by efficient voice leading at the middleground are structurally "sandwiched" in between monotonal prolongations at the background and diatonically based prolongations, cadentially articulated, at the foreground... Such images dissonate with

⁹ The author expresses her appreciation to Professor Frank Samarotto for sending his presentation material.

structural expectations conditioned by the organicist vision of a seamless transition through a series of levels, all unified by a uniform set of principles. (Cohn 1999, 232)

Contrary to organicists who use Schenkerian theory, Cohn, a Neo-Riemannian theorist, does not find any premise in the coherence among hierarchical layers. Such Cohn's attitude is among the characteristics of Neo-Riemannian theory, that is, pieces must not be reduced to coherence. This is Cohn's third point.

Following Cohn's argument in 1998, Schenkerian scholar Samarotto argued that transformational and prolongational approaches are in conflict:

It seems clear that this arises because transformational and prolongational theories exemplify two fundamentally different sorts of generative structures. Transformational theories can be conceptualized as a series of operations applied to *Klänge* that occur successively without *necessarily* being governed by an overall referential *Klang* or tonal center. (Samarotto 2003, 2)

Samarotto's point in his statement above, which is similar to Cohn's third point, is that multiple chords within a piece are not dominated by a single chord; in other words, the transformational theory does not premise the coherence.

Samarotto selected Brahms's pieces to illustrate how transformational process does not reduce pieces to the diatonic whole. Samarotto explained its reason as follows:

First, I would stress that there are more conventional Schenkerian explanations available for these pieces, but the particularly vivid way that these conflicts [among layers] are actualized argues against these; this necessarily a matter of close reading of individual works, and not of *a priori* assumptions about what should happen. ... This is not a matter of finding certain types of chord successions, however well-defined, but of paying careful attention to the context that surrounds them. Thirdly, I think it is certainly valuable to find new ways of discussing the special characteristics of nineteenth century music, but not if it always carries the conceptual baggage of post-tonal theory, as, it seems to me, that Cohn would have it. (Samarotto 2003, 10)

It is possible to apply both Schenkerian and transformational explanation to one piece. However, the conflict between the diatonic model and transformational chords cannot be explained only by the framework of Schenkerian theory. This second point overlaps with Cohn's first issue. However, contrary to Hook's and Cohn's second point, which indicates the difference in analytic objects, Samarotto insisted that the Neo-Riemannian theory can become meaningful in not the post-tonal music but the 19th-century. Samarotto asserted that both theories can deal with the same objects. Moreover, one cannot overlook his third point that accompanies his second point: the application of Neo-Riemannian theory to the 19th-century music does not come into effect as an analytic action that is based on *a priori* assumption, but it is conditioned that the analytic action becomes possible only by considering the context of the relevant piece.

Finally, Samarotto contrasted the Neo-Riemannian heuristic nature with the robustness of Schenkerian theory:

I don't think that we are helped by broad generalizations about brief passages taken out of context. Let us not forget that the robustness of Schenker's theory came from his having spent decades of detailed analysis of the tonal repertoire before venturing the concepts that are landmarks in the history of theory. (Samarotto 2003, 11)

The viewpoint that one cannot generalize the theory, which functions for only particular passages under a certain context, can be considered similar to Hook's first point: the issue on the difference in nature.

2.2. Studies that integrate the methods

Regarding studies that integrate methods of both theories through concrete analyses, the articles of Yosef Goldenberg in 2007, Steven Rings in 2007, and Michael Baker in 2008 were written as a counterargument to Samarotto's case above.¹⁰

First, Goldenberg, who specializes in both Schenkerian and Neo-Riemannian theories, regarded the biggest difference between two theories is the approaches to chromaticism. However, he stated that 'the separation is not absolute' (Goldenberg 2007, 66). Starting from this assumption, he merged Neo-Riemannian transformation and Schenkerian voice leading to the same graph in his analysis, based on approaches of the third relations in both theories. Moreover, he added Neo-Riemannian analysis to Schenker's own analytic graph of the first movement of *Eroica* symphony (Schenker 1935, Fig. 62), and concluded as follows:

Analytical integration of Schenkerian voice-leading procedures and neo-Riemannian operations may be fertile ... However, the shared analytical application does not mean that both tools can be reconciled or integrated into a single theoretical method. (Goldenberg 2007, 84)

Goldenberg distinguished theory from analysis, and warned that although integrating the analytic procedures of both theories is productive, it does not mean the construction of a new theory.

Rings, as a transformational theorist, attempted to integrate transformational and Schenkerian theories consistently within the former framework. Among the pieces he considered is Schubert's No. 2 of *4 Impromptus* D899 E-flat major:

Part III [in the article] then lays the groundwork for a third analytical perspective on Schubert's *Impromptu*, one that integrates neo-Riemannian operations into a more traditional tonal-functional context; the integration occurs within the discourse of

¹⁰ However, Lewin already noted that the network scheme of transformational theory and the graph of Schenkerian theory can be integrated (Lewin 1987, 216–218).

transformation theory, not through a coordination of Schenkerian and neo-Riemannian methods.¹¹ (Rings 2007, 33)

The integration of both theories proposed by Rings was carried out by not competition or collaboration but ‘dialogue’:

The most productive way to understand the relationship between Schenkerian and transformational discourses is thus not through assimilation into a single method, nor through competition, but through *dialogue*. When the two methods are brought into dialogue, a rich picture of the music in question can emerge, as we observe the ways in which the respective analytical discourses interact and diverse. (Rings 2007, 45)

What is the concrete example of this dialogue? Rings’ opinion regarding the analysis of mm.154-169 using each theory, as shown in Figure 1 and Example 3, is as follows:

Particularly striking here is the contrast between the violence of the gesture in the harmonic/key sphere – as modeled in Example 16 [Figure 1] – and its smoothness as regards voice-leading, as sketched in Example 1 and 18 [Example 3]. In general, I find this a productive way to think about the interaction of the two analyzes – the Schenkerian reading providing a detailed account of voice-leading structure, the networked analyses of Part IV [in the article] providing a model of the music’s striking key peripatetics. (Rings 2007, 62)

Example 16. Retransition to the A' section (mm. 154–69)

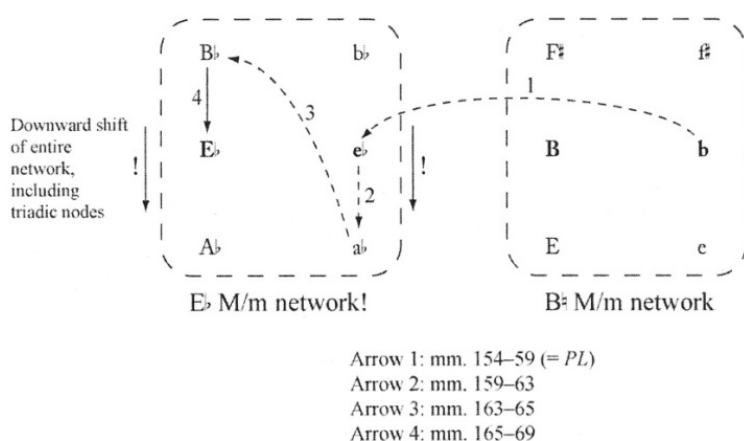


Figure 1. Network analysis of harmony by transformational theory (Rings 2007, 59)

Fgd. keys: Bm E♭m!! E♭M

E♭ Stufen: { bvi♭ (P₄) ii:♯₆ V₇⁹⁻⁸ I }
 { bvi♭ V I }

Example 3 Analysis of voice leading by Schenkerian theory (Rings 2007, 62)

¹¹ Rings warned that the attempt could be ‘a superficial reconciliation of Schenkerian and neo-Riemannian methods’ (Rings 2007, 39n).

That is, only when a ‘contrast’ through the parallel analyses by both theories is revealed, the dialogue can become meaningful. The significance of both theories’ integration depends on the result of analytic interpretations.

One must keep in mind that Rings’ integration is premised on the incompatibility of both theories:

Schenkerian structural readings, with their coordination of harmonic and contrapuntal parameters in a single analytical structure, differ in crucial ways from the esthetic pluralism of Lewin’s approach. ... Underlying the divide is a fundamental difference in understanding of not only the analytical act but also of the nature of musical experience. (Rings 2007, 39n)

The distinction of the structural reading and esthetic pluralism is concerned about the difference of both theories’ nature. Such concern is the same with Hook’s and Samarotto’s first and third points. In other words, Rings attempted to not construct the third new theory but integrate in the form of paralleling both theories.

Moreover, Rings, in his writing in 2006, stated that the interpretation becomes more productive by using various analytic methods in the ‘more pragmatic’ way:

If our aims are instead more pragmatic ... then this methodological diversity becomes not something to bemoan, but something to embrace. I am fully aware that such a conciliatory conclusion will seem disappointingly bland to the dialectician, or to those who relish disciplinary conflict. It nevertheless has one signal virtue: it is interpretively productive. (Rings 2006[2011], 40)

This standpoint overlaps partly with Baker’s approach, which this work examines next.

Contrary to Samarotto, who illustrates the incompatibility of methods of both theories based on Brahms’ pieces, Schenkerian scholar Baker selected Brahms’ vocal piece *In der Fremde*, and tried the synthesis of the two theories. It is carried out by a new concept called ‘common-tone prolongation’:

However, if the emphasis is shifted from successive chord-to-chord connections to associations between a single triad and the harmonies most closely related to it by the three typical Neo-Riemannian transformations [P, R, and L], an interesting synthesis of transformational theories and prolongational theories will arise. The two common tones between a given tonic chord and its relative chord could be harmonically supported by both of these harmonies in a given musical setting. ... Such a musical situation would be strongly analogous to the concept of prolongation, especially the notion that the prolonged entity (in this case the tonic chord) would not be literally present at every moment in a given musical setting, despite the fact that two of its members would be. One might even go so far as to describe this musical effect as “common-tone prolongation.” (Baker 2008, 72)

Here, the prolongation of a single chord, which is an essential feature of Schenkerian theory, is abandoned. This abandonment is compensated by the actual condition in Schenkerian theory in which the prolonged chord is inexistent.

Baker's attempt is the integration by modifying Schenkerian theory and introducing Neo-Riemannian concepts. The integrated theory is the third 'heuristic method', as seen in the following description:

In the present essay, I have argued that there is much to be gained by examining the relationship between the two theoretical approaches, and that the similarities between common tone retention and the notion of prolongation can provide a heuristic method for explanation of music that falls between the cracks of the analytical machinery for each approach when taken individually. (Baker 2008, 81)

Although Rings premised the incompatibility of both theories and pointed out the interpretive productivity by the dialogue of both methods, Baker regarded the heuristic nature of the third method as his findings.

3. Interpretation and Method

This work has examined the arguments on Neo-Riemannian and Schenkerian theories from each standpoint. In conclusion, the issues on the differences in both theories by scholars are summarized as follows:

Hook's first point	difference in the nature of theories
Hook's second point	difference in analytic objects
Hook's third point	whether to premise the hierarchic coherence (context)
Cohn's first point	whether it fits into the diatonic framework
Cohn's second point	difference in analytic objects
Cohn's third point	whether to premise the coherence
Samarotto's first point	whether to premise the coherence
Samarotto's second point	whether it fits into the diatonic framework
Samarotto's third point	difference in the nature of theories
Rings' first point	difference in the nature of theories

Alternatively, the issues raised by Hook, Cohn, Samarotto, and Rings can be summarized into the following four issues:

1. whether the theory premises the coherence
2. whether the theory depends on the (hierarchical or diatonic) context

3. difference in the nature of theories
4. difference in analytic objects

The first, second, and fourth points are concerned about the difference in value judgments as a theory; in contrast, the third point does not compare both theories at the same level and poses the question against comparing them equally. For Hook, the analysis on Schenkerian theory is based on the rigorous guidelines, whereas that on Neo-Riemannian theory lacks such guidelines. For Samarotto, Neo-Riemannian theory is heuristic because it is not based on *a priori* assumptions, whereas the nature of Schenkerian theory is robust because it has been systematized by analysing pieces in a quantitative way. For Rings, the prescriptiveness of Schenkerian theory and esthetic pluralism of Neo-Riemannian theory are fundamentally different, and such difference is highlighted more than the difference as an analytic action. Thus, only the third point is different from the other three in that it can evoke the arguments on the ‘methodology’, such as ‘what is the method of a theory’. Behind such arguments, the lack of methodological robustness of Neo-Riemannian theory as a systematic method seems to be shared among scholars. However, such lack of robustness is covered by the merits of interpretive pluralism and heuristic nature. To sum, the robustness as a method and interpretive diversity are weighed.

If one summarized approaches by scholars that attempt the integration of methods of both theories, Goldenberg employs both analytic tools, keeping the difference of both theories. Nevertheless, his attempt is not identical with the suggestion of a new theory. Rings also attempted the quasi-integration through a dialogue on the methods of both theories while keeping their incompatibility. In contrast, Baker integrated the methods of both theories by modifying Schenkerian theory through the introduction of Neo-Riemannian concepts.

Amid these various methodological models, future studies must look into the arguments on a systematic nature and the possibility for further development as an analytic theory, when one integrates two methods. At the same time, the effect of systematic nature for which various theories, such as Schenkerian theory, has aimed must be reflected and the productive employment of theories in the field of interpretations. Moreover, the whole discipline of music theory requires the merits of accommodating diverse interpretations, meta-level arguments that question the methodological consistency, the construction of a new theory by accumulating various cases, and the refinement of the combined model of theories, through the integrated model of methods. Through those attempts, further activation of arguments beyond a single theory is expected.

References

- Baker, Michael. 2008. “Transformation vs. Prolongation in Brahms’s “*In der Fremde*,”” *College Music Symposium* 48, 69-82.
- Christensen, Thomas. 2002. “Introduction,” *The Cambridge History of Western Music Theory*. Edited by T. Christensen. Cambridge University Press, 1-23.
- Cohn, Richard. 1996. “Maximally Smooth Cycles, Hexatonic Systems, and the Analysis of Late-Romantic Triadic Progressions,” *Music Analysis* 15/1, 9-40.

- 1998. "Introduction to Neo-Riemannian Theory: A Survey and a Historical Perspective," *Journal of Music Theory* 42/2, 167-180.
- 1999. "As Wonderful as Star Clusters: Instruments for Gazing at Tonality in Schubert," *19th Century Music* 22, 213-232.
- Darcy, Warren. 2005. "Die Zeit ist da': Rotational Form and Hexatonic Magic in Act 2, Scene 1 of *Parsifal*." *A Companion to Wagner's "Parsifal"*. Edited by W. Kinderman and K. R. Syer. Camden House, 215-241.
- Goldenberg, Yosef. 2007. "Schenkerian Voice-Leading and Neo-Riemannian Operations: Analytical Integration without Theoretical Reconciliation," *Journal of Schenkerian Studies* 2, 65-84.
- Hook, Julian. 2002. "Uniform Triadic Transformations," *Journal of Music Theory* 46, 57-126.
- 2007. "David Lewin and the Complexity of the Beautiful," *Intégral* 21, 155-190.
- Hyer, Brian. 1995. "Reimag(in)ing Riemann," *Journal of Music Theory* 39, 101-138.
- Klumpenhouwer, Henry. 1994. "Some Remarks on the Use of Riemann Transformations," *Music Theory Online* 0(9).
- 2002. "Dualist Tonal Space and Transformation in Nineteenth-Century." *The Cambridge History of Western Music Theory*. Edited by T. Christensen. Cambridge University Press, 456-476.
- Kopp, David. 2002. *Chromatic Transformations in Nineteenth-Century Music*. Cambridge Study in Music Theory and Analysis. Cambridge University Press.
- Lewin, David. 1987. *Generalized Musical Intervals and Transformations*. Yale University Press.
- 1993. *Musical Form and Transformation: 4 Analytic Essays*. Yale University Press.
- Mason, Laura Felicity. 2013. *Essential Neo-Riemannian Theory for Today's Musician*. Master's Thesis, University of Tennessee.
- McCreless, Patrick. 1998. "Music Theory as Community: A Perspective from the Late 90's," *Music Theory Online* 4/2.
- Nolan, Catherine. 2002. "Music Theory and Mathematics." *The Cambridge History of Western Music Theory*. Edited by T. Christensen. Cambridge University Press, 272-304.
- Rahn, John. 1980. "New Research Paradigms," *Music Theory Spectrum* 11/1, 84-94.
- Riemann, Hugo. 1880. "Systematik der Harmonieschritte." *Skizze einer neuen Methode der Harmonielehre*. Breitkopf und Härtel, 124-137 (Translated by N. Engebretsen in "Neo-Riemannian Perspectives on the Harmonieschritte, with a Translation of Riemann's "Systematik der Harmonieschritte," *The Oxford Handbook of Neo-Riemannian Music Theories*, 2011, 351-381).
- 1916. "Ideen zu einer 'Lehre von den Tonvorstellungen,'" *Jahrbuch der Musikbibliothek der Peters* 21-22 (1914-1915), 1-26 (Translated by R.W. Wason and E.W. Marvin in "Riemann's "Ideen zu Einer 'Lehre von den Tonvorstellungen'": An Annotated Translation," *Journal of Music Theory* 36/1, 1992, 69-117).
- Rings, Steven. 2006. *Tonality and Transformation*. Ph.D. dissertation, Yale University. Also published from Oxford University Press, 2011.
- 2007. "Perspectives on Tonality and Transformation in Schubert's Impromptu in E-flat, D.899," *Journal of Schenkerian Studies* 2, 33-63.

Samarotto, Frank. 2003. "Treading the Limits of Tonal Coherence: Transformation vs. Prolongation in Selected Works of Brahms," Paper presented at the annual meeting of the Society for Music Theory, Madison.

Schenker, Heinrich. 1935. *Der freie Satz*. Vienna: Universal Edition.

1998. *Journal of Music Theory* 42/2 (Neo-Riemannian Theory).

2007. *Journal of Schenkerian Studies* 2 (Special Volume on Schenkerian and Neo-Riemannian Methodologies).

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