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ALTERNATIVE NEO-RIEMANNIAN APPROACHES TO CARL NIELSEN

By Svend Hvidtfelt Nielsen

Riemannian and other Theories

Nielsen's music has shown itself capable of delivering interesting results to a variety of analytical approaches ranging from Schenkerian analysis (Fanning, 1997, Reynolds 2010) to investigations into 'directed' (Simpson, 1952) or 'paired' tonality (Krebs, 1994, Devoto, 1994). Only to a very small extent has Riemannian analysis been applied (Fjeldsøe, 1999, 153-57), which might seem strange in the light of Nielsen's prevailing use of tonal harmony[1].

The reason may be that Riemannian theory has been given only little – if any – attention outside Germany and Scandinavia until recently. To be sure, the neo-Riemannian transformation theory (Lewin, 1982, Hyer, 1995 and Cohn, 1996, 1999) has revived some of Riemann's concepts and it has become an essential part of contemporary analytical theory. But when it comes to the central aspect of the relation of chords to an operating tonic, the transformation theory is just as remote from traditional Riemannian theory as is Schenkerian analysis (Schenker 1979, Salzer 1952, Forte, 1982) in its evaluation of harmonic foreground progressions.

The neo-Riemannian theories of Lewin, Hyer and Cohn are however not the only attempts to rethink the Riemann legacy. Two Danish scholars and composers, Jörgen Jersild (1970, 1985, 1989) and Jan Maegaard (1981, 1989) have offered new methods of performing harmonic analysis more or less directly based on Riemann's theories. They thus both offer an alternative, Danish, neo-Riemannian approach to harmony, both dealing mainly with the chromaticism and major/minor flux of the music of the romantic era, that is, the music that constitutes the harmonic environment of Nielsen's upbringing.

These theories, starting with Jersild, 1970, have been developed within the same twenty years that brought about the axis-theory (Lendvai 1971), Lewin's first

1 This is not to say, that harmonic analysis has not been applied to Nielsen's music. See for example the many thorough analyses in Reynolds, 2010 (references refer to the bibliography at the end of the present article).

articles on transformation theory, the theories of tonal pairing (Krebs 1981, Bailey 1985) and Stein's Wolf-analyses (1985). As the Danish contributions have, to my knowledge, never been translated to either English or German, they have obviously had no impact on Anglo-American – or even Hungarian – theory. Nevertheless, in their approach to harmony they also address axis-theory, transformation theory, the concept of tonal pairing and the analyses of Stein. In its focus on long range progressions, Jersild's theory somehow even seems to parallel Schenkerian analysis. I shall investigate the differences between the analytical results given by Schenkerian and Jersildian analyses of the same piece of music at some length.

Among the many possible aspects of Nielsen's music, in the following the focus will lie mainly on harmonic foreground progressions. Through the theories of Jersild and Maegaard I shall try to show how Nielsen uses and enriches his romantic harmonic heritage, how it is a backbone and a constitutional factor of the tonal harmony that pervades even his later music, and how he bends it into his own extremely personal harmonic language.

To do so, I shall introduce the theories of Jersild and Maegaard one by one, exemplifying them through Nielsen's use of chromaticism, modal mixture, tonal pairing and third relations. This will be done in the context of the above mentioned Hungarian and Anglo-American theories.

As Nielsen's music hardly ever ceases to be tonal or to relate to traditional tonality, the theories of Jersild and Maegaard, originally developed to cope with the harmonic progressions of the music of the romantic era, show themselves also apt to characterize some of Nielsen's later works. In fact, it is precisely their ability to pin-point traditional tonal progressions which makes them well suited to show how Nielsen's late music relates to and transforms such progressions.

As an example of a late Nielsen work, I have chosen the theme of opus 40. This will show not only how the tonal language of the mature composer is related to that of his predecessors, but also how Nielsen is able to present complexity in a simplistic fashion, and how a foreground harmonic progression can alter the evaluation of an apparently obvious middleground harmonic structure.

Jörgen Jersild: 12-Position-Theory – a brief survey

Jörgen Jersild (1913-2004) was active both as a composer, scholar and as a professor at the Royal Danish Music Conservatorium. Besides his theoretical studies he was also the author of pedagogical books for ear training and rhythm training. As a composer he was heavily inspired by French music. So it should come as no surprise that his rethinking of the traditional Riemannian function theory came about as way to respond to the harmonic world of a French composer, Cesar Franck. Over a period of

twenty years he published three short books[2] in which he presented and developed his so called 12-position-theory and a harmonic approach to sequence-structures.

Like Lewin and Hyer, Jersild maintains some elements of Riemannian theory while abolishing others. Jersild maintains that any note is heard as representative of a major or minor chord within with the notion of chord progressions understood in their relation to an operating tonic described through the letters T,S and D, plus the possibility of obtaining modulation as a result of reinterpretation (Riemann, 1898, 523). But he abolishes Riemann's dualistic view on harmony and the usual division of the scale into three main chords, T-S-D, and three representatives of these chords, Tp-Sp-Dp[3]. Instead Jersild regards the scale as a collection of fixed positions relative to the tonic. And as Jersild's initial object is the late romantic music of Franck, he develops his system to analyze harmonic progressions of music in constant flux between major and minor. That is, the position system relates in principal to the entire chromatic scale. As the positions depend on cadences in relation to the tonic, Jersild sets up the chromatic scale as a series of falling fifths with the tonic in the centre (see *Fig. 1*).

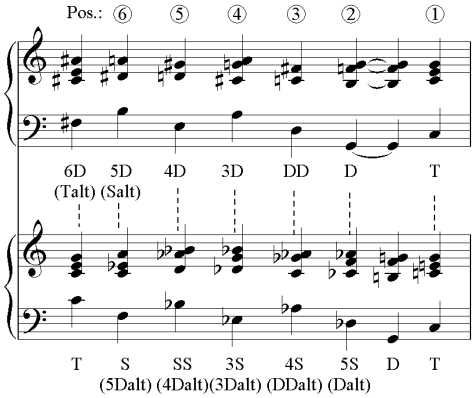


Fig. 1[4]

2 The first of these (1970) presents the position-theory, the second (1982, 1985) describes all traditional tonal sequences and the third (1989) brings the two subjects together, showing how tonal music is explainable as a mixture of function harmony and sequences.

3 Actually Tp, Sp and Dp are not totally banished from his theory. It's just very seldom that they are regarded as relevant descriptions of harmonic events.

4 Jersild, 1970, 44. The designation used in the example for DDD (3D) and SSS (3S) is adopted from Jersild 1989, 8, except that Jersild proposes 2D for DD, but as the chord has a far more central position than other chords of multiple D's, I prefer the separate naming of 'DD'.

The falling fifths from raised scale degree 4 down to scale degree 1 represents a pile of dominants (the D-pile) approaching the tonic. The closer a chord is to the tonic (from left to right), the lower is its position.[5]

The falling fifths from natural scale degree 4 down to lowered scale degree 2 then represents a pile of subdominants (the S-pile), in principle moving away from the tonic (although in *Fig. 1* ending in a cadence to T).

Fig. 1 shows this arrangement of the chromatic scale in piles of fifths. The circled numbers on top of the upper system designate the relative positions. These positions are valid for both systems, which is what the dotted lines are meant to indicate. T is 1. position, the dominant of T 2. position, the dominant's dominant (DD) 3. position, the dominant's dominant's dominant (3D) 4. position and so forth.

According to Jersild, the highest position obtainable is 6.[6], not 7., as 7. with the root on ♯IV would transcend the diatonic scale. This arrangement of chromatic pitch space makes the dominant pile consist mainly of the notes from the major scale while most of notes from the S-pile belong to the minor scale. An essential element in the theory is that any chord can be represented by its tritone substitution. This is indicated by the suffix 'alt'.[7] As it turns out that the only tritone substituted subdominant frequently used in romantic music is Salt[8], we will however only seldom meet SSalt, 3Salt and so forth. Likewise with the lower part of the S-pile from 3S and onwards: only seldom – if ever – will these terms appear in a harmonic analysis. They are only apt to appear in relation to sequences of falling fifths starting from the tonic.[9] Most often they will be termed tritone substituted dominants, 4Dalt, 3Dalt and so on, as indicated in parentheses underneath the signs of the S-pile, *Fig. 1*.

As a consequence of this listing of chords and functions, III, VI and VII inhabit different positions in minor and major. In major III, VI and VII will belong to 5., 4. and 6. respectively, while in the minor they will belong to 4., 3. and 5.

Fig. 1 shows only tritone related chords as belonging to the same position. But other chords can belong to the same position as well. The subdominant, for example

5 In spite of what he shows in *Fig. 1*, Jersild would normally describe Dalt or 5S as belonging to 3. position, the position of the predominant chords.

6 Positions are from now on written as underscored numbers. A dot after a number is the Danish way of indicating that it is an ordinal number (1st, 2nd, 3rd).

7 Although the 'alt'-chord often would be identical to the so called 'augmented sixth chord', Jersild's use of tritone substitution goes further than just dominant seventh chords: All chords, including triads, minor as well as major, can be tritone substituted in this theory.

8 For the use of Salt in mediant progressions in Schumann's songs see Hvidtfelt Nielsen, 2008.

9 And even then, some of the later subdominants will still tend to be interpreted as tritone substituted dominants when approaching a cadence.

is obviously also capable of functioning as a predominant, the chords of 3.[10]. And according to Jersild's use of tritone substitutions so also Salt, the tritone substitution of S, is a possible member of this position. Jersild explains:

Chords which over a *regular cadence* have 'equally long way home' are placed in the same *position category*. The basic pattern of the *regular cadence* consists of a chord sequence whose fundamentals are analogous to a row of descending *pure* fifths; tonic, T, correspond to first position category, D the second, the dominants dominant, DD, to the third, the dominant of DD correspond to the fourth position etc.[11]

In *Fig. 1* Jersild has listed all chords as dominant seventh chords. This they need not be. In fact some of them might even appear as minor chords and will still be designated 'DD'[12], '3D', '4D'. What really matters in this system is the root of the harmony, not its gender. However there might be situations where a marking of gender is appropriate. This is done by the prefixes '^{o}' and '$^{+}$' as in ^{o}DD, $^{+}$DD.[13]

Four chords (S, Salt, DD, DDalt) are capable of acting as dominant preparations, 3.. Each of these four chords might be preceded by its applied dominant. That is 4. must contain four chords as well. And so should 5. and 6. And as the higher positions thus consist of four chords each, some chords must be able appear in at least two position categories. And so they do. The chords of 3. are the same chords we find in 6. And when a tonic (1.) appears with an added seventh or an added sixth, it will function as either a subdominant's dominant (SD) or dominant's subdominant (DS),

10 You might with Reynolds, 2010, 89-90, and Stein, 1985, 22, call 3. the 'plagal domain'. In this domain belongs also $^{\flat}$II, in Jersild analyses described as either the Neapolitan, Sn, or a Dalt. However, as Dalt tends to move to D before T, it would thereby be included in 3. as well. Contrary to Jersild, Stein (and Schenker) also seems to consider VI as belonging to the plagal domain. But Stein only considers VI as related to IV because of the ability of IV to represent VI in the deceptive cadence, (23), a phenomena also pointed at by de la Motte (2004,187) and Maegaard (1981. p32), although in both cases understood as instances of IV representing I rather than VI representing IV. In neither of Stein's harmonic analyses does VI appear as foreground dominant preparation, while II, $^{\flat}$II, IV and $^{\flat}$VI do so consistently. See for example her analysis of 'Harfenspieler I', 38-42.

11 De akkorder, der over en regelret kadencering har 'lige lang vej hjem' placeres i samme positionskategori. Den regelrette kadencerings grundmønster består i en akkordfølge, hvis grundtoner svarer til en række nedadgående rene kvinter; Tonica, T, svarer til første positionskategori, D til anden, Dominantens Dominant, DD til tredje, dennes Dominant, ^{3}D til fjerde o.s.v. Jersild 1970, 13. Italics are Jersild's, the translation into English is mine.

12 This does not apply to the dominant. If the dominant appears as minor it will actually in virtually all cases be interpreted as something else than 2.

13 The possibility of DD as both major and minor is not an invention of Jersild. It is already present in Louis und Thuille, 1907, 97, where the 'WechselDominante' is introduced as a minor chord, both in the text, and in the following illustration (*Fig. 100*, 97).

and will consequently belong to 4., that is, it acts as an applied dominant preparation of the dominant preparation. This is shown in *Fig. 2*.

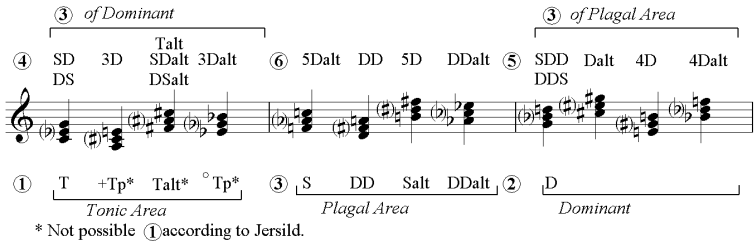
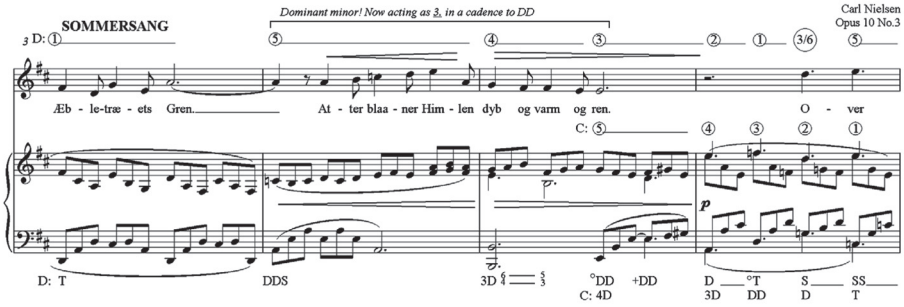


Fig. 2

In analyzing Nielsen it turns out that positions 6., 5., and 4. often act as applied predominants (= 3.) relative to the chord two positions lower. In order to clarify this in the analysis I suggest an extension of the concept of SD and DS, including higher positions. SDD (II/IV) and DDS (IV/II) will prove especially useful, but 3DS, S3D and others, such as the monstrous 'DDaltSalt', the tritone substituted subdominant of DD's tritone substituted dominant (VII/♭VI), might also be called for.

DDS and Modal Mixture

One instance of the function DDS often encountered in Nielsen's music is his use of °D. This chord very often goes to harmonize the often noted[14] modal inflections of scale degree ♭VII. Less attention has been given to the way Nielsen tends to integrate such modal inflections into tonal harmony. He does so by taking the harmonic implications of a dominant minor. As a minor chord it obviously does not function as 2.. Thus it must – following Jersild (*Fig. 2*) – function as 5., which could be interpreted as an implied 3. of the plagal area, that is, DDS or SDD. In Nielsen's music it tends to function as DDS.



Ex. 1. Summer Song, the third song of Opus 10, 1897.

14 See for example Reynolds, 2010, 86-94.

Summer Song, (the third song of opus 10, 1897)[15] which provides an example of this, will also provide a first example of the use of Jersildian theory. Positions are indicated by boxed numbers on top of the system. In *Summer Song* a second line appears over the piano part showing the passage viewed from another key, as this key, C major, is gradually being tonicized.

The top numbers move initially from 1., T, to 5.. This is in Jersildian terms an *upswing*. Normally *upswings* tend to go from 1. to 2., 3. or maybe 4.. But as the dominant appears as a minor, the *upswing* here is the second largest possible: from 1. to 5.. In this *upswing* Nielsen composes °D as a relative subdominant of DD, moving into a six-four suspension temporarily tonicizing DD.[16] The change of gender from °DD to +DD has no effect on its position, as DD will act as 3. no matter what gender it is. In fact high positions are normally so little influenced by gender, that in the analysis from the key of C major the gender-changes of 4D are not even notated. From DD we proceed in a cadence back to T, albeit T minor.

From here the music again makes an *upswing*, now to 3.. This however does not proceed to a dominant, but on the contrary it continues its move down the S-pile. As this happens it turns out that the initial S of b.6 does *not* function as a 3. but as a 6.. This chord is then said to *permutate*. It has been *re-tuned* from 3. to 6.. As this *re-tuning* creates an *upswing* the chord is said to have been *animated*.

The move towards DD initiated by the modal inflection of °D had implications. The appearance of a °T was not just pure incidence, but a sign that the operating tonic was changing. The change to minor makes T apt to function as a an applied 3.. This change in tonal direction began with the tonicization of DD of the key of D major. From here the harmonic progressions started to point towards the key of C major as a new tonal focus point. A progression is now initiated, the first chord of which might as well have been analyzed as a DDS. The reason the term 4D was chosen instead was its change of gender from minor to major, as the E major chord undoubtedly pointed towards the following Am as its applied dominant. The change of tonal focus from D major to C major as operating tonic also implies *permutation*, *re-tuning* and *animation*.

15 Nielsen, 2009, 38. The sequential structure that Reynolds points out in *Genrebillede* (Reynolds, 101) is also established through the use of °D as DDS (bb. 5-6, 10-11) – although it here is done in prevailingly modal surroundings. For other examples of °D as DDS in songs, see Nielsen, 2009, 91, 14-15, 162, bb.4-5, and 176, bb.4-6 (although, as Reynolds has explained, (2010, 160) other forces seem more dominant here).

16 Jersild places dominant suspensions as a position higher than their resolutions. Jersild notes that its 'characteristic position is *last* in the 3.- group' (*Akkordens karakteristiske* plads *er sidst i* 3.*-gruppen*), 1970, 72. But I (like Maegaard, 1971a, 12) disagree with Jersild in doing so, so I consequently notate dominant suspensions as belonging to the same position as the resolution.

When the chord of E minor/major is analyzed as 4D in the key of C major instead of DD in the key of D major an *upswing* is established. It is through the concepts of *permutation*, *re-tuning* and *upswing* that Jersild's theory manages to account for the kind of long range harmonic progressions typical of much late 19th-century music.

Through Jersild's concept of positions the sequence of applied cadences can be shown to be part of such a long range harmonic progression. The modal inflections, ♭VII and ♭III, were shown to be part of an overall drift towards the subdominant area[17], a drift often commented on, and indeed typical for Nielsen.

The overall claim of the 12-Position theory is that any move stepwise down from one position to another is comparable to either an applied or actual dominant going to its tonic, or a dominant preparation going to its dominant. Consequently the skipping of a position in downwards direction, – like 3. – 1. or 4. – 2., – indicates a plagal cadence. Moving upwards in positions creates a tension, which subsequently is to be released.

One last typical Nielsen gesture should be touched on in relation to *Ex. 1*: the ambiguity of the initial progression from T to °D. Progressing from a major chord to a minor chord it becomes unclear whether we're hearing a +T going to °D or a +S going to °T.[18]

Schenkerian Analysis and the 12-Position Theory

The idea of determining long range foreground harmonic progressions as a line of falling numbers that might *permutate* to higher numbers keeping the line going is, in its basic concept, very similar to Schenker's concept of an *Urlinie* regulating melodic events, but capable of being prolonged by progressions into inner voices. Besides the differences of objects – harmony versus melody – the main difference is of course that whereas Schenker's concept provides guidance from background through middleground to foreground, Jersild's concept operates only on the foreground level, claiming independent importance to harmonic progressions, which, from a Schenkerian view, may be regarded as the product of voice leading alone.

This difference of approach can be determining for the results of an analysis. Analyses based on different theories might actually end up almost showing two different kinds of music. An example of this is Reynolds' analysis (Reynolds 2010, 108) of the fourth song of Nielsen's second song collection, *Songs and Verses by J.P. Jacobsen* Op. 6, 'Det bødes der for' (Nielsen, 2009, 25). And this even though Reynolds goes far beyond normal Schenkerian practice in her harmonic analysis, and though the music in question seems ideal for a Schenker inspired approach: Reynolds demon-

17 Or you may call it a drift towards the flat side or towards the plagal area.

18 This ambiguity is not only a typical Nielsen gesture (Reynolds, 2010, 91), but has also been underlined in relation to Wagner (Bailey, 1985, 119) and Wolf (Stein, 1985, 37, 49).

strates how the seemingly very different first and third phrases of the song are actually based on identical melodic lines forming canonic structures.

From Anne-Marie Reynolds, "Carl Nielsen's Voice" p.108.
Fig. 3.12, "Det bødes der for", mm. 1-14

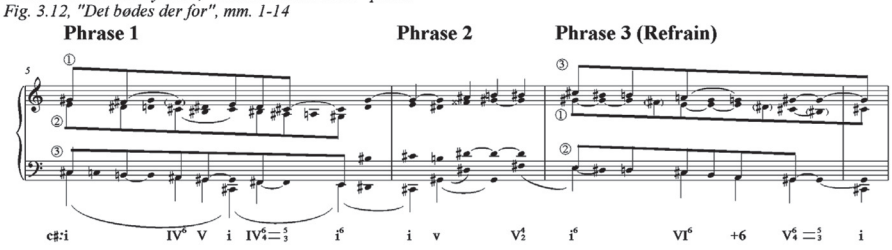
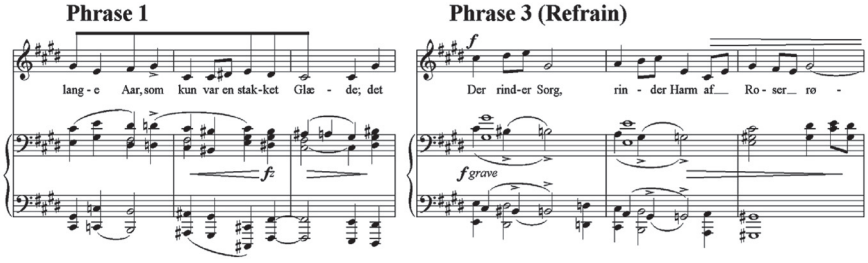


Fig. 3

Fig. 3 shows Reynolds' graphic representation of the song. Several layers of information are present here. The bass line contains practically all notes of the first 14 measures. The voice leading of all inner voices is intact. Only the melody might be hard to recognize, but that is due to the point of the graph: to show some overall imitating structures consisting of three melodic lines indicated by boxed numbers. What we see in the remains of the melody is the overall melodic line, and in this presentation Reynolds can now demonstrate its relatedness to the bass line and the middle voice. In fact the lines are not only related, they are interchangeable: the melody line 1 occurs as the middle voice in the refrain, where the initial bass line is found as the basic structure for the melody, the line of which is now in turn placed in the middle voice.

In example 2, phrase 1 and 3, of 'Det bødes der for' is shown in unreduced form. If you play these passages immediately after one another with *Fig. 3* in mind, it is easy to hear the tight relationship between the two, as if phrase 3 is but 'a veiled inversion of the initial phrase' (Reynolds, 2010, 108).

The beamed notes in phrase 1 of *Ex. 2* show the central notes of line 1 of Reynolds' graph (*Fig. 3*). Bracketed notes of *Fig. 3* indicate implied notes, not actually present. As *Fig. 3* demonstrates, this line is present in phrase 3 too, albeit as a reminiscence. It is represented by the broken triad of the upper voice of the piano in phrase 2 of *Ex. 2*.



Ex. 2. 'Det bødes der for' the fourth song of Opus 6, 1893 .

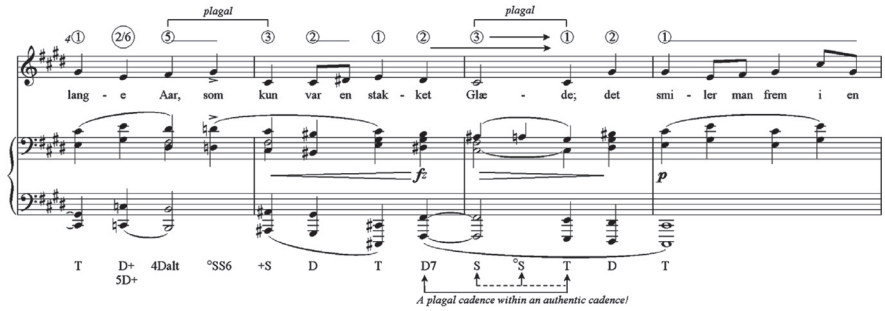
So the line we never hear (as it exists only mentally as a reduction of the melody we *do* hear) is here alluding to a broken triad! It may be possible, and from a Schenkerian approach it is indeed plausible. If we look closer at *Fig. 3* we also find chromatic discrepancies between the two statements of line (2) and (3). These, however, again pose no problem from a Schenkerian perspective, as they could be understood simply as chromatic inflections or mixtures.

If we turn to Reynolds' analysis we also find harmonic dissimilarity between phrase 1 and phrase 3. Phrase 1 ends in a plagal cadence whereas phrase 3 ends in an authentic one.

Now play example 2 once more, this time with the dissimilarities in mind. Suddenly one might begin to hear the ingredients of the song that Reynolds' otherwise convincing presentation in the first place made us 'unhear'.

Apart from the obvious differences in dynamics and rhythmic organization the differences between the plagal ending of first part and the authentic ending of the second alone seem to reflect a general difference in harmonic tension in these two parts. This difference is due to various kinds of foreground harmonic progression, progressions which from a Schenkerian point of view would be explained through voice leading. But in this case it is more likely that the causal relation is the other way round: why make chromatic differences between two otherwise canonic voices, if not this was dictated by circumstances beyond voice leading, like harmonic progressions for example?[19]

Examples 3 and 4 show Jersildian analyses of phrases 1 and 3.[20] These show that the plagal and authentic endings of phrases 1 and 3 respectively, as indicated by Reynolds' analysis, are not restricted to the phrase endings but are mirrored throughout the phrases. That is, phrase 1 demonstrates two plagal cadences, both consolidated by a following authentic cadence, whereas phrase 3 is constructed as two large authentic cadences.



Ex. 3. Phrase 1

19 For more on harmony and voice leading, see e.g. McCreless, 1983, 64, Smith, 1986,103-6, Harrison, 1994, 124 or Tymoczko, 2011, 258-61.

20 Notations of chord inversions are left out of all analyses.

The progressions between *Fig. 3*'s initial 'i' and 'IV^{6}' thereby show themselves as revealing important harmonic information independent of voice leading. Even the chromatic progression from first to third chord reveals delicate harmonic unfolding. The D following T presents itself as an augmented fifth chord. This is a chord interpretable as having three different fundamentals. And precisely this element is used by Nielsen. He lets it continue to B major as if it was an augmented sixth chord.[21] By doing so he magnifies the initial *upswing* from 1. to 2., to an *upswing* from 1. to 6.. The B major chord is turned into a B minor one with an added sixth before it in an applied plagal cadence which moves to F sharp major, acting as $^{+}$S in the following authentic cadence back to C sharp minor.

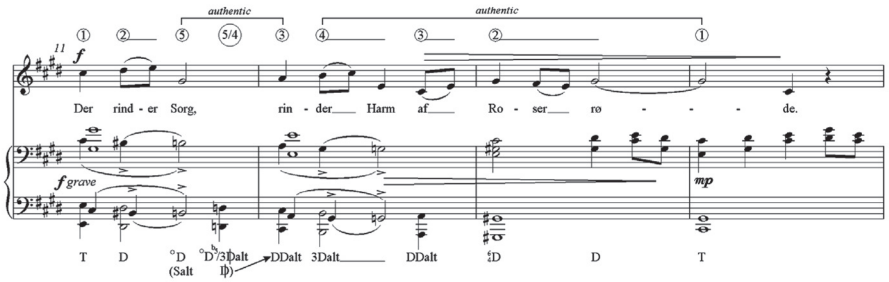
The next *upswing* is again to 2., this time as a dominant seventh chord in third inversion[22], underlined by a forzando that makes this dominant ring on, creating a kind of double cadence. The dominant would in traditional harmony be resolved to a tonic in first inversion. Here it seems to resolve itself into a subdominant, as described in *Fig. 3*. A~~nd no doubt, a~~ plagal cadence parallel to the cadence in the previous cadence follows. But the forzando of the dominant seventh seems to underline the overall movement to the tonic in first inversion that actually *does* follow, only after the plagal intermission. The plagal cadence can be heard as an event within the overall authentic cadence. This, as well as the forzando, might be experienced as foreshadowing phrase 3, which, as Reynolds has pointed out, in many ways parallels phrase 1.

In phrase 3 the question is partly how Nielsen makes harmonic sense of the matrix of voices demonstrated by Reynolds, and partly how chromatic alterations are related to the change of harmony.

As stated above, the analysis first of all demonstrates harmonic coherence, as the phrase from an *upswing* from 2. to 5. in b. 11 steadily moves back to 1., b.14. The progression 3. – 4. – 3.,b.12, would normally reveal a prolongation of 3., by its move to its applied dominant. But as this dominant turns minor on the third beat of b.12, it is no longer the dominant of 3., here in the form of a DDalt, but is now part of an applied altered cadence to D, that is, it acts as the dominant's altered DD (that is $^{\flat}$VI/V, which is still 3Dalt).

21 Due to the logic of Jersild's system the progression that reflects the movement of an altered chord ('alt') to an unaltered chord, is here described the other way round, as a 5D moving to 4Dalt. To describe it otherwise, it should have been notated as an applied augmented sixth, (DDalt). This however would imply the tonality of E major, which is actually not touched upon.

22 Not resolving this chord is actually normally a benchmark of Nielsen. See for example, 'Har dagen sanket.', Nielsen, 2009, 12 bb. 5-6.



Ex. 4. Phrase 3.

All this makes phrase 3 consist of two cadences in the same way as demonstrated in *Ex. 1*. The first cadence leads to DDalt, the second to T, b.14, and both are connected in one and the same long range progression from 5. to 1.. The first of these cadences is started when the falling chromatic line turns the dominant of b.11 into minor, thus creating a *permutation* that *animates* it from 2. to 5.. As a minor chord it could act as DDS (IV/II) or SDD (II/IV). It does neither. Its melodic line is identical to the parallel place in phrase 1, b.4.[23] Here the chromatic lowering was harmonically realized by letting the major chord on the third beat turn minor. In phrase 3 the chord on the third beat is already minor. So how does Nielsen create the effect of minoring within a minor chord? He lowers the fifth! And by doing so he *permutates* the chord from a potential II$^{\flat 5}$ to an incomplete applied D.

When position numbers progress from 5. to 4., the claim of the 12-Position theory is that a cadential progression takes place. The imperfect dominant of A would have its root on E. The dominant minor has its root on G sharp. As a dominant minor it should act as a predominant relative to the chord two positions lower. As this chord is an A major, which is not DD but DDalt of the operating tonic, C-sharp minor, G-sharp could be termed DDaltSalt, a term more complicated than enlightening. The progression is therefore notated as a – relatively weak – applied cadence of an applied Salt going to an applied imperfect D.

The differences between the appearances of line 2 in phrase 1 and phrase 3 of *Fig. 3* consists in the second last two notes through which the line moves from C sharp to G sharp. In phrase 3 it moves through B and A, whereas in phrase 1 it moves through B sharp and A sharp, b. 12-13 and 5-6 respectively. This difference reflects precisely the difference between establishing a plagal cadence within an authentic cadence – the major third of G sharp moving to the major third of F sharp before ending on the fifth of T in phrase 1 – and the authentic long term cadence of phrase

23 Although Reynolds' graph shows chromatic differences between the two, due to a Schenkerian interpretation of the relative importance of the notes.

3, where the fifth of 3Dalt moves down to the root of DDalt before reaching G sharp, now in the form of the root of D.

The deviations in line 3 concerns the third note, A sharp, b.4 and A natural, b.12, again due to the differences between the cadences. The plagal cadence of phrase 1 moves to F sharp (A sharp) and the authentic cadence moves to A natural.

But it's not only a case of linearity being altered for the sake of harmonic progressions. The applied Salt – D progression in b.11 provides an example of a less powerful cadence caused by the wish to keep the chromatic lines intact. Just as lines can be slightly altered as they adapt to the demands of harmony, harmonic progressions can be formed in an (although limited) number of ways, as shown by Jersild's theory (see *Fig. 2*). The art is to always choose the better combination.

In a way this analysis can most of all be said to qualify Reynolds, when she describes the song's accompaniment as 'a sort of textural magnification of the baroque "lament" bass' (Reynolds, 2010, 82).

So although there's no doubt that Reynolds' observations, made on the basis of a Schenkerian approach, reveal essential insights regarding Nielsen's use of counterpoint, they still fail to account for the way in which this counterpoint is firmly embedded in traditional harmonic progressions handed down through history. Jersildian analysis reveals in detail both how Nielsen adopts these rules and how he – as in the case of the plagal cadence within the authentic – puts his own stamp upon them.

The analysis also reveals harmonic traits similar to those found in *Summer Song* (*Ex. 1*). One is the way Nielsen builds up long range progressions by setting up an applied cadence to DD/DDalt, which continues into a cadence to T. The other is the fondness for the plagal domain, either through a continued flatwards drift (*Summer Song*) or through the consistent use of plagal progressions ('Det bødes der for').

Axis-Theory – Extended Tonality

The theory of harmony lying closest in both content and time to that of Jersild is the tonal axis-theory (Lendvai, 1971, 2-16) of the Hungarian scholar Ernö Lendvai (1925), published within a year after Jersild's presentation of the 12-Position theory.

Similarly to Jersild, Lendvai recognizes a tri-fold grouping of chords into functions. He names them subdominant-, tonic- and dominant-axes. Within each axis all four poles may represent the given function. As Lendvai has developed this system to desbribe tonality in Bartok's music, the axes presents a way of understanding chromatic music within a tonal framework. The four poles of each function are divided into a 'principal branch' (C-F♯/G♭,*Fig. 4*, – similar to the Jersildian T and Talt, *Fig. 2*) and a 'secondary branch' (D♯/E♭-A, *Fig. 4*, similar to °Tp – +Tp, fig2).

However Lendvai is not arguing that Bartok's music is tonal in the sense of following the laws of function harmony. The tonal use of the axis system does not govern foreground harmonic progressions. It governs middleground tonal relationships, and these relationships tend, following Lendvai, to manifest themselves as tritone relations moving from one end of a branch to another.

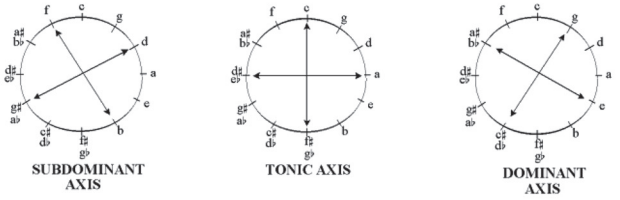


Fig. 4[24]

In many respects this axis model might as well have been a presentation of Jersild's system, the subdominant axis representing 3.[25] and 6., the tonic axis representing 1. and 4., and the dominant axis representing 2. and 5..

The difference between Jersild's and Lendvai's theories lies mainly in the fact that Jersild did not allow any but the tonic and the dominant to represent 1. and 2. respectively. Moreover examples 1 and 4 have shown that the area of 5. tends to operate rather as 'predominant' of position 3. than as a higher level dominant. If, however, we accept Lendvai's concept of a multiplicity of 'tonics', the tonics of Jersild's system would be identical to the tonics of Lendvai's 'tonic-axis'. And moreover, by accepting four potential tonics, four potential dominants would simultaneously emerge, as every tonic would need its own dominant.

This idea of a thus expanded tonality is relevant indeed to the music of Nielsen.

Here the middleground relationship of a tritone is often observed. Just think of the principal and the second theme of his third symphony (Hamburger, 1934, Simpson, 1952, 57, Krebs, 1994, Grimley, 2011, 107), or the melodic structure of the first movement of his fifth symphony (Devoto, 1994).

These relationships have previously been explained, not through Lendvai's axis-system, but through the concept of 'paired tonality' (Krebs 1982, 1994, Bailey, 1985) or 'bifocality'[26] which may be extended to 'polyfocality' if more than two tonal centres are at stake (Devoto, 1994, 267-68).

24 The figure is an adoption of *Fig. 3*, 3 from Lendvai, 1971.

25 Concerning ♭II, the Neapolitan. Lendvai (1971,10) argues that as the real root of the Neapolitan is IV and not ♭II, this chord is included in the system.

26 From now on the term 'bifocality' will be used instead of 'Paired Tonality'.

Although these concepts are developed to cover any tonal dualism, be it of tritone-relation, fifth-relation or third-relation, the examples used by such authors as Krebs, Bailey and partly Devoto, tend to demonstrate an overweight of third-relations, mainly relations of tonalities being each other's relative major or minor.[27]

The terms 'paired tonality' and 'bifocality' thus indicate that two or more precisely defined tonal areas are heard, without any of these being able to claim superiority over the other. This differs from Lendvai's axis-theory, which aims at describing a chromatic field of 'extended tonality'.

Also Stein (1985) operates with 'extended tonality' in her analyses of Wolf's lieder. But where this term when used in connection to Bartok refers to a wholly chromatic universe (almost) devoid of traditional harmonic progressions, Stein uses it to designate extensions of harmonic relations capable of referring to an operating tonic within tonal music.

In the following we shall find examples of both bifocallity and extended tonality[28] in Nielsen's music. First a combination of Jersild's 12-Position theory with Ernö Lendvai's axis-theory will be used to make a single harmonic analysis of a bifocal passage possible. We shall overrule Jersild's original intentions and allow T as well as Talt and the reintroduced $^{+}$Tp and ^{o}Tp to represent $\underline{1}$., demonstrating how Nielsen makes tonal harmony work in bifocal surroundings.

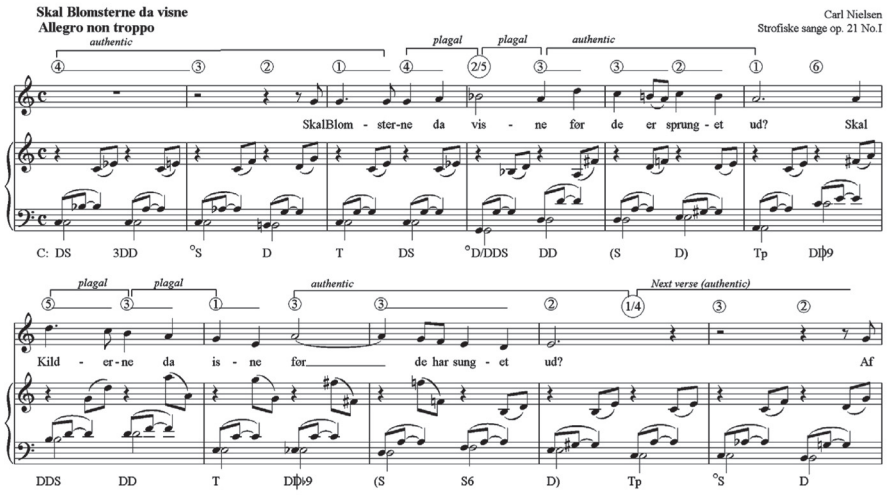
'Skal Blomsterne da visne'

Nielsen's first song of Op. 21, 1907, 'Skal Blomsterne da visne' (Nielsen, 2009, 62) is a perfect example of this. It constantly switches between the keys of C major and A minor, but in an ambiguous way, leaving constant doubt of the exact tonal centre. It seems to open and end in C major, but only A minor is established through a true cadence, and on top of that, the melody contains a mixture of references to C major (a turn towards $^{\flat}$VII of C major, b.4), A minor (cadence b.6) and E-Phrygian (the ending). See *Ex.* 5.

Ambiguity is also present harmonically. Even from the very first chord, a Cm^{7}, which is not capable of acting as a tonic because of its added seventh. It would rather be

27 Bailey, (1985) for example demonstrates the intricate tonal pairing of the keys (major and minor) of A and C in the overture of Wagner's *Tristan and Isolde*. But for some reason he does not mention the middleground tritone relation between the A minor hinted at in the opening and the demonstrative E flat minor at the climatic point at bb. 78-83, even though this point demonstrates the maybe most obvious use of the 'Tristan chord', namely as II of E flat minor.

28 In the Steinian sense of the word.



Ex. 5. 'Skal Blomsterne da visne', first song of Opus 21, 1907.

expected to act as a °DD, proceeding to for example F^7. But it proceeds in a chromatic mediant[29] progression through Am to Fm, over a pedal C, with chromatic voice leading explaining why the opening Cm had an added 7.

Such a pile of chromatic mediants seems to indicate a modal rather than a tonal environment, and the chromatic voice leading binding them together might lead one to the conclusion that voice leading is *the* governing factor of this opening[30]. They do however also work within a functional framework. Although Jersild's theory does not consider third progressions as such, its logic does leave room for them.

One aspect of this theory which has not been touched upon yet, is the premise that chords within same position are freely interchangeable before moving on to the following position. In late romantic music, harmonies – especially harmonies of 3. – have a tendency to pile up in groups within one position before moving on.

In 'Skal blomsterne da visne' the opening Cm^7 and Am belong to the same position category, namely 4.. Both chords make perfect sense in relation to the dominant in bar 2. Cm^7 would be the dominant's subdominant minor (iv/V) and Am would be a DD minor in relation to the dominant of C major (ii/V) or the dominant's subdominant in relation to the dominant of A minor (iv/V). Both chords would, in this interpretation, naturally lead to a D major or minor chord. This does not happen. Instead they are followed by yet another minor chord, – and another 3.-chord,

29 I'm here using Kopp's definition of mediant relations as 'chromatic' if they have only one common tone (2002, 9).

30 In fact chromatic voice leading keeps on dominating in a way that could make this assumption go for the entire song.

– Fm, subdominant of C major which, used as a dominant preparation, leads into the cadence instead.

This introduction perfectly demonstrates the relation between heritage and personal style in the music of the mature Nielsen. Just like, for example, Wagner's overture to *Tristan*, the music is formulated in a chromatic idiom equally suggesting C major and A minor. But where the chromaticism of Wagner is binding together series of major chords acting as series of applied dominants, Nielsen's chromaticism binds together minor chords, acting as series of applied predominants.

Compared to 'Det Bødes der for' the chromaticism of 'Skal Blomsterne da visne' has become clearer, resulting in less complex chords, and the tendency to favour the plagal area has now, in 1907, grown even stronger than it was in 1893, when he wrote his opus 6.

The bifocality of 'Skal Blomsterne da visne' is expressed in the inclusion of the term Tp (p standing for 'parallel' the German-Scandinavian term for 'relative') instead of 3D, and the positional labelling of Tp as 1.. In this way Riemannian analysis can be used to clarify tonal relations without giving up on tonal differences. And the idea of a shared tonic-function is visualized through position numbers.

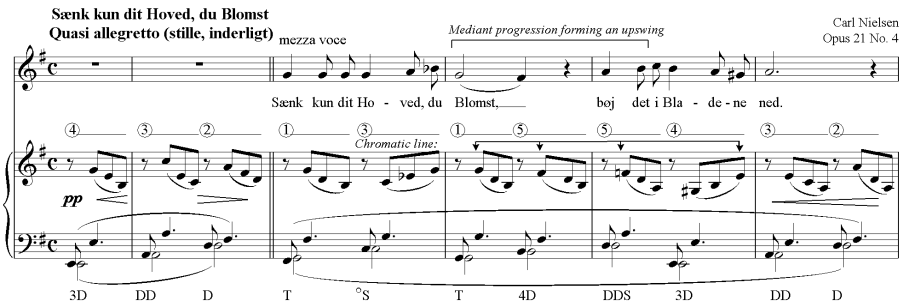
Harmonically it turns out that the song exhibits a certain pattern: Nielsen has composed an introduction which gradually leads from 4. to (the first) 1.. This is followed by a repeated structure of two plagal cadences followed by an authentic one. From bar 3 to 4 the dominant is reached from its subdominant (DS-D) and in bar 4 this dominant appearing as a minor chord *permutates* to DD's subdominant, leading to DD. This progression is repeated in bar 7, only from a DDS major, followed by a progression which does not show itself as a rising fifth, but as a falling second, DD –T, however still representing a plagal move from 3. to 1.. Within this scheme the song unfolds its constant tonal flux.

Third relations – Maegaard, Stein and Transformation Theory

Jersild's lack of recognition of third relations as an independent extension of the functional relationships demonstrated in the 12-Position theory sometimes leads to not entirely convincing analytical results.

Just like 'Skal Blomsterne da visne', the song 'Sænk kun dit Hoved, du Blomst' (Nielsen, 2009, 72) – also from Op. 21 – reaches its Tonic through a cadence (of falling fifths) starting in 4., lending a tonal uncertainty to the opening. Uncertainty is kept alive as T proceeds to °S. °S bounces back to T, but with the inherent ambiguity of this recurrent Nielsen gesture (do we hear °S – T, or °T – D?) tonality has not thereby been settled. Only in the following progression of rising thirds is G major established as T, because the Bm seems to colour, and thus establish, the G major chord.

Jersild however has, as mentioned earlier, no terminology for such third progressions. From a Jerdsilian point of view this third progression simply represents an *upswing* from 1. (T) to 5. (4D followed by DDS). As a characterization of a cadence often used by Nielsen – a minor chord progressing thirdwise up to another minor chord – this makes perfect sense. The second chord of this progression – here Dm – will in this connection sound like the top of a $Bm^{7\flat5}$, that is, a $Bm^{7\flat5}$ without B. This Dm could thus be heard as what in 'Det bødes der for' was called a 'minoring of the minor'. But as Dm is the dominant minor of the main key, G major, this progression also provides an example of Nielsen's use of the modal sound of °D as a functional unambiguous DDS, here bringing the potential instability of the third progressions back into a solid tonal framework.



Ex. 6. 'Sænk kun dit Hoved, du Blomst', fourth song of Op. 21, 1907

But the progression from T to what in Jersildian terms would be 4D is not necessarily experienced as an *upswing* from 1. to 5.. Its logic may – as suggested –indeed lie exactly in the colouring of the tonic. Entering directly after G the Bm would appear to function more as a representative of T than as a 4D (although it immediately *permutates* to a 4D in progressing to DDS). For a terminology to describe this we must turn to the theories of Jan Maegaard.

Third relations as prolongation of the Tonic

Jan Maegaard (1926-) has been active as a composer, scholar and professor at Copenhagen University. He is widely known for his thesis on Arnold Schoenberg, and was one of the first Danish composers to include dodecaphonic techniques in his music. He's also familiar with Jersild's theories having written a rather critical review of Jersild, 1970. This resulted in a debate between the two authors, a debate that was never settled (Jersild, 1971, Maegaard, 1971). Indeed when Maegaard together with Waskowska Larsen wrote his book on romantic harmony (1981), they demonstratively ignored

Jersild's analytical contributions all together. In return Jersild opens his 1982 with an entirely different analysis of a passage from the second movement of Schubert's C minor Sonata (D 958) to the one presented by Maegaard 1981, without a single word's mentioning of Maegaard's analysis.

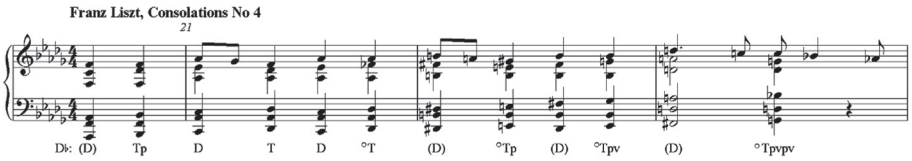
Maegaard 1981 repeats and enlarges some of the basic Riemannian concepts as they are reformulated by Høffding (1934) and Hamburger (1951). On third progressions passing through from the tonic, Maegaard sets up the following terminology (1981, 32-35): in thirdwise downwards progressions from the tonic, I-VI, VI will be considered an 'afledning' ('ableitung', 'deviation') of the tonic notated 'Ta'. For upwards progressions Maegaard coins the term 'gennemgang' ('durchgang', 'passing chord') thus labelling I – III as T – Tg. The 'g' comes in handy in a German influenced region, as Dieter de la Motte (2004, 160) has proposed the same letter for this chord connection, only 'g' in la Motte's terminology stands for 'gegenparallel' ('contrary relative'). With the use of this terminology the progression of *Ex. 6* bb. 3 -4 would thus read: T – Tg/4D – DDS – 3D, a description which, in my view, more satisfactorily describes the relationship between G and Bm.

Chains of Minor Thirds

The part of Riemann's terminology Maegaard focuses on in his 1989 work – which in condensed form presents the most interesting aspects of Maegaard, 1981 – is the part that Jersild partly abolished: the notion of chords being able to represent each other through relations of both minor and major thirds (Riemann, 1898) as *relatives* (minor) and *leittonewechselklänge* (major). That is, exactly the descriptions of third relations lacking as an independent part of Jersild's theory. Maegaard enlarges these terms with Riemann's, later suggested naming the changes of gender (Riemann, 1918, 136) as *parallel shifts*. As the terminology is developed in the German language so the English term *relative* is (as it has been on preceding pages) indicated by the suffix 'p' (German: 'parallel') while the term *parallel* is indicated by the suffix 'v' (German: 'variant').

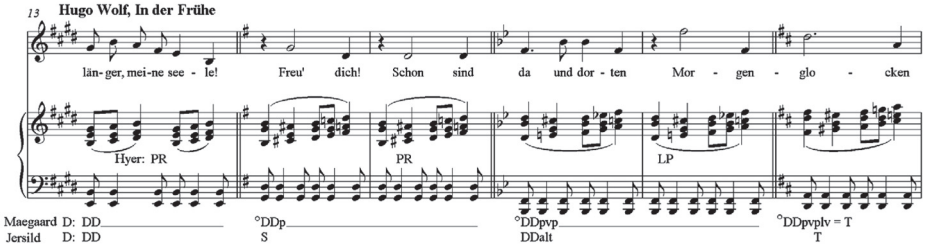
In an analysis of Liszt's Consolation No. 4 (*Ex. 7*) Maegaard demonstrates how a chain of thirds can be understood as what would, in Schenkerian terms, be a *prolongation* of the tonic. With intervening applied dominants a chain of interdependent transformations of the tonic evolves from b.21. The tonic turns to its parallel, which in the case of T, D and S is marked by a prefix (^{o} = minor, $^{+}$ = major). The ^{o}T progresses to its major relative, ^{o}Tp, which then again turns minor, now marked by the suffix 'v', ^{o}Tpv, before it reaches its final destination, the relative major turned minor, ^{o}Tpvpv. These rows of pvpv's, which are the consequence of the system, are easy to

ridicule[31], but they actually serve a purpose. The notation describes the tonal area in which the progressions take place – T – and it describe how each of the chords are related to its preceding and following chord.



Ex. 7. Franz Liszt, Consolations No. 4

In some cases the complexity of the terminology may however cause more problems than clarifications. This might be argued in Hugo Wolf's lied 'In der Frühe'[32] (*Ex. 8*) where the starting point for third progressions is not T but DD.



Ex. 8. Hugo Wolf, 'In der Frühe'

For comparison I have analyzed this section using both Maegaard's and Jersild's terminology. Jersild's terminology clearly describes the progression as a series of 3. chords creating a prolonged plagal cadence[33]. What Jersild's analysis tells us nothing

31 Rehding, 2011, 117-118, discusses this possibility but finds the concept very problematic, calling °Tpvp 'entirely hypothetical' (118), while at least one other Scholar, R.Eidenbenz, 1927, has – following Imig, 1970, 237, – used a similar system. Also Rasmussen, (2011, 227-231) finds the system very useful, especially for description of relations based on circles of thirds.

32 The song is deliberately chosen to allow comparison on few selected topics to Stein's analysis of the song in 1985, 193-202.

33 Stein (1985) – though from a different analytical approach – seems to agree on this. One of her main investigations is into Wolf's replacement of authentic cadences with plagal ones. This cadence type ($^{\flat}$VI – I) she (104) describes as 'a cryptic +6-I cadence', and continues later, 'the augmented sixth chord literally replaces the V^7 chord'. In her analysis of the passage quoted in *Ex. 13*, she (200) describes it as a 'chain of thirds substitution for the traditional authentic cadence.[..] each link [..] adding a new plagal element [..] which resolves (m.18) as a plagal neighbor (2, 4, $_{\flat}$6) to tonic triad pitches'.

about is how these 3. chords are related to one another. What kind of progression leads from one chord to another?

This is the kind of question Maegaard's terminology sets out to answer. In the excerpt of 'In der Frühe' the last progression, from B♭ major to D major is tricky. This progression is a major third progression, which cannot be described purely in terms of 'p's and 'v's. For this relation Maegaardian analysis would refer to Riemann's concept of 'leittonewechselklang', indicated with a 'l'. Just as the direction of relative relations depends on the gender at the outset, so does the direction of a 'leittonewechselklang'. Tl indicates the upper mediant minor of a major tonic, whereas °Tl indicates the lower mediant major of a minor tonic. The progression from B♭ major to D major is in this context the progression of a representation of a DD, which has been exposed to a number of parallel and relative operations until it has reached a stage where the suffixes have amounted to °DDpvp. This chord moves up a major third (marked by an added 'l'), though not to a minor chord, but to a major chord, marked by the extra addition of a 'v': °DDpvplv (don't try to pronounce it!).

Transformation Theory – 'The Riemann uncertainty principle' challenged

The reader might have noticed that the principles of Maegaard's terminology just described are strikingly similar to the principles of transformation theory as presented by Hyer, 1995.[34] The main difference lies in their intended use. Maegaard uses the terminology to in a traditional way to characterize each chord in relation to a well defined operating tonic. Hyer's goal is to describe the procedures by which one chord is transformed into another. And for Hyer it's only an advantage if this can be done without having to relate to an operating tonic.

34 Hyer here suggests that any progression can be described as a compounds of three basic operations: 'R' – relative operation, naming minor third progressions, upwards from minor chords and downwards from major chords. 'L' – Leitton-operation, naming major third progressions, upwards from major chords and downwards from minor chords. 'P', parallel-operation, naming changes of gender. The description of a major third progression downwards from a major chord would for example read: PL, indicating a P-operation followed by L-operation.

Although not as obvious as in the case of Maegaard, Jersild's theory may just as well be read as transformational, using Lewin's (1982) definition of the D- and S-operations (D^{+1} = an ascending fifth, S^{+1}= a descending fifth). You only have to add that a T-operation leads nowhere and an Alt-operation moves a tritone. DDalt – D – T could thus be seen as describing first a move from two D's + one alt to a position with only one D. This equals a D^{-1}+alt progression = one descending fifth+ a tritone. In the key of C major this equals a move from A♭ to G. The D- T progression results in another D^{-1} operation, and as T does not move anywhere it ends here, in contrast to, say, a S-D progression, which would be read as the progression of an ascending fifth from S to D as S disappears (=S^{-1}), followed by another ascending fifth as D is introduced (=D^{+1}). In this sense even roman numerals would be able to function.

But the means he uses are identical to Maegaard's – albeit expressed by letters referring to English and not German terminology. And here lies an inevitable risk of confusion because of the overlay of identical words with different meanings.

So just for the record:

English *parallel* equals German *Variant*, and German *Parallel* equals English *relative. Leittonewechselklang* is used in English as well as (naturally) in German.

As Hyer describes chord transformations and not chords, the signs used are placed not *underneath* chords, but *between* chords.

To get from DD to °DDp or from °DDp to °DDpvp one must perform a PR operation. That is, first we change the gender of the chord by a **p**arallel operation and then we perform a **r**elative operation. To move a major third upwards from B major to D major an L-operation followed by a p-operation is needed (see *Ex. 8*). If we compare the terminologies of Hyer and Maegaard it's obvious that they are saying the same thing. Every one of Hyer's operations is to be found as pre- or suf-fixes in Maegaard's analysis. So while Hyer is denoting the transformation from chord to chord and Jersild is denoting chord functions relative to tonic only, Maegaard is *denoting both at once.* Maegaard's terminology seems to operate as traditional function analysis and transformation analysis at one and the same time, with a built-in recording of all the transformations that have lead from the initial T or Tp to the complex structure of the endpoint. This is then apt to be re-interpreted (or *permutated* as Jersild puts it) before starting out on yet another (transformational?) journey.[35] This contradicts Kopp's so called 'Riemann uncertainty principle':

> One can specify a chord's location in the key; one can specify its exact trajectory. But one cannot do both at the same time with the same expression. Either the chord's meaning (identity or function) or direction (root-interval) may be described; the complete picture requires both perspectives.[36]

The Maegaardian terminology used for description of third progressions is actually *only* meaningful when read with exactly this double function of naming the chord and telling how we got there.

35 However being an entirely cataloging system which operates equally well in modal and tonal surroundings, these p's and v's should be distributed with discretion. In *Ex.7* the Tp-Tpv-Tpvpv progression would have implied modality if not for the intervening applied dominants.

36 Kopp, 2002, 137.

Chains of Major Thirds – Stein and Kopp

Most transformation theoretical analyses deal with chord progressions – often cycles of progressions – consisting of a major thirds. One of the advantages of approaching these progressions from a transformation theoretical angle is the avoidance of the function question. Whereas progressions in minor thirds in this aspect are unproblematic, as all chords within such a cycle belong to the same function-axis (see *Fig. 4*), progressions in major thirds are apt to pose problems immediately.

Lendvai draws the consequence of his axis-system, that the subdominant, dominant, tonic relation may be equally well expressed in terms of major third relations: the upper third acting as dominant and the lower third acting as subdominant, so that a cycle of major thirds would actually represent a cadence. To be sure, Lendvai would, according to his use of the axis-system, only perform such analyses on the middleground level.[37]

Stein seems somewhat in line with Lendvai. She recognizes the ♭VI- I progression as that of an augmented sixth chord to a tonic, arguing that 'what has taken place has been a substitution of a third relation for the tonic-dominant axis' (Stein, 1985, 104). This suggests to Stein that 'the chain of thirds resulting from the unusual resolution of augmented sixth chords might possibly be substitutes for the more commonplace I-IV-V-I progression' (*ibid*., 106), rather than, as Schenker and Salzer[38] have presented it, a prolongation of the tonic. This is mainly because III♯ does not present a prolongation but 'a harmonic structure, that departs from I, progresses to ♭VI, and only then returns to I when ♭VI substitutes for V' (*ibid.*, 107).

In recognizing the functional relationship between ♭VI and I she's in accord with Jersild, who notes that 'the progression DDalt – T, where the same two notes function as neighbour notes to the fifth of the chord of resolution, gradually manifests itself as progressions that in their own way become accepted as regular; in the end it is the frequency of the given patterns that is decisive for their psychological effect.'[39] Stein describes ♭VI as a substitution for V because of the elided resolution to V while Jersild simply categorizes the DDalt – T progression as a plagal cadence.

An interesting point in Jersild's statement is the focus on the psychological effect as a decisive factor when deciding the functionality of a progression. This psychological effect is said to depend on the frequency of the progressions used. What Jersild is stating is actually that functional progressions might multiply according to repeated

37 As demonstrated by Lendvai's examples, 1971, 14-16.

38 Schenker 1979, 135 *Fig.* 100/6, Salzer 1962, 178-79 *Fig.* 382

39 Jersild 1970, 57-58. Følgen DDalt-T, hvor samme to toner fungerer som ledetoner til resolutionsakkordens kvint, manifesterer sig efterhånden som akkordfølger, der også på deres måde accepteres som regelrette, idet det er mønstrenes hyppighed, der til syvende og sidst betinger deres psykologiske effekt.

use by composers. This seems to be in line with Leonard Meyer's concept of a *sound term*, 'a sound or group of sounds [..] that indicate, imply, or lead the listener to expect a more or less probable consequent [..] within a particular style system' (Meyer, 1956, 45).

The notion of 'frequency of the given patterns' leading to '*sound terms*' is what makes possible the inclusion of totally new functional chord progressions based, not on the traditional functions of T, S and D, but on the functionality of mediant progressions. Kopp proposes such a system based on common tone tonality, describing all possible mediantic relationships through extensions of the figures 'm' and 'M'. Kopp proposes that mediants represent a functionality of their own, that mediants are 'operating in a different plane than the fifth relations with which they coexist (Kopp, 2002, 231).' When Kopp argues that '♭VI [..] occupies a normative place in the circle of major thirds and is heard with straightforward meaning' (Kopp, 2002, 231) he is in line with Jersild's description of the 'psychological effect' of patterns, and with the Meyerian notion of a *sound term*.

The major third relation between I and ♭VI do have a straightforward meaning as a *sound term*.[40] However I believe that the 'straightforward meaning' of ♭VI is best described within a functionality bound up in the notions of T, S and D. A mediant based functionality seems to me redundant. Instead of creating a whole new kind of tonality system to account for the *sound term* quality of certain third progressions, I find it more rewarding to investigate how these progressions are related to, and work within, ordinary functionality. In interpreting these progressions through the theories of Jersild and Maegaard within the frame of standard functionality, one can take advantage of the different ways each scholar addresses the issue of mediant function, allowing the method used to depend on the actual musical circumstances.[41]

Neapolitanisation

One mediant progression especially typical of the romantic era is the sudden move from a well defined tonic area into a mystic strange world of ♭VI (exemplified by bb. 17-19 of Schumann's opus 35, No 10, *Ex. 9*). Though Jersild and others[42] consequently interpret this as T – DDalt, this labelling doesn't really describe the feeling of a new tonal area, which is not primarily functioning as dominant preparation.[43] On the

40 In opposition to the I-III progression, which I find is functionally less clear, and which I (contrary to Kopp, 2002, 16) in any event believe would express *another* functional relationship than I-♭VI.

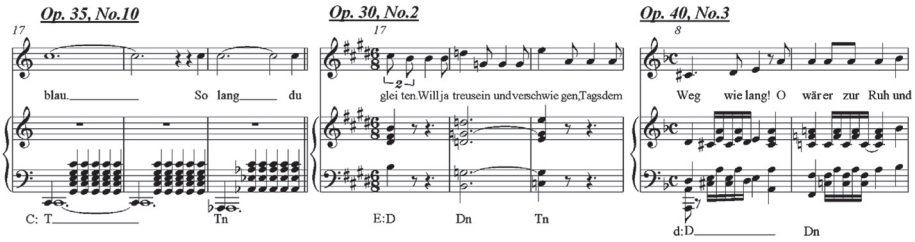
41 For functionality of major third progressions in Schumann's lieder, see Hvidtfelt Nielsen, 2008.

42 See for example the analysis of 'Der Alpenjäger' in Krebs, 1981, 3-6, where ♭VI basically is interpreted as dominant preparation, even when it appears as, and exemplifies, a prolonged independent tonal area.

43 Although, to be sure, it very often ends as a dominant preparation leading back through a cadence to the initial tonic

contrary it has, as Kopp notices, 'a straightforward meaning'. It's a *sound term*. The question now is how to label this meaning?

This sudden transition may also take place from a dominant (op. 30 and op. 35 of *Ex. 9*) in which case one might, with de la Motte (2004, 164), experience it as a variant of the deceptive cadence.



Ex. 9. Excerpts from Three Schumann Lieder.

In transformational terms the progressions display a PL-operation, precisely the operation that would turn a S into a Sn (IV-♭II). Maegaard therefore ascribes the *sound term* quality of I-♭VI and V-♭III to exactly this relationship (IV-♭II) and consequently terms the progression a 'neapolitanisation'. The progressions I-♭VI and V-♭III will thus be termed T- Tn and D −Dn respectively, describing two chords representing the same function, albeit the neapolitanized versions will appear somewhat thwarted. In the case of T and Tn the representation can be related to the previously described T-Ta relationship, only a Tn will basically be a major chord with its root always on ♭VI. This makes the progression effective and colourful in the major while in minor mode it is indistinguishable from the T-Ta-progression. Here the progression will normally be termed T-Tn only if Tn is temporarily tonicized, while in a I-VI-IV-V say, it would be termed Ta (as in: T-Ta-S-D).

The area of Tn might also be reached through a deceptive cadence going to ♭VI.

In the case of D-Dn it is not always as obvious to define whether Dn constitutes a change into a thwarted representation of D, or if Dn in reality represents the tonic of some kind of deceptive cadence. This must be judged from instance to instance.

The process of 'neapolitanisation' might be repeated. The chord neapolitanized can itself be neapolitanized. Maegaard indicates this double neapolitanisation with the suffix 'nn'. Neapolitanizing the double neapolitanized chord brings us back to the outset.[44] Such patterns are common in romantic music, and are often the object of transformational analyses. These of course can add fundamental information in terms

44 An illustrative example – on middleground level – would be Schumann's *Novellette*, op. 21, No.1, Maegaard, 1989, 93.

of smoothness of voice leading and technical operational descriptions. But they do not – and do not seek to – relate these progressions functionally to an operating tonic.

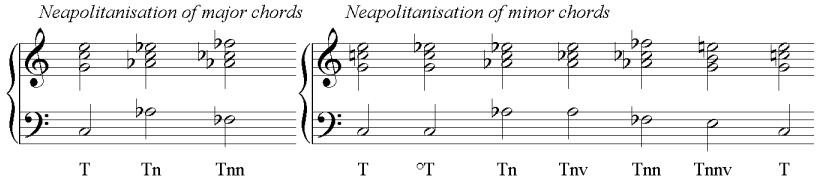
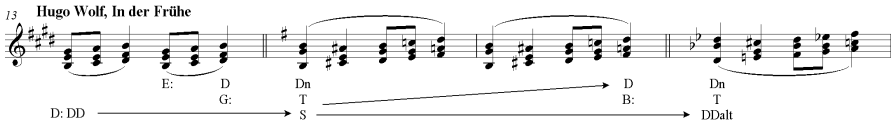


Fig. 5

Often these chains are obtained by alternating P- and L-operations as in the second part of *Fig. 5*. See for example Brahms' concerto for violin and cello, I, bb. 268-79 and Schubert's piano trio, op. 100, I, bb.586-618.[45]

The concept of neapolitanisation also impacts on the passage from Hugo Wolf's lied 'In der Frühe' cited in *Ex. 8*. Both Hyer's and Maegaard's analyses were in some way purely descriptive, as neither, say, the °DDp to °DDpvp-progression or its transformational pendant the 'PR'-operation, can claim to posses the functional status of a *sound term*. Jersildian analysis enabled us to categorize a plagal domain, but neither did this theory offer any explanation of why the transition from DD to S and from S to DDalt actually sounded like well-known tonal progressions. And so they did! The reason for this, I think, is to be found in the chordal progression of the right hand, which relates the links to each other through neapolitanisations, as it moves up over the bass pedal to a Dominant chord within its respective functional area (DD, S, DDalt), which then is neapolitanized in the following bar (*Ex. 10*).



Ex. 10. Hugo Wolf, 'In der Frühe'.

The Theme of Opus 40 – Tonalities

As an example of music from the mature part of Nielsen's production the theme of op. 40, *Theme with Variations*, 1917, will serve well. It is cast in a song-like setting, which presents itself to the listener at first as a simple diatonic melody in purely triadic

45 For transformational analysis of these passages see Cohn 1996 and 1999 respectively, plus Siciliano, 2005 (Schubert trio).

surroundings. However, the theme proceeds in changing tonal surroundings which, although unfolded throughout in a functional harmonic language, within a short range seems to move between no less than four independent operating tonics.

The multiplicity of operating tonics in Nielsen's music should of course come as no surprise. This is exactly what Nielsen has done so often before in his instrumental music. But where a symphony displays changing tonalities within a period of, say (as in the first movement of *Espansiva*), 734 measures, the theme of opus 40 manages to touch upon four totally unrelated keys within the limited space of only 16 measures.

The theme is cast in a bar form. The first stolle consists of the four first bars and second stolle consists of bar 5-8. The abgesang then makes up the entire second half of the theme. The abgesang in itself also presents a bar form; again with the first half of the phrase period – four bars – making up the two stollen, and the last half making up the abgesang (see *Ex. 11*).

The first two stollen establish B minor as the operating tonic (including a brief digression to its major relative). This lasts six bars, bb.1-6, from where a progression to a two measure tonicization of A minor ends the second stolle, the first half of the theme.

Second half of the theme is constructed somewhat similarly. From six measures in what Grimley (2011, 204) defines as F minor, the last two bars turn from a digression into F minor's relative major to tonicization of G minor.

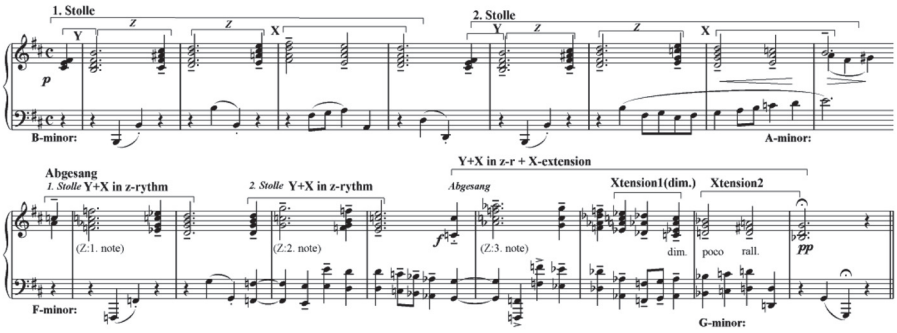
This makes up an overall tonal structure with seemingly no root in traditional tonal organization, one that immediately seems to call for an interpretation within the frames of polyfocality (Krebs, 1982, 1994, Devoto, 1994) or directional tonality (Simpson 1952, Stein 1985, Krebs 1994):

B minor (six bars) to A minor (two bars)
F minor (six bars) to G minor (two bars)

From a Lendvaian axis-theory point of view this tonal distribution comes, however, as no surprise. The use of the primary branch of the tonic-axis as organizing factor simply parallels Nielsen's tonal organization with that of his younger colleague Bartok. In Jersildian terms the beginnings of first stolle and the abgesang represent T and Talt respectively. And we might clarify the middleground progression through Maegaard's terminology as it proceeds from T through Tp (the relative major) to Tpvpv,,in transformation theoretical terms, an R followed by a PRP-operation. As this Tpvpv proceeds to its major relative, Tpvpvp, an overall directional tonal organization emerges. From B minor Nielsen moves through a chain of minor thirds upwards through D major (Tp) and F minor (Tpvpv) to À major (Tpvpvp), which could be reinterpreted, as

Grimley (2011, 204) suggests, as a neapolitan in G minor leading to this final tonality. The Maegaardian terms here suggest that the entire theme moves through representations of T, thus never really leaving T until the final move to G minor (♭vi), which according to Jersild and Stein would represent the plagal domain of B minor.

Lendvai's axes offer an explanation capable of including the keys of both A minor and G minor within a functional framework: A minor would belong to the dominant axis and G minor would belong to the subdominant axis (see *Fig. 4*). So from an axis-theoretical point of view Nielsen's overall tonal distribution makes up a middleground cadential progression of basically T –'D' –T– 'S' (in Jersildian terms: T – 4ºDalt – Talt – ºDDalt), showing equal weight on D and S, although it must be noticed that the important final cadence from the end of the theme to the beginning of var. I is plagal.



Ex.11. The Theme of Op. 40[46]

All of these explanations however overlook the purely structural design of tonalities, emphasized by the consistent focus on the minor mode: within the interval of a tritone the tonalities of A and G have been placed in a way that mirrors one another. B moves stepwise *down* to A while F moves stepwise *up* to G.

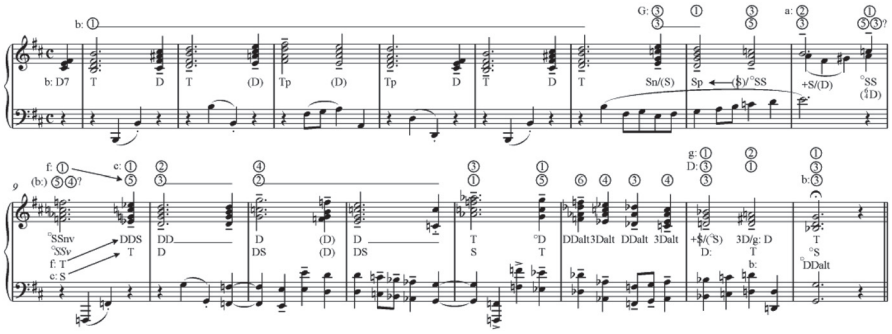
It is as if this design most of all is a skeleton – not necessarily apt to be tonally interpreted – on the symmetry of which Nielsen could hang his freely developed diatonic melody, seemingly unrestricted by a single tonality.[47]

46 *Ex. 11* also shows the three melodic cells which constitute the entire melody: A rising fourth (Y), stepwise trochaic ascend (Z) and a stepwise falling progression of three notes (X). These elements are combined in different ways in the abgesang, which is cast as a rising sequence. Being a rising sequence the first note of each link may be heard as making up an augmented Z.

47 As Grimley (2011, 200-202) demonstrates, neither the restricted use of triads nor strictly diatonic melody are pure coincidences. They are results of conscious considerations coined in sentences like 'We need to get away from the keys and yet still work with diatonic conviction' (*Vi skulde paa engang se at komme bort fra Tonearterne og alligevel virke diatonisk overbevisende)*, from a letter

Harmonic coherence – plagal domain

What all these middleground explanations also overlook are foreground harmonic progressions. As mentioned earlier these unfold in an environment of regular – if even sometimes slightly thwarted – tonal progressions. When these progressions are analyzed through a mixture of Jersildian and Maegaardian theories, an entirely different picture is drawn of the tonal distribution of this theme, whose foreground harmonic progression actually turns out to contradict everything said of large scale tonality up to now!



Ex. 12. Harmonic analysis.

From the opening six bars' establishment of B minor as operating tonic the typical Nielsen-drift towards the plagal area sets in, taking the music to the area of SS in form of °SS, Am.

The modulation to °SS is achieved by a special reinterpretation of subdominantic chords. Nielsen uses it three times in this theme, twice in the progression to °SS, bb.6 and 7, and once in b.15, leading to Gm.

In three different ways Nielsen uses the ambiguity of a chord in first inversion. As is well known a functional interpretation of a II^6 progressing to, say, a six-four dominant suspension will, in a Riemannian tradition, read 'incomplete subdominant', $. That is, the chord will be regarded as IV with an added sixth and no fifth. What Nielsen does is to introduce the chord as $ of one tonality and proceed as if it was S in first inversion of another tonality. In b.6 a C major chord is introduced as Sn of the key of B minor, but it proceeds as an applied $ in first inversion of G major. In bar 7

to Henrik Knudsen 19.8.1913, *Ibid*., 107, and '[When modulating leave] dominant seventh chords completely out of consideration and [use] only triads in root position and first inversion' '*[Saa man ved modulationer lader] dominantseptimakkorden fuldstændig ude af betragtning og kun benytter treklange i Grundform og som Sextakkord*', from a response in *Vort Land*, October 1909, *Ibid*., 200.

the A minor chord is introduced as an applied S of G major, but it proceeds as an applied S in first inversion of E major ($^{+}$S of B minor). That is, Am would be termed ^{0}SS. But when E major presents itself with a suspended fourth, it no longer sounds like a $^{+}$S, but as an applied dominant tonicizing Am. Am, however never becomes a tonic. It remains the third link of the digression into the plagal area realized through two falling fifths: T – Sn – ^{o}SS.

Bar 15 contains one of the two more complex progressions of these 16 bars. G minor sets in, seemingly unrelated to the preceding A♭ major passage. The reason it works as a foreground harmonic progression is not so much due to the possibility of A♭ major acting as an Sn in relation to the key of G minor, as it is[48] the possibility of G minor acting as an $^{+}$\$ in relation to the key of F minor. It *permutates* as it proceeds, apparently as an ^{o}S of D major, which seems to be a new tonic.

Maybe.

What we are witnessing here, once again, is the often observed ambiguity of iv – I / i – V. And this G minor again *permutates* to ^{o}DDalt in the progression back to the key of B minor, which will occur with the beginning of var. I.

As *Ex. 12* shows, the first five bars establish the tonic through T and Tp, which here elaborates an extended tonic field, hence one long 1.. In the following transition, b.6, towards A minor, ^{o}SS of B minor, position numbers reflect the two *permutations* of plagal chords.

Am – Fm

Another complex progression is the transition from A minor to F minor, bb.8-9, marking the transition from the first part of the theme to the second.

Although the chord progression is similar to the progression termed 3DD to ^{o}S in the first song of opus 21 (*Ex. 5*), and therefore might be heard as part of an advanced cadence structure leading to C minor, the conditions have changed. Being analogue to the beginnings of 1. and 2. stollen, the rising fourth of the melody is not heard as if leading to a dominant preparation, but as if leading to a (local) tonic.

Still a well known *sound term* seems to be the basis of the progression, as it actually sounds neither strikingly strange nor modal. But which?

In spite of the analogy with the opening, the cadence can hardly be heard as a kind of D- T cadence, as would be suggested by Lendvai's axis-theory. But what then? And how should it be defined in position numbers?

One way of hearing the progression is to hear the E of the bass as still ringing underneath the A-C dyad. In this case we hear an unresolved applied six-four suspended dominant progressing into a deceptive cadence. This is notated by setting the

48 Among a number of other factors, as we shall see.

original target of the applied dominant, °SS, in *italics:* °*SS*. F minor is thus to be heard as a representative of A minor, albeit a thwarted representative as it appears in the minor mode as an °*SSv*. As such it could be described as a 3. moving to 4., only is this 4. as just demonstrated, *not* a tonic representation, as would be expected in 4. position, but an °SS representation. Position numbers of this interpretation do therefore not support the results of the harmonic analysis.

Another *sound term* it might allude to is the one described as 'neapolitanisation', an °SSnv.[49] If heard so, the progression from one minor chord to yet another minor chord might be heard as Nielsen's wish to make the progression in the minor just as strong as it is in the major, where a neapolitanisation involves chromatic change to two notes. Because the neapolitanized chord represents the chord being neapolitanized, position number 5. would be maintained throughout the change of chords.[50] If we interpret Fm as a representation of °SS, that is, basically a iv/iv, the °SSnv interpretation actually makes sense in terms of function symbols as well as position numbers. °SSnv belongs to 5., which reflects its status as iv/iv, a plagal relationship.

Summa summarum: Fm must be ascribed a subdominantic relation to the original tonic. It is *not* reached in a way that can justify an interpretation as Talt. Composed as a representative of °SS, the entire F minor passage represents a remote plagal area of the key of B minor.

That is, if it is in the key of F minor at all.

Paired Tonality – i-v/iv-i-ambiguity.

Bb.9-13 does not actually present an F minor tonality unambiguously. The dominant frequently appears as a minor chord, thus making Fm appear as a possible subdominant of Cm. In fact the first real dominant is the DD of b.10. But this might as well be the dominant in Cm! Maybe the allusion to the opening of *Ex. 5* wasn't farfetched at all? Does the Am- Fm constitute a progression leading to an establishment of the key of C minor?

I don't believe so, but it's obvious that bars 9-13 are composed in a way that leaves room for interpretations of both C minor and F minor as operating local tonics.

49 Grimley (2011, 204) presents a quite different interpretation based on the enharmonic qualities of G♯ and A♭. So we might want to experience a bifocal transition, the upper voice C-F being understood as supporting the key of F minor while the lower voice G♯-A-A♭ should be heard as supporting the key of A minor. A minor, however, totally disappears as soon as the F minor chord is stated.

50 Provided we maintain the possibility of chord representations in major thirds in the mix of Maegaardian and Jersildian terms. However as Jersild himself, mentioning several instances of chords acting in positions not belonging to their original tonal axes (also now blending Jersild and Lendvai), had no rigid approach to the system, this will in no way compromise the theory.

These bars stand as a composing out of the frequently encountered i-v/iv-i-ambiguity in Nielsen's music, thus providing a genuine example of paired tonality in fifths.[51]

Viewed from the function harmonic angle best supported by position numbers – Fm as ^{0}SSnv – this pair would represent a plagal neapolitan area of B minor, ^{o}SSnv and Snv. Such an approach to the F minor/C minor region could open for an interpretation of the G one fifth higher than this region – the final G minor (F-C-G) – as a neapolitan minor tonic, Tnv, of this potential plagal cadence of the neapolitan area. In this way a certain picture of the overall (middleground) tonal progressions of the theme of op. 40 would emerge. The theme proves to be based on two S-piles, an ordinary one and a neapolitan: Bb. 1-8 moves down from T through Sn to ^{o}SS while bb. 9-16 moves up from the pair of ^{o}SSnv/Snv to the final Tnv. Again however, this neapolitan interpretation is not supported by foreground analysis.

A♭ major – major relative or 3Dalt?

From b.14 onwards C minor ceases to be a possible tonic. We move into the area of F minor's relative major, A♭ major. As this relative seems to lead into a cadence in F minor, the terms DDalt and 3Dalt seem more appropriate here than Tp and Sp. Position numbers show the A♭ – Gm progression as a tonal progression of falling position numbers. And actually, what position numbers do here is to capture the duality of this progression. A♭ – Gm in the key of F minor could – if we bend and stretch a little – be interpreted as (what might have been) an augmented sixth chord, 3Dalt, moving to DD. This, as we know, is not how Nielsen composes it. He introduces Gm the only possible way it really makes sense within F minor, namely as a $^{+}$\$. Still the positional relation between A♭ and Gm remains unchanged.

Bb. 7-8 and 15-16

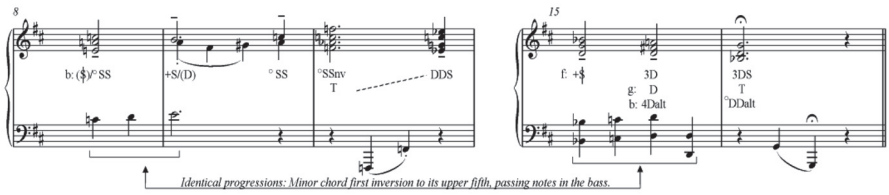
The final cadence does not work solely because of Nielsen's creative use of $^{+}$\$. The use of $^{+}$\$ is only one of several mechanisms by which Nielsen makes the move to G minor an integrated part of the theme.[52]

Another mechanism is one of formal synchronicity, or perhaps of association technique. A reason for the final cadence to work so well could namely very well be the inherent familiarity with which it presents itself to its listener. The final cadence is analogue to the cadence that indicated a tonicization of A minor halfway through the theme (see *Ex. 13*). Both cadences move from a minor chord in first inversion to

51 A possibility hinted at by Krebs, 1994, 211 in reference to Bailey's account of the I-V / IV –I ambiguity (1985, 119).

52 The allusion to a neapolitan fifth pile is already mentioned. The melodic X-pattern dictating phrase ending on G would be another mechanism (see *Ex. 11*).

a major chord a fifth above, and in both cadences the bass line moves stepwise from the third of the minor chord to the root of the major chord.



Ex. 13

These identities underline the division of the theme into two halves, also reflected in the bar form and the distribution of tonal areas.

It draws attention not only to the ending in G minor but also to the intervening A minor. The structural significance of these two passages placed at the end of each half of the theme has already been mentioned. Still, another three observations could be added to the described 'mirroring' placing (one step *down* from B minor, one step *up* from F minor) of these two tonalities:

It takes a LP-operation to get from Am to Fm, but a PL-operation to get from Gm to Bm.

The move from Am to Fm could – as we remember – be interpreted as a deceptive cadence that is a bass-progression moving a semitone *upwards*. Var. I actually starts out with a single F-sharp pitch, which would be reached by a chord progression a semitone *down* from G minor.

Both are they supported by a structural sequential organization.

Sequential Organization

In Jersild 1985 all basic traditional sequence types are presented as fixed series of chord progressions, as opposed to the view of sequences as primarily melodic events.[53]

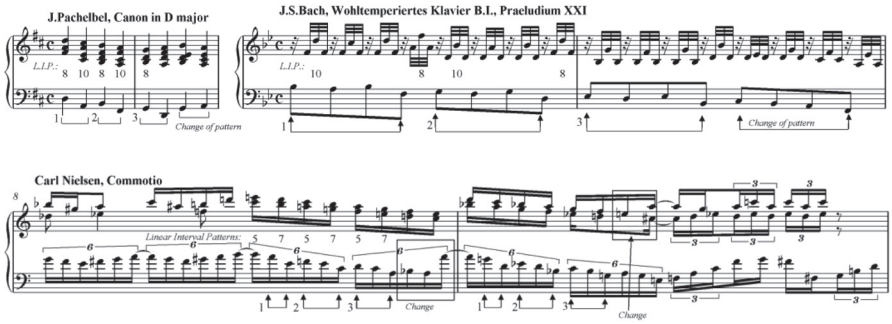
One of these sequences is characterized by the chordal progression of a falling fourth proceeding stepwise upwards, similar to the progression of a deceptive cadence. This sequence is therefore called the 'Inganno-sequence'[54], of which the most well-known examples are probably Pachelbel's *Canon* in D and Bach's *Prelude* in B ma-

53 See for example Kurth 1923, 334-46. However it must be admitted that even though Kurth seems to evaluate melodic sequences over harmonic, on the other hand he also acknowledged the possibility of purely harmonic sequential structures: 'Die Melodie setzt sich aber darauf nicht mehr als Sequenz fort, hingegen wirkt diese, wie in den Untergrund gedrängt, in der *Harmonisierung* weiter' 349. See also Bass, 1996 and Harrison 2003.

54 Ingannare = to deceive. The term appears in Joseph Dreschler, 1816, 84. See also Ricci, 2004, 65-69, for another labelling: <41>

jor. A less prominent example would be the inclusion of the sequence in the first part of Nielsen's *Commotio*, op. 58 (see *Ex. 14*).

Ex. 14 has been included Schenkerian indications for linear intervallic patterns, a method normally used to mark specific, often sequential, progressions of prolongational voice leading. Although these indications give precise information about repeated intervallic structures in the musical setting it is of no help in determining an eventual well known underlying chordal pattern. As can be seen in *Ex. 14*, these three examples of a basically identical sequence structure show three different linear intervallic patterns : 8-10, 10-8, and 5-7.



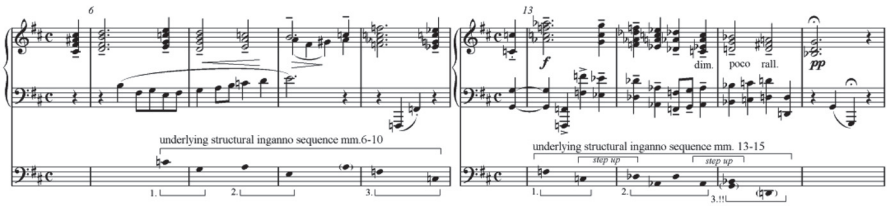
Ex. 14

The most rewarding aspect of understanding musical progressions in terms of fixed sequence types is the knowledge you gain in respect of what to expect of the musical continuation. Just as the tonal cadence gives a promise of a soon-arriving tonic, so the identification of a sequence gives the promise of a three part structure: practically all sequences run in only three links, where the third link might be more or less varied.[55]

In the theme of op. 40, an Inganno-sequence is running underneath the surface as an underlying structure built into the harmonic fabric, helping to tie the music together at exactly the two most extraordinary harmonic transitions, bb.9-10 and bb.14-15. Both of these transitions set off at exactly the beginning of the third link of a three linked structural Inganno-sequence. Or at least they are capable of being interpreted as so doing. See *Ex. 15*.

The recognition of the first sequence presupposes that we interpret the move to F minor as a deceptive cadence from a dominant with an unresolved six-four-suspension.

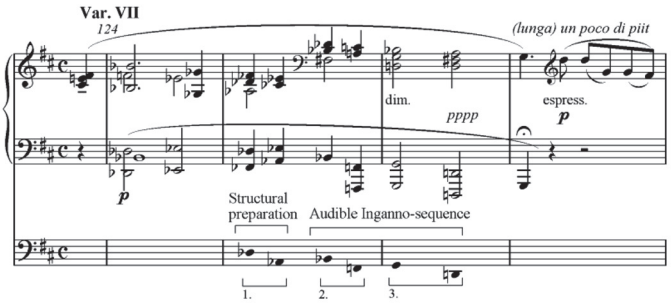
55 A status commonly accepted. See amongst others, Piston and Devoto (1987, 317), Bass (1996, 226) and Harrison (2003, 226). The concept of the threefold repetition is however totally absent from Proctors 'transposition operations' (1978, 159-168).



Ex. 15.

The sequence is described as structural, as it is not expressed as a series of chords in root progression, and actually does not contain any repeated melodic elements that might be said to make up the sequence. It is made of a series of chords whose roots make up the structure of the sequences. This is even more intricate in the second sequence. Here one of the links is repeated and the last link is, in a way, entirely out of place except that it mirrors and intensifies the way in which the Gm chord is incorporated into the key of F minor. G minor was initially understood as a kind of B♭ chord, that is, a chord with root on B♭. And the reason this presented itself as an intuitive interpretation might well be because the underlying sequential pattern directed the attention to a B♭ major chord at this spot. The continuation of the third link, however, does not take off from B♭, but from the real root of the chord. And from here Nielsen continues the link in a way that is analogous to the preceding links.

Although all this may seem farfetched the Inganno-structure must somehow have rooted itself in Nielsen's mind. Because when he in var. VII repeats the opening theme in a heavily varied form, the ending – which still moves from F minor to G minor – is openly constructed as an Inganno sequence (*Ex. 16*).



Ex. 16.

The Theme of Op. 40 – Tonality

To sum up: analysis of foreground harmonic progressions proves the description of the overall tonal design as based either on a primary branch of T-Talt (supported by a 'D', Am, and a 'S', Gm), or as directional tonality moving through a minor third

chain of tonic representations on to the final Gm, inadequate. The progression leading to the second half of the theme displays an unambiguous plagal drift leading to °SS which is then neapolitanized, revealing the second half of the theme as a distant neapolitan plagal area from where it gradually moves back to a less distant subdominant in the form of °DDalt. Possibly one might, in consequence of the neapolitan perspective, want to term this Gm Tnv. This Tnv however still would have to *permutate* to °DDalt when progressing to the F sharp of Var. I.

In this way the theme of op. 40 would not really be adequately characterized as an example of bifocality (although, as described, it does exhibit this too), as middleground analysis might would have lead you to believe. It shows itself rather as an example of extended tonality in the Steinian sense of the term. In a sense all 16 bars unfold the tonality of B minor with a temporary tonicization of of °SSnv. This °SSnv, as well as the final °DDalt, are however not ordinary tonal pillars within major- minor-tonalities. They are examples of an 'extended tonality'.

In the analyses Maegaardian and Jerdsilian theories were shown to be capable of working together, enriching one another. Through Maegaardian theory a simple account for the *sound term* quality of the Am – Fm progression could be made. Through Jersildian position theory the better solution could be decided on, making a simple tonal scheme of a T- and a °SSnv-area emerge.

Coda

The analyses presented here do of course not pretend to reveal anything about what Nielsen might have or not have planned. They simply aim to reveal the resulting structure of Nielsen's work. Indeed, my presentation of the intricate harmonic structures of the theme of op. 40 seems almost to be contradicted by Nielsen's own humble account of this theme: 'I sat home one night and got hold of a theme that begins in b minor and ends in g minor'.[56]

What the analyses do demonstrate, I believe, is how Jersildian and Maegaardian analysis works, and how it relates to, or distances itself from, a carefully selected group of other theories. They also pretend to show how Nielsen's music from 'Det bødes der for' to the theme of op. 40 grows still more complex in regard to harmonic progressions and tonal relationships, at the same time as the immediate musical surface grows simpler. Where the chromaticism of 'Det bødes der for' unfolds through an environment including augmented and incomplete dominants, the song written ten years later, 'Skal Blomsterne da visne', shows a equally consistent chromaticism

56 *Jeg sad en Aften hjemme og fik fat i et Tema, der begynder i h-moll og ender i g-moll* (citeret efter John Fellow (ed.), *Carl Nielsen til sin samtid*, Copenhagen 1999, 220).

unfolded through a texture of predominantly pure triads. That this simplification of the harmonic language, which has come to be a typical Nielsen trait, by no means implies a simplistic approach to the possibilities of tonality, should be clear from preceding examples. On the contrary Nielsen's use and personalization of his harmonic inheritance is very subtle. This may be seen in respect of the integration of modal inflection into tonality through the use of °D as 5., (and thereby creating long range harmonic progressions), as well as the way in which Nielsen time and again lets mediants progress from minor to minor while still using them within an albeit bended tonal framework. In this way Nielsen manages to maintain surprising colourfulness within the bonds of tonal harmony, kept in a triadic tonal language distanced from (as well as indirectly referring to) the harmony of the preceding romantic era.

A B S T R A C T

On the basis of songs or songlike themes from three periods of Nielsen's career I try to show how Nielsen's harmonic progressions become simpler while displaying a more refined complexity. I do this on the basis of the theories of the Danish scholar/composers Jörgen Jersild and Jan Maegaard which are, in various degrees, based on Riemannian analysis. The two Danes thus represent an alternative neo-Riemannian approach to harmonic analysis. This approach was developed from 1970 to 1989, the very same years in which Ernö Lendvai, David Lewin, Deborah Stein and Harald Krebs wrote their respective groundbreaking works. Even though Jersild's and Maegaard's theories were developed independently of these writers, their content communicates with the content of their theories. And even though a theory of foreground harmonic progressions like Jersild's is seemingly as opposed as possible to a Schenkerian middleground-based harmonic approach, they do actually, in some regards, have something in common, just as in other regards they supplement each other perfectly. I try, through the analyses of Nielsen's music plus a few other examples (Schumann, Liszt and Wolf), to show how the theories of these above mentioned many writers and others, may be integrated into the two Danish theories.

In discussing analytical theories the text is especially conversant with two recent books on Nielsen, Anne-Marie Reynolds' *The Voice of Carl Nielsen* (2010) and Daniel Grimley's *Carl Nielsen and the Idea of Modernism* (2011), as the two main analyses refer to analyses in Reynolds and Grimley respectively.

Literature

Bailey, Robert, 'An Analytical Study of the Sketches and Drafts', *Wagner: Prelude and Transfiguration from 'Tristan and Isolde'*, ed. Robert Bailey, 113-46. New York 1985

Bass, Richard. 'From Gretchen to Tristan: The Changing Role of Harmonic Sequences in the Nineteenth Century', *19th-Century Music*, vol. 19 No. 3, (1996), 263-285

Cohn, Richard. 'Maximally Smooth Cycles, Hexatonic Systems, and the Analysis of Late-Romantic Triadic Progressions', *Music Analysis*, vol. 15, No. 1 (1996), 9-40

Cohn, Richard. 'As Wonderful as Star Clusters: Instruments for Gazing at Tonality in Schubert', *19th-Century Music*, vol. 22, No. 3 (1999), 213-232

Devoto, Mark. 'Non-classical Diatonism and Polyfocal Toality: The Case of Nielsen's Fifth Symphony, First Movement', *The Nielsen Companion*, ed. Mina Miller, 257-288, London 1994

Dreschler, Joseph. *Harmonie- und General-Bass-Lehre*, Wien 1816

Grimley, Daniel. *Carl Nielsen and the Idea of Modernism*, Boydel 2011

Eidenbenz, R.. *Dur- und Moll-Problem und Erweiterung der Tonalität*, Zürich 1927

Fanning, David. *Nielsen: Symphony No. 5*, Cambridge 1997

Fjeldsøe, Michael: *Den fortrængte modernisme – den ny musik i dansk musikliv 1920-1940*, (Ph.D.diss.,Copenhagen University, 1999

Forte, Allen and Gilbert, Steven. *Introduction to Schenkerian Analysis*, Norton and Company, 1982

Hamburger, Poul, 'Formproblemet i vor Tids Musik'. *Dansk Musiktidsskrift*, vol. 6 (1934),89-100

Hamburger, Poul. *Harmonisk Analyse*, Copenhagen 1951.

Harrison, Daniel. *Harmonic Function in Chromatic Music*, Chicago1994

Harrison, Daniel. 'Rosalia, Aloysius, and Arcangelo: A Genealogy of Sequence', *Journal of Music Theory*, vol. 47, No. 2 (2003), 225-272

Hvidtfelt Nielsen, Svend. 'Mediantforbindelsers harmoniske funktion.' *Musik og Forskning*, 31 (2008), 85-117

Hyer, Brian. 'Reimag(in)ing Riemann', *Journal of Music Theory*, vol. 39, No. 1 (1995), 101-138

Høfding, Finn. *Harmonilære*, Copenhagen 1933

Jersild, Jörgen. *De funktionelle principper i Romantikkens Harmonik*, Copenhagen 1970

Jersild, Jörgen. 'Kommentar til en anmeldelse', *Dansk Musiktidsskrift*, vol. 46 (1971), No. 2, 45-49

Jersild, Jörgen. 'Et svar fra Jörgen Jersild', *Dansk Musiktidsskrift*, vol.46 (1971), No. 5, 148-50

Jersild, Jörgen. Dur- og mol-harmonikkens sekvensmønstre, Copenhagen 1985, (Originally presented in Danish Yearbook of Musicology XIII, 1982)

Jersild, Jörgen. *Analytisk harmonilære*, Copenhagen 1989

Imig, Renate. *Systeme der Funktions-bezeichnung in der Harmonielehren seit Hugo Riemann*, Düsseldorf 1970

Kopp, David. *Chromatic Transformations in Nineteenth-Century Music*, Cambridge 2002

Krebs, Harald. 'Alternatives to Monotonality I Early Nineteenth-Century Music', *Journal of Music Theory*, 25, no.1 (spring 1981), 1-16

Krebs, Harald. 'Tonal Structure in Nielsen's Symphonies: Some addenda to Robert Simpson's Analyses', *The Nielsen Companion*, ed. Mina Miller, 208-49, London 1994

Kurth, Ernst. *Romantische Harmonik – und Ihre Krise in Wagners 'Tristan'*, Berlin 1923

La Motte, Diether de. *Harmonielehre*, 2004

Lendvai, Ernö. *Bela Bartok, an analysis of his music*, London 1971

Lewin, David. 'A Formal Theory of Generalized Tonal Functions', *Journal of Music Theory*, vol. 26, No.1 (1982), 23-60

Louis, Rudolf und Thuille, Ludwig. *Harmonielehre*, Stuttgart 1910

Maegaard, Jan. 'Romantikkens harmonik?' *Dansk Musik Tidsskrift* (1971a), No. 1: 11-18

Maegaard, Jan. 'Et svar fra Jan Maegaard', *Dansk Musiktidsskrift*, vol. 46 (1971b), No. 2, 49-50

Maegaard, Jan og Teresa Waskowska Larsen. *Indføring i Romantisk Harmonik*, Copenhagen 1981

Maegaard, Jan. 'Harmonisk analyse af det 19 årh.s musik', *Musik og forskning 15, 1989-90*, 84-110

McCreless, Patrick. 'Ernst Kurth and the Analysis of the Chromatic Music of the Late Nineteenth Century', *Music Theory Spectrum*, vol.5 (1983), 55-76

Meyer, Leonard B. *Emotion and Meaning in Music*, London and Chicago 1956

Nielsen, Carl. *Theme with Variations for piano, Op. 40*, ed. Mina Miller, Copenhagen, 1982

Nielsen, Carl. *Carl Nielsen Works* III/7 *Sange – Kommentarer*, ed. Niels Krabbe, Copenhagen 2009

Piston, Walter, and Devoto, Mark. *Harmony*, Fifth edition, New York 1987

Proctor, Gregory. *Technical Bases of Nineteenth-Century Chromatic Tonality: A Study in Chromaticism*. Ph.D.diss., Princeton 1978

Rasmussen, Jens, Harmonik og tonalitet i Brahms' sene klaverværker og 'Vier ernste Gesänge' med henblik på den funktionsanalytiske metodes anvendelighed i forhold til såkaldt romantisk hamonik, Konferensafhandling ved Aarhus Universitet, 2011

Rehding Alexander. 'Tonality between Rule and Repertory; Or, Riemann's Functions-Beethoven's Function', *Musical Theory Spectrum*, vol. 33, 2011, 109-123

Reynolds, Anne-Marie. *Carl Nielsen's Voice – His Songs in Context*, Copenhagen 2010

Ricci, Adam. *A Theory of the Harmonic Sequence.* Ph.D.diss. Eastmann School of Music, 2004.

Riemann, Hugo. *Geschichte der Musik-theorie im IX.-XIX. Jahrhundert*, Leipzig 1898

Riemann, Hugo. *Handbuch der Harmonielehre*, 6. ed. Leipzig 1918

Salzer, Felix. *Structural Hearing – Tonal coherence in Music*, New York, 1952

Siciliano, Michael. 'Two Neo-Riemannian Analyses', *College Music Society*, vol. 45, 2005, 81-107

Schenker, Heinrich. *Free Composition*, Trans. and ed. Ernst Oster. 2 vols. New York and London, 1979

Simpson, Robert. *Carl Nielsen: Symphonist 1865-1931*, London 1952

Smith, Charles J..'The Functional Extravagance of Chromatic Chords' .*Music Theory Spectrum*, vol 8 94-139

Stein, Deborah. *Hugo Wolf's Lieder and Extensions of Tonality*, London 1985

Tymoczko, Dmitri. *A Geometry of Music – Harmony and Counterpoint in the Extended Common Practice*, Oxford 2011