О восприятии научных идей С. И. Танеева в западноевропейском музыковедении

Аннотация
Музыковедам Западной Европы имя Сергея Танеева известно не очень хорошо. Среди небольших исследований его теоретических трудов можно упомянуть статью Аллена Форта в Новом музыкальном словаре Гроува (1982) и обзор Эллон Карпентер в альманахе «Русская музыкально-теоретическая мысль» (1983), а также раздел «Теория музыки и математика», написанный Кэтрин Нолен для серии «История западноевропейской теории музыки в трудах Кембриджского университета» (2002). Между тем монография о Танееве на английском языке пока ещё ждёт своей публикации. В данной статье рассматривается вопрос о том, почему танеевская теория контрапункта «не дошла» до Западной Европы. Впервые опубликованный в 1909 году, его трактат «Подвижной контрапункт», значительно опередив процесс развития сходных идей за пределами России, стал первой чисто-теоретической попыткой изучения приёмов полифонического письма, понятных лишь посвящённым. Статья ставит следующие основные вопросы: какова научная ценность этого трактата сегодня и каким образом идеи, изложенные в этом труде Танеева, могли бы получить дальнейшее развитие, для того чтобы улучшить и углубить наше понимание контрапунктической техники?

Ключевые слова
«Подвижной контрапункт», Дэйвид Льюин, обобщённая теория музыкальных интервалов и их трансформаций, музыка и математика, полифония, трансформационная теория, Уильям Бёрд

The Western Reception of Sergei Taneyev

Abstract
Sergei Taneyev is not a common name in Western musicology. Short studies of his theoretical writings include Allen Forte’s critical review of New Grove (1982), Ellon Carpenter’s survey in Russian Theoretical Thought in Music (1983), and Catherine Nolan’s chapter ‘Music Theory and Mathematics’ from The Cambridge History of Western Music Theory (2002). However, an English-language monograph on Taneyev has yet to be published. This paper focuses on the missed opportunity of Taneyev’s contrapuntal theory within the theory of Western music. First published in 1909, his ‘Moveable Counterpoint’ treatise pioneered a rigorously theoretical approach to the study of an esoteric contrapuntal device, which substantially precedes parallel thought outside of Russia. I address the following questions: what is the value of this treatise today? And how might Taneyev’s work be developed to heighten our awareness of contrapuntal procedures?

Keywords
‘Convertible counterpoint’, David Lewin, Generalized Musical Intervals and Transformations, music and mathematics, polyphony, transformation theory, William Byrd
The translation of Convertible Counterpoint was published by Bruce Humphries in Boston, which, with hindsight, did not afford it the necessary profile and international dissemination required for it to make a noteworthy impact in musicology or music theory. Though Bruce Humphries Publishing operated for over a century, between 1900 and 2008, it

---

1 My paper, ‘Fugal perspectives on Shostakovich’, examined Shostakovich’s op. 87 Preludes and Fugues — particularly the challenges of counterpoint post-tonality.

2 Throughout this article, this book is referred to as Convertible Counterpoint, while the correct translation of ‘Moveable Counterpoint’ is used to describe Taneyev’s process.

3 This article focuses on the most substantial of Sergei Taneyev’s theoretical publications: see [19]. Even less attention has been afforded to his posthumous ‘Uchenie o kanone’ (Doctrine of the Canon), compiled by Viktor Beliaev (1929), and which has been translated into English in a doctoral dissertation: see [9].

4 Despite Walter Piston’s glowing remarks, he would have likely wanted (understandably) to push for the success and dissemination of his own Counterpoint textbook.
was most active from 1930–1970 and, therefore, considerably slowed its activity soon after Convertible Counterpoint was published.5 Crucially, it was not a specialist publisher in musicology.6

More familiar twentieth-century theoretical texts in English include: articles on set theory, which appear readily in leading academic periodicals; Allen Forte’s The Structure of Atonal Music, which enjoys reprinting by Yale University Press; Heinrich Schenker’s Masterwork in Music is published by University of Cambridge Press and correspondences in Schenker Documents Online; and recent theories by Richard Cohn and Dmitri Tymoczko are published by Oxford University Press. The translation of Convertible Counterpoint is out of print, and has not enjoyed multiple editions. I suspect that the first edition was not successful enough to warrant a reprint in the 1960s, although this may be attributed to the slower publication activity of Bruce Humphries post-1970.

The 1962 translation is deficient in several areas. There are numerous awkward or misleading translations, including the title itself, and such awkward phrases as the following:

While in multi-voice counterpoint the fourth may be released from the limitations of a dissonance, thereby is imposed a new limitation on the ninth resolving to the octave; it should not form a dissonance with an inner voice — only the bass [20, 61].

It does not take a bilinguist to suspect that there may be a more eloquent way of translating this passage. Moreover, the production of the edition is lacking. It does not include the pedagogical slide device of the original, which is a useful tool for practising moveable counterpoint. Nor is there an index of musical examples, which is only found in the original Russian version. In the text, composers’ names appear next to each example, but not the titles of compositions, discouraging further investigation and research. There are only three ways one may find the precise piece by an example labelled as ‘Palestrina’: one is familiar with it already; one consults the index from the Russian version; or one laboriously pours through a Palestrina complete edition, searching for the corresponding musical phrase. The translation is unnecessarily challenging to follow and to contextualise.

A further aspect to the Taneyev reception problem is a lack of understanding of the term ‘Moveable Counterpoint’, and its relevance to contrapuntal practice. Originally translated by Brower as ‘Convertible’ (but the Russian word Подвижной is more faithfully translated as ‘Moveable’), it refers to the advanced contrapuntal process of double imitation. Without a grasp of its importance to many of the great polyphonic compositions, there is no incentive to seek out Taneyev’s treatise. However, many works by Palestrina and his contemporaries use it extensively. This needs to be clarified in any retranslation, by an extensive, clear introduction and commentary. Though Taneyev assumes that the reader is familiar with his taxonomy, the English-language translator should not.

At the time of publication in 1962, Schenkerian theory was gaining a notable following in the English language: Felix Salzer’s Structural Hearing [16] had been available for a decade, while The Mannes School had been advocating his work since the 1930s. Milton Babbitt’s texts on Twelve-Tone Theory were beginning to achieve popularity, and were to be championed further through the journal Perspectives of New Music, which, by coincidence, was founded in 1962: the same year as Convertible Counterpoint. Therefore, the translation was released when the primary theoretical interests in the English-speaking community were

5 Only eleven books were published outside of this period.
atonal music and hierarchical tonal structure. Schenkerian voice-leading was sufficient for the main body of tonal repertoire, while set theory offered an analytical route to discussing the growing body of atonal music.

There is no Anglo-American pedagogical heritage, by comparison with the rich lineage of Taneyev to Rachmaninoff, Scriabin and Stravinsky.\(^7\) In Russia, there appears to be not only a Taneyev theory but also a Taneyev practice, both descriptively and prescriptively. Indeed, the teacher-pupil relationship is particularly strong, as observed by Ernst Ansermet, ‘The teaching of composition in Russia, as far as I can gather from what Stravinsky received from Rimsky-Korsakov, is much more in the spirit of Medieval guild apprenticeship than our own generally academic instruction’ [8, 191]. In this regard, it is notable that *Convertible Counterpoint* is described as a composition theory, rather than a music theory, reinforcing its supposed identity as a practical treatise, notwithstanding its often speculative content.

The existing studies of Taneyev in the English language include David Brown’s *New Grove* entry (which is significant, given the lack of information on Taneyev in the English language) [2], a review of the translation by Gerald Abraham [1], a brief mention from Catherine Nolan in the ‘Music and Mathematics’ chapter of the *Cambridge Companion to Western Music Theory* [4] (but significantly not in Peter Schubert’s chapter on Renaissance theory in the same volume [17]), a scholarly bibliographic entry in David Damschroder’s *Music Theory from Zarlino to Schenker* [5], two articles published 100 years after Taneyev’s birth by Weinberg [21] and Hartmann [7], and other small articles with limited dissemination. Gordon McQuere’s commendable collection of essays under the title of ‘Russian Theoretical Thought’ (1983) [13] opened the gate for a new generation of scholars to engage with the potentials of Russian musical systems. It included, moreover, a chapter on Taneyev by Ellon Carpenter [3] (indebted to her vastly comprehensive doctoral dissertation). However, the book has proven to be a false dawn, and remarkably few publications regarding *Convertible Counterpoint* have since appeared, particularly in major music theory periodicals, with the few that do mostly presenting an overview of a few basic terms and lamenting the demise of such an important work of theory.

The articles by Abraham and Brown are negative in tone, and as they have appeared in prominent sources — *The Musical Times* and *New Grove*, — they have built a significant barrier to Taneyev scholarship.\(^8\) Further damage was caused by Abraham, not only in his explicit criticisms but also by the manner with which he omitted Taneyev from his monographs on Russian music.\(^9\) Taneyev receives a double assault: Abraham attacks his music theory the conventional character and inequality of his musical invention causes the achievement to fall short of the intent. Taneyev had none of Tchaikovsky’s gift for full-blooded melody, and his lyrical passages sound like his master’s at their weakest; nor had he any trace of Mussorgsky’s ability to capture a character or action within an unforgettable musical invention.

---

\(^7\) One may argue that British heritage is indeed rich, with nineteenth- and early-twentieth-century theorists such as Ebenezer Prout, Alfred Day and Frederick Ouseley. However, I think it is fair to argue that there is not a lineage of their practice or championing by major British composers, by comparison with Rachmaninoff, Scriabin and Stravinsky.

\(^8\) It is noteworthy that Allen Forte, one of the champions of neglected music theories, shares my criticism of Brown’s Taneyev article in the *New Grove*. See [6].

This comment is unnecessary; articles in *New Grove* are rarely aesthetically critical. Surely, this relates to Brown’s subjective experience of Taneyev’s music, rather than a judgement worthy of a reference article. As the *New Grove* article is prominent, given the scarcity of other literature on Taneyev, this account is particularly influential.

**Part 2: Future Trajectories**

Despite the obstacles presented to Taneyev’s theory in the West, there is much potential in his work. Firstly, there is an opportunity to apply moveable counterpoint to new repertoire; impressive as his knowledge was of polyphony, it was far from exhaustive. Many polyphonic works either have been unearthed since 1909 or have become more widely available in modern editions. Secondly, both the mathematical and conceptual basis of his work lends itself to further theoretical development, particularly in the light of more recent North American theories such as David Lewin’s *Generalized Musical Intervals and Transformations*[^10] (1987) [11].

*Convertible Counterpoint* contains examples by 27 composers, including many from the Renaissance with only limited dissemination at the turn of the twentieth century. While Palestrina is the most oft-cited, Taneyev shows an awareness of Franco-Flemish, Austro-German, Italian and Spanish polyphonists, including composers who remain unfamiliar today, such as the German organist Gregor Meyer. There are clues to Taneyev’s source material: the spelling of Hobrecht, known today as Obrecht, implies that Taneyev used either an early edition or a facsimile. The composers are, in the main, split evenly throughout the sixteenth and seventeenth centuries, shown in table 1, followed by table 2, which categorises them by nationality.

---

[^10]: Hereafter abbreviated as GMIT.

---

**Table 1: Composers referenced in *Convertible Counterpoint*.**

<table>
<thead>
<tr>
<th>Born before 1500</th>
<th>Born 1500–1650</th>
<th>Born 1650–1750</th>
<th>Born 1750–1900</th>
</tr>
</thead>
<tbody>
<tr>
<td>Henricus Isaak (1450/55–1517)</td>
<td>Nicola Vicentino (1511–1576)</td>
<td></td>
<td>François-Joseph Fétis (1784–1871)</td>
</tr>
<tr>
<td>Josquin des Prez (1450/55–1521)</td>
<td>Gioseffo Zarlino (1517–1590)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pierre de la Rue (1452–1518)</td>
<td>Giovanni Pierluigi da Palestrina (1525–1594)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jacob Hobrecht [known today as Obrecht] (1457/8–1505)</td>
<td>Orlande de Lassus (1530–1594)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mabrianus de Orto (1460–1529)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elzear Genet Carpentras (1470–1548)</td>
<td>Gregor Meyer (d. 1576)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pierre Moulu (c. 1484–1550)</td>
<td>Luigi Battifero (c. 1600/1610–1682)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ludwig Senfl (1486–1543)</td>
<td>Angelo Berardi (c. 1636–1694)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adrian Willaert (1490–1562)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benedict Ducis (1492–1544)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11
Table 2: Composers by Nationality

<table>
<thead>
<tr>
<th>Authro-German</th>
<th>Franco-Flemish</th>
<th>French</th>
<th>Italian</th>
<th>Spanish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Johann Sebastian Bach</td>
<td>Henricus Isaak</td>
<td>Elzeear Genet Carpentras</td>
<td>Luigi Batifféro</td>
<td>Bartolomé de Escobedo</td>
</tr>
<tr>
<td>Ludwig van Beethoven</td>
<td>Orlande de Lassus</td>
<td>Loyset Compère</td>
<td>Angelo Berardi</td>
<td>Cristóbal de Morales</td>
</tr>
<tr>
<td>Benedict Ducis</td>
<td>Jacob Obrecht</td>
<td>François-Joseph Fétis</td>
<td>Giovanni Pierluigi da Palestrina</td>
<td></td>
</tr>
<tr>
<td>Heinrich Finck</td>
<td>Mabrianus de Orto</td>
<td>Pierre Moulu</td>
<td>Nicola Vicentino</td>
<td></td>
</tr>
<tr>
<td>Johann Philipp Kirnberger</td>
<td>Josquin des Prez</td>
<td></td>
<td>Giosseffo Zarlino</td>
<td></td>
</tr>
<tr>
<td>Gregor Meyer</td>
<td>Pierre de la Rue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wolfgang Amadeus Mozart</td>
<td>Adrian Willaert</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ludwig Senfl</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 has a prominent omission: there are no works by British polyphonists. This is all the more surprising given the tendency for one of the leading British composers of his day — William Byrd — to use moveable counterpoint. Below is the opening of his *Libera me Domine, et pone me* [Deliver me, O Lord, and place me by Thy side] from *Cantiones Sacrae* (1575). The first pair of voices, between tenor and baritone, is separated by two minims. When this pair is imitated in bars three and four, they become separated by four minims — a process described by Taneyev’s index of horizontally shifting counterpoint [20, 221]. The entry of the bass in bar seven then forms both a horizontal and vertical transformation of the opening material.

It is probable that Taneyev did not have access to manuscripts from the British Renaissance, judging by the frequent use of moveable counterpoint in the music of Byrd. There are more composers omitted from *Convertible Counterpoint*, such as Carlo Gesualdo, Tomás Luis de Victoria, Alonso Lobo, Alfonso Ferrabosco (who had a noted influence on Byrd), Sebastián de Vivanco, Francisco Guerrero and Cipriano de Rore, all of whom may be studied for their moveable counterpoint techniques. Had Taneyev had access to the repertoire we have today, he would surely have included it in his work for further contextualisation. Hence the most immediate possibilities for Taneyev’s work lie in the analysis of this absent repertoire.

*Libera me Domine, et pone me*

William Byrd (c. 1540-1623)

\[
(I_v = -7 + II_v = 7) \quad I_v = 0 \\
(I_h = 0 + II_h = -7) \quad I_h = -7
\]
Taneyev and Lewin

The second strand for the development of Taneyev scholarship relates it to transformation theory, defined by David Lewin’s GMIT [11] and practiced in Musical Form and Transformation: Four Analytical Essays [12]. These texts analyse music from J. S. Bach to Babbitt and Carter, with a bias towards twentieth-century repertoire. There is an opportunity, therefore, to apply some of the concepts of transformation theory to earlier processes, particularly the moveable counterpoint technique of Palestrina and his contemporaries described by Taneyev.

Taneyev and Lewin similarly aspired to mathematically-viable music theory. Taneyev highlights his aims in the opening quotation to Convertible Counterpoint:

No field of human research can claim to be considered a true science unless it is mathematically verifiable. (Leonardo da Vinci)

Taneyev was, perhaps, the first theorist to assign cardinal values to intervals, such that unison = 0, second = 1 and so forth. It enabled the application of arithmetic and simple formulae to be performed on intervals. A similar notion was subsequently described by Babbitt and Forte as interval class and studied extensively in musical set theory. Taneyev and Lewin both generalize interval space and its possible transformations, although it is noteworthy that Taneyev works exclusively with diatonic or modal repertoire. His numerical system applies to pitches within a scale or mode, rather than fully chromatic space; in other words, the interval ‘1’ could represent a major or a minor second, depending on its context.

Crucially, the two pillars of Taneyev’s theory relate directly to transformation theory: indexes of vertical and horizontal shifts, represented as:

\[ m + Iv = n \]  \hspace{1cm} \[ a + Ih = b \]

Where:

\( m \) = original interval  \hspace{1cm} \( a \) = original distance

\( n \) = derivative interval  \hspace{1cm} \( b \) = derivative distance

\( Iv \) = index of vertically shifting counterpoint  \hspace{1cm} \( Ih \) = index of horizontally shifting counterpoint

These formulae provide transformational indexes which may be applied to whole sections of counterpoint. In example 2, they expressed a horizontal shift between the two voice parts by seven crotchet beats. Iv applies to intervals of pitch, Ih applies to intervals of rhythm.

Lewin uses the following simple diagram to introduce and summarise the premise of transformation theory. It ‘shows two points in a symbolic musical space. The arrow marked i symbolizes a characteristic directed measurement, distance, or motion from s to t.’

![Example 3: Transformation theory diagram by Lewin [11, xxix].](image)

---

11 There are many other authors who have furthered transformation theory, such as Julian Hook, Richard Cohn, David Kopp and Edward Golln. However, this article focuses solely on Lewin’s work, as his ideas are broadest in scope.
Lewin uses these axioms to introduce six examples of pitch transformation and six examples of rhythmic transformation. This bipartite division parallels Taneyev’s division of shifts by interval and meter. Lewin provides the first pitch example as follows:

2.1.1 EXAMPLE: The musical space is a diatonic gamut of pitches arranged in scalar order. Given pitches s and t, \( \text{int}(s, t) \) is the number of scale steps one must move in an upwards-oriented sense to get from s to t. Thus \( \text{int}(C4, C4) = 0 \), \( \text{int}(C4, E4) = 2 \), and \( \text{int}(C4, C5) = 7 \).

Using these measurements, if we take 2 steps up (e.g. from C4 to E4) and then take 2 more steps up (in this case, from E4 to G4), we have taken 4 steps up in all (in this case, from C4 to G4). Symbolically, \( \text{int}(C4, E4) = 2 \), \( \text{int}(E4, G4) = 2 \), \( \text{int}(C4, G4) = 4 \), and \( 2 + 2 = 4 \). The intervallic measurements of the model thus interact effectively with ordinary arithmetic. This obviates a defect in the traditional measurements which tell us, for example, that a “3rd” and another “3rd” compose to form a “5th.” (3 + 3 = 5 ???) [11, 16–17].

Parallels with Taneyev may be drawn against this discussion of interval class and the transformation of interval from s to t: two variables Taneyev describes as original and derivative. Identically to Taneyev, Lewin uses a negative sign for an inverse transformation.

Lewin’s first example for rhythmic transformation is:

2.2.1 EXAMPLE: The musical space is a succession of time points pulsing at regular temporal distances one time unit apart. Given time points s and t, \( \text{int}(s, t) \) is the number of temporal units by which t is later than s. ( -x units is x units earlier) [11, 22–23].

In the previous example, exploring a horizontal shift in Byrd’s Haec Dies, the horizontal shift between bars 1–5 and 8–12 was described as \( (I^\text{h} = 0 + II^\text{h} = -7) \). We could similarly describe it using GMIT:

\[
\begin{align*}
\text{Int} (s, t) &= i \\
\text{Int} (0, -7) &= -7
\end{align*}
\]

This material is further combined into larger structures, described by Lewin as Generalized Interval Systems (GIS), which incorporate arrays of original and derivative components. These may be applied to phrases of counterpoint, rather than individual intervals and their transformations, which parallels Taneyev’s indexes for vertical and horizontal shifting counterpoint.

Perhaps one of the shortcomings of Taneyev’s treatise is the lack of overall prescription. Though one may measure the indexes for each contrapuntal transformation, the analyst (or composer) nonetheless needs to test each interval to examine whether or not it creates an acceptable consonance or dissonance. Perhaps through further generalization, it will become possible to state that certain melodies, measured by parameters, may automatically be capable of an array of transformations.12 This could be the final goal of moveable counterpoint.

Conclusions

Despite the reasons presented in this paper for the lack of awareness of Taneyev in the West, there remain many unanswered questions. Why was the English translation made? Was it a labour of love? Why was such a small publisher used? Why are there many missing elements, such as the full index and slide device? To increase interest in his work, further practical clarification is required, regarding the prescriptive and descriptive facets of ‘Moveable Counterpoint’. Is this a textbook for the classroom? And if so, does it fit comfortably into the

---

12 A computational model of species counterpoint is introduced in [10].
Western syllabus generally referred to as ‘techniques of composition’, or is it more appropriately placed within the study of the history of music theory, or perhaps of free composition?

In concept, Taneyev’s ‘Moveable Counterpoint’ is alive in the English-speaking world, but with other titles. It has come instead to be known as double imitation and recombinant melody, which, while highly insightful, misses the opportunities of Taneyev’s vigorously systematic approach. The possibilities for the extension and development of moveable counterpoint presented here merely scratch the surface of potential innovations in polyphonic music theory, and an extended publication is in progress.

In Anglo-American theory, interest in tonal counterpoint processes has been increasing, exemplified by the studies of Jessie Ann Owens [15], Peter Schubert [17] and John Milsom [14]. Schubert’s ‘modular analysis’ bears a close affinity with Taneyev’s moveable counterpoint, as theorised in his article ‘Hidden Forms in Palestrina’s First Book of Four-Voice Motets’ [18]. I do not believe that Schubert was necessarily aware of Taneyev’s work, but the similarities are remarkable. Example 4 shows Schubert’s analysis of Palestrina’s ‘Loquebantur’. His identification of modules, using the notation i and ii, is synonymous with double imitation and moveable counterpoint operations. Moreover, Schubert analyses each interval created by the module, which is both rigorously systematic and draws further parallels with Taneyev. The one exception is the numbering of intervals: by Schubert’s method, a third is described as 3 — in Taneyev, it is described as 2.


Perhaps Taneyev’s algebra is too simple. It is off-putting for musicologists without any desire to introduce mathematics to the study of music, and yet not complex enough to attract committed musician-mathematicians. It falls into an uncomfortable grey area of music theory and arithmetic. GMIT is far more scientifically and mathematically complicated, and yet has attracted a far greater and enduring following.

Systematic theories of Renaissance counterpoint have emerged more recently than other repertoires, lagging behind the surge of performance interest generated by the mid-twentieth-century Early Music Revival, and well after the Taneyev translation had gone out of print and moved into obscurity. One may argue, therefore, that the Anglo-American environment of music theory is ripe for a reintroduction of Taneyev’s ‘Moveable Counterpoint’, with relevance to both early-music enthusiasts and music theorists. If music theory can find a warm home for neo-Riemann, perhaps could it also welcome a neo-Taneyev?

Such methodological similarities are perhaps not unsurprising, however, given the frequency with which double imitation is found in Palestrina’s music.
Литература