

Bengt Edlund

Questioning Schenkerism



Bengt Edlund

Questioning Schenkerism

During the past fifty years Schenkerian theory has been adopted as the main method for analysing tonal music. This book questions the value of Schenker's "tonal analysis" for musical description and interpretation, and discusses its relations to "generative" theory and "implicational" analysis – taking into account its links with linguistic syntax and the perception of tonal closure. It is observed how auxiliary theoretical concepts transform the music so as to pave the way for preordained tonal structures. Alternative readings of the music examples are provided.

The Author

Bengt Edlund, trained as a pianist, has been active as a music critic, and as lecturer at the Department of Musicology, University of Lund, where he was appointed Professor in 2000. His main fields of interest are music theory and analysis, music cognition and aesthetics, and musical interpretation.

Questioning Schenkerism

Bengt Edlund

Questioning Schenkerism

Bibliographic Information published by the Deutsche Nationalbibliothek

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the internet at <http://dnb.d-nb.de>.

Library of Congress Cataloging-in-Publication Data

Edlund, Bengt, author.

Questioning Schenkerism / Bengt Edlund. – 1st edition.
pages cm

ISBN 978-3-631-66113-0

1. Schenkerian analysis. I. Title.

MT6.E32 2015

781.1'7–dc23

2015011591

ISBN 978-3-631-66113-0 (Print)
E-ISBN 978-3-653-05592-4 (E-Book)
DOI 10.3726/978-3-653-05592-4

© Bengt Edlund, 2015

PL Academic Research is an Imprint of Peter Lang GmbH.

Peter Lang – Frankfurt am Main · Bern · Bruxelles · New York ·
Oxford · Warszawa · Wien

PETER LANG




Open Access: This work is licensed under a Creative Commons Attribution Non Commercial No Derivatives 4.0 unported license. To view a copy of this license, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/>

This publication has been peer reviewed.

www.peterlang.com

Table of Contents

Preface.....	11
Chapter 1 Schenkerian theory and better comparison: An out-of-the-way perspective.....	13
Introduction.....	13
Schubert's <i>Das Wandern</i> and the question of consecutive fifths.....	17
What went wrong with this "good comparison"?	21
A further Schenkerian reading of <i>Das Wandern</i>	27
A free reduction of a free composition	28
The initial theme of Beethoven's Op. 90: Schenker's background.....	31
Salzer's reduction	34
Beethoven's theme: some preliminary observations	38
An alternative reduction to be discarded	42
Final attempts at a reduction.....	43
Beethoven's theme: some conclusions	47
Schenker and Schumann's <i>Aus meinen Thränen sprießen</i>	50
A critical scrutiny of Schenker's reduction.....	53
Schenker's analysis of the middle section: the foreground.....	57
Schenker's analysis of the middle section: the middleground	63
Harmonic observations	67
Conclusions and a bottom/up attempt at reduction.....	70
Bringing in the context of the song.....	73
General conclusions	75
Chapter 2 Disciplining reduction and tonalizing interpretation	79
Introduction.....	79
Reduction and interpretation	80
Disciplining reduction	90
Schenker's analysis: the first phrase of the antecedent	90
The second phrase of the antecedent	93

The first part of the middle section.....	99
The second part of the middle section	101
The entire theme	105
von Cube’s reduction.....	108
Correcting the disciple.....	113
von Cube’s defence.....	115
Enforcing discipline.....	119
Maintaining discipline: Beach teaching teachers	123
The A-sections according to Beach	124
The B-section according to Beach.....	131
Tonalizing interpretation	140
Schenker’s analysis	140
von Cube’s dual descent reading.....	146
Beach’s analysis	147
Searching for the theme’s “tonal content”	149
Rising fourths and falling seconds; a network of implications	150
A model and its expanded, inverted-counterpoint replica	155
Tonal structure in terms of “drones”	159
Tonal structure in terms of “focal” events.....	161
“Focal” reduction and interpretation	163
Conclusions.....	169

Chapter 3 Is tonal music hierarchic?

An impenitent sermon.....	171
Introduction	171
Two ways of presenting tonal reductions	173
Schenker’s reduction: the first half of the chorale	175
The second half of the chorale.....	179
Cook’s discussion of Schenker’s analysis	184
Cook’s alternative reduction.....	191
Lerdahl and Jackendoff’s “Generative Theory”	194
The first phrase: metric accents and rhythmic groups.....	196
The first phrase: time-span reduction	199
The first phrase: prolongational reduction	203
Issues of “final-state” understanding.....	205
Cadences and branching.....	212
Issues of grouping and form	216
Assigning hierarchical structure to music	219

Summary of the reductive accounts	224
Towards a non-hierarchical analysis.....	225
Finding the “focus” of the chorale	231
Chapter 4 Prolongation vs. implication.....	235
Introduction	235
Implications and prolongations in the <i>Les Adieux</i> introduction.....	240
Comparing prolongations and implications.....	247
A selection of observations.....	252
Chapter 5 A hitch-hiker’s guide to the repeat.....	255
Introduction	255
Main objection.....	257
The first section.....	259
The third section	261
The middle section	264
Schachter’s middleground and Schubert’s sketch	267
Motivic relationships and the element of dialogue.....	270
Schachter’s “phrase rhythm”: some critical observations.....	275
Metre and rhythm in the middle section.....	278
The Trio	284
A question of maps	288
An alternative structural account	289
The outer sections	290
The middle section	291
Conclusions.....	297
Some issues of interpretation.....	299
Chapter 6 Schubert, Schumann, and Schenkerism.	
Tonal vs. focal Reduction	305
Introduction	305
Salzer’s reading of a Schubert waltz.....	306
A bottom/up reduction of the waltz	313
Schumann’s <i>Albumblatt</i> : a preliminary musical description.....	314

Some attempts to make reductive sense of the <i>Albumblatt</i>	320
“Outer” form and “tonal” form; the problem of repeats	326
Revisiting Schubert’s waltz	328
Conclusion	333

Chapter 7 Syntactic vs. rhetoric structure. Language, music, and tonal reduction.....335

Syntax and closure in language and music.....	335
Clauses and sentences in language and music	337
Closure, unity, and coherence	340
Tonal structure vs. tonal content	341
<i>God Save the King</i> : two syntactically independent units.....	344
A Schenkerian reduction	345
Alternative readings	348
Conclusions.....	349
<i>Gott erhalte Franz den Kaiser</i> : three relatively independent units	351
Schenker’s reduction in <i>Der freie Satz</i>	353
Schenker’s reduction in <i>Der Tonwille</i>	357
Alternative readings	361
Conclusions.....	363
General discussion.....	365

Chapter 8 Tonics and returns. A modest investigation371

Introduction.....	371
Salzer’s readings of a Schubert waltz and a Mozart <i>Adagio</i>	373
Modulating variants of the waltz and the <i>Adagio</i>	374
Lerdahl and Jackendoff’s prolongational trees.....	376
Experimental design	380
Results	382
Conclusions and discussion.....	385

Chapter 9 Shaving Schenker395

Introduction	395
Schenker’s and Bursteins’ readings: a comparison	396

Criticism of Schenker's analysis.....	398
Starting from scratch.....	402
Three deep-layer structures	404
Summary and discussion	410
Music Examples	416
Chapter 1	416
Chapter 2	426
Chapter 3	437
Chapter 4	450
Chapter 5	453
Chapter 6	466
Chapter 7	474
Chapter 8	480
Chapter 9	488
References	495

Preface

Ever since I got to know Schenkerian analysis during my student years, I have been sceptical of it, and the more I learnt about it, the more negative I turned. More often than not, the music under analysis fared so badly. And yet, to my amazement, this method was embraced so enthusiastically by so many analysts, had so many adherents.

The fact that, when listening to music, we pay less attention to some events in favour of others that emerge as more important, is most productive when it comes to analysis. It is therefore a pity that this idea has virtually always been used for one and the same thing in Schenkerian analysis: to force *Ursätze* onto tonal music in order to demonstrate that the music exhibits tonal unity. This busyness is superfluous, however, since Schenker's theory has established beforehand that, given the analytical devices warranted by its success story, any non-deficient piece of tonal music is bound to exhibit an *Ursatz*.

But there are so many other and more worthwhile things to say about music, so much else to discover if you cease to treat it as a quasi-visual, through-and-through hierarchical thing, if you try to describe it as a process. Maybe it is time to proclaim a fifty-year moratorium of Schenkerian analysis, or at least to ask for a less orthodox approach to reduction. Meanwhile, it is necessary to disturb a tradition of panegyrics and routine analysis with some criticism of Schenkerian theory as it emerges in its practice, to ask questions rather than provide answers.

The nine chapters in this volume – they are connected in various ways but must not be read in succession – are written during a period of some thirty years. Chapter 1 discusses the value of Schenkerian analysis while chapter 2 is mainly devoted to a study of how it has been taught to its disciples. In chapters 3 and 4 the methods advanced by Lerdahl and Jackendoff, and Leonard B. Meyer are brought in for comparison. Problems of “tonal” form make up the theme in chapters 5 and 6. Using language as a point of departure, chapter 7 deals with the relationship between syntactic structure and rhetoric content. Chapter 8 accounts for an experiment on

tonal closure. The subject of chapter 9, finally, is a number of auxiliary concepts frequently resorted to in Schenkerian analysis.

The choice of the works to be discussed entirely depends on the texts or occasions that once sparked off my spirit of contradiction. To make up for all criticism – and to set things right in the maltreated music – alternative readings are proposed, readings that bring in other ideas and adopt a non-Schenkerian approach to reduction.

For five further studies mainly or partly devoted to the shortcomings of Schenkerian analysis, the reader is directed to *Chopin. The Preludes and Beyond* (Frankfurt 2013, Peter Lang Verlag).

This book and the previous volume on Chopin's Preludes have been generously supported by Sten K Johnssons stiftelse.

Lund, 12 September 2014

Bengt Edlund

046.131466@lsn.se

Chapter 1 Schenkerian theory and better comparison: An out-of-the-way perspective

“as long as we remain silent about the questions, we may keep the illusion that we might one day be able to find the answers”.

From *The Year when Ricardo Reis died* by José Saramago

Introduction

Taking part in a discussion devoted to the problem of whether or not music analysis can or should raise claims to be a scientific activity, Nicholas Cook has argued that analyses are not be measured by scientific standards.¹

One of his reasons for denying scientific status to music analysis is that the scientific stance has turned out to be untenable in the light of negative empirical evidence, brought up not least by Cook himself.² People tend to notice very few of the things that analysts are keen on observing, and speaking specifically about Schenkerian analysis, he concludes: “If the principle of tonal closure has little or no perceptual significance at the larger time scales found in most tonal compositions, is there not something radically wrong with a theory that ascribes fundamental aesthetic importance to it?” But this is, Cook maintains, too easy a way to get out of the dilemma: “To ask this is to assume that a theory of musical structure has to be also a theory of perception. But there is no intrinsic need for the theorist to conceive of musical structures in the same manner that the listener perceives them.”³

1 Nicholas Cook, “Music Theory and ‘Good Comparison’: A Viennese Perspective”, *Journal of Music Theory* 33(1989) 1, 117–141.

2 Research of this kind is summarized in Nicholas Cook, *Music, Imagination, and Culture* (Oxford 1990), pp. 43–70.

3 Nicholas Cook, “The Perception of Large-Scale Tonal Closure”, *Music Perception* 5(1987) 2, 197–206; the citations are from p. 203. See also the methodological critique of Cook’s study advanced in Robert Gjerdingen, “An Experimental Music Theory?” in Nicholas Cook & Mark Everist (eds.), *Rethinking Music* (Oxford 1999), pp. 161–170, particularly pp. 164–165. A parallel investigation, using a different experimental design but corroborating

“What we need is a rationale for adopting Schenker’s analytical methods while rejecting his epistemology. And a clue to how such a rationale might be formulated can be found in the concept of *Darstellung* as developed by other writers in Vienna during the early decades of the present century”. (p. 124)⁴ According to Cook, then, analyses – and Schenkerian tonal reductions in particular – are not meant to account for how and what people actually hear; tonal analyses make up *representations* guiding the musical experience by drawing attention to certain traits of the music. Subjecting analyses to empirical tests is therefore simply beside the point.⁵

Dismissing empirical verification, Cook proposes another way to establish the merits of analytical descriptions. They should be evaluated with respect to whether they seem enlightening or useful; the assessment becomes a matter of the individual reader’s appreciation. “A Schenkerian explanation is validated when its readers accept it as a satisfying account of the music in question. [...] But a Schenkerian analysis does not simply present an interpretation; it provides reasons for the interpretation, implicitly if not explicitly.” (p. 128)

The value of an analysis, in turn, depends on the extent to which the reading does not just reproduce the musical surface, but goes beyond it, transforming it and making possible a “good comparison” with the actual

Cook’s results – results that Gjerdingen does not doubt – is accounted for in “Tonics and returns”, ch. 8 in this volume.

- 4 Henceforth all citations, unless otherwise stated, stem from Cook’s “Music Theory and ‘Good Comparison’”.
- 5 As far as tonal analysis is concerned, Cook’s standpoint completes the retreat from Schenker’s claim that such analyses are normative for music understanding, a retreat started by formalistically minded adherents of Schenkerian theory, who regarded the *Ursatz* as an axiom enabling us to derive a given musical design as the final product of a top/down generative process. (A critique of the axiomatic idea is to be found in Eugene Narmour “*Beyond Schenkerism. The need for Alternatives in Music Analysis*” (Chicago University Press 1977), chapter 2.) At this point it is fair to mention that, although Cook approves of Schenkerian analysis, he is by no means uncritical of it; cf. numerous passages in his deservedly widespread books *Guidelines to Music Analysis* (London 1987) and *Music, Imagination, and Culture*.

music.⁶ “The function of an analysis, then, is not to reduplicate the composition in question; it is to focus the readers’ attention on its individual qualities. And this means that it is wrong to judge an analysis according to how directly it *mirrors* the surface of the music, with its tunes and silences and abrupt changes of texture. What matters is the extent to which it *illuminates* the surface.” (p. 132)

All this may seem acceptable in as far as there is no doubt more to be said about a piece music than what can be heard immediately by just anybody. But it seems that when defending Schenkerian analysis in this way, Cook lets it come off the hook too easily.

Firstly, Schenkerian readings are in fact quite often vindicated by recourse to how the music is heard or, in an explicitly normative vein, by appealing to how it should be heard.

Secondly, since (as Cook himself has shown) listeners tend to lack ears for tonal closure even in fairly short and simple pieces, one might suspect that thousands upon thousands of middleground and background graphs found in Schenkerian analyses do not make up heard structures but are products of close and quite deliberate visual inspection of the music as printed in the score. If listeners cannot even deal with short pieces in the way required or predicted by the theory, they are most likely to completely lose track of the long-range harmonic and voice-leading connections supposed to lend tonal unity to extended works, and making up the uniquely valuable essence of tonal reductions. Using the score as the main (or only) source of analytic discovery, and presumably corroboration as well, means that it is possible to rely quite heavily on a top/down, end-towards-beginning, perspective of the musical process, a vantage position agreeing all too well with the unfortunate normative character of Schenkerian theory.

Thirdly, since Schenkerian theory provides analysts with various criteria of reduction, telling them which events and parameters that are to be taken into primary account, and since it also posits the structures that must ultimately emerge, it may be argued that the results all too closely,

6 The idea to equate analyses with “good comparisons” originally stems from Schoenberg.

and in a most unscientific way, “mirror” not “the surface” of the music, but the basic assumptions of the analytic undertaking.

Finally, the idea of using “good comparison” as a yardstick when evaluating tonal reductions seems unreliable. Since, if Cook’s view is adopted, a worthwhile reduction involves transforming what is given, one cannot escape the crucial question of evaluation vs. validation, which is more of a one-way relationship than Cook apparently wants to think. Analytic results are not necessarily valid because we find their outcomes “illuminative”.⁷ Validation should precede evaluation, not the other way around. If the various analytic decisions, upon which a tonal reduction is based, emerge as arbitrary, far-fetched, dogmatic, or incorrect – i.e. as invalid – this is bound to affect the assessment of the value and usefulness of the result. And yet it turns out that such analyses, being more or less irrelevant because they miss their objects, are accepted as “good comparisons” by indiscriminate readers as well as by (properly attuned) analysts.⁸ If the “illuminations” are delusions, one cannot just go ahead as if nothing had happened.

Besides, since Schenkerian *Darstellungen* are predicated on the idea that all tonal pieces of music are (or should be) modelled on authentic cadences prolonged by means of strict counterpoint, successful tonal reductions invariably produce *Ursätze*, i.e. authentic cadences prolonged by strict counterpoint, as the ultimate representations to be compared with the actual music. But are comparisons based on such standardized schemes always very “illuminating”, haven’t they lost the charm of novelty and the excitement of boldness after almost a century of persistent reductive efforts. And, considering the element of dogmatism involved in these undertakings, do they really capture the “individual qualities” of the works? Isn’t there a possibility of alternative accounts, of “comparisons” issuing from other theoretic agendas, comparisons that may be just as good – or even better? Indeed, if analyses are “representations”, that are not devised

7 Obviously, this principle has applications beyond music analysis, for instance when it comes to another Viennese speciality, psychoanalysis.

8 Bertrand Russell’s final words on Hegel’s philosophy springs to mind: “This illustrates an important truth, namely, that the worse your logic, the more interesting the consequences to which it gives rise”. (*Western Philosophical Thought*, London 1946, p. 773)

to (primarily) record one's own listening but to "guide the musical experience" of others, it would be a pity if a very influential analytic theory has fobbed off on us readings that are pedestrian as to approach and results, readings that suppress other "representations" that might be more rewarding?

According to Cook, "a Schenkerian explanation is validated when its readers accept it as a satisfying account of the music in question". But this is too simple to be acceptable: turning to the consumers of Schenkerian analyses, a quite select group of *Kenner und Liebhaber*, from where do they draw their standards of satisfaction? If Schenkerian reductions are to be spared the risk of empirical testing in current, scientific sense, they must at least be subjected to thorough and unbiased analytic validation.

In what follows, the three specimens of tonal reduction chosen by Cook to substantiate his "good-comparison" idea will be critically examined, laying bare the roots of his analyses and proposing alternative accounts. To the extent that these Schenkerian "representations" lack validity, as assessed by the musical ear and by analytic common sense – a kind of testing that does not equal scientific corroboration, but at least amounts to a sceptical attitude as becomes any scholarly effort – they cannot very well provide "good comparisons".

Schubert's *Das Wandern* and the question of consecutive fifths

Asking rhetorically "how would you analyze the second half of Schubert's song 'Das Wandern?'" , Cook offers the reduction shown in Exs. 1 a–c. As he points out in his comments, this reading ("your" reading) exhibits "glaring consecutive fifths between the outer parts" at level 1c. (pp. 126–128) At the previous level 1b they are less glaring due to the fact that the notes making up these objectionable intervals turn out to be non-simultaneous.

Cook also presents two further background layers, Exs. 1d and 1e, that do not feature consecutive fifths, but calls them in question since they do not match what we are likely to hear. Thus, a listener might complain that in 1d the V harmony is "given precedence over" the previous VI chord, forming

the first member of the sequence, whereas in 1e it is hard to hear “a structural dominant” during the concluding “rocking alternation of F and B₂”.

While one is bent to agree with this listener, it must be recalled that the argument is inconsistent considering Cook’s dismissal of listening when it comes to validating tonal analyses: “But there is no intrinsic need for the theorist to conceive of musical structures in the same manner that the listener perceives them.”

Moreover, it must be pointed out that these alternative backgrounds are just as problematical as the one shown in 1c, as long as layer 1b remains intact. If there are any undesirable middleground consecutive fifths buried in the music, and this is what 1b suggests (no matter the lack of exact co-ordination), they are not wiped out of existence just because they are not allowed to contaminate the background 1c. The first of the forbidden fifths is simply omitted when moving from 1b to 1d or 1e.

It should also be observed that while Cook appeals to listening when 1d and 1e are rejected, he does not subject 1c to such a test. He just says that it “looks uncouth”. But the fact of the matter is that neither the background 1c, nor its middleground 1b are adequate if you venture to check them against Schubert’s music – *Das Wandern* does not sound, nor does it look, “uncouth”.

Finally we must ask ourselves whether there are not alternative, and better, reductive accounts than 1b and 1c.

Returning to Cook, he maintains that “(c) is not in itself a less accurate formulation of the tonal structure” of the song, “than (d) or (e), but that, due to the consecutive fifths, it is less satisfactory as an expression of that structure in terms of the metaphor of Fuxian counterpoint. It makes the music look ungrammatical and, therefore, incoherent.” And he continues: “But this is not because the middleground consecutives contravene any natural law of musical organization. It is because they run counter to the representational means adopted in Schenkerian analysis. They spoil the comparison between Schubert’s song and Fuxian counterpoint.”

First of all, it must be pointed out that within Schenkerian theory Fuxian counterpoint amounts to more than a vehicle for the *Darstellung* of musical structures. Strict counterpoint is also adopted as a main heuristic device in

the reductive process *and* as a decisive *Satzprobe* norm when validating the results – that is why Cook can say that 1c looks “uncouth”.⁹

Turning specifically to undesirable consecutive intervals, this is how Cook summarizes Schenker’s views: “But he accepted the traditional prohibition of real consecutives. Now Schenker did not see his theory as a metaphor; he believed that there are natural laws, which operate equally at the level of large-scale and that of note-to-note structure. So one might expect to find an equally strict prohibition of consecutive fifths when these are generated at a single structural level in the middleground. In the event Schenker is more pragmatic, saying that forbidden intervallic successions may be found in the middleground, but that ‘it is then the task of the foreground to eliminate them’. In practice, however, both Schenker and present-day Schenkerians tend to avoid middleground consecutives.”

As regards the second part of *Das Wandern*, graph 1c is not a middleground, but rather a background, and this fact cannot but turn the “glaring” consecutive fifths even more objectionable, indeed unacceptable, from a Schenkerian point of view. And as anybody familiar with the practice of tonal reduction can testify, the *analysts* take it to be *their* task to let layers beyond the foreground eliminate prohibited consecutives whenever they impend. It is just a matter of selecting suitable notes, of avoiding notes that would produce undesirable intervals if they were allowed to show up at deeper levels, and this is (among other things) what using strict counterpoint as a heuristic device in tonal analysis amounts to.

The avoiding job is facilitated – and the analysts’ scholarly doubts, if any, are considerably alleviated – if one follows Schenker’s lead and pursues tonal reduction as an exercise in top/down prolongation, i.e. if one does not begin by selecting middleground notes from the foreground but starts the analysis by producing them out of the background. However dubious it may seem to outsiders, this path of analytic discovery is considered quite acceptable to those knowing that they possess the truth when it comes to structure in tonal music.

9 Can a vicious methodological circle be more hermetic? You reap what you have sown, and hence the reaping is impeccable. As to the crop, it is of course very good since the sowing – strict counterpoint – is the very best you can get. (Talk about planting evidence!)

But it is possible to conceive of other, true kinds of reduction, procedures where it is not “the task of the foreground to eliminate forbidden intervallic successions”, but the task of the analyst, conscientiously pursuing reduction as a bottom/up process, to start from the foreground and derive the following layers without preconceived notions as to what should or should not be there.¹⁰ In a genuine reduction, the foreground/the musical surface is the inviolable point of departure. If the foreground/surface, or any conscientiously derived deeper layer, features prohibited consecutives, they must be accepted, and if emerging as structural at that layer, they have to be retained at the next layer of the reduction, and possibly beyond.

Cook is not altogether satisfied with his reduction, however.¹¹ Due to the wretched consecutive fifths, it “spoils the comparison between Schubert’s song and Fuxian counterpoint”.

But before trying to find out what went wrong, one thing should be made clear. Far from spoiling the “comparison” with Fuxian counterpoint, the background 1c – in virtue of being patently un-Fuxian – makes up a quite interesting comparison between Schubert’s song and strict counterpoint. This “uncouth” background is in a way a “good comparison”, suggesting no less than three conclusions.

Thanks to Schenker’s supreme analytic method, Schubert’s little song, agreeable as it is, has been exposed as a flawed *Machwerk*. What else can it be since its background gravely fails to meet the standards of strict counterpoint? But it is also possible that the idea of using Fuxian counterpoint as a “metaphor” when producing “illuminating” *Darstellungen* is not as universally applicable as the adherents of Schenkerian tonal analysis are prone to think. When dealing with this simple but arguably very fine song in the theoretically sanctioned way, an illegitimate background emerged.

10 Nobody or nothing (not even the middleground) can of course assign any task to the foreground. Schenker’s absurd wording discloses that his epistemology of reduction is in fact non-empirical, deductive: to him reduction was a matter of top/down prolongation, and only then it appears possible to refuse to prolong a certain layer in ways that produce consecutives.

11 Well, perhaps not necessarily “his” reduction; recall that some ghost-out-of-the-theory “you” is responsible for this analysis of *Das Wandern*, ending up in the unfortunate background 1c.

Finally, the analysis offered by Cook in Exs. 1 a/c might after all be an incorrect and misleading one. If *Das Wandern* itself seems tonally quite healthy and coherent while its background 1c looks “uncouth”, the Schenkerian manner of dealing with the song has in fact produced an invalid representation of its tonal structure.

As will soon emerge, the third inference makes good sense, and in addition there is much more than a shred of truth in the second conclusion.

What went wrong with this “good comparison”?

Before proceeding, let’s take a look at the analysis that “you” have proposed – presumably with the intention to arrive a tonal reduction offering an “illuminating” “*Darstellung*”, and including a demonstration of the song’s tonal unity into the bargain – and let’s study it top/down from 1c to 1a, i.e. in the truly Schenkerian direction as a set of prolongations.

Disregarding the unfortunate consecutive fifths, the background 1c is in fact correct to the point of being theoretically prescribed. It features the three last events of a four-member *Ursatz* – the first tonic one is no doubt to be found somewhere in the first part of the song – with an *Urlinie* falling from the third degree to the first, and a –VI–V–I *Baßbrechung*, lending the required root support for the treble. Then the middleground 1b sets about its duty to eliminate the consecutive fifths: the result sustains the *Satzprobe*, free of “glaring” consecutives as it is. Looking back, why shouldn’t the background 1c be prolonged so as to give rise to 1b? And as to the next stage, why shouldn’t the little Viennese *Schwämmel* Franz Ferdinand, being a medium of his tonal subconscious, prolong 1b so as to end up in the nice foreground 1a with its sequences of parallel tenths? Two “why-nots” – doesn’t this indicate that reduction-as-prolongation is an arbitrary method?

In short and excepting again the consecutive fifths, this seemingly incontestable piece of top/down analysis is and looks quite Schenkerian, and as a special bonus the result is so wonderfully transforming and non-trivial. The middleground does not look, nor does it sound as the foreground, and the same applies to the background when compared with the middleground. To empirically-minded pedants the latter observations perhaps amount to a devastating critique but, quite to the contrary and again excepting the consecutive fifths, this analysis is in fact laudable since Cook’s primary criterion of excellence when it comes to the evaluation of

Schenkerian readings has certainly been fulfilled. Let's recall that tonal analyses are *Darstellungen* whose *raison d'être* is to supply "good comparisons" by transforming their objects. If inter-layer discrepancies are assets, this is really an "illuminating" analysis.

Now to the exception: "you" (or Franz Ferdinand) must have made an incorrect prolongation, or rather – respecting now the quite self-evident methodological principle that reduction (as the term implies) should essentially be a bottom/up affair – when proceeding to deeper layers, "you" must in a most irresponsible, un-Schenkerian way have missed, not the opportunity, but the obligation to sweep the impending consecutives under the carpet. It is in fact quite easy to get rid of them: just listen to the song and trust your ears while selecting the notes to be retained, and the consecutives are gone. But if you do so, the prospects of arriving at a theoretically acceptable *Ursatz* are gone as well. Hence, what Cook has demonstrated with Exs. 1 a–c is that Schenkerian analysis fails when applied to this simple song. If subsurface-layer consecutives are not accepted, and if only the fundamental structures acknowledged by the theory are allowed, *Das Wandern* is intractable.

Switching over to the bottom/up approach, is it at all possible to start from the foreground/surface 1a, in which the crucial passage mm. 13–16 essentially consists of parallel tenths, and arrive at a structure that is so different and so prohibited as the background 1c with its "glaring" consecutive fifths? To answer this question we must make an effort to approach Schubert's song with our minds rinsed from notions as to what ought to be present in the music, and we must abandon the idea of using "the metaphor of Fuxian counterpoint" as a privileged vehicle of representation in order to achieve "good comparisons". These requisites come quite close to *not* positing what is to be proved, and it is how "scientific" we must get in order to be able to claim that we are engaged in analytic work at a scholarly level. If this approach leads to a result that reproduces certain properties of the object under analysis, this element of "mirroring" is far better than a reading that at any cost "illuminates" its object by reproducing given truths brought to bear on it already from the outset.

So, what went wrong in "your" analysis, proposed by Cook? Can the second, closing half of the song reasonably be heard and conceived of as shown in the middleground 1b, and can 1b in turn reasonably be reduced

to form the background 1c? Pointing out *en passant* that mm. 14 and 16 are just a contrary-motion fig leaf away from consecutive octaves – good foreground eliminating work, Franz Ferdinand! – the crucial bars are mm. 13 and 15, featuring parallel motion. Hence, the inquiry must start by asking whether m. 13 in fact makes up a V-of-VI complex, as the harmonic analysis in 1b wants us to believe.

This implies that m. 13 is in D major. But don't "we" hear something else, namely that this bar is still firmly anchored in B \flat major?¹² The first part of the song certainly keeps to B \flat major, and it is impossible to hear m. 13 as anything else than a continuation of the tonic. And even if the song had started here, "m. 13" would still sound as beginning in B \flat major – the upbeat plus the accented d²/B \flat dyad can hardly be heard otherwise. Leaving harmony for voice leading, "your" D-major reading of m. 13 implies that the first and third eighth-notes are appoggiaturas, and that the second and fourth eighth-notes bring their resolutions. But do we really hear that, don't we rather understand these notes as featuring unaccented dissonances: first a passing-note dyad c²/A, then a lower neighbour-note one, a¹/F#? Of course we do.

Having established this basic fact, it may be admitted that the secondary-accent dyad b \flat ¹/G might suggest a root-position G-minor chord, although the rather brisk tempo makes a harmonic change in relation to the B \flat -major main downbeat unlikely. It may also be granted that the final a¹/F# dyad is incompatible with B \flat major, and that it quite transiently functions as an applied dominant, tonicizing the following downbeat coming up once again with the b \flat ¹/G dyad. But it must be stressed that this late D-major applied dominant does not work retroactively, "dominantizing" the entire bar. Consequently, the middleground harmonic analysis of m. 13 as V-of-VI is entirely unwarranted, and so is of course also the background reading of mm. 13–14 as prolonging the relative minor.

This in turn means that there is not any valid oblique relationship between the upper-line d² in m. 13 and the bass G in m. 14 as suggested in 1b. Hence, the G does not serve as root support for the d², and yet this

12 Just as Cook makes "you" responsible for 1b and 1c, I will recruit you as supporters of my argumentation by using the pronoun "we". (The situation calls for mutual seizing of hostages.)

is exactly what is then manifestly and treacherously shown in the background 1c, where the false middleground association between events separated in time and tonality is collapsed into the dyad d^2/g , the first of the prohibited fifths and an interval that never occurs in mm. 13–14. Indeed, even if m. 13 had actually been in D-major all along, an oblique subsurface dyad d^2/g would have been impossible to accept since it would have involved a bass note that has not yet turned up, and since when the G is there, it obviously provides root support for the b^1 starting m. 14.

Generally, claiming that a passage prolongs some underlying structural entity does not entail that the notes within the passage can be considered simultaneous, and this applies especially to prolongations allegedly starting before the main event, as for instance when an applied dominant precedes its auxiliary tonic. Such “pre-prolongations” are problematic due to the amount of deliberate “structural hearing” required to understand them in the way the theory presupposes.¹³

It further follows that the anticipation, the boosting relocation, in 1b of the last eighth-note upbeat $F\#$ to serve as the main downbeat under d^2 is simply incorrect: $F\#$ (the transient third of an applied-dominant dyad lacking its root) does certainly not control the harmony of m. 13. According to Schubert, d^2 is root-supported by B^1 , a most salient, accented note altogether missing in “your” reduction. This note is first replaced by $F\#$ in 1b and then by g in 1c, although d^2 does not belong to the G-minor territory starting only in m. 14. Manipulations of this kind, frequent in Schenkerian analysis, come close to forgery, and they are all the worse since the first victim is not the credulous reader, but the proud analyst. The 6–3 interval configuration allegedly underlying the middleground in mm. 13–14 is the net voice-leading result of this mess, but it does not exist.

13 It appears that harmonic notations like Cook’s VI(V–I), stating the target chord before it is a fact, are most unsuitable since they turn “pre-prolongations” into matters of thoughtless routine. This is simply a currently accepted way to take down an applied dominant, you might argue, but the problem is that a formula that actually involves, presupposes a harmonic hypothesis is immediately represented as a hard fact. The more economic notation (V)–VI is much better because nothing is taken for granted before it has happened.

Loyally defending “your” analysis, Cook would probably claim that m. 15 is bound to be heard with m. 13 as its model. If 1b and 1c apply, it means that V-of-V is an apt description of the harmony of m. 15, that its second and fourth dyads are to be understood as resolutions of preceding appoggiaturas, that the late and transient bass note $E\sharp$ serves as the fundament of this C-major applied-dominant bar, that c^2 and F form an oblique sub-surface dyad, that f supports c^2 in the background making for consecutive fifths between mm. 13–14 and 15–16. But all these conclusions are unwarranted.

This fallacy deserves to be examined in detail. It is true that listeners are likely to be aware of the sequential construction of mm. 13–16, but it is also true that they will probably miss that there is actually a crucial difference between mm. 13–14 and mm. 15–16. The first unit of the sequence features a motion away from the $B\flat$ -major root-position tonic starting m. 13, whereas the second unit arrives at the F-major root-position dominant in m. 16, respectively. While there is a shift from $B\flat$ major (I) to G minor (VI) within the first unit, the second keeps to F major (V) throughout – it just brings a change from first inversion to root position. The last-eighth-note $E\sharp$ is not even transiently effective as an applied dominant since m. 15 is already in F major.¹⁴

Another possible harmonic interpretation of mm. 15–16 should be shortly accounted for and laid aside. To the extent G minor is established as an auxiliary tonic in m. 14, it might influence the beginning of the next bar, and for this reason the first half of m. 15 might perhaps be heard as being in D major. But the accented dyad a^1/F puts an end to this – it wipes out the $F\sharp$ in m. 13, as it were – and the harmonic interpretation of the beginning of the bar will retroactively and very quickly change into F major.

It is time to sum up. “Your” reading – a quite Schenkerian one showing hierarchically arranged reductions/prolongations – features a middle-ground 1b that is quite different from and does not fit with the foreground 1a, as well as a background 1c, lacking support in the middle-ground 1b and being very different from it. The background 1c has to be discarded

14 The fact that mm. 15–16 are in F major throughout means that the oblique dyad between c^2 and F, although still musically counterintuitive, is less objectionable than the previous oblique association between d^2 and G supposed to obtain no matter the chord shift.

as flawed according to Schenkerian theory since it contains consecutive fifths; Schubert's music, on the other hand, seems quite correct.

So again: how can "your" extremely counterintuitive reading, eventually turning out to be a failure in Fuxian terms, come about? How is it possible that Schenkerian tonal analysis is unable to cope with a short excerpt, mainly and quite obviously proceeding in parallel tenths?

Let's exclude the possibilities that there is something wrong with the song, and also that "your" analysis is inexpert. It is actually quite clever; the reductive criteria used as well as the manipulations undertaken are typical of the trade, and altogether (excepting the mishap with the consecutive fifths) this reading is representative of the state of the Schenkerian art of analysis. The fact of the matter is that the causes of both the grave distortion of the song and the theoretical failure of the analysis – a failure contravening the very Fuxian principles upon which the analysis is founded – are inherent in Schenkerian theory.

If the foremost purpose of analyses of tonal music is to demonstrate unity by establishing that the works (or at least the good works) prolong an *Ursatz* – an objective based on a conviction that may be disputed – then it is quite sensible (as "you" did) to look for a passage in the song where something tonally decisive seems to happen, to locate the structural dominant and (as the case may be) the strategic move preceding it. Neither content with the flippant dominant repercussions towards the very end of the song (Ex. 1e), "you" selected the dominant in mm. 15–16; nor pleased with m. 13 as just a restatement of the tonic (Ex. 1d), "you" opted for upgrading mm. 13–14, making them represent the submediant VI in the background-to-be. Indeed, the second decision emerges as a consequence of the first one: since the music obviously exhibits a sequence of paired bars, it may seem necessary to let the dominant unit be preceded by a relative-minor unit construed in the same way. (But, as shown above, they cannot be understood in the same way since they are in fact different.)

However, in as far as music is a tonal organism – which used to be a prevalent view in Schenkerian circles – and in as far as listening is at all involved in tonal reduction – a cherished notion in the same quarters – analysis should proceed from the beginning to the end. This allows of inferences from mm. 13–14 to mm. 15–16, but restricts the scope for conclusions in the opposite direction. Granted that listening may involve elements of

immediate retroactive adjustment, nobody is likely to re-interpret the harmonic content of m. 13 from B \flat major to D major after hearing m. 15 since the latter bar does not make up an applied C-major dominant. Nor would anybody “G-minorize” mm. 13–14 after having heard mm. 15–16, displaying F major. Anyone doing so would unduly focus on the root-position dyad beginning m. 14, introducing a quite ugly, heavy-at-the-back iambic patterning within this two-bar unit. Mistaken analyses are likely to induce bad interpretations.

Schenkerian theory demands that upper-line structural notes, and certainly *Urlinie* second degrees, are to be supported by chords in root position. This requirement – which is more than strict counterpoint enjoins – is satisfied by the c^2 in m. 15 only if it is given support by means of an oblique connection to the F-major root in m. 16. As we will soon see, this is unnecessary, but the move may – at a pinch, and disregarding the erroneous V-of-V harmonic analysis of m. 15 – be accepted since this oblique dyad after all takes place within an F-major context. But a similar reading does certainly not apply in the preceding, non-analogous and non-all-G-minor unit: the d^2 in m. 13, clearly harmonized as a B \flat -major third, is simply not supported by the G-minor root in m. 14. As a result of “your” insistence on (oblique) root support, prohibited consecutive fifths cannot but turn up in the background, unless, of course, either (or both) of two holy cows are sacrificed. “You” have to dispense either with the root-position VI-chord support for the third degree or with the root-position support for the second degree.

A further Schenkerian reading of *Das Wandern*

In another context Cook – or perhaps another “you” *alter ego* of his – has advanced a slightly different Schenkerian analysis of *Das Wandern*, cf. Ex. 1f.¹⁵ This reading is, without any critical qualifications or talk of consecutive intervals, used not only as a “good comparison” with regard to Schubert’s song, but also as a model in relation to which an implicational analysis by L. B. Meyer is put off as inferior.

15 *A Guide to Musical Analysis*, pp. 72–73.

According to Ex. 1f, the fundamental upper line of the song leads directly from the initial B \flat -major d² in m. 2 to c² in m. 15 (cf. Ex. 1d), whereas the applied-dominant roots of D major and C major – non-existent roots of non-existent harmonies – are placed under the treble notes d² and c², heading falling triads down to g¹ and f¹, respectively. No consecutive fifths impend in the background/*Ursatz* since the problematic VI unit is kept out of the ultimate reductive layer, but the middleground in 1f is replete with prohibited consecutives in a most un-Fuxian way. Whereas the oblique parallel fifths of Ex. 1c emerge as somewhat less “glaring” in this *Darstellung*, the rising fourths in the bass conspire with the falling fifths in the treble to produce two sets of intertwined consecutive octaves.

It is hard to tell which of Cook’s reductions – 1 b/c or 1f – that provides the best comparison. Considering their un-Fuxian look, none of them is acceptable by Schenkerian standards, but it seems that 1f should be preferred. After all, being the most manipulative and exhibiting the boldest discrepancies *vis-à-vis* Schubert’s song, it should also be the most “illuminating”.¹⁶

A free reduction of a free composition

But is it impossible to come up with a decent reduction of this song, a tonal analysis that does not distort Schubert’s music and that complies with how it is heard? Not at all, but it is necessary to disregard two basic ideas within Schenkerian theory: the requirement of root-position harmonic support for structural upper-line notes, and/or the notion of what a structural upper line must look like.

As anybody (“we”) can hear, the patently salient, accented dyads d²/B \flat and c²/A in mm. 13 and 15 start the two two-bar units doing the whole

16 Since it is in many ways a quite good book, I have often used *A Guide to Musical Analysis* in my theory classes. The brighter among the students were not at ease with Cook’s reduction of *Das Wandern*, but they did not primarily complain about the forbidden consecutives: the main point of their dissatisfaction was the way the reduction distorted Schubert’s song. This example, together with Cook’s use of Schenker’s reduction of Bach’s chorale *Ich bin’s, ich sollte büssen*, has contributed substantially to the disrepute of tonal analysis among the students. As to Cook’s reduction of the beginning of Beethoven’s *Les Adieux* Sonata, they were at pains to understand what it was all about; on the other hand, they were able to see the point of Meyer’s implicational reading.

“tonal” job of the song; cf. the middleground 1g. The most obvious background structure is likely to feature a second-degree-over-V⁶ dominant, and hence it is disqualified as an *Ursatz*. (So what?) But it may pass as a snippet of Fuxian counterpoint. However, according to Cook’s idea of what makes a reductive analysis worthwhile, it must be admitted that 1g comes fairly close to “mirroring” the surface – just as the song itself it features glaring parallel tenths. It shirks from the duty to “illuminate” the music by presenting deviations from it. In other words, “our” reading is as unsophisticated as the song itself.

But it appears that it pays to trust the musical surface and to listen to it with respect for its integrity. In Ex. 1g the b¹/G and a¹/F dyads in mm. 14 and 16 are appended after the d²/B^b and c²/A ones, as becomes their rhythmically less accented quality, but they bring two important harmonic roots, and a constellation of four structural connections comes to the fore in the second part of the song; cf. the background Ex. 1h. It includes the just-mentioned structural counterpoint featuring the second degree over a lower neighbour-note in the bass, but there are other interesting combinations. No matter Schenkerian theory (and the idea of stepwise structural descents) the seventh-degree a¹ over F works fine as the penultimate structural root-position dominant. And since nothing prevents you from hearing and accepting non-simultaneous events in a contrapuntal structure, a falling upper-line from the third degree may with an interesting musical effect be played off against a quasi-syncopated four-event structural bass progression providing a complete harmonic cadence.

Isn’t a first-inversion dominant c²/A in m. 15 quite apt as the only non-tonic event at the deepest layer since the decisive passage is contrapuntal rather than harmonic in conception? And is it an altogether trivial observation that the passage mm. 13–16, with its seemingly plain harmonic layout and its parallel-tenths surface design, may embody a contrapuntal subsurface structure of rhythmically conflicting upper and bass lines?

“Our” reduction 1 g/h makes for good comparisons. It does not distort Schubert’s song but brings out its inherent ambiguity; the music is more complex than one might think.¹⁷ And since it is quite different from both

17 This is of course an asset. Why should not analyses, including reductive ones, demonstrate ambiguity? Cf. Bengt Edlund, “In Defence of Musical Ambiguity”.

1 b/c and 1f, it helps *Das Wandern* to dissociate itself from Cook's readings, thus criticizing the methods as well as the basic agenda of Schenkerian analysis.¹⁸

By contrast, "you" have learnt very little about Schubert's song from "your" truly non-reproducing Schenkerian attempts to deal with it. What "illumination" can be gained from artificial discrepancies, from analytic *Darstellungen* that are irrelevant because they incorporate illegitimate manipulations or deliberate musical misunderstandings? For instance, have you discovered that there are, or that there are not, consecutive fifths in Schubert's song? Neither, since the "glaring" fifths are analytic artefacts.

But "your" deficient readings have taught "us" something about Schenkerian analysis. We now know that Schenkerian reduction not only (as Cook concedes) ignores surface rhythm, but also that it, when called for, pays flagrant disrespect to matters of harmonic and voice-leading design as well. And "we" have learnt that tonal analyses badly need to be verified by unbiased listening, or at least by unbiased reading, in order not to produce analytic fancies. Analytic descriptions must bear some resemblance to the music under consideration – otherwise the comparison with the music will be devoid of meaning.

The final conclusion is that "our" non-Schenkerian reduction – a free reduction of a free composition – yields a far better, far more illuminative comparison than "your" Schenkerian ones, because it complies with the music. Whereas "your" reductions are supposed to say something interesting about the music – by demonstrating consecutive intervals that are analytic mistakes? – "our" comparison indicates that it lacks an *Ursatz* in current sense. The two Schenkerian, utterly manipulative attempts to come to terms with Schubert's little song are invalid because the music (if one cares to listen to it) resists them. And since these readings distort the music, they are of no value. A *Darstellung* might serve as a starting point for a "good comparison", but never an *Entstellung*.

18 Cf. "How could analysis be deconstructed by Chopin's A-major Prelude?", chapter 5 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag, also published in abridged form as "Chopin's A-major Prelude. *Une pièce résistante*", pp. 167–183 in Arthur Szklener (ed.) *Analytical Perspectives on the Music of Chopin* (Warszawa 2005).

The initial theme of Beethoven's Op. 90: Schenker's background

It seems, then, that Cook's "good comparisons" should be left for better ones. But the first *Müllerin* song may after all be a unique case of Schenkerian failure, and it would therefore be unfair to base any conclusions as to the validity and value of Schenkerian analysis as a "good comparison" on this, or any other single specimen alone. Obviously, we must pursue our investigation.

Cook presents Heinrich Schenker's reading of the opening passage of Beethoven's Sonata Op. 90 (Ex. 2a) as his second example of a valuable analysis; cf. pp. 132–133.¹⁹ Since this analysis/*Darstellung* (Ex. 2b) not only shows an authentic cadence featuring a falling third but also observes the rules of strict counterpoint, it successfully applies the Fuxian "metaphor". But does it offer an "illuminating" account of 2a?

Before discussing whether this reading makes up a "good comparison", we must decide whether it is a good reduction. It has already passed the *Satzprobe*, for what this is worth, but does it comply with the theme of the Sonata? To find out, the analysis must be carefully studied to check if the proposed tonal structure is a reasonable description of the music – if not, it cannot serve as a relevant basis for a comparison. Only then is it possible to get a fair idea of the insights that might be gained by contemplating "the divergence between surface design and underlying structure".

A short explanatory presentation of Ex. 2b is necessary. Schenker obviously treats everything up to the fermata as a prolongation of 3/I; only after m. 16 does this background graph begin to take account of what happens in the music. The widely spaced, soprano-to-bass first-inversion E-minor chord in m. 17 is to be found as an interval made up of inner voices. The top-note e^1 of this interior sixth is then tied into the II chord in m. 18 (or 22) so as to produce a suspension; the top-note $f\sharp^1$ of this chord is connected by a beam back to the g^1 in m. 1, indicating the fundamental

¹⁹ The reduction is originally to be found in *Der freie Satz* (Wien 1935) as Fig. 109, a1; Schenker's own comments on this example (vol. I, p. 136) are very scarce.

upper-line descent of the passage.²⁰ Omitting the deceptive cadence in m. 20, the local *Ursatz* comes to a rest in m. 24.

Cook mentions some “immediately obvious features of the music” (like the dominant at the caesura in m. 16, and “the registral and dynamic contrasts that are particularly characteristic of this theme”) that are “suppressed” in Ex. 2b. And this is quite true: the most conspicuous dividing dominant is simply omitted, and the passage mm. 1–16, bringing first an ascent and then a huge descent (motions that are clearly separated from each other by a radical change in melodic character), is very compressed indeed.

Leaving Cook’s remarks, the e^1 and g of the inner-voice sixth in 2b are actually outer voices in Beethoven’s m. 17, and the tie between the would-be “ e^1 ” and the actual inner-voice e^1 in m. 18 conceals the drastic top-voice skip downwards from e^3 to f^\sharp which, speaking in terms of no-matter-the-register tonal degrees, merely equals a step upwards. It appears that the inner-voice “ e^1 ” and its questionable tie to e^1 are deeply rooted in Schenkerian theory: they are presumably there to forestall the observation that the structural second degree, shown as coming from g^1 , is in fact approached from the first degree. According to Schenkerian dogmatic, the penultimate second degree simply must issue from the initial third degree, however far-fetched this connection may actually be.²¹

Ex. 2b implies that the initial structural dyad g^1/e is prolonged for 17 bars. But do we really hear a third-degree g^1 dominating all ensuing upper-line motions, and an E-minor tonic controlling all harmonies, up to the re-summing gesture? Or putting this question in terms of the musical process: is there really a perceptible connection between the initial g^1 and the f^\sharp in m. 18, and between the starting root-position I chord via the first-inversion

20 It is embarrassing to see the chord in m. 18 labelled as “II”. Rameau lived in vain: in the still current Roman numeral system of harmonic designations the added sixths of subdominants are still deprived of their proper roots, in this case the bass note A.

21 Turning to a detail in Schenker’s background, the extended analytic slur from e to d^\sharp is most likely a misprint: it should rather lead to b , showing a long-range tonic-to-dominant progression just as the short a – b slur indicates a local motion to the dominant. There is in fact, and as will be shown later on, a linear connection involving the d^\sharp , a line that is disregarded by Schenker.

tonic in m. 17 to the root-position subdominant in the next bar? That E minor may be said to frame the passage mm. 1–17 is both true and trivial if one presupposes that a start and a resumption have a capacity to frame anything, but this superficial observation does not necessarily mean that there is a 17-bar prolongation of the tonic. Despite the huge leap downwards but thanks to the motivic reminiscence, we can certainly hear a resumption in mm. 17–18, but Schenker's background shows no connecting "e¹"–f^{#1} slur indicating this vitally important motif. Instead Ex. 2b begs us to accept as a musical reality a relationship that is required by the theory but that we are at pains to hear, namely a descending *Urlinie* step between g¹ in m. 1 and f^{#1} in mm. 18–19 (22–23).

So Schenker's reduction does neither conform to what Beethoven wrote, nor to what we hear. But we should not be surprised – register, motivic articulation, actual voice leading (as opposed to desirable connections), and vitally important chords score low among the reductive priorities when tonal unity in terms of underlying Fuxian counterpoint and an overall authentic cadence is rolled over Beethoven.

And yet Cook finds Schenker's reading most valuable. "What we want an analysis for is to explain the powerful sense of cohesiveness and direction that pervades the discontinuities of the musical surface; and this is precisely what Schenker's sketch does." "We need it [Schenkerian analysis] in order to understand why this break [the one in m. 16] seems so curiously evanescent, with the musical motion continuing after it as if nothing had happened." "Schenker's analysis, in other words, reveals the divergence between surface design and underlying structure; it shows how the music is animated by the tension between foreground and background."

Taking Cook at his words, "underlying structure" and "background" seem to imply that there is one and only one deep structure that is illuminating or perhaps even possible, namely the one established by means of Schenker's (or Schenkerian) analysis. But it must be maintained that there may very well be alternative, better reductive accounts of Beethoven's theme, and that there is no one-to-one correspondence between cherished method and results beyond doubt. After all, "metaphors" are notions that you adopt – and abandon if they do not turn out to work. What "tension" between foreground and background can be shown to "animate" the music if the

background is derived by means of musical events that have been misrepresented or disregarded?

Schenker's analysis is in fact extremely unhelpful. Is a comparison really "good", and a *Darstellung* really valuable, when the reader has to do the whole job? Excepting mm. 17–18, where the actual voice leading and the crucial motivic association are obviously destroyed, Ex. 2b does not disclose anything about the nature or cause of the "divergence between surface design and underlying structure". And the sense of "cohesiveness and direction" supposed to "pervade the discontinuities of the musical surface" is not explained, just taken for a fact. Almost by definition, any late-Beethoven piece exhibits both coherence and discontinuity, but this reduction does not show how this powerful beneath-the-surface sense of unity is achieved.

Everything that happens in mm. 2–16 is simply reduced out of sight and replaced by a direct connection taking place inside the tonic chord, but does the analytic disregard of the B-major dividing dominant and the following, most patent demarcation explain why "this break seems so curiously evanescent" and how this effect comes about? No, and this is just what one could expect since all non-evanescent-making features before and after m. 16 have been removed to produce the "good-comparison" *Ursatz*.

And is this break really that evanescent? The evanescence seems to be an artefact created by Schenker's reduction rather than a property of the music; the would-be evanescence emerges as a quality rooted in a "metaphor" that Cook has come to trust more than he trusts his ears. Don't rather the flying start with a widely spread first-inversion chord and the unmistakably resuming quality of the motif in mm. 17–18, i.e. local rhetoric properties underscoring the previous demarcation, contradict the impression that the music continues, "as if nothing had happened"? Besides, isn't the sense of a seemingly exhausted pause followed by a demonstratively curtailed consequent as valuable a musical experience as that of an evanescent, "as-if-nothing-had-happened" continuation? Why should Beethoven, the tonal somnambulist, be preferred to Beethoven, the musical orator?

Salzer's reduction

But we have been unfair in as far as before dismissing 2b the foreground and middleground producing this background should have been studied.

Schenker did not leave any such sketches behind, but fortunately there is a complete set of graphs that may be used to bridge the gap between Beethoven's music and Schenker's compact account of it. The analysis advanced by Felix Salzer, cf. Exs. 2 c–e, arrives at virtually the same background as the one Schenker proposed, and since Salzer's reading (arranged in the preferable bottom/up way) may reasonably be considered consonant with his master's views, it can be used to supply what is missing in Schenker's analysis.²²

Dealing first with the relationship between the actual musical surface and the foreground 2c, the reading of mm. 1–8 is fair enough: the treble moves upwards by means of a chain of interlocking seconds, and this ascent is supported by root-position chords. Then a long analytic slur runs from the first d^2 of m. 8 to the b in m. 16. This sweeping connection is made up of a cadence-supported falling third from the second d^2 to b^1 (as shown by the short four-bar slur) followed at a faster pace by further passing chords a third apart until a falling half-step puts an end at d^\sharp . The harmonic net effect of all this is that the minor dominant in m. 8 is turned into a major one. But this quickly dropping line is evidently taken as subordinate to the octave transfer from b^1 to b taking place above it – hence the d^2 – b tenth shown by the long slur. [It may be argued that this connection is not very convincing since the b rather belongs to another voice.]

To this is added the d^2 – e^3/e^2 superordinate connection indicated by the bracket, a connection extending across the dividing dominant into the re-summing motif. According to Salzer, mm. 8–17 brings a further, radically expanded copy of the rising-second-superimposed-on-a-falling-third *forte* motif introduced in mm. 1–2, a motivic augmentation reading d^2 – b^1 – e^2 and making up the last link in the prolongation transforming the initial g^1/e into e^3/G . [This is a quite interesting reading, but the bracket/motif should start from the G-major d^2 in m. 9, from where this ultimate rising second/ninth evidently issues. On the other hand, the idea of a further, augmented motif, less patently based on a III^6 -to- I^6 progression, is hard

22 Felix Salzer, *Structural Hearing* (New York 1962; the graphs are to be found as Ex. 450, a–c, pp. 206–207 in vol. II, and the short commentary on pp. 203–204 in vol. I.

to reconcile with the notion of a prolonged minor-to-major dominant extending from m. 8 to m. 16.]

We will in due time return to Salzer's analysis of the treble, but right now we must question it since it transcends plausible listening capacity and expressive possibilities. Whereas the original rising second $g^1(-e^1)-a^1$ in mm. 1–2 connects a starting note with a nearby closing one, the greatly extended would-be replica in mm. 8–17 brings together a starting d^2 and a starting e^3/e^2 across eight bars of music, including a deep-register dividing dominant $d\sharp/B$. Very few listeners are likely to take notice of this faint affinity, and the pianists cannot possibly draw attention to it. Therefore – using a rhetorical figure common in Schenkerian analysis – Salzer shares the credit for this bold connection with the composer, making him co-responsible for the analysis: “It seems hardly possible that Beethoven was completely unaware of this daring augmentation. How otherwise could he have reached the E in m. 16 with such definitiveness, even emphasizing this tone in a high register and resuming at this point the original rhythmic motive?”²³

A rising-then-swiftly-falling sequence of thirds is laid bare in the middle-ground 2d. In this graph the widely spread registers in mm. 15–17 are normalized, and a long sequence of parallel tenths between treble and bass comes to the fore. A very long analytic slur now connects the initial g^1 with the e^2 in m. 17 from which an arrow points down to $f\sharp^1$; cf. the arrow from e^2 to the added $f\sharp^2$ in Ex. 2c. There is also a [fairly redundant] arrow between e^1 and $d\sharp^1$ in mm. 15–16. [But there is no arrow from $d\sharp^1$ to e^1 in mm. 16–17 although this bridging connection across the demarcation is crucial whether you think of the actual leading-note motion $d\sharp-e$ or let the “ e^1 ” correspond to the right-hand e^3/e^2 .]

The reduction producing the background 2e emerges as most objectionable since the transformation is quite detrimental if one wants to understand the music. The rising sixth g^1-e^2 of the middleground is exchanged for the falling third g^1-e^1 , shown as subordinated under the *Urlinie* descent from g^1 to $f\sharp^1$. And the entire passage mm. 1–17 is explained as a voice-exchange operation involving the treble and the bass: the g^1 of m. 1 is shown as having something to do with the G of m. 17 while the initial

23 “*Verborgene Wiederholungen*” in Schenkerian analysis is discussed in Bengt Edlund, “Hidden Repetitions and Uncovered Parallelisms”.

e is somehow related to the resuming e^1 – meaningful observations in the rarefied air of abstract voice leading between remote notes. The alleged B-minor-to-B-major prolongation of the dominant in 2d starting in m. 8 and ending with the crucial dividing chord in m. 16 is represented in 2e as the inconspicuous passing-note B within the triad prolonging the tonic. What about the sense of resumption after the fermata in this exercise in “structural hearing” at any cost?

It takes some musical discernment to tell true prolongations, whose content is more or less static, from “prolongations” made up of processes that cannot be wrapped up that readily in a hierarchical account. There are no doubt many analysts who are willing to accept that mm. 1–17 prolong the tonic (or that mm. 8–16 prolong the dominant) since reduction by definition entails the hierarchical aggregation of low-level events to form ever more encompassing high-level ones. But the distinction between static passages and non-reducible trains of musical events is still there. That the entire theme (mm. 1–24) represents the tonic is a correct but trivial observation, given that you contemplate the passage afterwards, i.e. at a distance allowing of closure. But, the first-inversion E-minor chord turning up in m. 17 notwithstanding, it is far from obvious that mm. 1–17 prolong the tonic since the primary and inescapable impression of mm. 1–16 is that the tonic is left for other harmonies until it arrives at the dominant. Indeed, this is the point of the passage.

It must furthermore be observed that music is no exception to the rule that greater distance is associated with both gain and loss of information; in other words, it is not unconditionally true that reduction goes with increasing “illumination”. What the background 2e tells us is that mm. 17–24 form an authentic cadence – which is trivial, unless the presence of an interpolated deceptive cadence amounts to a great revelation. It also informs us that the analytically concocted voice-exchange configuration representing mm. 1–17 and suggesting that the upper voice sinks into inner-voice oblivion no matter the resuming e^3/e^2 , overrules Beethoven’s dividing dominant – which is musical nonsense and thus an unsuitable basis for an enlightening *Darstellung*.

A Schenkerian analyst may have a theoretical argument for the descending-third *Urlinie* (and more specifically for the long g^1 – e^2 slur in Ex. 2d) up his/her sleeve. The resuming motif in mm. 17–18 brings a huge leap

downward that may be taken as a return to the *obligatorische Lage* of the fundamental upper line: after the rise from g^1 up to the d^2 in m. 8 the structural treble must be restored to its original register. [Another hint from the composer himself that the analysis is correct! Why else did he compose this extraordinary $e^3/e^2-f\sharp^1$ gesture?]

But this argument disposes of the entire passage mm. 9–16 as irrelevant. The fact of the matter is that Beethoven leads the upper line all the way from d^2 down to $d\sharp$, and that there is then another, even greater leap involved, the leap up to the e^3/e^2 of the resuming motif. Why didn't Beethoven just start the resuming motif from e^1 , the straightforward (and more “evanescent”) way of restoring the original, obligatory register – if this was really important to him? Because he felt that the d^2 in m. 8 and then the $d\sharp$ in m. 16 had left the rails, and that the structural line had to return to the main register via e^3/e^2 ? Or because, being a magnificent musical orator, he found that a resuming motif featuring just a rising second and starting just in the normal register would have lacked *Empfindung* as well as *Ausdruck*?

Or, and this a non-Schenkerian, non-monolithic twist of the issue, perhaps Beethoven wanted to make it quite clear that the melodic line of the first, antecedent part of the theme ends irresolutely at the seventh-degree $d\sharp$, and that the resuming motif of the consequent is sung by someone else, as it were. This is how the drastic, truly non-evanescent shift in mm. 16–17 actually sounds, isn't it, and it implies that the $f\sharp^1$ in mm. 18–19 (22–23) follows its motivic nature and comes from below, from the first-degree e^1 (e^3/e^2), not from the very distant g^1 .

Beethoven's theme: some preliminary observations

However, just as was the case with Schubert's song, it should be possible to use reduction in a way that pays full respect to Beethoven's theme and yet arrives at a description that is musically informing – as opposed to forced “comparisons” yielding insights (if any) only after having looked through distorting lenses. But this is possible only if two items on the Schenkerian agenda, crucial items when establishing tonal unity according to the principles laid down in the theory of “tonal analysis”, are abandoned: the self-imposed duty to read tonal music in terms of authentic harmonic cadences with upper lines falling from the third, fifth, (or eighth) degree, and the

idea that “inner”, “tonal” form counts for more than “outer” form, i.e. form in current sense.

But before taking on this task, the motivic and metric make-up of the theme as well as the local continuity across the demarcations will be studied.

Excepting mm. 13–16, the theme is built on a two-bar motif and its derivatives. The *forte* and *piano* phrases in mm. 1–8, forming an ascending series of interlocking seconds, are closely related and yet characteristically different. Whereas mm. 1 and 5 feature a falling passing-note, mm. 3 and 7 bring a lower neighbour-note, and the left-hand part of the *piano* phrases provides rounding-off applied-dominant-to-auxiliary-tonic progressions instead of falling seconds.

Beyond the differences as to character and melodic profile, it is evident (but not altogether easy to hear when listening the first time) that mm. 9–10 and 11–12 make up two further units varying the substance of the *piano* phrases; these bars bring contrast while retaining motivic integration. In melodic terms, these “new” phrases are inversions of the *piano* phrases, inversions transformed by means of anticipated, quasi-syncopated notes and final appoggiaturas; the harmonic content in mm. 11–12 vaguely corroborates this motivic affinity. The only substantial novelty is the conspicuous top notes g^2 and a^2 . It should be observed that this reading of mm. 9–12 is different from Salzer’s. His d^2-b^1 slur and the d^2-e^3/e^2 bracket (cf. 2c) suggest a falling third subsumed under a rising second, which amounts to an enlarged replica of the *forte* bars 1–2. According to the present reading there is a descending melodic contour consisting of two interlocked seconds, d^2-c^2 and c^2-b^1 , concurrently bringing two motifs representing *piano* phrases and a rising high-register second, g^2-a^2 .

Turning to the closing part of the theme, mm. 19–20 and 23–24 also emerge as inversed *piano* phrases; compare mm. 19–20 with mm. 9–10. And no matter the huge skips, bars 17–18 and 21–22 are of course also *piano* phrases.

The theme is formally ambiguous.²⁴ When listening to it the first time, you are prone to think that m. 8 brings a midway caesura. A dividing minor

24 Kofi Agawu has questioned the concept of ‘ambiguity’ in music analysis; cf. “Ambiguity in Tonal Music: A Preliminary Study”, in Anthony Pople (ed.)

dominant chord may appear unusual, but two pairs of short phrases making up a kind of antecedent have been heard, and m. 9, offering a shift of rhythmic attitude and vaguely related material, seems to start a consequent. However, after a pair of varied *piano* phrases there is a cadence to G major, and then the melody dissipates into a falling motion coming to a rest on a major dominant chord – surely this must be the midway caesura.

The resuming *piano* motif in m. 17 corroborates this interpretation, although the first-inversion tonic chord may seem as a somewhat unusual start of a consequent. Listening just a little bit further, it becomes evident that mm. 17–19 rather sound as the final part of a consequent. But due to the duplication of these bars after the deceptive cadence in m. 20, the actual consequent of the theme begun in m. 17 attains its proper eight-bar size.

In retrospect, the theme emerges either as a regular three-partite 8+8+8 bar structure featuring two quite different consequents, or as a most unevenly balanced 16+8 bar period. Otherwise put, after the eight-bar antecedent there is an eight-bar insertion eventually producing a quite obvious demarcation at the major dominant; as to mm. 17–24 with its two cadences, it may also be heard as an added epilogue to a sixteen-bar melodic arch issuing into the dominant.²⁵

The metric construction of the theme is in a flux while listening to it, but using numerals reflecting the hypothetical functions of the phrases one may tentatively count the two-bar units as shown in Ex. 2a. “Bars” 5 and 6 appear to start a consequent that goes astray. “Bar” 7 has the quality of a penultimate unit in a consequent, but “bar” 8 turns out to be deceptive; a new successful attempt follows. Hence, the post-interruption consequent lacks two “bars”, and to a sensitive listener this means a metric bump that is far from “evanescent”.

However inserted mm. 9–16 may seem in retrospect, these bars make up an essential component of Beethoven’s design, and this passage closing

Theory, Analysis, and Meaning in Music, Cambridge University Press 1994, pp. 86–107. But it seems quite difficult to do without ambiguity when it comes to describing complex music in a penetrating way; for a critique of Agawu’s views; cf. Bengt Edlund, “In Defence of Musical Ambiguity”.

25 When playing the sonata, your choice among these options will bring about perceptible differences.

on a dividing dominant should not be put in the shadow, however “tonal” the analysis. In Schenker’s background 2b it has disappeared altogether; in Salzer’s final graph 2e it is just represented by a passing note within a bass arpeggiation expressing the tonic. And however “tonal” the analysis, the crucial and quite emphatic first-inversion E-minor chord in m. 17, a moment of resumption *and* continuation, should not be shown as a subordinate inner-voice event within the initial tonic chord.

Beethoven has provided for continuity at the formal shifts. As to the first, “midway” demarcation in m. 8, the topmost note is retained and so is the left-hand dyad. Only the right-hand lower line, up to this point running a third under the main melody, seems to be discontinued, but the g^1 of the left-hand chord beginning m. 9 may be understood as taking up this line, eventually proceeding to $f\sharp^1$. Another interesting thing about this g^1 is that it anticipates, prepares for the otherwise unexpected g^2 on the second beat, a note that suggests the entry of a secondary melodic strand, superimposed on the main melody. The cadence to G major in m. 12 is seamlessly connected to what follows: the right-hand note is repeated, as if it were to pursue the stepwise descending sequence of falling seconds, and the left-hand g confirms the harmonic root.

Turning to the second “midway” demarcation in m. 16, the register shift $b-e^3/e^2$ is huge whereas otherwise the right/left-hand continuity between mm. 16 and 17 is very tight indeed. The note b is retained, and the resolving tenor-register connection $d\sharp-e$ makes for a further link across the division.²⁶ There is also a sense of imitation involved: the falling inflection $e-d\sharp$ before the fermata immediately returns as $e^3/e^2-d\sharp^3/d\sharp^3$ in the right-hand, redefining the dividing seventh-degree $d\sharp$ into a lower neighbour note. And yet, instead of giving wrong-register substance to Salzer’s augmented motif d^2-e^2 (cf. the bracket in 2c), the long descent from d^2 to $d\sharp$ rather signals the end of the upper line of the antecedent.

26 The motion $d\sharp-e$ can easily be brought out when playing, and the inner-voice continuity bridging this demarcation may even be felt if you silently take over the dyad $h/d\sharp$ with the left hand before starting the consequent.

An alternative reduction to be discarded

The foreground, cf. Ex. 2f, first shows a compact, harmonically conceived rising motion from the tonic to the minor dominant in m. 8. This ascent in terms of interlocking seconds proceeds in parallel thirds and is accompanied by left-hand motions bringing in turn harmonic departures and arrivals. The following eight bars start as a contrasting consequent but, as already pointed out, mm. 9–12 may be understood as making up a further pair of covertly related phrases bringing a broad G-major turning point, indicating that the overall rising motion has reached its summit and is now reversed.

The syncopated anticipations on the way down are easy to follow, and the main upper line drops rapidly past its g^1 point of departure back in m. 1 until it stops at the major-dominant third $d\sharp$. But there is also a distinguishable additional line: announced by the left-hand g^1 in m. 9, it emerges on the second beats of the bars and reads g^2-a^2 and then $g^1-e^1-(c^1)-b$. (The added c^1 , completing the pattern, is warranted by the fact that the left-hand upbeat roots in the sequence so far has indicated what the notes in the right hand will be.)

The resuming five-note chord in m. 17 is made up of four structural notes: the first-inversion bass note G of the forthcoming cadence, the inconspicuous e relieving the tension of the $d\sharp$ ending the main upper line of the eight-bar descent, the retained b of the additional line introducing a complementary rising connection in the consequent, and the top octave e^3/e^2 of the seemingly new upper line starting with a variant of the *piano* motif “ascending” to the low-register $f\sharp^1$. The ensuing motions are more or less predictable and eventually converge towards the tonic.

In the middleground 2g, the single motifs in mm. 1–16 are lumped together, disclosing a stepwise right-hand motion divided into three or four units and a left-hand harmonic support proceeding in thirds. The two high-pitched notes g^2 and a^2 starting the secondary line of the quasi-consequent have now been adjusted by one octave so as to show the motion in the same, third-below register that the complementary line occupied in the antecedent. For similar reasons the final steep slope of the main line as well as the abrupt skip downwards within the resuming motif have been removed. Particularly the octave adjustments are of course quite corrupting because (speaking in terms of the notes that Beethoven wrote) $d\sharp$ (“ $d\sharp^1$ ”) is divorced

from e and instead connected to “e¹”, representing e³/e², and because the resolution to E minor is misleadingly elided with the resuming start. On a level with the nose, as it were, the upper eyelids have been stitched together with the upper lip, and the musical face no longer looks the same.

Turning to the background Ex. 2h, the secondary inner connections have been removed, which cannot but be detrimental to a full understanding of the musical continuity. As to the main upper line, Beethovens falling e¹-d[#] motion in mm. 14-16 is botched by being exchanged for merely a rising semitone d^{#2}-e²: the function of the “post-antecedent” eight-bar insertion emerges as just a manoeuvre to raise d² to d^{#2}. In terms of plastic surgery, the lower lip has been stretched all the way up to the eyebrows, and this vertical operation paves the way for a further, horizontal one, a connection from g¹-over-e in m. 1 to f^{#1}-over-B in m. 17 – the ears are joined in front of the nose.

However, since the present writer does not think that understanding the face of Op. 90 requires disfiguring radical surgery, it is necessary to file a protest against Exs. 2g and 2h, produced only to illustrate an objection already levelled against the two Schenkerian readings of the theme, cf. Exs. 2b and 2 c-e. By all means, the structural events have been sifted out from the welter of details in a reasonable way, but there is one thing that is wrong with 2g and 2h: the registers should not have been adjusted. Neither of these graphs makes up a true representation of the music.

Final attempts at a reduction

A plain non-reductive acquaintance with the theme – just listen to it – indicates that the registers are of crucial importance, and the obvious methodological consequence is of course that when dealing with it you should not treat pitches as if they were pitch-classes. Having this in mind and starting from the acceptable foreground shown in 2f, it should be possible to arrive at accounts without any loss of information pertinent for the actual long-range coherence of the theme.²⁷ Or for its elements of discontinuity, which is just as important and worthy an object of study even if it does not enjoy the same prestige as coherence in the analytic community.

²⁷ Speaking of coherence, the sonata does not end with the theme; cf. below.

Beethoven has composed (say) a double-size antecedent, wonderfully losing itself in a high register before eventually reaching the dividing dominant in a quite low register, and it is followed by a consequent, starting from e^3/e^2 -over- I^6 and featuring two virtually identical four-bar of which the first closes deceptively. But this tonal design is not accepted in Schenker's and Salzer's reductions – it seems as if the theme simply has to exhibit an undivided *Ursatz* descending from the third degree. But why can't it embody a divided *Ursatz*? Perhaps because Schenker insisted that a dividing dominant must feature the second degree in the structural upper line – the seventh (d \sharp) and fifth (b) degrees, quite conspicuous notes in the patently dividing B-major chord in m. 16, are just not acceptable – and that structural upper lines cannot start, or start again, from the first degree.

Beyond orthodoxy, however, Beethoven's theme allows of another (but tonally just as effective) structural upper-line. Consider the middleground shown in Ex. 2i. A pre-division diminished fourth-plus-octave starting from the third degree and eventually ending on the seventh comes to the fore; then there is a post-division line issuing from and returning to the first degree after having paid a visit to its upper, second-degree neighbour-note. The structurally crucial, and the musically interesting departure from the tonic takes place in mm. 1–16, of course, not in mm. 17–24 as Schenker and Salzer takes for granted. As to the latter passage, the tonal instability to be resolved before the theme is over resides not in the motion to $f\sharp^1$ in the treble, but in the bass beginning with a first-inversion tonic chord and making first a deceptive, then a successful attempt to reach a final root position.

In Ex. 2i the registers and the dividing dominant are respected, and so is the fact that a complementary line is present throughout the theme. In mm. 1–16 it essentially shadows the top line whereas in the consequent it provides an alto-register strand, running a tenth above the bass and rising from the fifth-degree b to the eighth-degree e^1 .²⁸ What keeps mm. 1–8 and 9–16 together is first and foremost the grand gesture of ascent/

28 Unfortunately, Schenkerian analysts are as a matter of principle not only against rising structural connections, but also strongly disinclined to accept multiple fundamental lines; cf. the discussion between the dissident David Nue-meyer and the whip Steve Larson in the 1987 issues of *In Theory Only*. Judged

descent, and the conspicuous, excessive summit g^2 -outdone-by- a^2 is as important as the final steep slope down to e -proceeding-to- $d\sharp$ for increasing the amplitude of this motion. The connection between mm. 1–8 and the consequent mm. 17–24, showing from quite early on that it will eventually bring closure, is a matter of motivic association and of the expectation that the lost sense of periodical order will be restored.

This extended period has certainly an unusual tonal layout, and it should be the purpose of analysis, even of tonal reduction, to bring out its vital features – bring them out directly, not by means of theory-laden, standardized “comparisons” that do not fit the object. Schenker’s and Salzer’s analyses claim that there is a background connection between g^1 in m. 1 and $f\sharp^1$ in m. 23, but how can you retrieve (prolong) from this “fact” that there is a much less strained, actually mediated connection between the initial g^1 and the $d\sharp$ in m. 16? The *Darstellungen* in Exs. 2b and 2e mean that musicians and listeners are deceived – they have been given a pedestrian second instead of a bold diminished fourth.

It appears, then, that if Beethoven’s musical design is paid more respect than Schenker and Salzer are prepared to do, it yields a fundamental structure that is incompatible with Schenkerian theory, and for that very reason the background 2j (compressed as to register for the sake of argument) describes the tonal process within the theme quite aptly. The antecedent (including the eight-bar “insertion”) is spanned by a $3/I-7\sharp/V$ structure, in which the C-major VI chord is perhaps marked for some penultimate attention. The motion upwards actually proceeds stepwise, but rising thirds shine through, whereas the progressively steeper way downwards to the dividing dominant soon skips the intervening notes and falls by thirds and finally by an entire octave. The consequent brings a $1/I^6-1/I$ motion featuring the second degree as a structural upper neighbour-note; the bass finds its way to the tonic only after a deceptive attempt. These motions are complemented by an additional one, running in parallel thirds below the upper line during the antecedent; in the consequent it forms parallel tenths with the bass and features two ascents from the fifth degree to the eighth – motions as “tonal” as any *Urlinie*.

from outside the camp, the insistence on just two upper components in tonal structures seems to be just an orthodox and hence unwarranted restriction.

The basic voice leading of the antecedent is quite crude: all three voices move first up and then down in thirds – notice the “glaring” consecutive octaves. It should be observed that the point of departure is touched on the way down, and that the antecedent may be described as a quasi-symmetric structure, bringing first an upward excursion from 3/I, then a downward one back again. If you want to take primary account of this feature, the structural bass progression of the antecedent cooks down to just I–V.

For those who necessarily want to swallow the theme in one big bite no matter its most obvious dividing dominant, what might its fundamental harmonic structure be? Adopting Salzer’s idea of a rising sixth from g^1 to e^2 (cf. Exs. 2c and 2d), we arrive at the background shown in Ex. 2k – let’s assume that this top-voice connection can be heard despite the huge intervening drop in register. From a Schenkerian point of view, this reading involving an ascending upper line from the third degree via the seventh to the eighth must be discarded, however – *Urfurien* must descend. But outside the fence, it seems fairly acceptable.

In this perspective, the dominants in mm. 19 and 23 emerge as local features since they just support neighbour-note $f\sharp^1$ ’s within a supplementary consequent prolonging the eighth degree tonic by means of two cadences until the bass has found the appropriate closing note. Instead, the $7\sharp/V$ dominant in m. 16 assumes primary structural importance in virtue of its position next to the final prolongation of the tonic. Does this reading, peculiar as it is, represent the peculiarity of the theme’s design in an “illuminating” way? Admittedly, it makes the demarcation effected by the patently dividing dominant look “evanescent” – a “divergence” that might perhaps be great enough to make for a “good comparison”.

In order to do justice to the melodic turning point in mm. 9–12 with its gentle but broad G-major cadence, the complete “*Baßbrechung*” of this fundamental structure should read I–III–V–I, rather than I–VI–V–I as in 2j. Boosting the importance of the VI chord in mm. 14–15 would contradict this big-bite reading by bringing out the dividing function of the following dominant.

Before finishing this inventory of connections we must resolve another vexing problem with especially Schenker’s reductions of the theme. The tonal closure of the theme is established in a way that by far outweighs the sense of openness within the theme and beyond – according to Ex. 2b

the bold, capricious flight of the movement begins with an *Ursatz* crust. It seems that we have to step outside the Schenkerian fence and use Leonard B. Meyer's method for melodic analysis in order to understand what happens.

The emerging picture is a network providing continuity by means of implications with delayed and/or unexpected, provisional realizations; cf. Ex. 2a. In mm. 9–12 there is a bifurcation within the melody: the lower, principal line issues from d^2-c^2 and ends at $d\sharp$ in m. 16, while the upper one starts with the superimposed notes g^2 and a^2 and turns up again with the sixth-above b . The main strand survives the demarcation, suggesting a delayed connection $d^2- -d\sharp-e^3/e^2$ sparking off a motif implying $f\sharp^2$, but the two wrong-register realizations bringing $f\sharp^1$ put a poignant end to the rising aspiration. What happens with the secondary line? A peculiarly passive series of rising fourths/fifths to be played *pianissimo* ensues after the E-minor cadence, and it takes the listener from the b left in m. 16 to e^3/e^2 , thus reaching and recharging the crucial and twice frustrated point of continuation of the principal line. But the third top-line attempt at a satisfactory realization fails dramatically when the correct-octave-but-wrong-pitch $f\sharp^3/f\sharp^2$ turns up in *forte*. In the following bars the octave hide-and-seek is pursued, forming a descending sequence: $f\sharp^3/f\sharp^2-f\sharp^1-e^1$, $d^3/d^2-d^1-c^1$, $b\flat^2-b\flat$.

Considering, not the theme, but the beginning of the sonata, how “illuminating” is Schenker's account, his *Darstellung* prematurely using the *Ursatz* cadence as a “metaphor”?

Beethoven's theme: some conclusions

It has been established that Schenker's background 2b as well as Salzer's fully accomplished reduction 2 c–e disregard vital aspects of Beethoven's theme, and that they fail to account for the specific blend of coherence and discontinuity of the music. And yet Cook (and no doubt many other advocates of “tonal” analysis) claims that Ex. 2b makes up a “good comparison”. He is also very clear about the source of this value: it derives from the “divergence between surface design and underlying structure”.

But this view appears as deeply problematic since it is founded on an illusion. When undertaking tonal reductions, Schenkerian analysts recursively iron out, change, or omit formulations that diverge from the tonal norms

assumed to apply to all (non-deficient) tonal music, and when the increasingly barren deeper layers emerge, they are considered to be valuable in virtue of the very things that have been removed out of consideration. And the more far-reaching, the more unwarranted, this normalization is, the more discrepant becomes the result and the more “illuminating” should the comparison be. Given that you are incapable of entertaining any doubts as to whether a structure arrived at in this way really describes the structure of the music under consideration, you are then free to enjoy the “divergences” produced by Schenkerian analyses, and to marvel at the music’s tonal unity brought out at the expense of its concurrent sense of discontinuity.

Following Schenker, tonal reductions are often presented (and sometimes apparently also achieved) top/down, starting from the background on the top of the page. This is the “best-comparison”, quasi-deductive and covertly persuasive sequence of presentation – first the outcome, then the (often quite shaky) evidence for it. The bottom/up, “empirical” way of accounting for reductions, on the other hand, invites to the methodologically necessary comparisons, first with the actual music, then between the reductive layers, comparisons making for a controlled analytic process. Whereas genuine, bottom/up reduction is compatible with scholarly scepticism, top/down reduction-pursued-as-prolongation may easily turn into an activity governed by cherished ideas as to what ought to show up in the music. And when “reductive” accounts of the latter kind are exposed as musical misunderstandings, the effect cannot be but a well-founded disrepute of tonal analysis that may in turn lead to an unfortunate general mistrust of reduction as an analytic method.

Just as was the case with Schubert’s *Das Wandern*, the two Schenkerian accounts of Beethoven’s theme accumulate so many normalizing discrepancies *vis-à-vis* the music that these reductions eventually turn useless as descriptions – so much for the analysts’ “obligation toward particularity”²⁹ – and hence as starting points for truly illuminating comparisons with the music. On the other hand and again just as the song, the sonata theme reflects back on the theory in a most unfavourable way. Far from managing to establish tonal unity by means of a falling-third *Ursatz*, and far

29 Schenker cited by Cook, p. 131.

from serving as further proofs of the truth and power of the theory, the discrepancies between the theme and the two Schenkerian reductions of it make up devastating counter-examples to anyone capable of taking negative evidence at face value. Obviously, there are passages behaving in ways not predicted by the theory, passages that, as it appears, are intractable by means of orthodox tonal analysis and that fight back.

It has been shown that in order to fully understand the tonal process in Beethoven's theme, we must take due account of its shifts in register as well as of its "outer" form, including its metric properties – stepchild aspects of the musical "surface" when used as input for tonal reduction. Metre, once used as a normative basis for analysis, invites to a comparison with Schenkerian theory and tonal reduction. It seems reasonable to equate the doctrine of the eight-bar period as a norm for formal units with Schenker's no less dogmatic idea of the *Ursatz* controlling the tonal structure. But two differences come to the fore.

Firstly, whereas the study of formal units in terms of periodicity has become an *ad hoc* analytic tool among many – establishing the periodic make-up of all Beethoven's piano sonatas, as Riemann once did, is entirely out of fashion – Schenkerian "tonal" analysis has virtually become tantamount to analysis of tonal music, and the reductive efforts during the last sixty years have been assiduous. But is the notion of the *Ursatz* really that much better as a generalization, as a normative working concept in analysis, as a "metaphor", than the idea of the eight-bar period?

Secondly, whereas students are told over and over again not to squeeze pieces of music into the periodic strait-jacket, resolute squeezing is what all too often takes place – indeed, is supposed to take place – in Schenkerian analyses. Their very point is the suppression of all deviations from the adopted norms until the *Ursatz*, the axiomatic ultimate foundation for every (non-deficient) piece or tonally closed passage, can be seen in all its disappointing, *déjà-vu* glory in the final (or top-of-the-page) graph. Why is rough normalization to be avoided in the case of metric structure, and encouraged when it comes to tonal structure?

Can questionable metric representations also yield "good comparisons"? It seems that we all know that the eight-bar period is not an axiom, but an analytic generalization – by and large a rather fair one for that matter –

whose normative claims we have outgrown long ago. It would emerge as downright stupid to distort a recalcitrant passage of music in order to make it fit in with the periodic scheme, and then to use such a hard-handed *Darstellung* as a “good comparison”, pretending that it has any truth value. We prefer to compare the music directly with the metric archetype and to decide whether, to what extent, and in which ways, the norm applies; and if the eight-bar scheme does not fit, we will not enforce it upon the music. The heuristic value of the undertaking depends on this cautious, trial-and-error approach, and this was how eight-bar metric thinking was applied when the two-bar units of Beethoven’s theme were “counted” according to their functions within a tentative period; cf. Ex. 2a. The purpose of this exercise was to describe how a listener, at home in periodic music, might apprehend the theme as it gradually takes shape. No prestige-laden, against-the-grain phantom period was established as the true, underlying metric structure with which the actual music was compared.

The Schenkerian approach is quite different, but the generalizing nature and the normative claims of Schenker’s theory are evidently not fully realized by all those who employ it. One might furthermore ask how reliable the *Ursatz* is as a generalization, considering the self-deceiving Schenkerian procedures of top/down reduction used to procure the specimens serving as evidence for it. Cocksure *Darstellungen*, allegedly disclosing the music’s underlying structure have been advanced in a steady Fuxian stream, “representations” that (what a surprise!) virtually always comply with the stipulated *Ursätze* and hence are considered valid both as descriptions of the music and evidence for the theory. And when the distorted picture obviously fails to match the actual musical surface, the representation/map remains true and the music/landscape is said to be “illuminated”. Virtually never do the “divergences”, i.e. the analytic failures, summon the analysts to reconsider their accounts or the theoretical premises of their work – which is what one might expect from scientists, and even from scholars.

Schenker and Schumann’s *Aus meinen Thränen sprießen*

In passing, and addressing Joseph Kerman’s critique of Schenkerian analysis, Cook (pp. 131–132) brings up a third *Darstellung*: Schenker’s analysis of Schumann’s “*Aus meinen Thränen sprießen*”, from *Dichterliebe*

Op. 48.³⁰ This reading, shown in Exs. 3 b–d, is also used as a (presumably) exemplary specimen of tonal reduction in Allen Forte’s presentation of Schenkerian analysis.³¹ Since Forte explains and defends Schenker’s reading, his article will also be cited and commented upon.

The sequence of Schenker’s sketches of the song reflects his quasi-deductive, top/down way of conceiving reduction as prolongation. This is also the route considered “advantageous” by Forte in his “introductory explanation” of the analysis: the background “controls the entire work”, and “we can interpret the content of the middleground most efficiently by relating it to the background”. (Forte, pp. 10 and 14)

It may be argued, however, that when it comes to critical understanding the most advantageous order is the bottom/up arrangement. (But Forte’s presentation is hardly critical.) Understanding tonal reduction is not just a matter of “efficient interpretation” of middlegrounds in the light of backgrounds posited beforehand by Schenkerian theory; first and foremost understanding means checking whether the backgrounds are justifiable in relation to their middlegrounds, given of course that the latter are dependable as accounts of foregrounds that in turn can be said to correctly represent the musical texts concerned. In other words, before appreciating how the background “controls the entire work”, the entire work must be given a fair chance of controlling what the background is.³²

One of Kerman’s complaints is that the analysis (using Cook’s words) “completely ignores one of the song’s most telling features: the cadences

30 Joseph Kerman, “How We Got into Analysis, and How to Get Out”, *Critical Inquiry* 7(1980), 311–331; Schenker’s analysis is to be found as Ex. 22b in *Der Freie Satz II*, and his remarks on pp. 71–72 in vol. I.

31 Allen Forte, “Schenker’s Conception of Musical Structure”, *Journal of Music Theory* 4(1959), 1–30 and especially pp. 10–17; a reprint of this text can be found in Maury Yeston (ed.), *Readings in Schenker Analysis and Other Approaches*, New Haven 1977, pp. 3–37.

32 Tonal reduction, pursued as a bottom/up undertaking, is a “democratic” project, as it were: before the government is entitled to rule the citizens, the latter elect the former and thereby decide upon the policy. Top/down analyses in the name of controlling backgrounds bring associations to the bad old days of theocracy.

that come at the end of each couplet”.³³ Cook points out that an “even more telling” [but closely related] aspect of the music is absent in the graphs, namely “the fact that the vocal line never resolves to the tonic”.

Nevertheless, Schenker’s reading makes up a “good comparison” in Cook’s opinion: “While the failure of the vocal line to resolve may not be explicitly mentioned, it is thrown into sharp relief against the norms of voice-leading represented by Schenker’s graph, and so emerges from the analysis as a striking discrepancy.” “A great deal of the value of Schenkerian analysis, it seems to me, lies precisely in the discrepancies that arise between the analytical representations and the familiar surface of the music in question.”

Cook is evidently capable of getting some valuable sense out of the disagreement between Schumann’s song and the tonal reduction of it, but this must reasonably be the last line of defence when it comes to excusing Schenkerian analysis. “Is there not something radically wrong” with an analytic method that is praised precisely in virtue of its constitutive shortcomings? Besides, the fact that “the vocal line never resolves to the tonic” can be readily established without any analytical fuss; this exquisite aspect of the song’s musical design cannot reasonably have escaped any singer or pianist, nor can any listener miss it; cf. Ex. 3a.

Cook and Kerman are certainly right when pointing out that the conflict between the vocal part, refusing to resolve into the tonic note, and the resolving piano cadences is not properly accounted for in Schenker’s reduction, and when (at least as far as Kerman is concerned) regretting that this enigmatic point of the musical design is wasted in the analysis.

But it is not quite correct to say that this aspect of the song “is absent in the graphs”. The non-closure of the vocal part is in fact taken down – once and very discreetly – when Schenker needs it for his background; cf. the fermata over b^1 in m. 8 (rather than m. 4) in the foreground 3d. His ready-made “tonal form” for interrupted periods requires a dividing second-degree with dominant support, and therefore the fact that the piano part does reach the tonic must be downgraded. At the end of the song, on

33 Kerman points out that Schenker, Forte, and Komar (Norton Critical Edition of *Dichterliebe*, 1971) do not agree as to where the structural third degree is resumed. Whereas Schenker opts for the A^7 chord in mm. 12–13, Forte and Komar prefer to wait until the consonant A-major chord in m. 14.

the other hand, where a full cadence is called for, there is no second-degree fermata, and already the first cadence in the piano part is taken to be structural at the highest level. Then, as if to make doubly sure, the piano once again comes to the singer's rescue with a completed cadence.

The "striking discrepancy" *vis-à-vis* Schumann's "familiar surface" is certainly obvious, but the "relief" that Cook likes to contemplate is certainly in the eyes of the beholder. But there is much more to learn about the song than this "good comparison" discloses – it needs a better *Darstellung* than the one Schenker offers.

A critical scrutiny of Schenker's reduction

We will first take a closer look at Schenker's reduction, starting with the background as he and Forte want us to do. It looks just as one might expect, but a striking peculiarity in 3b is that the middle section of the song – its expressive core and where the music gets going, tonally speaking – is entirely absent. As a result, the standard *Umlinie* form 3–2, 3–2–1 does not match the "outer" A^1 –B– A^2 form defined by the melodic and harmonic substance of the song; cf. 3a. As to the middleground, the B section is present but lacks high-level tonal content – it merely shows a descending selection of thirds mediating between E major and A major via C# major. According to Schenker, then, the (tonal) form of the song rather amounts to A^1 –transition– A^2 . But the middle section – even featuring a cadence to C# major – is certainly more than that.

Turning to the treatment of mm. 9–12 in the foreground 3d, some recognizable features of the actual music begin to emerge together with analytic signs drawing attention to events such as a top-voice neighbour-note connection, chromatically falling inner-voice motions, and applied-dominant-to-auxiliary-tonic progressions in the lowest voice. There is also, indicated by "unfolding" symbols as well as brackets, an ascending set of two rising fourths, $f\#^1$ – b^1 and $g\#^1$ – $c\#^2$. Looking down from the top of the "reduction", from Forte's advantageous position, it is amazing to see how all this prolongation stuff arises out of the central void of the background, out of the conjurer's empty hat.

We will begin by studying a detail of Schenker's analysis of the A^1 section, a detail that merits discussion since it will turn out to be important

later on when dealing with the properties of the A² section. Commenting on Schenker's explanatory designation "*Konsonanter Durchgang*" in the foreground representation of m. 2, Forte points out that "the tenth which the bass A forms with the upper-voice C# transforms the latter, a dissonant passing tone at the middleground level, into a consonance at the foreground level", and that "since it supports a passing tone in the upper voice it is a passing chord". (Forte, p. 15) This account might satisfy a dedicated Schenkerian, but if one listens with more musical understanding than Schenker, always on the watch for subsurface configurations of strict counterpoint, was disposed to invest, it appears that these graphs misrepresent what really happens in the music.

Neither the middleground "*Nebennote*", nor the foreground "*Kons Dg.*" captures the musical essence of m. 2. The downbeat D-major chord has a quality of a "consonant appoggiatura" (the one *contradictio in adjec-to* is as good as the other), and far from being a passing chord, the ensuing A-major chord serves as its resolution. In short, there is an unmistakable touch of a plagal cadence in m. 2 – notice that Schumann took care to enter rests demarcating the first two bars from what follows, thus blocking the sense of a *Durchgang*. Pay attention also to m. 14, treated in the same insensitive way by Schenker: the chromatic mediation $f\sharp^1-f\sharp^1$ makes it quite clear that the A-major chord is not a *Kons Dg.* prolonging a *Nbn.*

And if you take account of mm. 3–4 bringing two identical authentic cadences in the piano part, the initial four-bar section emerges as divided into a sequence of short units, featuring first the subdominant, then twice the dominant. This parallelism in terms of contrast is underscored by a subtle sense of rhyming – notice Schumann's stress signs.³⁴ This reinterpretation of the tonal content of the A section(s) suggests that the analytic slur in Ex. 3d, showing a subordinate descent from the initial c#² to the a¹ in m. 3, is an inadequate description of the musical process.

34 This bisection in terms of harmonic polarity (and the short separating rest in the vocal part) within the A¹ sections emerges as a quite meaningful reflection of the rhetoric layout of the text: the tears and sighs are contrasted with the inanimate expressions of flowers and nightingales, respectively.

Thus, there are a number of “discrepancies” already in Schenker’s account of the first four bars. Does this display of analytical bluntness really “illuminate” the subtlety of Schumann’s first four bars?

According to Forte, “Schenker regards [the middle] section as a prolongation of the background fifth formed by $2/V$ ”. (p. 14) But when studying the graphs, it appears that the dominant chord in m. 8 leads a protean existence in Schenker’s analysis. Starting with the foreground 2d, as you should do if you want not only to understand and but also to check a reduction, it is obvious that the E-major chord under consideration is the one occurring after the piano’s renewed cadence to the tonic in m. 8, a chord that unmistakably belongs to and launches the complex events of the middle section. Turning to the middleground 3c, only the descending inner-voice connections issuing from this E-major chord are retained – the bass motion of the middle section has disappeared. It is also severed from the middle section by a demarcation sign, and its root is now attached backwards to the initial tonic as well as forwards to the resuming a in m. 13. The functional metamorphosis is completed in the background 3b, where this actually starting dominant is unambiguously shown as a dividing dominant finishing off the tonal structure of the A^1 section. These piecemeal shifts make for an *Ursatz* interrupted at the dominant and pave the way for the ultimate understanding of the song as exemplifying a standard “tonal form” in Schenkerian theory.

But the first part of the song is not interrupted on the dominant. Quite to the contrary, the fact that the final b^1 (over a non-closing V^7) in the vocal part recurs after the formal demarcation makes for a sense of continuation. And turning to the piano part, there is certainly an element of interruption in m. 8: the A^1 section is twice and unequivocally finished off by tonic chords, not by dominants. Only people unquestioningly believing in ready-made Schenkerian concepts of “tonal form” are likely to succeed in persuading themselves into hearing the last event in m. 8 as an interruption putting an end to the preceding section of the song, which just closed on the tonic, let alone understanding it as an interrupting chord that nevertheless starts a bridge leading all the way into m. 12. Since the music begins to leave the E-major chord as well as the dominant territory already in m. 9, it is simply absurd to claim that the middle section somehow

prolongs a dividing dominant. (Hence, presumably, the background 2b with its middle void.) This is certainly not how we hear the song.

At the shift to the A² section, on the other hand, there *is* in fact a quite strong (but not unequivocal) sense of interruption associated with the C[#]-major chord, an interruption also marked by a repeated cadence and followed by a resumption brought about by the qualitatively transformed return of the main melodic motif.

Thus, the 3/I–2/V part of the interrupted *Ursatz*, making up the initial section of Schenker's tonal bi-partition of this ABA-form song, emerges as seriously undermined. Nothing is interrupted by the last chord in m. 8 because this E-major chord is unmistakably a start: what Schumann offers is a second-degree top note over a root-position dominant chord as a point of departure, and it is not up to the analyst to change this fact.³⁵ Schenker's transformation of the structural meaning of the E-major chord, gradually implemented in his hierarchical series of graphs, is not "illuminating" but deceiving.

To make bottom/up readers, if any, swallow the bait, a c^{#2}–b¹ beam is introduced already in Ex. 2d. This invalid deep-structure connection is certainly not an observation belonging to the foreground, but it discloses that the desirable interrupted *Urlinie*, which should have emerged only as the final result of a chain of defensible bottom/up reductions, is assumed – is planted – right from the start. Schenker's top/down "reductive" account in which the actual start of the middle section is posited beforehand as an interrupting chord belonging to the first section raises the question of ethics in tonal analysis, as does of course (studying his "analysis" bottom/up) the gradual and unblushingly manipulative disguising of a start in order to make it look like an end.

Considering the voice part, there is a connection between the c^{#2}'s starting the A¹ sections and the b¹'s in mm. 8–9; the first b¹ demonstratively refuses to close the (second) A¹ section whereas the following ones start the

35 And yet, according to Forte one of "Schenker's most important convictions" is "that the [tonal] function of a chord depends upon its context, not upon its label". (pp. 15–16) It should be added that the fact that the song's middle section issues from the dominant emerges as quite meaningful: the pronoun "*du*" is introduced in the text.

middle section. It is essential to notice – evidently, Schenker did not care although it is often claimed that he was keen on taking motivic matters into account – that the B section begins with a quite faithful imitation of the start of the A¹ sections, a fact that applies not only to the vocal melody but also to the piano’s descending bass line. Thus, the singer’s start after the piano’s cadence to the tonic in m. 8 is associated with both continuity and resumption, an impression brought about by the retained note, by the recurring motivic substance, and by the transfer of the start of the melody down to the second degree. There is, if you like and far beyond the *Ursatz* agenda, a clearly audible, comprehensive neighbour-note connection $c\sharp^2 - c\sharp^2 - b^1 - c\sharp^2$, reaching from m. 1 to the tonally unstable moment of return in mm. 12–13 and connecting the four sections of the song’s vocal line.³⁶

Schenker’s analysis of the middle section: the foreground

But what about the tonal content of the B section? Reading Schenker’s reduction top/down, the middle section emerges out of nothing as if it were an inherent property or a necessary product of the would-be dividing dominant unambiguously shown in the background. According to Forte, the “main feature” of the middle section “is the inner voice which descends from G[#] to E, a middleground duplication of the fundamental line’s third”. (p. 14) If the passage is studied as Schumann wrote it, you might discern a chromatic inner-voice fall from g^{#1} to e^{#1}-then-e^{‡1} in mm. 9–12. But is this, certainly not very conspicuous, connection really the “main feature” of the section? And needless to say, calling this motion a “middleground duplication of the fundamental line’s third” is a too top/down and too esoteric observation to be of any interest.

As to the attendant lower inner-voice component of the middleground, Forte, talking about the foreground, notes that “the lowest voice in this passage is subordinate to the voice which lies immediately above it, E–D–C[#], the latter succession being the actual bass line (cf. the middleground sketch). Nor does its registral position above the foreground bass lessen

36 This continuity in terms of four parallel phrases and a lower neighbour-note contour of starting notes subtly reflects the text – the repeated use of the conjunction “*und*”.

its importance as the main motion-determinant in the lower voices. Therefore, the foreground bass which displaces or covers it registrally might be called a ‘pseudo-bass’ ”. (p. 17) In a footnote Forte warns his readers that “relationships of this kind occasionally cause students to be confused; by assigning a structural event to the wrong level they necessarily arrive at a misreading. The technique of reconstruction serves as a corrective in such instances.”³⁷

Again needless to say, a “middleground sketch” cannot decide what the “actual bass line” is – the latter should emerge from a careful study of the foreground, which ultimately should reflect the music as printed in the score.³⁸ And the e¹–d¹–c^{#1} line cannot very well be the “main motion-determinant” since it is itself a quite inconspicuous motion, undeservedly highlighted in Schenker’s middleground. Its first and last notes are indeed both prominent and determining, but they are shared with, and primarily belong as core notes to the “pseudo-bass”, which attests to the crucial importance of this dismissed component. Since we have a strong propensity to listen to music in terms of its outer voices, it may be held that you should rather assign primary importance to the vocal melody/the top voice in the piano part and to the lowest strand, which according to current musical understanding is also the bass line determining the harmonic progression.³⁹

37 This kind of disdain of students and other *non-savants* is not rare in Schenkerian writings. It remains to be seen, by deconstructing Schenker’s analysis, whether the students or Professor Forte is confused.

38 Is really a middleground connection – whether defensibly derived or not – more real than a foreground one, or indeed than a surface connection? The first victim when the word “actual” is misused is the author. The “technique of reconstruction” serving as “a corrective” seems by far to exceed a reasonable dialectic relationship between reductive layers; in politics it would correspond to a system in which the state is allowed to elect voters among its subjects.

39 In this song, as in most works featuring a male solo voice, the vocal melody is in fact not always the top voice – but so it tends to be understood due to its dominance, and it may therefore (from case to case) be justifiable to analyse the music as if the vocal melody really were the topmost voice. In this very passage, the actual pitch position of the vocal line is no problem since it is doubled in the upper octave by the piano; it *is* in fact the top voice. For a discussion of another example, cf. Bengt Edlund, “Left-hand melody and tonal structure” (dealing with Chopin’s B-minor Prelude Op. 28, No. 6), ch. 4 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag.

If you take straightforward account of the accented notes of the outer voices of the song – which means eschewing all covering, unfolding and “pseudo-bass” nonsense – the middleground of the B section should read $b^1/e^1-c^\sharp/a^\sharp-f^\sharp/b-b^1/g^\sharp-g^\sharp/c^\sharp$. But this counterpoint in terms of contrary motion features metrically and harmonically quite prominent sub-surface consecutive fifths. Recalling the discussion of consecutive intervals in *Das Wandern* (where the forbidden fifths were an analytic artefact), Schumann himself has resolutely “spoiled the comparison between [his song] and Fuxian counterpoint”. On the other hand, Schenker has certainly not failed in his duty as a tonal analyst to sweep the consecutive fifths under the middleground carpet: both outer lines have been destroyed in 3c, and the only connection left is a descending series of non-spoiling parallel thirds.

What we see in Schenker’s middleground after the would-be covering neighbour-note motion on the top as well as the would-be covering “pseudo-bass” still shown in the foreground have been disposed of, is an inner treble line of disparate origin, and an “actual bass line” that is evidently not in charge of the harmonic progression of the passage but distorts it – a fact that beyond doubt indicates that the “pseudo-bass” is the true bass. Is m. 11 really “based” on the insignificant inner-voice d^1 ? If so, where is the D-major sound? But never mind Schumann’s song, the falling series of middleground thirds, derived out of the Schenkerian machinery, seems to lead seamlessly into the crucial e^\sharp/c^\sharp third of the C^\sharp -major chord in m. 12 and from there into the e^\sharp/g^\sharp of the A^7 upbeat chords.

The net effect of the straightforward (i.e. “confused”) consecutive-fifths reading of the middle section proposed here as an alternative to Schenker’s analysis is a harmonic progression, urged by two applied dominants (of sorts) and issuing into $7/III3^\sharp$ – or into an applied $2/V$ if the passage is understood as a modulation heading for a (non-forthcoming) F^\sharp minor auxiliary tonic. This reading suggests, indeed gives considerable structural emphasis to, an interruption on a degree/step that is not acknowledged in Schenkerian theory as a suitable locus of interruption. Hence, one may suppose, Schenker’s truly confusing, no-consecutive-fifths middleground in which the C^\sharp -major harmony (stated twice as a local goal) is shown as having merely passing significance and as being topped by a c^\sharp that has not yet been sung/played.

But it is necessary to study Schenker's foreground 3d in detail. The first thing to notice is that there is no slur between the e^1 in m. 8 and the a^\sharp in m. 10. Schumann's stepwise descending motion between these notes, i.e. the only and quite exposed voice-leading event in m. 9 as well as an important motivic constituent of the song – it clearly associates back to m. 1 – has disappeared without a trace already in the foreground. After having shared the note e^1 , Schumann's bass evidently parts from his right-hand tenor in m. 9, so Schenker's omission is certainly no oversight: it was simply highly desirable to wipe out a real connection that would have disclosed that the “pseudo-bass”, not allowed to appear in the middleground, is in fact the actual bass of the passage. In terms of “good comparison” the bass motion in mm. 9–10 is no less real and no less interesting than the one in mm. 1–2.

The obvious conclusion is that in order not to “arrive at misreadings” and not to commit the error of “assigning a structural event [like the inconspicuous inner-voice motion e^1 – d^\sharp^1 in mm. 8–11] to the wrong level”, you should keep to a discerning bottom/up approach and treat the music under study with respect.

Except for one note, the g^\sharp^1 put within parentheses in 3c, Schenker also leaves out the alto descent in his background, although it obviously imitates the preceding motion in the bass, and although it is the only and quite exposed voice-leading event in Schumann's m. 10. Why? Since he wanted to bring out a chromatic inner-voice motion from g^\sharp^1 to f^\sharp^1 and needed a mediating g^\sharp^1 – this note is therefore retained in the middleground in spite of the fact that it is just a passing-note dissonance on the way to the immediately following f^\sharp^1 . Another reason to suppress the alto motion in m. 10 is that it does *not* lead to f^\sharp^1 in the next bar, but to d^\sharp^1 – a listener who has just heard the bass motion in m. 9 cannot hear it otherwise. Furthermore, duplicating the vocal melody, the f^\sharp^1 starting m. 11 obviously belongs to the soprano while the d^\sharp^1 below it is clearly shared between the alto and the tenor. And the inner-voice progression to e^\sharp^1 in m. 12 takes place only after the alto has moved from d^\sharp^1 up to f^\sharp^1 , a motion that is concealed in Schenker's graph because the second beat of m. 11 is represented in the foreground as just a dyad made up of a “covering” top note and a “pseudo” bottom one. The tenor d^\sharp^1 leads of course down to c^\sharp^1 , shared with the actual bass.

(These critical observations describing the actual voice leading in Schumann's song and disclosing how Schenker intentionally misconstrues it, do

not decisively overthrow the idea that a discernible but most heterogeneous falling inner-voice connection may after all be inherent in the B section.)

As can be seen from the foreground, Schenker uses two unfolding symbols to indicate the idea that the vocal line/the top line of the piano in mm. 11–12 is to be understood as involving a bifurcation into two sub-surface strands. The upper strand makes for a connection from b^1 to $c\sharp^2$ (cf. the slur across the rest in 3d) while the lower one supplies first the downbeat $f\sharp^1$ in m. 11, belonging to the inner-line descent, and then the downbeat $g\sharp^1$ in m. 12, allegedly introducing an extra voice; cf. the following discussion of the middle-ground. But these rising-fourth unfoldings are not very convincing, nor are they commensurable. The first of them is embedded within the singer's melodic phrase, whereas the second one extends over a phrase demarcation as well as over a formal boundary involving a quite unexpected harmonic shift.

The brackets seem to indicate that the unfolding symbols have deceived Schenker into accepting a most implausible grouping of the melodic events: $f\sharp^1-b^1$, then $g\sharp^1-c\sharp^2$. Quite obviously, the melodic motions in the B section are $b^1-c\sharp^2$, then $f\sharp^1-(b^1)-g\sharp^1$. Hence, the upper strand does not lead from a “covering” b^1 in m. 11 to a highly structural $c\sharp^2$ as suggested in the foreground graph. As already pointed out, there is an unmistakable intervening demarcation, marked by a rest after $g\sharp^1$ in the vocal melody and by an interspersed cadence in the piano part, and the resuming entry on $c\sharp^2$ is far from expected.

It seems, then, that the vocal line of the middle section should rather be conceived of as two modified statements of the song's initial rising-second motif, two statements of which the second one, issuing from $f\sharp^1$, features a detour up to b^1 before ending at $g\sharp^1$.⁴⁰ Just as the first motivic unit of the middle section leads from b^1 to $c\sharp^2$, the second involves a corresponding motion from $f\sharp^1$ to $g\sharp^1$, a fact that cannot but undermine Schenker's

40 As already mentioned, the two initial Asections are bisected in terms of both the text and the music; the two slightly varied and closely linked statements of the main motif in the B section make sense since they reflect the fact that the text features an implication made up of two clauses. Considering the more tentative content of the text of the middle section, the modification of the initial motif emerges as meaningful: its rounding-off falling second is omitted.

foreground “*Nebennote*” connection $b^1-c\sharp^2-b^1$. And if there is a sense of bifurcation of the singer’s melodic line, it is made up of a contrast between a high-pitched and a low-pitched phrase. As so often, it seems that the unfolding symbols obscure rather than explain what is going on.

Forte points out that “the foreground of the middle section provides a good example of Schenker’s concept of ‘melody’ (he avoided the term in his writings) as a self-contained polyphonic structure”, and that “this valuable aspect of his theory – an aspect absolutely indispensable to any kind of intelligent melodic analysis – is well substantiated by compositional practice.” (p. 16)

Whether reading melodies “as self-contained polyphonic structures” is really a valuable idea is open to considerable doubt, and Forte’s opinion that it represents “an aspect absolutely indispensable to any kind of intelligent melodic analysis” is no doubt a gross exaggeration.⁴¹ As to the middle section of Schumann’s song, it is quite obvious that Schenker did not pay any attention to the melody as a melody – the vocal line is treated merely as a vehicle for the tonal structure in view. What insights in the melody have we got thanks to these analytic “discrepancies”? Quite to the contrary, it has become quite clear that ignoring the phrase shifts and the motivic make-up of the vocal line (as well as its underlying harmonies) may lead to an analysis that is quite stupid.

Unlike in m. 8 where rest before the B section is of course suppressed, Schenker has for some reason not omitted the corresponding rest in m. 12.

41 Is it really “intelligent” to miss the fact that the melody of the B section uses the song’s initial motif? Is it really “intelligent” to waste “intelligent” analysis on clearly stupid melodies? Who is most “intelligent”, Robert Schumann or Professor Forte? Apart from some possible perceptual effects due to pitch streaming – Schenker’s unfoldings/bifurcations in the B section can certainly not be explained as a result of fission – conceiving of melodies as polyphonic constructs may in fact hide a host of other quite interesting properties that it may take some “intelligence” to savour and discover; cf. Leonard B. Meyer, *Explaining Music*, University of Chicago Press 1973, Eugene Narmour, *Beyond Schenkerism*, Chicago 1977 (chapter 6), and Narmour’s further, most comprehensive studies concerning melody, *The Analysis and Cognition of Basic Melodic Structures* and *The Analysis and Cognition of Melodic Complexity*, University of Chicago Press 1990 and 1992, respectively. When writing his presentation essay, Forte could of course not know about future developments, but it was unwise and arrogant to give Schenkerian analysis a *sine qua non* status in matters of melody.

It actually brings a strong counter-argument to his never-mind-the-intervening-cadence-to-g^{#1} connection between b¹ and c^{#2} in mm. 11–12, but it is analytically inconsequential – not the slightest trace of non-continuity is allowed to show up in the graph.

Schenker's analysis of the middle section: the middleground

Turning to Schenker's middleground, Forte points out that "this sequence [of foreground unfoldings] lends support to his reading of the implied anticipation of C[#] in the upper voice of m. 12". (p. 16) This non-present c^{#2}, added within parentheses above the downbeat C[#]-major chord actually topped by g^{#2} and then tied to the actually occurring c^{#2} over the following upbeat A⁷ chord, is also, Forte claims, warranted because Schenker had a feeling that it is "strongly implied by the [middleground] voice-leading context", suggesting a connection from the "retained upper-voice" b¹ back in m. 8. (p. 15)

But it is hard to see how the foreground unfolding relationship in m. 12 can give any support for, or even be compatible with, an added middleground c^{#2} on top of the C[#]-major chord. The "sequence" of foreground unfoldings can be left out of account since it is based on a far too "intelligent" reading of the melody. The second unfolding (if any) is a temporal relationship between the main downbeat of m. 12 and the upbeat to m. 13, and it cannot be collapsed into a simultaneous middleground event. The anticipation of c^{#2} over the final melody note of the B section is seriously undermined by the clear melodic demarcation in the vocal part and by the inserted cadence in the piano part echoing the preceding falling third of the singer. The vocal melody of the middle section essentially brings two rising-second motifs, and since the first unfolding merely captures an insignificant excursion within the second motif, it cannot very well make up a basis for expectations as to what will happen after the second motif. Furthermore, Forte's explanation misses the fact that the outcome of the entire situation is deceptive – primarily, an F[#]-minor chord probably topped by a¹ seems to be in the air. If the c^{#2} is not even expected, how can it be anticipated?

As to the *Satzprobe*-like argument that Schenker "had a feeling" that it was all right to add a downbeat c^{#2} in m. 12 matching the "retained" b¹ from m. 8, one should not allow oneself to extrapolate anything from a reductive layer by playing and listening to it as if it were a real passage of music. And this rule applies all the more if one cannot even be certain that the

layer in question correctly represents the actual musical substance – as is the case with Schenker’s foreground. Recall that the “covering” *Nbn.*-motion shown in 3d is seriously undermined – the $c\sharp^2$ is motivic – which means that the sense of a “retained upper-voice” b^1 is correspondingly weakened.

Thus, the middleground anticipation of $c\sharp^2$ over the $C\sharp$ -major chord emerges as entirely unwarranted. But it should be observed that this manipulation serves two closely related purposes, crucial for arriving at the desirable, indeed pre-established, outcome of the analysis.

The anticipation of the renewed start of the *Urline* in Ex. 3c hides the fact that the cadence to $C\sharp$ -major brings a sense of interruption – to the extent that there is at all any interruption in the song’s tonal process. But as already pointed out, an interruption at $7/III\sharp$ (or $2/V$ in $F\sharp$ minor) was theoretically undesirable; Schenker was forced to locate the interruption of his *Ursatz* to the actually starting dominant in m. 9.

The anticipation also obscures the fact that Schumann reintroduces the main motif over an A-major *seventh* chord functioning as an applied dominant leading to the following, transiently tonicized D-major subdominant – a most unusual location for resuming a fundamental line. The “I” designation under the A^7 chord in the foreground (presumably the top/down consequence of the $3/I$ of the background) either amounts to a deliberate and tendentious misreading or to a stupendously indiscriminate listening. The dual fact that the bass features an A-major root and that the main melodic motif returns over it, does not turn an applied dominant into a tonic.⁴² Schumann’s A^7 chord should have caused Schenker to reconsider his analysis and Forte to question it.⁴³

Forte also asks his readers to “observe that just before the inner-voice motion is completed on the downbeat of m. 12, the $G\sharp$, its point of departure, is introduced by an additional voice”. (p. 15) Never mind (for

42 Recall again that one of “Schenker’s most important convictions” is “that the function of a chord depends upon its context, not upon its label”. In this case, Schenker not only misread the context but also forged the harmonic label to be on the safe side.

43 The added seventh, lending a sense of tension to the main motif, seems to reflect the poet’s aspirations; already in m. 9 he implicitly asks his beloved: “*Und wenn du mich lieb hast*”.

the moment) the distant and inconspicuous “point of departure” at the upbeat to m. 9, the fact of the matter seems rather to be that an optical delusion is involved: this soprano-voice/vocal-melody note looks additional in the middleground graph due to the unwarranted addition of the top note $c\sharp^2$ above it. In Ex. 3c this $g\sharp^1$ seemingly starts an inner-voice strand that joins the $e\sharp^1-e\sharp^1$ motion of the upper inner-voice connection with a falling inflection to $g\sharp^1$. But we must not forget that the $C\sharp$ -major $g\sharp^1$ is functionally ambiguous, and that reading it as starting a new falling inner-voice as shown in 3c highlights its prospective voice-leading function at the expense of its non-connecting, concluding melodic role. The $g\sharp^1$ is also, indeed foremost, the last note of the singer’s phrase and as such it comes from $f\sharp^1-b^1-$, a fact that is unmistakably reconfirmed by the piano interlude.

That there is a link in terms of a chromatically descending third across the demarcation, a mediating motion between two otherwise quite unrelated chords, is of course an apt observation. There *is* an added note in m. 12, and it is added by Schumann in the *five*-note A^7 chord. But which note is added? Since $e\sharp^1$ and $g\sharp^1$ are prepared for by the $C\sharp$ -major $e\sharp^1$ and $g\sharp^1$, respectively, the given answer seems to be that the extra note is a^1 , but several observations speak against this conclusion. It is inconspicuous, it has no interesting future voice-leading consequences, and it is only weakly implied by $g\sharp^1$ in its (retrospective) capacity as a leading-note. (The $g\sharp^1$ is slightly ambiguous since it gives rise to *two* inner-voice connections – it leads both down to $g\sharp^1$ and up to a^1 .)

No, the added note is rather the top note $c\sharp^2$, the crucial starting note of the main motif. This may at first seem paradoxical, but it makes musical sense because this note is exposed as well as unexpected, and it may therefore emerge as the start of a new strand relegating the former treble line to the alto register. As the soprano line of the B section joins the inner voices, a “new soprano” begins at $c\sharp^2$ above it. But Schenker and Forte, blinded and deafened by the unwarranted $C\sharp$ -major anticipation of this note, miss this take-over, which contributes significantly to the magic of the return.⁴⁴

44 The idea of a superimposed, fresh entry and the sound of the A^7 chord fit very well with the sense of mild rapture in Heine’s text.

The connection between the alto “point-of-departure” $g\sharp^1$ in m. 8 and the allegedly added $g\sharp^1$ in m. 12 is questionable, and yet it suggests an interesting parallelism between the middle section and the concluding A^2 section that Schenker apparently didn’t notice or deliberately suppressed. As already pointed out, the “alto” $g\sharp^1-g\sharp^1-f\sharp^1-e\sharp^1-e^1$ inner-voice connection in mm. 8–12 shown in 3c is a patchwork – it is artificially recruited first from the alto, then from the soprano, then finally from the alto – and yet such a motion may be present beyond the immediate musical surface. The interesting thing is that this artificially construed motion is overlapped by a quite orderly and audible replica issuing from the $g\sharp^1$ in m. 12, a replica keeping to one and the same inner strand and supplying a $g\sharp^1-f\sharp^1-f\sharp^1-e^1$ counterpoint to the main motif. Indeed, this descending line may be taken to reach down to $d^1-c\sharp^1$ in m. 15, and it blurs the second formal demarcation of the tri-partite ABA scheme as well as the moment of repeat within Schenker’s bi-partite tonal form. Alternatively, if we let it start from the a^1 of the first A^7 chord, this motion brings an inner-voice variant of the otherwise absent bass line from mm. 1–2, thus making for a unifying link between the two outer sections.

As regards the lower, attendant tenor motion within the B section ($e^1-d\sharp^1-c\sharp^1$ in Ex. 3c) it has already been pointed out that all notes but the alto/tenor $d\sharp^1$ in m. 11 belong to the discarded “pseudo-bass”, i.e. to the true bass progression actually prompting the harmonic shifts. Nevertheless, Forte explains the middleground graph as follows: “The bass which counterpoints this inner [$g\sharp^1-e\sharp^1$] voice arpeggiates the tonic triad, E–C#–A”, and “by slurring E to A he [Schenker] indicates that he considers that motion to be the controlling bass motion, within which the C# functions as a connective of primarily melodic significance”. (p. 14) And in a footnote he cites Schenker’s commentary: “The bass executes an arpeggiation, descending through the third, but without terminating the interruption”.

Since this would-be superordinate “tonic triad” entirely consists of roots belonging to the true bass voice of the passage, one might wonder why Schenker at all insisted on his made-up, “inner-voice bass line” involving the alto/tenor $d\sharp^1$? Tentatively interpreting the all but clear footnote, the purpose seems again to be to suppress the sense of temporary closure and interruption associated with the C#-major chord in m. 12, i.e. to uphold the entirely mistaken idea that the obviously *starting* E-major 2/V chord

back in m. 8 represents the interruption of the tonal form. (As already pointed out, there is an interruption in m. 8, but it temporarily arrests the music in A major.) How can the E-major interruption be non-terminated by a C#-major chord turning up four bars later? This *contradictio in adjecto* disappears if the E-major chord is taken to be a starting event.

Forte's remark that the c#¹ in m. 12 "functions as a connective of primarily melodic significance" is also quite bewildering. On the one hand, and *à propos* the unfolding symbols used to dismember the vocal line, Forte wholeheartedly embraces the idea of dealing with melodies in terms of quasi-contrapuntal layers. On the other hand, he enjoins us to understand a patently structural harmonic root, and moreover a most important point of convergence between two strands, as primarily a melodic event. Who hears the bass-arpeggiation note c#¹ in this way?

Harmonic observations

The harmony of the B section of the song is not specified but simply put within parentheses in Schenker's foreground. He might have conceived of this passage, understood as merely a mediation between dominant and tonic (i.e. the applied-dominant A⁷ chord), to be a voice-leading affair. But it is also true that a harmonic analysis would have forced him to take account of the "pseudo-bass" that he wanted to dispose of.

The music/the actual bass takes us from E major via B minor in m. 10 to C# major in m. 12, where the piano signals a halt by means of an inserted repeat of the preceding cadence formula. Unfortunately, but quite understandably considering the structure that Schenker evidently had in mind and wanted to demonstrate, this demarcating cadence (unlike the ones in mm. 4/8 and 16) is left out already in the foreground, and no matter the rest our eyes are lead straight into the following A⁷ chord in a way that hardly agrees with how we get there with our ears. The slur between c#¹ and a in m. 12 has very little support in the music, and this goes of course for the long slur from the E-major e¹ in m. 8 to the root of the A⁷ chord as well – these slurs mark musically dead facts, not viable connections. As regards the e¹-c#¹ slur, it is undermined by the fact that the actual bass motion, lending it some substance and running via the B-minor root b (not the interior-voice d#¹), is dismissed as a "pseudo-bass".

Stepping back and contemplating what we get if the demarcating C#-major cadence of the piano part is taken into full account, we will find that as far as the general harmonic layout is concerned the song is spanned by a I–III3#–I or a I–V–III3#–I framework, species not included in the Schenkerian flora.⁴⁵ But quite unlike scientific botanists, more interested in anomalies that might expand their knowledge of nature than in evidence strengthening their preconceived ideas, Schenker did not permit such disturbing structures in his herbarium of backgrounds.

It appears that the inserted cadence in m. 12 (and its slower precursor in mm. 11/12) allows of at least two harmonic interpretations, making the future course of the music uncertain in a way that may explain some of the magic of the moment of formal return. As a matter of fact and fortunately, it is impossible to positively determine the harmonic function of these chords since the following A⁷ chord is unexpected and quite deceptive in relation to what precedes it.

To the B-minor chord starting m. 11 is added a g#, and if understood as an applied (minor) subdominant with an added sixth in the bass, this chord turns the following C#-major chord into a dominant. The auxiliary tonic of this half-cadence is an F#-minor or F#⁷ chord due at the second beat of m. 12; cf. the hypothetical recompositions Exs. 3e:1 and 3e:2, respectively. The first-inversion F#-minor chords provide the most conventional continuation allowing the left-hand to associate back to the beginning of the song. Starting the new phrase with a series of F#⁷ chords emerges as a quite Schmanesque solution opening up for another and presumably longer song, but it is not far (and yet a world apart) from the deceptive and truly Schumanesque A⁷ harmony that actually turns up.

But the crucial cadence in m. 12 features a rising fourth in the bass, suggesting that the chords bring an applied-dominant-to-auxiliary-tonic progression, an interpretation that agrees with the preceding (first-inversion) F#

45 These harmonic schemes are preliminary and will be complemented by another account of the harmonic design of the song, taking the A² section into closer consideration.

major to B minor authentic cadence in mm. 10–11.⁴⁶ If the middle section is construed in this way, the cadence in m. 12 might be followed by a series of C \sharp ⁷ chords eventually giving in to F \sharp minor; cf. Ex. 3e:3. But Schumann did not choose this option either, and the A⁷ chord actually starting the A² section is a most unexpected, deceptive outcome of the ambiguous cadence.

In order to adjust the three-part “outer” ABA form of the song so as to conform to a two-part “tonal” form with a dividing dominant, Schenker (exercising again his “obligation toward particularity”?) ultimately decided to ignore the fact (shown in 3d and still in 3c, but not in 3b and left out of the harmonic analysis) that the theme recurs over an A-major *seventh* chord. But no listener is likely to miss the inherent sense of mobility of this harmony – the suspense is generously exposed by Schumann – nor can anybody be insensitive to the fact that it transforms the singer’s phrase by tonicizing the would-be *Nbn.*-note d², thus releasing the cumulated tension. The emphasis on this note is underscored by the chromatic f \sharp ¹–f \natural ¹ inflection in the piano part, touching the minor third. But this authentic expansion to D major is immediately eclipsed by the withdrawing plagal cadence to A major.

Surveying the music from m. 9 on, it appears that there is a rising series of three authentic cadences (F \sharp –B, G \sharp –C \sharp , and A–D) overlapping the formal boundary and leading up to the subdominant in m. 14. From this musically crucial point of view, the harmonic scheme of the song rather reads I–IV–I. By ignoring the harmonic aspect of the music in favour of voice-leading nonsense, Schenker has not only obliterated a most powerful component making for structural continuity, he has also missed the very focus of the tonal process, the crucial chord that brings the (seemingly remote) climax of the harmonic structure. Apparently, “pseudo-basses” might be quite “illuminating”. The so-called “structural” dominant, on the other hand and contrary to Schenkerian theory, has an altogether other role in the tonal agenda of the song: the unresolved b¹’s-over-E⁷ with their

46 The slurs in Schenker’s foreground indicate that this is how he probably understood these harmonic progressions, but in his middleground he suppressed both cadences, and especially the sense of harmonic closure in m. 12, in favour of his “actual bass line” and of the no-matter-the-sense-of-demarcation E-major-to-C \sharp -major-to-A-major mediant progression shown in 3c.

fermatas repeatedly and demonstratively prevent the music from reaching stability on the tonic. (Cf. below)

Turning to Schenker's graphs, he should already in the foreground have replaced the unwarranted $c\sharp^1$ -to-a slur – a slur that conceals harmonic non-continuity by simply positing a connection – by a slur from a to d. In this light the return to the tonic is still under its way when the theme recurs, and there is a poignant sense of conflict between the thematic form and the harmonic process, a non-simultaneity expressive of longing that the tonal analysis does not discover and hence fails to “illuminate”, unless of course tonal analysis is able to enlighten us by means of sheer neglect as Cook apparently believes.

Conclusions and a bottom/up attempt at reduction

It is time to summarize the findings. Turning first to m. 8, there is no interrupting dominant, but a starting one, and only an attenuated sense of a closing cadence to the tonic since the vocal line stays on the second degree, or perhaps rather on b^1 as a lower neighbour-note to $c\sharp^2$, despite the E^7 -harmonization. On the other hand – but along with the continuity effected by the falling inner voices – m. 12 does bring a sense of interruption due to the inserted cadence in the piano part and the following fresh start of the outer voices. The formal independence of the repeat section is undermined by the fact that from m. 10 on there is a chain of authentic cadences culminating in m. 14 with the transient tonicization of D major, functioning merely as a subdominant in the initial A sections.

Apparently, Schumann was keen to obscure the basic ABA layout of this short mono-motivic song, and in doing so he transcended the bisected tonal form that Schenker's analysis erroneously imposes on the music. The “interrupted” fundamental structure emerging in his background 3b is not credible since the first section of the song is shown as being closed by a dominant chord, which in fact and unequivocally is the point of departure for the middle section (as is indicated in the foreground 3d). Surviving the otherwise dividing cadence to $C\sharp$ major in m. 12, the middleground progressions starting from the non-dividing dividing E-major dominant last all the way to, and even beyond, the thematic resumption over the applied-dominant A^7 chord, inadequately read by Schenker as the return of the tonic in 3b.

Schumann's song is genuinely ambiguous in formal as well as tonal respect, and it is possible that Schenker understood that much, but unfortunately the normative constraints of his theory prevented him from clarifying this intuition, hence the many "discrepancies" of his analysis, divergences that mislead instead of "illuminate". No matter the preceding, repeated tonic cadence, he forced the unmistakably starting dominant in m. 8 to appear as the dividing final event closing the first half of the song. Since the C#-major interruption, making for an illegitimate *Ursatz* division, had to be discarded, he boosted whatever elements of continuity he could find in m. 12 while suppressing traits indicating closure. And in order not to disturb the new start of the *Urlinie*, the A⁷ chord and the following internal cadence to D major, making up the belated end-point of the modulatory drift of the middle section and the very core of the song, had to be obliterated.

With this analysis of *Aus meinen Thränen* sprießen in mind, who "would agree with William Benjamin's view that 'the great strength of Schenkerian theory lies in its ability to characterize an individual work in terms which highlight its uniqueness and, especially, its uniqueness at higher levels'"? (Cook, p. 131) One of the most extraordinary things with this extraordinary song is that the regular ABA return of the main motif is *not* co-ordinated with the tonal process, but this fact is not allowed to upset Schenker's high-level account, issuing into the non-unique "fact" that the standard interrupted tonal form I-V, I-V-I applies in this song as well as (allegedly) in innumerable other pieces.

But, someone might argue, haven't we learnt much about this song as a result of the necessity to criticize, to overcome and replace, Schenker's reduction by comparing it with the actual music? Thank you, Heinrich, but all and any of these insights are accessible, indeed easier to access, without making the detour laid out by your persistent efforts to distort the song; just listen to it and/or study Schumann's score. Besides, Heinrich, there is apparently a non-negligible risk that someone takes your grossly misleading analysis at face value.

Cook points out that Schenker (like Hanslick) "was reacting against what he saw as a decline in Western musical culture, a decline that stemmed from a failure of hearing". (Cook, p. 123) To this decline Schenker added deafness caused by theoretical dogmatism: he was even able to completely

miss the crucial tonicization of D major in m. 14. To non-indoctrinated ears this song emerges as an ambiguous – coherent *and* contradictory, eventually irresolute – tonal structure that never really leaves the third degree, except for the transient, but essential excursion to the tonicized upper neighbour-note in m. 14.

Schenker's analysis fails to do justice to the complex and unique tonal process of the song; just as in the theme from Beethoven's Op. 90, it turns out that "tonal reduction" should be kept away from the Masterworks. And yet – if we are to believe Cook – it is precisely in virtue of its many and grave shortcomings that Schenker's analysis of the song makes up not just a good, but an excellent comparison. The worse, the better.

An alternative reduction of Schumann's Op. 48, No. 2, a truly enigmatic piece of music defying normalization, is sketched in Ex. 3f; the voice and piano parts are dealt with separately showing middleground and foreground layers, respectively.⁴⁷ Three distinctly different interpretations of this graph will be proposed below – none of them appears to be acceptable by Schenkerian standards. However ambiguous the song is, a common trait of these interpretations is that the music emerges as more unified than Schenker's prejudices allowed him to show.

Disregarding for the moment the vocal part, loosing itself on the second degree and giving rise to the longing kind of tension that goes with unfinished gestures, there are tonic cadences offering full closure in mm. 4, 8, and 16. The cadence to C# major in m. 12 brings a conflict between traits making for closure and traits effecting continuity. In terms of the *goals* of the main cadences the song exhibits a $1/I-7/III3\#-1/I$ tonal layout corresponding to the ABA scheme.

But if you give primary attention to the *starts* of the sections and their motivic and harmonic content, and if you feel that continuity outweighs demarcation in m. 12, the result will be a $3/I-2/V-3/I^7$ structure, featuring a lower neighbour-note over a starting dominant and a high-tension moment of resumption.

47 This reduction is not likely to amount to a "good comparison" by Viennese standards since misrepresentations are avoided, and yet it may be "illuminating" in a modest, straightforward and out-of-the-way way.

Finally, due to the strong continuity in the second half of the song, caused by the chain of authentic cadences blurring the demarcation in m. 12 and eventually leading to the tonicized D-major chord in m. 14, the song suggests a quite asymmetric and unbalanced tonal form: 3/I–4/IV–2/I. This tonal structure brings out the crucial motion to the upper neighbour-note in m. 14 and the fact that the vocal line eventually refuses to give in to the tonic chord in the piano part.

Bringing in the context of the song

But even this account may be contested in favour of a tonal perspective including the preceding and the following song of the cycle.

The postlude of the first *Dichterliebe* song ends with a C#-major seventh chord demanding F# minor to attain closure. And this is in fact what the second song comes up with, beginning with the third $c\sharp^2/a^1$ and then touching a full F#-minor triad when the bass moves via $f\sharp^1$ to d^1 . The link between these songs opens up for further thoughts, and fortunately there is a sensitive analyst who has already paved the way: David Neumeyer.⁴⁸

The first question is: what is the key of Op. 48, No. 1? Schenker holds that this song is set in A major, and there are indeed regular A-major cadences, but his reading means that the third-degree primary note ($c\sharp^2$) of the A-major *Urlinie* has to be introduced over a $\text{III}3\sharp^7$ chord – a quite awkward solution in terms of his theory.⁴⁹ Neumeyer, attaching more importance to the prelude, interlude, and postlude than to the vocal core of the song, opts for F# minor and claims that the upper-voice essence of the song is an unresolved fifth-degree neighbour-note motion $c\sharp^2-d^2-c\sharp^2$. The present writer is bent to agree with Neumeyer and to accept as a stroke of genius

48 David Neumeyer, “Organic Structure and the Song Cycle: Another Look at Schumann’s *Dichterliebe*”, *Music Theory Spectrum* 4(1982), 92–105. Having a Schenkerian outlook, basically, Neumeyer’s approach is nevertheless quite open-minded, and when dealing with the problem of tonal unity in cyclic forms, he complements tonal reduction with narrative aspects and with observations emanating from the text. Even if I will eventually arrive at somewhat different conclusions, I owe much to his interesting discussion.

49 Cf. *Der freie Satz II*, Ex. 110c, 2.

the fact that no resolving F#-minor triad turns up until the first bar of the following song.

The second question involves the key of the second song, or rather from where it adopts A major as its tonic. Neumeyer chooses the A-major chord in m. 2 as the locus of the third-degree primary note c#². But considering what we really understand as listeners, this may be too early and too positive. A major is a fact only when the piano brings its first authentic cadence in m. 3, but at this point there is no very convincing third-degree c#² around. Then, in the second cadence, the voice fails to confirm the resolution to the tonic. As to the repeat of the A¹ section, it is heard as starting in A major, but we are also likely to remember the beginning of the song, and soon the F#-minor triad turns up again.⁵⁰

The middle section issues from the dominant of A major but the music soon slides down into the minor realm, and the piano's second cadence to C# major in m. 12, subtly recalling the harmonic progressions that begin, interfoliate, and end the first song, may be taken to imply that another ambiguous F#-minor-then-A-major phrase might be forthcoming. But the ensuing A⁷-chord leads away from A major into D major, which means that the A-major tonic must again be established by the following piano cadences. The second-degree final note of the vocal melody again keeps up the suspense.

Thus, the second song vacillates between F# minor and A major. The vocal line, refusing to resolve satisfactorily down to a¹ by halting three times at b¹, essentially involves the note c#² – emerging as fifth degree and third degree by turns. Eventually, at the emotional core of the song in m. 14, the upper neighbour-note d², harmonized by the subdominant, comes to the fore.

The third song of the cycle does not present any problems since it is beyond any doubt set in D major. The interesting thing about this song in the present context is that it begins by repeating over and over again a motif issuing from d²-over-D-major and featuring c#² as a lower neighbour-note.

Considering the tonal design of the first three songs of the cycle, a quite interesting tendency emerges; cf. Ex. 3g.

50 Notoriously sad words like *Thränen* and *Seufzer* require a touch of minor.

The first song alternates between F# minor (the piano frame) and A major (the vocal core); c#² is the starting note in both kinds of passages, but this fifth/third-degree note is unstable since it tends to appear as an appoggiatura falling to b¹. The A-major core brings releasing motions to the first-degree a¹, but they are not very conclusive since the melody immediately turns upwards, reaching first d² and then f#² supported by the subdominant. The main notes of the F#-minor passages are the fourth-degree b¹ and the seventh-degree e#².

In the second song c#² has a dual, fifth-then-third-degree tonal identity since the key of the A¹ sections is at first ambiguous; the piano part then repeatedly brings cadences to the A-major tonic note a¹ whereas the vocal line stops at b¹, emerging as a second-degree lower neighbour-note. The middle section is semi-closed with a cadence reminiscent of the progression making up the F#-minor frames of the first song. In the A² section the so far subdominant upper neighbour-note d² is transiently but quite emphatically tonicized as the D-major goal towards which the c#²-over-A⁷ strives.

The third song completes what the second song with its tonally ambiguous c#² began, namely the redefinition of the F#-minor/A-major initial note c#² in the first song into a lower neighbour-note. In retrospect, the resolution up to d² in m. 14 of the second song emerges as a high-level anticipation of this outcome. Only in the third song c#² consistently proceeds, not downwards, but upwards to d², at last abandoning the lower neighbour-note b¹ and exchanging the upper neighbour-note role of d² into that of a tonic. The sense of groping and ambiguity that marked the first two songs is replaced by straightforwardness, and along with the tonal twilight evaporates the tender sadness. Adopting a retrospective three-song perspective, c#² emerges as a multifarious seventh degree, eventually finding its way up to its tonic; the keys of the first two songs emerge as provisional.

General conclusions

The following citation may represent the most attenuated version of Cook's defensive defence of Schenkerian analysis: "In this way, doing a Schenkerian analysis involves a constant alternation between background-to-foreground and foreground-to-background derivation. Can we not

maintain that the substance of the analysis lies precisely in this process of testing alternative interpretations and seeing how they illuminate or contradict the details of the surface – a process which is recapitulated when a reader works through an analytic graph, rather than simply accepting it as some kind of statement of fact?” (pp. 129–130)

“Constant alternation” between top/down and bottom/up approaches, “testing alternative interpretations” by “seeing how they illuminate or contradict the details of the surface” – all this sounds very attractive indeed. But it seems that Cook idealizes the inter-layer dialectics of tonal reduction: the dogmatic side of Schenkerian theory, prompting results that conform with the prescribed structural configurations, and all too often leading to a gradual and tendentious corruption of the surface, has been left out of account. As to substantially “alternative interpretations”, they are conspicuous by their absence in published reductive graphs. How often do Schenkerian analysts suggest interpretations that transcend, deviate from, or militate against the contradictory rather than illuminating readings they propose and propagate? Schenkerian tonal reductions certainly look like “statements of fact” – the unmistakable message to the readers being that this is the subsurface basis of the music – and they are far too often regarded as facts.

When – and if – it really comes to “a process of testing” tonal reductions, the primary criterion must reasonably be whether or not a certain reading contradicts the given musical text, but it seems that Cook’s phrase “seeing how they illuminate or contradict” confuses evaluation and validation. The opposite of “contradict” is “agree with”. Cook’s formulation arouses suspicions, because in his paper “discrepancies”, i.e. analytic findings that “contradict the details of the surface”, are all too often considered “illuminative” – a bonus that, in his opinion, correctly derived but merely “mirroring” accounts cannot be expected to afford.

Throughout the present investigation, reductive analyses have been equated with descriptions whereas Cook prefers to think of them as “representations”, *Darstellungen*. The difference between the two categories is important – descriptions must be correct whereas representations might be enlightening or deluding. But the point at issue is not the *raison d’être* of representations. The crucial question is: how deluding can a representation be as a description and yet be “illuminating”, be useful as a guide to musical understanding?

Cook's defence of Schenkerian reduction involves a paradox. "Discrepancies" are praised as the very core of a "good comparison", tonal analyses are said to be valuable because they show what the music is not. Why not resort to more straightforward reductive approaches venturing to describe music for what it is, including all its "non-Fuxian" complexities? Why cannot analyses doing without the Fuxian "metaphor" be "illuminating"?

Furthermore, as Cook puts his apology it remains unclear whether the "discrepancies" reside within the music or are caused by the *Darstellung*; cf. the consecutives in *Das Wandern*. If you do not squarely claim that Schenkerian theory is true and that the tonal analyses are infallible; i.e. if you admit that the "representations" to an appreciable extent depend on the analytical method and on how it is applied, the all-too-frequent disagreements between the actual music and its Schenkerian *Darstellungen* amounts to double-edged observation. Rather than being illuminative with regard to the individual pieces of music under study, ill-matching results illuminate the theory and call for a revision of the analytic method as well as of the host of analyses serving as evidence for the Schenkerian ideas. A formidable task lies ahead of us, considering the amount of "testing" work required to overthrow just three Schenkerian readings in order to arrive at alternative accounts yielding not "good comparisons" but better insights.

Three Schenkerian *Darstellungen* have been scrutinized, and they have emerged as unacceptable because they contained non-illuminative "discrepancies". The theoretic and analytic causes of these disagreements between the actual music and the reductive representations have been disclosed, and alternative accounts, eschewing the obligatory structural schemes of Schenkerian theory, have been proposed. The conclusions of these two lines of inquiry converge and suggest that Schenkerian "discrepancies" tend to be analytic artefacts: they arise because certain preordained tonal backgrounds or other desirable configurations are forced upon the music. Abandoning the Schenkerian theoretical agenda with its normative elements for a non-prejudiced bottom/up analytic process meant that the contradictions between the music and its representation disappeared, opening for illuminative insights without the cumbersome detours caused by bad descriptions.

The conclusion is obvious: Schenkerian analysis falls short as a method of description and hence as a way to produce *Darstellungen*, and one

cannot but ask oneself why the so-called “tonal analysis” is considered so outstanding and so useful. Analytic methods associated with frequent “discrepancies” *vis-à-vis* the music would otherwise and rightly be considered invalid. Why should the study of tonal music be subjected to a method that brings distorting results, that again and again, and at any musical cost, transforms pieces of music into well-Fixed authentic cadences?

Cook understands Schenkerian analysis as a part of a “Viennese” tradition, and stresses its kinship with psychoanalysis. This may very well be an apt association – and perhaps even a quite illuminating one since the client on the coach hasn’t a chance – but on second thoughts this liaison emerges as dangerous, ill-boding. Needless to say, psychoanalysis cannot pass for a model of scientific inquiry, nor can it even – notwithstanding the huge verbiage it has produced – stand as an uncontested source of “good comparisons” even when it comes to matters of mind in the humanities. Grand Theories, like those of Freud and Schenker, have a certain allure, to be sure, but if persistently applied and uncritically acclaimed they may end up as Truths. This very fact enjoins us to adopt a sceptical attitude, not necessarily as scientists but just as scholars.

Chapter 2 Disciplining reduction and tonalizing interpretation

The sardines want the tin to be opened towards the sea.
(Werner Aspenström 1918–1997)

Introduction

As the title suggests, this essay has two topics. The first is to study how analysis of tonal music was (and no doubt still is) disciplined into what we know as “tonal reduction” or Schenkerian analysis. The second is to take a fresh look at the relationship between reductive analysis and interpretation. In what ways can the former support the latter?

But in addition to these topics there is a preliminary task, or indeed a most important third topic. The enforcement of discipline cannot be divorced from the analytic practice being disciplined: it is necessary to evaluate the method that was (and is) the object of training. How do Schenkerian reductions come off when confronted with the music dealt with? What did (and do) the teachers try to sell to their students? The question of validation is also crucial since it is fundamental for the relationship between reduction and interpretation. Interpretation – understood as the art of turning scores into music – amounts to a most sensitive test of the relevance and value of analytic efforts.

It may appear from what has just been said that the present study only offers a critical investigation of Schenkerian analysis, of the way it has been taught and propagated, and of its usefulness when it comes to interpretation. But this would be a too restricted approach, leaving the job half-done: an alternative, “non-disciplined” reduction of the piece to be studied will eventually be proposed – a reduction that might open up for other “tonal” insights, and that might better satisfy the demands of interpretation.

The best way to begin is perhaps to define the basic terms of the title and to discuss the phenomena involved. While preparing for the main account,

this background will to some extent anticipate the outcome of the critical investigations.

Reduction and interpretation

In current music-theoretic parlance, “reduction” refers to a kind of analysis in which the details of the music are recursively removed so as to produce a series of layers showing ever more essential events and relationships, revealing ever deeper and ever more encompassing connections.

But what about “tonal”? If we take this word in its basic, literal sense as referring to tones (pitches), “tonal reduction” would simply stand for a kind of reduction in which pitch considerations are accorded a privileged status when arriving at the analytic decisions. But “tonal” also bears important qualifying connotations – it is associated with concepts like ‘tonality’ and ‘tonic’ – and to most people nowadays “tonal reduction” refers to Schenkerian analysis, a widely spread and quite prestigious kind of reduction based on a normative, regulating approach to both method and results.

A Schenkerian analyst recursively strips off notes that are understood as less important than other, “structural” ones – i.e. notes to which the left-out “ornamental” tones somehow attach – until arriving at an ultimate underlying structure made up of only the most fundamental pitch events expressive of the music’s unifying tonality. The deeper layers are increasingly devoid of musical substance; the interesting thing in a tonal analysis is therefore the comparisons between consecutive reductive layers and the light that the analysis might shed on the actual musical surface.

According to Schenkerian theory, there are rules to be observed when undertaking a reduction as well as a hierarchy of importance among the criteria of selection. Certain standard voice-leading configurations are given priority when looking for underlying configurations, and so are certain harmonic progressions since they make for stability and define the tonality of the music.

The rationale of Schenkerian analysis is the conviction that the surface of a “free” composition is nothing but a set of recursively applied figurations of strict-species counterpoint that prolong the chords of certain harmonic progressions. The whole hierarchy is organized so as to ultimately form a hugely extended authentic cadence featuring an upper line

falling from the third, fifth (and possibly the eighth) degree – the *Ursatz*. The analysis is strongly predicated on the idea of final closure and on a quite steadfast notion as to what tonality is (or should be) and how it works. The basic assumption, or rather belief, of Schenkerian theory is that (good) compositions attain coherence and unity by means of tonality, regulating the whole and permeating the parts as demonstrated by means of tonal reduction.

Consequently, in “classical” Schenkerian analyses the outcome of the reduction (the deep structure or “background”, or even the ultimate *Ursatz*) is to be found on the top of the page. Below it, approaching step-by-step the musical surface, come the layers showing the “prolongations”. This way of presenting a reductive analysis surpasses begging the question: it immediately provides the answer. Objections or alternative readings are not encouraged since what should be step-by-step demonstrated is implicitly taken for granted already from the outset due to our ingrained habit of reading downwards from the top of the page.

Prolongation can obviously happen in many ways, but in a Schenkerian analysis only one sequence of prolongations is shown, namely the “correct” one starting from the *Ursatz* and eventually issuing into the known surface. Reductions, on the other hand, understood as the discerning selection of notes to form credible deeper layers, must always be justified. Moving from a theoretically posited background to a given surface is a safe travel, whereas proceeding from surface to background involves alternatives and choices between them, as well as opportunities to make discoveries. Reductive analysis, pursued as reduction and hence undertaken “bottom/up”, has a potential of being a true quest, whereas “reductive” analysis, carried out in terms of a series of “top/down” prolongations, runs the risk of being a *quasi*-deductive and largely non-empiric activity.¹

1 We have to live with a confusing terminology in as far as the idea of a structural hierarchy suggests that the “deep” structure occupies the “highest” level. Two opposed metaphors conflict, and both ways of speaking seem equally warranted and understandable; yet it may appear bewildering to say that you arrive at the deep structure by means of a “bottom/up” analysis – you rather arrive at it “surface/down”.

A study of how reduction turned (and still turns) “tonal” by renouncing alternative, non-orthodox ways of deriving deeper layers is a study of standardization. And since this process took (and still takes) place within more or less institutionalized systems of training, it is also a study of how discipline is enforced, of how a potentially free quest into free compositions is converted into a discipline, the point of which is to demonstrate how – and that – *Ursätze* give rise to unified *Meisterwerke*.

It is unfortunate that the word “tonal” with its quite inclusive and positive connotations and its wide application has been hijacked as a seemingly self-evident attribute of a particular method. This obscures the fact that other approaches to reduction, indeed to “tonal” reduction, are possible. The attribute “tonal” might reasonably also be used to refer to less normative, less theoretically committed kinds of reduction, and coherence and unity might also be achieved by other means than those taken for granted under a Schenkerian analytic regime. It is a modest claim that it ought to be legitimate to pursue layer-by-layer reduction along paths and eventually towards underlying structures quite different from, even opposed to, those stipulated in Schenkerian theory, and that such reductions may rightly be called “tonal” as well. Simply put, there must be a scope for free reductive explorations of tonal music.

In a “focal” reduction, as it might be called in order to prevent confusion and to mark out a territory, the standard tonal framework, common to many “tonal” works – but far from invariably present in all of them although this is again and again shown by the enforced presence of *Ursätze* – is replaced by the events and relationships that conspire to specify the work. A reductive analysis of this kind – aiming not at demonstrating exemplary unity in terms of tonal structure, but at finding and highlighting the unique “tonal content” – is not necessarily less “tonal” than a Schenkerian analysis, but it may be of greater relevance for listeners as well as musicians.

“Interpretation” has two distinct meanings when applied to music. You may refer to the way, whether intuitively divined or intellectually devised, in which a piece of music is performed by a certain musician. Or you may think of someone’s understanding of a piece of music – an understanding that, no matter whether its elements are largely intramusical or conceived of in terms of extramusical content, can be expressed verbally (at least in principle).

These two kinds of interpretation – what we do with music, and what we say (or can say) about music – are no doubt related to each other in interesting ways, but a thorough discussion of these matters falls beyond the present topic.² In what follows, “interpretation” will be used to refer to the way musicians render pieces of music.

Although, strictly speaking, most musicians probably do not analyse the music they are playing, it is a common view that interpretation could, or should, be based on analysis. And turning specifically to reduction, proponents of Schenkerian theory tend to hold or at least suggest that “tonal” reduction is of great value for musicians. Indeed, having an idea of how the fundamental structure is prolonged to form a tonally coherent piece of music is sometimes regarded as a pre-requisite for a first-class interpretation.

The first view – that some analytic insight is an asset when making music – is hard to contest because it is trivial. It is of course an advantage to be informed about the furnishing of the apartment in which you live, and to which you occasionally or regularly invite guests. But it must also be admitted that much of what analyses tell us is dead knowledge when it comes to actually guiding interpretation – information that does not inform. On the other hand, it might be argued that useless analytical observations tend to be filtered out in a reductive process – provided that the analysis is carried out properly, that musically essential events have not been relegated out of sight or been misrepresented, and given that the deeper layers have some credibility and interest.

As to Schenkerian reduction in particular, its claims with regard to usefulness in interpretation (and when it comes to musical understanding in general) seem to be based on the way “tonality” is implemented by the analytic methodology. A “tonal” analysis demonstrates how tonality, operating beyond the surface by means of standard voice-leading

2 The intricate relationships between different kinds of “interpretation” are analysed by Jerrold Levinson in “Performative vs. Critical Interpretations in Music” in Michael Krausz, (ed.), *The Interpretation of Music. Philosophical Essays*, Oxford 1993, Clarendon Press, pp. 33–60. Reductions, put forth by means of a modified musical notation, might perhaps be conceived of as a third, intermediate kind of interpretation, but when provided with ample explanations, they rather belong to the second, verbal category of interpretation.

configurations and harmonic cadences, unifies the work, endowing it with stability, purposefulness, and a sense of direction. A dedicated adherent of Schenkerian theory is therefore likely to hold that a truly “tonal” reduction supplies invaluable insights into the coherence of the work and into the functions of its integrated parts, and that no responsible musician can do without these insights since coherence and integration are properties that performances, just as the works themselves, must exhibit.

In terms of their outcomes, three kinds of reduction may be distinguished. Some reductions seem merely to replicate the musical surface, and they are considered to be of limited value for interpretation. Others are taken to be more successful since they illuminate the music by making it transparent, allowing you to see important things that would otherwise have been hard to discern – Schenkerian analyses are supposed to belong to this category. Finally, there are reductions that distort the music, and it is (or should be) self-evident that reductions that deviate from the music cannot reasonably inform interpretation; indeed, they are likely to influence interpretation in negative ways.³ This means that sub-surface connections (no matter how they are derived theoretically) that apparently misrepresent the given text, or emerge as overly far-fetched, must be questioned. And musicians are likely to dismiss any reduction (or analysis in general) as inadequate if it turns out to misread or neglect important musical events or relationships – shortcomings that would make the reduction impossible or unattractive to implement when performing the music.

Suppose that a certain reduction seems fair enough – the surface has not been misread, and throughout the layers the details are reasonably attached to credible, representative underlying events – what does such a picture of the music suggest? Should a musician bring out what remains on a certain level, or should he/she rather pay attention to the notes that

3 Nevertheless Nicholas Cook argues that Schenkerian reductions are “illuminating” in virtue of their “discrepancies” *vis-à-vis* the actual music; cf. “Music Theory and ‘Good Comparison’: A Viennese Perspective”, *Journal of Music Theory* 33(1989) 1, 117–141. His ideas are discussed in “Schenkerian theory and better comparison: An out-of-the-way perspective”; chapter 1 in this volume.

have just been omitted in order to arrive at this underlying structure, the notes that actually give rise to the structural events and that conspire to make the composition unique? Admittedly, this is a very naïve way of putting the problem, a question that only allows of a stupid answer: since structural events are important, they should of course be brought out. In order to advance beyond this commonplace, it is necessary to find out and evaluate what the reduction in question is intended to expose.

The things to be ultimately shown in a Schenkerian graph are the harmonic and voice-leading patterns underlying the music, and the deeper the structures arrived at in such reductions, the more likely it is that they become standardized and devoid of intrinsic musical interest. In addition, most often these conventional structures do not need to be demonstrated when you play the music; granted again that the analysis is correct and not far-fetched, they will be recognizable, consciously or subliminally. Nor can such structures normally be brought out without running the risk of overdoing patent events and self-evident relationships that should preferably be treated with some discretion. If, on the other hand, a sub-surface “tonal” structure is based on inconspicuous or misread events, bringing it out would probably make for a quite strange interpretation.

Furthermore, since tonal reduction entails marginalization of events, which in various ways defy the tonal order or are essential for the expressive potential of the music, Schenkerian graphs are likely to discourage musicians from exposing such events, a fact that cannot but be detrimental to their interpretations. Indeed, if the suppressed events contribute to interesting long-term connections, the latter may be fragmented by a layered approach aiming at tonal structure to the point of being impossible to discern and piece together.

Pursuing this argument one step further, it seems that Schenkerian reductions do not tell you what to do, but rather what not to do. Showing the “tonal” structure underlying the music, the reductions may be taken to suggest that as a musician you should not let anything obscure this structure. Thus, the implicit request is that first and foremost you are obliged to render the tonal structure, and – should there be a conflict between the prolongational details and the deeper tonal layers as determined by the analysis – that this structure ought to be clarified at the expense of “ornamental” obstacles.

For example, tonal reductions tend to single out encompassing and often attenuated connections with very late release, a fact that may be taken to entail that intervening events and configurations, otherwise being both possible and desirable to express, should be understated in order not to divert the listener's attention. Generally, it appears to be in the spirit of tonal reduction that you should refrain from interfering in ways that might give the impression that a "structural" connection has been curtailed or deflected. Schenkerian reduction implies taking account of the "long lines", as the formula goes, and this applies irrespective of whether they carry any intrinsic musical interest or not – as already pointed out, the long-term connections shown in Schenkerian analyses tend to be increasingly conventional at deeper layers.

As a contrast, let's imagine a "focal" reduction designed to expose events and connections transcending the Schenkerian, hierarchically conceived, tonal framework – events that might be unique to the work and that stand for or contribute to highly significant musical effects. In such a reduction, the relationship between what is shown and might be worth highlighting in performance is quite straightforward: sub-surface events and connections of this kind should of course be brought out. Thus, in contradistinction to Schenkerian reductions, devised to demonstrate the tonal "background" underlying the music, a focal analysis is intended to capture elements that should emerge out of the music, that should be apprehended as its "foreground" – taking this word in its literal and current, non-Schenkerian sense as referring to important things that you should attend to, not to what you should disregard since it makes up a deceiving façade covering the "tonal" depths.

At this point, it should be added that there is a relationship between reduction and interpretation the other way around as well. Reduction (as well as analysis in general) presupposes interpretation. You must hear or imagine the music, taking a certain interpretation of it more or less for granted, before you can analyse it. This fact, turning the relationship into a full (and good) circle, has not attracted the attention it deserves; it seems that analysts sometimes give their procedures and results a semblance of objectivity that is hard to defend.

A consequence of this circular dependence is that reductions might, perhaps even should, be evaluated while keeping interpretation in mind. If a

reduction yields insights that promote interpretation in perceptible ways, it will seem to be confirmed or at least validated. On the other hand, a reduction that emerges as irrelevant for the musician, or proves to be impossible or unattractive when it comes to interpretation, will appear as useless or even unwarranted. Generally, it seems that interpretation is a neglected critical instance when assessing the value and credibility of analyses.

Apparently, there are crucial cognitive differences between Schenkerian reductions and the less systematic reductive ideas that some musicians no doubt do entertain, differences arising from the divergent duties and interests of analysts and musicians.

Far from being lead by petty details, musicians are prone to devise fragmentary reductions complementing (or supplanting) the long-term “tonal” connections of the music with patterns stemming from emergent intermediate-level phenomena. In addition, they of course take advantage of local expressive opportunities. And while certainly not being the victims of crude surface salience, they are likely to pay decisive attention to criteria of reduction that are less often met with and rarely accorded primary significance in Schenkerian analysis: formal articulation, rhythmic and metric prominence, motivic properties, melodic implications, harmonic tensions, and actual voice leading rather than sub-surface strands.

Typically working with and relying on scores, Schenkerian analysts have immediate access to the music in its entirety and as an object deprived of time, and they tend to prefer readings that come out like games of patience. Although details are studied when making a tonal reduction, the approach is nevertheless ultimately synoptic and top/down. Instead of paying attention to events as they emerge during the musical process, and to whatever future consequences they may have, they tend to select events fulfilling functions within more or less preordained structural frameworks.

Musicians study scores, too, and may very well entertain notions of extended connections, but – like their listeners – they must handle the musical substance as something that evolves over time. This makes for an approach that is primarily bottom/up and necessarily beginning-to-end: musicians tend to consider works as processes, rather than as completed objects. Unlike analysts, they can never evade the specific demands of the actual musical surface. And again in contrast to analysts, they are bent to notice and bring out

features that defy order, rather than traits supporting it, to promote events that create tension, rather than events upholding or restoring tonal stability. From the musician's perspective, a sufficient degree of order and stability is guaranteed by the composition and does not need to be brought out.

Generally, then, the musician's mental representation of the music is characterized by a strong temporal component, much more so than tonal reductions that – although this is sometimes denied – have a more or less static quality. The obvious practical conclusion to be drawn from this fact when trying to reconstruct the mental representations actually entertained by musicians, and when considering the possible effects of reductive notions on interpretation, is that it is very important to establish when and particularly for how long a certain structural (or more generally a phenomenally essential) event makes itself felt.

Musicians know how to anticipate what is going to happen, and they can also to some extent counteract the otherwise inevitable fact that musical events recede in our memory, but they cannot go against the grain of the music to achieve the impossible. Consequently, if a reduction is to appeal to musicians, it must lend itself to be internalized as a mental representation with temporal aspects, as a mental map that can be used to inform the musical flow. Reductive connections involving very distant, out-of-reach events tend to emerge as useless.

Yet, one aspect of reduction that is likely to attract musicians is the prospect of substantially influencing the musical whole by the interpretation of its details. For this to be possible, the analytic selection of details and the way you deal with them as a musician must determine the structure in a truly bottom/up way. But if you conceive of reduction as a top/down exercise, i.e. in terms of layered prolongations, the details tend to be subordinated to the whole with little or no power to influence it, however you treat them when playing the music. Furthermore, since Schenkerian deep structures carry an aura of representing the structural truth, they might emerge as immune to interferences from the musician. In this discouraging perspective, interpretations should serve (or at least comply with) the theoretically approved backgrounds, not make futile attempts to overthrow them.

The supreme manner in which tonal analysts handle the musical surface – the very thing in music that musicians must work with and are

obliged to respect – cannot but be demoralizing. If actual surface configurations are treated as insignificant by analysts, or (when suitable) are read against the grain with reference to a set of ready-made reductive criteria (strictly or gratuitously) applied in order to produce theoretically desirable structures, musicians are likely to think that their choices, preferences, and interferences matter very little when it comes to expressing musical structure. “Structure” in Schenkerian sense appears to be established without the musician, again a most discouraging state of affairs that fortunately does not agree with the facts. Musical texts tend to be ambiguous, structurally as well as in other respects, and the musician’s choices may be decisive.

Interpretation would be better served by an altogether different approach to reduction, by an approach in which the selection of events is less regulated and the final outcome less preordained, and in which the musician’s decisions emerge as vitally significant for the musical structure.

If you want to find out about the relationship between reduction and interpretation, it is necessary to deal with reductions in terms that are realistic from a cognitive point of view. Literally speaking, reductions very seldom influence interpretations, but the mental representations held by musicians may do so. For what normally happens is not that musicians study Schenkerian graphs which are then transformed into interpretations or, for that matter, that they devise more or less accomplished, more or less “tonal” reductions of their own to guide their interpretations. What they entertain are informal plans of the music to be played, plans that are likely to be amalgamations of how they have consciously or intuitively understood the musical process, and of how they want to give shape to it.

Being mixtures of tentative descriptions and strategic decisions, such mental representations make up quite unwieldy objects of study, but it might be assumed that they contain elements of reduction, i.e. one way or the other, notes are selected depending on how important they seem to be. These elements are not directly accessible; what can be done is to critically study specific reductions in order to find out to what extent and in what respects they reflect ideas possibly present in a musician’s mind.

Disciplining reduction

The music to be studied is the theme of the variation movement of Beethoven's Piano Sonata in A_♭ Major Op. 26; cf. Ex. 1. It can no doubt be exchanged for other pieces, but it has several advantages. Three reductive analyses of it are available (one of them is by Schenker himself), and it turns up in two papers offering glimpses of disciplining in progress. The theme from Op. 26 is a short, well-known, quite complex and subtle piece of music, raising many questions of relevance for both reduction and interpretation.

Heinrich Schenker never published a complete analysis of this theme (although he planned to do so) but there are several sketches in *Der freie Satz*, sketches that can be assembled to form a reasonably complete reading.⁴

Beethoven's theme is also the subject of a discussion between Schenker and his student Felix-Eberhard von Cube, who sent Schenker an analysis of it for assessment. Schenker wrote two letters to him – von Cube was respectful but quite refractory in his reply letter – making it quite clear how he conceived of the theme's tonal structure. This very interesting material is presented and discussed in a paper by William Drabkin.⁵

The third analysis, which with some modifications follows in Schenker's footsteps, is presented by David Beach.⁶ Speaking to an audience of music theory teachers, he provides detailed motivations for his analytic decisions, thus supplying a further example of disciplining in progress.

Schenker's analysis: the first phrase of the antecedent

All Schenker's sketches devoted to the variation theme of Op. 26 are to be found in Ex. 2. First and foremost is the graph covering all 34 bars; cf. Ex. 2a – unfortunately, the B-section is merely sketched. Ex. 2b shows the first phrase of the antecedent whereas Exs. 2c and 2d deal with its second

4 Heinrich Schenker, *Der freie Satz*, Wien 1935; the graphs in question are Exs. 85, 105:3, 56c, 18, 110 zu a:5, 71:2.

5 William Drabkin, "Schenker, the Consonant Passing Note, and the First-Movement Theme of Beethoven's Sonata Op. 26", *Music Analysis* 15(1996), 149–189. Although I will eventually arrive at less conciliatory conclusions, I am much indebted to Drabkin's study.

6 David Beach, "The Analytic Process: A Practical Demonstration", *Journal of Music Theory Pedagogy* 3(1989)1, 25–46.

phrase and with the entire antecedent, respectively. Exs. 2e and 2f account for how Schenker understood the theme's middle section, providing analytic substance compensating for the cursory treatment of this section in 2a.

In adherence to Schenker's conclusion-before-the-evidence habit, Ex. 2a is shown on the top of the page – this arrangement clarifies how the analytic choices made in the following fragmentary graphs prepare for the *Ursatz* claimed to underlie the theme. But since our scrutiny will proceed in a truly analytic, bottom/up way, the discussion of Schenker's analysis will start with the graphs dealing more closely with the various passages of the theme.

Ex. 2b, taking us from the tonic to a subordinate dividing dominant in m. 4, shows that the melody of this phrase brings an initial ascent to c^2 , the third-degree primary note of the fundamental upper line of the entire theme – as will become apparent. What this graph does not show, indeed what it hides, is the precarious nature (here and elsewhere in the theme) of this structurally crucial note. To be sure, it brings the resolution of the local $d_b^2-c^2$ appoggiatura – that resolutions (irrespective of their salience) are to be granted precedence over the dissonances preceding and producing them is axiomatic in Schenkerian analysis – and it has the root support required by the theory. But the necessity of establishing a primary note for the fundamental line completely overrules the passing-note quality of the c^2 in m. 4 as well as its extremely weak metric position. Moreover and considering that thinking in terms of layers is a basic feature in Schenkerian analysis, there is a further, decisive counterargument to this reading: the entire accented A_b -major chord beginning m. 4 makes up a massive appoggiatura in relation to the following dominant chord closing the phrase on the second beat, a chord whose top note b_b^1 attracts all attention as the goal of the melodic motion.

Far from being just a querulous objection to a detail, the weak case for a structural c^2 in m. 4 is analytically fatal. If already the start of the fundamental line is dubious, how can the rest of it, and the entire reduction, have any validity? The problem is that Beethoven does not offer any viable alternatives. If the more plausible b_b^1 in m. 4 is taken to be the second member of an initial ascent, we get an upper line that avoids properly root-supported third degrees until the last-moment c^2 in m. 7. But this would make for an extremely quick, abrupt structural descent to the

second degree, and for a quite badly balanced tonal structure that virtually fails to account for the antecedent. (As will become apparent, the c^2 in m. 7 cannot be accepted as structural, anyway.) Or should perhaps the $e\flat^2$ in m. 6 be selected as a fifth-degree primary note, although it lacks root support? As to the non-tonic fourth degree – the $d\flat^2$ in m. 5 heading the second phrase is a quite salient note – it can of course not be accepted as the point of departure for a Schenkerian *Urlinie*. So if we do not accept the c^2 in m. 4, we are in serious trouble – and if we accept it, a questionable structural weight has been imposed on an insignificant note, and we are prevented from discovering other reductive possibilities within the theme.

From another theoretical perspective, a case may perhaps be made for boosting the importance of the last-moment c^2 in m. 7. If you adopt Leonard B. Meyer's idea of melodic implication, the third slot in the rising scale gains in significance because it is first missing (there is a gap between $b\flat^1$ and $d\flat^2$ in mm. 3–4), and then just provisionally touched in mm. 4 and 5 before it is finally and satisfactory “realized” over a root-position chord in m. 7. The gradually emerging importance of c^2 contributes to the sense of tension-followed-by-relief that marks the second phrase of the antecedent.

Turning to the details of the passage, Schenker's sketch draws attention to a voice-leading pattern in terms of parallel sixths and tenths. And two analytic slurs suggest that the melody consists of a neighbour-note figuration within a passing-note motion while the bass concurrently displays a passing-note motion within a neighbour-note figuration.⁷ The latter observations may seem striking when you look at Ex. 2b, but if you listen to the music, this hierarchic right/left-hand symmetry, involving both inversion and retroversion, emerges as a questionable description of the actual musical process.

Schenker's neat scheme is quite difficult both to apprehend and render, and one might ask whether it is worth trying to understand or express it,

7 Schenker's analysis of what goes in the treble and bass is perhaps not entirely explicit, but given the strong tendency in tonal analysis to explain linear motions by dismembering them into standard and preferably hierarchically organized voice-leading configurations, this is a fair guess as to what the analytic slurs mean. This assumption is corroborated by Beach's reading of the passage; cf. below.

whether it is not better to adopt a context-sensitive sequential approach to the passage. Passing-note motions like the one shown in the treble seldom emerge as truly superimposed on neighbour-note figurations; they rather seem to be added after the last note of the neighbour-note formula, succeeding and outdoing it. A similar difference between static description and dynamic phenomenon applies to the reversed combination in the bass: passing-note motions are seldom truly contained in neighbour-note figurations since the neighbour-note formula is rather heard as a new start leading to a reassessment of the initial note of the passing motion.

A further deficiency of Schenker's reading is that on closer inspection the score does not support it. The passing-note motion in the bass is established only after the text has been adjusted – in order to strengthen its role as the goal of the passing-note motion, *c* has been moved from the second to the first beat. But much worse is the misreading of the treble: the neighbour-note figuration obliterates the ingenious melodic design in m. 2, a design that Beethoven presumably wanted to bring out by means of his slurring. Listening attentively, there are in fact four important notes in the melody, one more than the triple meter allows – hence the peculiar melodic construction: the appoggiatura *a*^{b1}, its anticipated-and-then-confirmed resolution *g*¹, the mediating passing/neighbour-note *f*¹, and the upbeat *e*^{b1} to the following sub-phrase.

The disappearance of the upbeat is particularly regrettable: the questionable neighbour-note reading imposed on mm. 1–3 hides the fact that this four-bar phrase is fuelled by two efforts, both starting from below with the rising fourth *e*^{b1}–*a*^{b1} – the first sub-phrase bends downwards whereas the second proceeds upwards. A vital aspect of musical growth that no perceptive musician is likely to forgo has been destroyed in this hierarchical reading predicated on a standard voice-leading pattern.

The second phrase of the antecedent

Proceeding to Ex. 2c, Schenker's way of preparing an upper line does away with the obvious fourth/fifth sequence of the actual melody, and erases Beethoven's two-layer hemiola rhythm along with it. The *b*^{b1} in m. 6 is simply taken away, and so is the initial *a*^{b1} in m. 7 – a questionably anticipated *d*^{b2} on top of a questionable first-inversion *D*^b-major chord occupies its place.

The actual d_b^2 on the second beat of m. 7 in fact belongs to a diminished seventh-chord, and the missing top note a_b^1 on the first beat is actually the minor third of a root-position F-minor chord. And in Beethoven's m. 6, from which the first-beat tenor note d_a^1 has been omitted in Schenker's analytic re-composition, there is no initial root-position D_b -major chord, but a first-inversion B_b -major seventh-chord. Then, on the second beat, there is in fact a third-position E_b -major seventh-chord, but its represented beyond recognition by just an alto neighbour-note g^1 within the D_b -major chord.

Going back to m. 5, it is very questionable whether its first sonority really makes up a first-inversion D_b -major (IV^6) chord and not a root-position F-minor (VI) chord with a suspended sixth as a dissonant top note – the resolution from d_b^2 to c^2 is introduced on the third beat when the left-hand f^1 is left for e_b^1 . This fact cannot but make it very doubtful whether the sonority on the third beat can be understood as a passing dissonance, whose target note b_b^1 in m. 6 Schenker has disposed of; it rather sounds as a resolution. Indeed, even if you do take the first-beat sonority in m. 5 to be a first-inversion D_b -major chord – which is far-fetched since harmonies are preferably heard as being in root position – it does not sound very stable, a fact that turns the second-inversion A_b -major chord on the third beat into a *quasi*-consonant resolution anyway.

The tendentious reading of m. 5 is facilitated by a further manipulation of Beethoven's text. There is in fact no f^1 on the first beat; it occurs only on the second beat as a point of departure for a descending line in the left hand. This strand can be understood as a tenor interior voice only in analytic retrospect, i.e. if you have already adopted the idea that the bass-note f on the first beat is prolonged for two bars. Looking at Ex. 2c, you cannot see that the F-minor root has in fact just been left when the soprano resolution to c^2 occurs.

In Schenker's reduction, Beethoven's falling fourth in the tenor in mm. 5–6 is forced to continue in the octave above in m. 7 so as to form a "falling sixth" from f^1 to a_b^1 . This unwarranted reading produces a very dubious contrapuntal complement to the rising f -to- a_b progression in the bass. The effect is that two lines are shown as running in contrary motion, converging neatly at a_b^1/a_b , a "fact" that lends structural weight to the primary-note-carrying A_b -major chord on the third beat of m. 7. In Schenker's world anything you wish may come true, but what is the

point of taxing the readers' patience by playing solitaire with voices? In m. 7, Beethoven's tenor-register line engages in a renewed descent, starting again from f^1 as it did in m. 5 – if you bother to listen retrospectively or just read the score with respect, you can't miss the association. But this chromatic motion is relegated to secondary importance in Schenker's reduction, although it makes up the actual and quite obvious contrary-motion counterpoint to the rising-third progression in the bass issuing from the renewed f .

There is a certain affinity between m. 5 and m. 7, but Schenker's inadequate reading manages both to boost and to conceal it. The harmony in m. 7 is adjusted so as to agree with his questionable reading of m. 5, and so is the rhythmic position of $d^{\flat 2}$ – the net effect of these manipulations is that *quasi*-identical parallel sixths in mm. 5 and 7 seem to frame the parallel tenths shown in m. 6. On the other hand, the long $d^{\flat 2}$ -to- c^2 slur in the treble, the far-fetched, "falling-sixth" middle-voice line, and the long prolongation of f in the bass all conspire to hide away the basic fact that a new sub-phrase, associating back to the previous one, starts in m. 7. And Schenker obliterates the way Beethoven obviously provides for both continuity and disruption within mm. 5–8: the pervading fourth/fifth sequence of the melody *versus* the articulation gap in the right hand, the renewed f/f^1 start in the bass and tenor, and the *subito piano*, all highlighting the beginning of m. 7.

To put these objections in a nutshell, the second phrase of the antecedent has been massively and very questionably " D^{\flat} -majorized", despite the fact that the subdominant presumably does not even appear, and certainly does not turn up in root position, in mm. 5–8 – as is incorrectly stated in the harmonic analysis, featuring IV instead of IV^6 (or rather VI), thus hiding away the theoretically awkward fact that an unstable, *quasi*-dissonant chord formation is prolonged.

Allowing a root-position F-minor chord to support the consonant resolution-note c^2 in m. 5 would have produced unacceptable consecutive fifths not only in relation to the preceding dividing dominant $b^{\flat 1}/e^{\flat}$ in m. 4, but also in relation to the following dividing dominant $b^{\flat 1}/e^{\flat}$ in m. 8 – given Schenker's analysis showing the f in m. 5 as being prolonged into m. 7. To be on the safe side, this structural catastrophe is swept under the carpet by adopting the $d^{\flat 2}$ in m. 5 – actually a *quasi*-dissonant note topping

a first-inversion D_b-major chord, or rather a dissonant note over a root-position F-minor chord – as a high-level note, and by reading the upper line as a prolonged d_b²–c² appoggiatura/resolution figuration sliding over into a passing-note motion. The embarrassing c² in m. 7 is downgraded by rethinking it: the A_b-major root-support on the third beat of m. 7 is claimed to give rise to a “consonant passing-note” – a paradoxical designation supposed to once and for all eliminate the impending consecutive fifths.⁸

But what about the consecutive fifths c²/f¹–b_b¹/e_b¹, the grave voice-leading fault in the second phrase that the “consonant-passing-note” trick is supposed to eliminate so elegantly, the cause of so much theoretic ado and reductive distortion? Considering the eighth-notes in Beethoven’s score (i.e. reading the bass literally) there are no consecutive fifths in mm. 7–8: the f in the bass has already been left for g (above which the d_b² actually occurs) and only then comes the c²-over-a_b. On the other hand, considering local sub-surface relationships within mm. 7–8, and accepting (for the sake of argument) Schenker’s idea of a prolonged f throughout m.7, consecutive fifths do impend. But only those who have developed a taste for bad excuses will hold that these fifths are averted by Beethoven’s very, very shrewd consonant A_b-major harmonization of the (concurrently resolving) passing-note c² by means of a distracting third-progression in the bass: the cake cannot be both had and eaten. Dealing finally with the deep structure, implying that you apprehend d_b²-over-f in m. 5 as prolonged all the way into m. 7 (which is far from self-evident), the consecutive fifths seem to persist, no matter the rising third in the bass and however much you want the chords on f to be thought of as

8 In a way, Drabkin’s definition of what a “*konsonanter Durchgang*” amounts to applies all too well. This is indeed a harmony “that turns a *conceptually* [my italics] dissonant passing note into a consonance”. (Drabkin, p. 151) But the “conceptual” notion of how this passage works from a “tonal” point of view is very dubious, and it should preferably be exchanged for a *perceptual* idea of how this A_b-major chord and especially its top note actually sound – namely as a resolution chord and a passing-note, respectively. This does not say anything definite as to whether or not this third-beat event should belong to the “tonal structure” of the antecedent – an exclusively Schenkerian problem that ordinary mammals don’t have to decide upon, let alone solve.

root-position D_b-major chords. For, adopting a Schenkerian hierarchical perspective, how can this *local* rise to from f to a_b in the bass, this last-moment prolonging motion added to the main note f back in m. 5, at all influence the *high-level* resolution from the prolonged neighbour-note d_b² to c², i.e. to the third degree still belonging to the *high-level* f in the left hand?

The deep-layer consecutive fifths can be fended off, however. If the idea of an extended progression f–e_b in the bass is sacrificed, the c²-over-a_b tonic chord in m. 7 must not necessarily represent a passing-note made consonant. Instead it can simply be understood as a chord of resolution (locally as well as perhaps in relation to the distant but conspicuous chord starting the phrase back in m. 5) and possibly as a chord of structural significance. Since (according to Schenkerian theory) structural importance does not depend on surface salience, its non-obtrusive, passing quality should not matter for those trained in tonal reduction. This straightforward reading brings the advantage that m. 5 can be read for what it most likely is, namely a root-position F-minor harmony, featuring first an appoggiatura d_b² and then a resolving c². And no long-range consecutive fifths in relation to the b_b¹/e_b dominant in m. 8 can arise since when c² turns up again in m. 7, it is redefined over the root-position A_b-major chord understood as a resolution.

But alas, a reading of this kind would not avert the rising consecutive fifths b_b¹/e_b¹–c²/f¹ in mm. 4–5. But nobody is perfect (Beethoven), nor is anything (Schenkerian analysis), and you are free to choose which of them to disapprove of. Besides, these consecutive fifths may very well be considered bearable since they straddle a formal demarcation.

Schenker's reading of mm. 5–8 seems to be an imperative necessity dictated by cherished principles within his theory. It also emerges as a specimen of masterly tonal reduction – an élite achievement in which the analyst deceives himself concurrently with deceiving his readers, and but one of many model examples founding a school of analysis allowing its practitioners licentious transformations of the texts whenever theoretically called for or otherwise desirable. And it is indeed an analysis that masters the music: Schenker used the theme of Op. 26 as his point of departure, but for all his veneration of the Master, he paid disrespect to Beethoven's music by usurping it.

It is of course utterly impossible to draw any conclusions of value for a meaningful reduction of the theme or for its interpretation at the keyboard out of this Schenkerian mess; Ex. 2c does not describe mm. 5–8. It seems that saving the face of his theory was Schenker's primary concern rather than piecemeal reduction guided by actual foreground features – the theme's antecedent simply had to bring a theoretically acceptable, consecutive-free fundamental structure. That manipulations such as the ones found in abundance in this analysis of mm. 5–8 are conceivable within and turn up quite frequently in Schenkerian practice is not a valid excuse, but an aggravating fact.

The reduction shown in Ex. 2d brings some valuable insights, and it is able to do so since it refrains from distorting changes or omissions: it does not seem to be made in order to enforce anything on the Schenkerian agenda. The simplification of the right-hand part demonstrates that the melody features a number of quite conspicuous ascending skips, mostly rising fourths. In this perspective, the treble line in mm. 1–4 takes us from a_b^1 to b_b^1 rather than to c^2 , whereas in the second phrase of the antecedent two strands, issuing from c^2 and f^2 , respectively, come to the fore, two lines proceeding downwards at the distance of a fourth.

This graph also calls attention to a notable difference between the two halves of the antecedent: by and large, the second phrase takes place a fourth above the first. This change emerges most clearly in the drones; the drone on e_b^1 in mm. 1–4 is exchanged for an even more regular series of middle-voice a_b^1 's in mm. 5–7. Keeping to the same rhythm, this note is played twice in each bar until m. 8 where it yields due to the final dominant.

However, none of the findings exposed in Ex. 2d are allowed to contribute significantly to Exs. 2b and 2c, or to Schenker's reduction of the entire theme; cf. Ex. 2a.

As regards the theme's consequent (mm. 9–16), eventually bringing an important deviation when its “mm. 7–8” are suddenly exchanged for mm. 15–16, Ex. 2a is not very informative. The drastic interruption between mm. 14 and 15 is barely reflected: despite the substantial difference, mm. 7–8 and 15–16 look virtually the same in 2a. Instead of the

no-matter-the-interruption slur between f^1 and e_b^1 , there should be $f^1-a_b^1$ and $e_b^1-a_b^1$ slurs in the consequent.⁹

The first part of the middle section

Ex. 2e (having no bar-lines) presents Schenker's notion of what happens in mm. 17–20. The applied dominants F major and then E_b major lead to their auxiliary tonics B_b minor and A_b major, respectively, a fact that (together with the melodic gestures) turns mm. 17 and 19 into “up-bars”. The slurs in the treble indicate two rising seconds whereas the concurrent falling fifths in the left hand are notated with unfolding symbols so as to suggest that they involve shifts between two voices. This unwarranted manoeuvre apparently serves to avoid the blatant sub-surface consecutive fifths that would have resulted if the tenor and bass lines were accorded a fully independent status. But since the passage is obviously a sequence of paired bars, the $f^1/c^2-e_b^1/b_b^1$ left/right-hand consecutive fifths starting the two units are undeniable. The stems indicate the super-ordinate voice leading, proceeding downwards in parallel tenths, and the slur indicates that the B_b-minor pair of bars attaches to A_b-major one as a kind of upper neighbour-note.

All this may at first seem acceptable – but it must be objected that, according to Beethoven, the accented treble notes d_b^2 and c^2 are not supported by b_b and a_b , respectively. The right-hand notes actually underpinned by these harmonic roots are the second-beat, top notes of each sub-phrase, f^2 and e_b^2 . But if these final notes had been selected as structural, the result would have been consecutive twelfths (fifths) instead of harmless tenths. Thus, sacrificing the actual co-ordination between treble and bass, the strict counterpoint required for underlying structures in tonal reductions has again been passably upheld – the starting consecutive fifths are still there, of course.

It appears that the upper and lower strands have not been read in an analogous way – which is desirable but of course not absolutely necessary.

9 In his second letter to Cube, Schenker offers some comments on the difference between the antecedent and the consequent; Beach gives a more detailed reading of mm. 13–16; cf. below.

Trusting our immediate aural impression, the actual counterpart, the slightly urging counterpoint, to Schenker's two rising seconds in the treble is made up of the two, one-beat-ahead tenor-register falling seconds $f-e_b^1$ and $e_b^1-d_b^1$, formed by the quite conspicuous, syncopated initial notes of the left-hand entries and by their anticipated and then duly accented followers, promptly turned into falling appoggiaturas. Unfortunately, this reading gives rise to consecutive fifths as well as octaves, $f^1/c^2-e_b^1/b_b^1$ and $d_b^1/d_b^2-c^1/c^2$, respectively.

Alternatively and perhaps preferably, we can leave the ascending seconds in the treble out of account and allow the melodic phrases to rise to their final, afterbeat notes f^2 and e_b^2 which after all enjoy root-position harmonic support. This reading (this way of listening) suggests that from a "structural" point of view – i.e. in analogy with Schenker's analysis of the left hand – the right hand features two inherent lines that, whether connected by an unfolding symbol or not, proceed a fourth apart and make for two falling seconds. But together with the descending seconds a fifth apart produced by the two quasi-independent voices of the left hand, this reading opens up a veritable Pandora's box of consecutive fifths and octaves, a box that it is the duty of any responsible "tonal" analyst to close immediately.

However, leaving the strict code of conduct stipulated for Schenkerian sub-surface counterpoint aside, and considering instead the melodic realities of this falling-second sequence in the right hand – as well as the motivic design within the theme at large – there *are* obviously two rising fourths in the treble. These motions are obliterated in Schenker's reading although they clearly make up the due-time counterpart to the two false-starting descending fifths in the left hand. Why deny that this passage *is* replete with consecutives?

Bars 17–20, made up of a sequence of two virtually identical two-bar units, evidently suggest various structural configurations. Schenker's reduction consistently reflects the demands of his theory but disregards other, theoretically unacceptable and yet quite interesting options. The worst you can say about Ex. 2e is that Schenker's theory defeats mm. 17–20 of Beethoven's theme. The best you can say is that it looks like a paradigmatic example from a textbook in counterpoint, and this is not (only) meant as an irony. A fundamental idea in Schenkerian theory is that (good)

composers of “free” music in fact, whether they are aware of it or not, write exercises in strict counterpoint. Viewing the music top/down and with this restriction of what is permissible in mind, the reading presented in Ex. 2e, turning the treble melody into rising seconds and bifurcating the bass melody into two strands, is apparently the only, and quite precarious possibility. On the other hand, if you adopt a non-prejudiced bottom/up perspective, the most well-groomed description does not necessarily make up the most accurate or rewarding analysis.

The second part of the middle section

The remaining six bars of the middle section are analysed in Ex. 2f. A quick glance in the score, or a cursory listening, discloses that the melody almost constantly clings to e_b^2 – a feature that Schenker should have taken into account instead of obscuring the importance of this fifth-degree note by embedding two of the e_b^2 's as *quasi* passing-notes within falling thirds from f^2 to $d\sharp^2$. These third progressions are most questionable since the primary relationship is of course the “six-four” e_b^2 's and their resolutions, since the $d\sharp^2$'s are also lower neighbour-notes with a connecting, leading-note function to the following e_b^2 's, and since the upper neighbour-note relationship obtaining between the f^2 's and e_b^2 's is obscured. All these misreadings are no doubt intentional: if the f^2 's were shown as upper neighbour-notes, their e_b^2 main notes (and especially the one in m. 26) would have emerged as more important than desirable, considering the *Ursatz* in view.

Further objectionable traits in Ex. 2f are that the deceptive cadence to e_b^2 over C minor is bracketed in the upper A_b -major harmonic analysis, and that the note a_b^2 in m. 22, the very peak of Beethoven's melody, is taken as some kind of covering note, as an event not worth taking into structural account and hence not even shown. But the corresponding g^2 in m. 24 is included in the reduction in spite of its subordinate tonal function as a local appoggiatura note.¹⁰ The omission of the top note a_b^2 is most unfortunate since it blocks the understanding of the motivic design as well as the sense of tonal closure in the middle section. But motivic matters will

10 But Schenker misconstrues its tonal significance; cf. below.

be dealt with in due time; for the moment, we will focus on the tonal and harmonic properties of the passage.

The oblique line connecting the bass a_b in m. 21 with the last-moment would-be top note f^2 in m. 22 explains why the latter note – and consequently the f^2 in m. 24 as well – is read as an added-sixth constituent of a tonic chord; cf. the A_b -major harmonic analysis. But the fact of the matter is that m. 22 has an unmistakable F-minor quality; this is more than suggested by the double f^2/f^1 at the downbeat and by the preceding leading-notes $e\sharp^2/e\sharp^1$ forming part of an applied-dominant diminished seventh-chord, which is put within parentheses by Schenker so as not to disturb the desired A_b -major continuity. F minor it is then patently confirmed by the root-position F-minor chord on the third beat – a chord that Schenker leaves out together with its minor-third top note a_b^2 , and a chord that is preceded by yet another leading-note, the bass note $e\sharp$ of a suppressed C-major applied-dominant chord. The F-minor (VI) quality is also what the E_b -major harmonic analysis (put within parentheses) admits by labelling m. 22 as “II”, but it amounts to a basic phenomenal fact that is not changed because the analyst moves on to another, higher level clinging on to the A_b -major tonic.¹¹

Turning to the f^2 in m. 24, it is a rhythmically quite weak resolution note, and the appoggiatura figure, actually occurring only on the third beat, is not initially supported by a_b as the graph misleadingly indicates, but by an F-major $a\sharp$. The left-hand a_b appears on the second beat, i.e. before the appoggiatura, and it functions an afterbeat to the accented C-minor chord, giving it a transient touch of A_b -major.

One might speculate on why Schenker preferred to read mm. 22 and 24 against the harmonic grain, i.e. as A_b -major chords with added sixths, and not as first-inversion F-minor chords. The reason might again have been the theoretical necessity of avoiding consecutive middleground fifths, the same fifths that were impending in the second phrase of the antecedent.

11 Such hierarchical reassessments of harmonic function are not necessarily signs of analytic smartness or wisdom, but may be tokens of self-delusion. In this case, whether a chord is major or minor is grounded in its phenomenal appearance, and it persists even after proceeding to a higher reductive layer, to a higher level of understanding supposed to warrant an arrogant depreciation of merely “local” perceptual qualities.

Had he been capable of adopting another analytical attitude, this correspondence could have made him penetrate deeper into the parallelism between the two passages.

There is no ground for hearing, and hence to theoretically assume, an identity relationship between the two A_b -major chords with added sixth in mm. 22 and 24 proposed in Schenker's A_b -major harmonic analysis, because the first of these chords is a downbeat first-inversion F-minor chord whereas the second is an upbeat first-inversion F-major chord. Nevertheless, due to the appoggiaturas most listeners will pick up a similarity between the third beat of m. 24 and the third beat of m. 22 – a similarity suggesting a tonally very important line leading down from a_b^2 to $g^2-f^2-e_b^2$, a closing motion issuing into the dominant-supported fifth degree and a motion that Schenker takes care to erase, hence the disappearance of the a_b^2 and the treatment of the e_b^2 in m. 26; cf. below. The second appoggiatura gesture, starting at g^2 and bringing now a stepwise descent to e_b^2 , holds out the prospect of a second-chance six-four chord and makes the listener anticipate that the cadence to E_b major, started and then frustrated in mm. 23–24, will turn up again.

The lower row of harmonic designations relating to an E_b -major (temporary) tonic starts already in m. 21, which is far too early from a phenomenal point of view – the modulation is foreboded only in m. 23 and turns into a fact only in m. 26. Premature is also the resumption of the upper A_b -major harmonic analysis immediately after the (negligible) division following the deceptive C-minor chord starting m. 24 – only at the second beat of m. 26 will a listener suspect that E_b -major will not last and that the original A_b -major tonic may be about to return. But a more serious flaw is the fact that the A_b -major perspective of the passage does not work as indicated. As already pointed out, there is no identity relationship connecting the two would-be “I⁶” chords that allows you to simply skip the intervening deceptive cadence to C-minor, and since there is no prolongation of the tonic, the passage up to m. 27 cannot be analysed as just a $I^6-II^3_4-V-I$ cadence. But a cadence, keeping the music within the tonic, is of course just what Schenker needed, and it explains his disregard of the F-minor quality of m. 22 and the intervening deceptive cadence to C minor as well as his reluctance to fully acknowledge the sense of a modulation to E_b major.

Apart from the fact that Schenker's reading does not comply with the facts, one might ask whether it is a good description of the tonal properties of this passage to leave the deviation to C minor out of the structure – this omission means that the first stage of the tonal redefinition of the A_b-major fifth-degree e_b² in m. 21 is neglected. It seems that Beethoven attached considerable importance to the cadence to C minor: a technically awkward trill, signifying forthcoming closure, lends structural weight not only to m. 26 but also, prematurely and deceptively, to m. 24. Nor is it a good description to suppress the truly high-level fact that the tonicized e_b²-over-E_b major in m. 26 is the goal of a lengthy and almost demonstrative modulation for the inhibitory observation that this E_b-major chord is nothing but the penultimate dominant member of a cadence to the tonic?

It must finally be objected that there is no upper-line d_b² in Beethoven's m. 26. But there is a d_b¹ belonging to an inner voice that Schenker does not show in Ex. 2f. It is necessary to call attention to how utterly manipulative Schenker's analysis is at this point; the reason is the need to boost the structural importance of the d_b¹. The readers are deceived into taking the e_b², no doubt a very important note, as an important note in association with the not-so-important inner-voice d_b¹, which is made extremely important by being written as d_b². This trick is vital in order to be able to concurrently say something that is true of the subordinate alto voice – that there is a local chromatic motion from e_b¹ via d_b¹ down to d_b¹ and then to c¹ – and that is untrue of the soprano voice – which demonstratively holds on to its highly structural e_b² until it abruptly starts anew on a_b¹ (preceded by e_b¹). It is certainly not an innocent oversight that the upper line is missing in m. 27 of 2f; that would have exposed the deceit. Turning to the alto-register e_b¹ in Schenker's reduction, it works quite cunningly both as an illusive stand-in for the tenor voice – dislocated one octave upwards – and as a representation of the bass – a dislocated bass since there is no falling fifth to the A_b-major root in m. 27 but a fourth rising along the scale, providing a counterpoint to the chromatically falling motion in the alto. (We have to return to m. 26 later on.)

Just as the reading of mm. 5–8, the analysis of the second part of the middle section comes very close to pettifogger quibbling, and as usual in Schenkerian analysis, most of the manipulations derive from (and are

supposed to be excused by) the fact that the music is read top/down, i.e. with primary consideration of how its details can best serve a preconceived idea of the tonal structure at large. As regards the reading of mm. 26–27 in particular, there is among the rules of Schenkerian practice a dubious principle to the effect that octave registers are not important when it comes to establishing the “true”, inherent voice leading. (The tenor “descending-sixth” progression in mm. 5–7 is another case in point.)

The entire theme

Considering finally the representation of the entire theme, cf. Ex. 2a, the antecedent and consequent initially feature a four-bar phrase bringing the structural ascent to the third degree – i.e. to the rhythmically insignificant, resolution-within-a-suspension passing 32nd note c^2 in m. 4 and 12. This slowly ascending third is then, Schenker points out, immediately sequenced by the very swift motion $b^1-c^2-d^2$, inherent in the turn ornament leading to the upper neighbour-note d^2 in m. 5 and 13; then follows the structural descents duly closing the two A-sections on the second and first degree, respectively. Disregarding the fact that the middle section of the theme has been revolving around e^2 – throughout and particularly since m. 21 – its deepest representation is the structural neighbour-note d^2 in m. 26, preceded by still another rising third, $c^2-d^2-e^2$, spanning the entire B section.

But the similarity between the slow *Anstieg* to c^2 and the following turn figure quickly leading up to d^2 is very faint, and this lack of similarity is not only due to the extreme surface differences involved but also to the precarious nature of the structural ascent itself. As regards the next “hidden repetition”, it is very hidden indeed, and turning to Beethoven’s score, it does not even comply with basic facts. The c^2 in m. 17, shown as supported by a^1 , is actually (and also according to Schenker himself in 2a) a local leading-note over an F-major applied dominant, and it heads for d^2 , not for d^1 .¹² The d^2 occurring only in m. 25 does not come from c^2 , but

12 Yes, in Ex. 2a Schenker does indicate m. 17 as the starting point of this dubious, crowning manifestation of the initial rising-third progression, whereas in his first letter to Cube it is released only in m. 20 – a more plausible, tonic point of departure. When writing “17” in 2a, he may have wanted to give the impression that the entire theme is accounted for – or perhaps claimed that the

issues from e_b^2 as a falling resolution of a six-four chord; the e_b^2 , finally, does not turn up in m. 26 since it has been present virtually throughout the middle section.

There is no reason for accepting any of these motivic associations, sub-surface or not. Schenker's three rising thirds derive from note-picking of the worst sort, understandable only as an attempt to produce further copies of the initial ascent, letting its structural prestige prop up the neighbour-note status of the d_b^2 in m. 5 – foreboding his high-level “ d_b^2 ” in m. 26 – and using it to bring some unifying order to the middle section, otherwise insufficiently integrated into the encompassing structure. Schenker's sequence of rising-third-progressions does not emerge as an analytic discovery, but as a top/down invention imposed on the music to produce evidence for an overall *Urfinie* with very little support in the music. Indeed, considering the quite strong presence of e_b^2 throughout the middle section, the extremely far-fetched and very extended motivic parallelism leading to e_b^2 only in m. 26 amounts to yet another attempt to belittle the importance of this note, shown as just an eighth note in Ex. 2a. The structural explanation for this crucial note as the ultimate product of a completely untenable chain of “*verborgene Wiederholungen*” is strained, inadequate and insufficient to the point of being ridiculous as well as pathetic.

For all its insistent presence in Beethoven's music, the e_b^2 in m. 26 of Schenker's graph just supplies the octave origin of the following dominant-seventh note “ d_b^2 ” (actually the alto d_b^1). It is just the consonant excuse for a dissonant note exalted to structural status – a reading that turns the king into a servant and the servant into a king. The Schenkerian rationale behind the upper-line structure of the theme apparently runs as follows: Beethoven's truly culminating e_b^2 in m. 26, a note that is prepared by being present or implied throughout the middle section, and that stands out as its emphatic end-point, simply must be shown as structurally subordinate, as just an auxiliary note to a “ d_b^2 ” (d_b^1) that for reasons of strict background counterpoint cannot stand alone. And this “ d_b^2 ” simply has to be structural because it bears a neighbour-note relationship to the very, very

c^2 in m. 17 already belongs to the tonic in m. 21 (or 20) as some kind of “pre-prolongation”. Anyway, what he in fact did was to conceal the fact that e_b^2 , approached from its upper neighbour f^2 , is in the air already in mm. 17–20.

distant, rhythmically insignificant resolution-within-a-suspension passing 32th-note c^2 back in m. 4 – the king owes his status to a *parvenu*.

The “ d_b^2 ” is also an upper neighbour-note to the very, very proximate c^2 in m. 27 – or so it seems in 2a. But such a note is not to be found in m. 27, since Schenker’s seemingly solid c^2 is in fact the temporally dislocated target note of the following four-bar initial ascent (if there is such a motion), namely the not-that-proximate, rhythmically insignificant resolution-within-a-suspension passing 32th-note c^2 in m. 30. Actually present in Beethoven’s m. 27, is a c^1 embedded in the A_b -major chord, a note to which the preceding alto d_b^1 does attach as a passing-note, not as a neighbour-note. In accordance with the erroneous reading introduced in 2f, the d_b^2 - c^2 connection to be seen in Ex. 2a is displaced in terms of register; far from being the crucial link in the overall upper-line structure, this motion is actually a part of a local inner-voice passing motion, a chromatic motion in which the dissonant notes of course derive from e_b^1 , their consonant point of departure.¹³

What we primarily do take in when listening to mm. 26–27 are three insistent e_b^2 ’s and (among other local connecting motions) a chromatic inner-voice transition from e_b^1 to c^1 via d_b^1 -then- d_b^1 ; and then an emerging identity with m. 9 telling us that the initial melody is about to start again, that the theme is likely to have an ABA form. To the extent that the falling alto motion touching d_b^1 is anything more than a local inner-voice inflection, its importance is a matter of its position as a member of an intersectional bridge. Thus, the significance of the d_b^1 (“ d_b^2 ”) does not derive from the tonal structure of the theme, but from its outer form, and

13 Allowing for a contra-factual argumentation, one might speculate on what Schenker’s analysis would have been if Beethoven (with necessary adjustments in the other voices) had supplied a rising alto connection b_b - c^1 - d_b^1 - e_b^1 in mm. 26–27. Presumably, the fact that d_b^1 was actually introduced from below and proceeded upwards would not have prevented him from claiming that a falling structural connection e_b^2 -“ d_b^2 ” was nevertheless present. Speculating further, what would the *Urlinie* of the theme have been if there were no members of the pitch-class D_b at all in m. 26, if all connecting bridges were absent, if the middle section had just issued into an emphatic tonicized E_b -major chord topped by e_b^2 ? It is quite possible; just try it on the keyboard! If you like, you can add a short *cadenza* avoiding the pitch-class D_b .

as a subordinate passing-note issuing from $e\flat^1$, it has no neighbour-note relation to any c^2 . Harmonically, $d\flat^1$ has an important function, however: after $d\sharp^1$ it tonicizes $A\flat$ major and thus contributes to the re-modulation.

Schenker's grossly deceptive overall graph, essential for forging the fundamental structure supposed to bring about "tonal" unity, belies both Beethoven's score and the listener's perception of the musical process. Is it true or interesting that the insignificant c^2 in m. 4 is represented as prolonged until the insignificant c^2 in m. 30, engulfing whatever there is in between, a prolongation primarily mediated by the irrelevant, local inner-voice "*Nbn.*-note" $d\flat^1$ in m. 26, and by the sense of recognition that is part and parcel of the ABA form? Is it true or interesting to deny the fact that the unmistakable and persistent preoccupation with $e\flat^2$ throughout the middle section opens up for another, more expansive tonal space and for an escape out of the domain of the tonic? Considering the meagre insights that Ex. 2a gives into the music, is it really the optimal, tonal reduction of the theme? If this graph represents the true "inner" (tonal) form of the theme, the contempt for "outer" form (i.e. form in current sense) implicit in many Schenkerian writings emerges as unwarranted. Far from disclosing the genius of great composers, reductions such as this testify to the arrogance of analysts.

von Cube's reduction

Felix-Eberhard von Cube's reduction of the theme is made up of three layers, cf. Ex 3a. The foreground shown at the bottom retains a good deal of interior-voice activity, and it more than suggests what the middleground and the background, finally arrived at in the topmost graph, will look like. A number of divergences emerge between von Cube's (in many ways Schenkerian) analysis and that of Schenker himself.

The harmonic analysis of the foreground and middleground does justice to the F-minor quality of m. 22 by marking it as "VI"; only in the background is this bar read as a tonic harmony with its fifth exchanged for a sixth.¹⁴ But von Cube's analysis is preferable to Schenker's, because he

14 Generally, what is the vantage distance for saying something interesting – or true – about a musical passage? In particular, when does in this theme the

straightforwardly attaches the f^2 in m. 22 to the e_b^2 of the six-four chord in m. 23 – thus sparing us Schenker’s manipulations in m. 24 to supply a post-deception resumption of the would-be A_b -major-chord with added sixth. And even better, von Cube takes account of the rise to a_b^2 in m. 22, which allows him to identify a falling-fourth progression eventually reaching e_b^2 in m. 26. He has found a vital expressive and structural gesture – but unfortunately it is only allowed to appear in the foreground.

Another important difference is von Cube’s voice-leading analysis of mm. 23–25: the right-hand e_b^2 ’s and the left-hand b_b/B_b ’s are shown as prolonged in contrary motion until d_f^2 is finally given structural status in m. 25. This implies a prolongation of a dissonance, namely the second-inversion E_b -major chord, a reading that is not approved of in (orthodox) Schenkerian analysis, but this transgression of a cherished principle brings certain advantages. It means that the deceptive C-minor chord is given at least some structural status, instead of being bracketed out as it is in Schenker’s analysis. And it captures an important perceptual aspect of mm. 23–25: you cannot but notice the two identical six-four chords, preceded by similar upbeat signals signalling their importance, chords that surround a C-minor trap-door chord, nor how the conspicuous, almost symmetric neighbour-note motions lend a sense of circularity to the passage.

In the background harmonic analysis, however, von Cube just labels mm. 23–25 as “II”, a designation that does not match the impression of the music. However much these accented six-four chords demand to be resolved, they do not together with the deceptive cadence to C-minor chord “pre-prolong” the eventual resolution to B_b major in m. 25. As listeners, we don’t know that much about the future; the situation is in fact clarified only when the tonicized E_b -major chord arrives in m. 26. Only in retrospect do the six-four chords emerge as precursors of the applied B_b -major dominant of a crucial, high-level modulation.

Turning to the antecedent and consequent as analysed in the foreground, they are spanned by 3–4–3–2(–1) descents, preceded by initial ascents from the first degree. Their closing four-bar phrases emerge as richly embellished

impression, or the fact, of an F-minor quality in m. 22 give way for that of an A_b -major quality, if it ever does?.

– $d\flat^2$ is followed by c^2 , which in turn is covered by $e\flat^2$ preceded by its upper neighbour-note f^2 . But the local fundamental lines are superseded by a structural upper line issuing from the fifth degree and encompassing the entire theme. The initial fifth degree is posited as present already in m. 1 – evidently, von Cube accorded structural significance to the upbeat $e\flat^1$ and perhaps also to the continued drone-like presence of $e\flat^1$ throughout mm. 1–4. Later on, the $e\flat^2$'s in mm. 6, 9 and 14 are connected by means of dashed stems and slurs to the initial fifth degree so as to recall its structural presence. In mm. 4–6 the slurs presumably indicate that the $d\flat^2$ can be understood as a neighbour-note in relation to both the third and the fifth degree.

As regards the bass, von Cube discerns a rising octave prolonging the tonic up to the third beat of m. 7. Along with this rising octave and the overall tonic-to-dominant harmonic progression, he also takes notice of a rising-fourth progression from the $e\flat$ in m. 1 to the $a\flat$ in m. 7 – a reading implying that the dividing function of the dominant in m. 4 is suppressed. In the consequent phrase, von Cube brings out an $e\flat$ - f - $e\flat$ neighbour-note motion.

The middleground makes it clear that von Cube regards the B-section as the culmination of the theme and as made up of a double neighbour-note motion around the fifth degree, a motion that is mounted on an emerging $E\flat$ -major harmonic framework issuing into the cadence in m. 26. Apparently, he accords greater weight than Schenker to the modulation and to the auxiliary $E\flat$ -major tonic in m. 26. In the foreground graph, this is evident also from the fourth progression leading from $a\flat^2$ in m. 22 down to the temporary tonic note $e\flat^2$, a motion marked as a structural descent within $E\flat$ -major.

The background shows only the fundamental structure and a few subordinate details. The *Kopfton* $e\flat^2$ is prolonged until m. 31 where it gives in to $d\flat^2$, being this time a member of the ultimate structural descent rather than just a local neighbour-note. (The F-minor sonorities in mm. 13 and 31 are parsed as IV chords.) The fundamental harmonic progression is bisected. Whereas the second part just supports the final consequent, the first underlies the initial antecedent/consequent pair as well as the contrasting middle section of the theme. This implies that the cadence to the tonic in m. 16 is downgraded and that the tonicized dominant in m. 26 is understood as more than a dividing chord; the progression starts in $A\flat$

major but ends, not in the dominant, but actually in E \flat major. The latter observation becomes evident if you supply von Cube's middleground and background "d \flat 's" with their proper \sharp accidentals: the resolution e \flat -d[\sharp]² over b \flat does not actually represent II in A \flat major, but V in E \flat major.

Why did von Cube choose an overall *Urlinie* issuing from the fifth degree rather than one starting from the third degree? His own explanation runs: "I attempted to clarify the play about 3 by representing it at a special level without rejecting the 5. The latter seems to me to be marked out too strongly for me to ignore it from a theoretical point of view." (Cited from Drabkin p. 163) The last sentence exposes von Cube's basic "mistake" (by Schenkerian standards): allowing musical salience to be decisive when it comes to matters of tonal structure is considered to be very naïve. Furthermore, proposing dual descents starting from different primary notes is a promiscuous move that is not encouraged within the Schenkerian discipline.¹⁵

Anyway, rather than having the crucial B-section loosely appended to a third-degree structure based on the outer sections – as in Schenker's reading – von Cube preferred to allow the fifth degree to hover over the music of the A-sections as well, letting the third degree play the second violin, as it were.

15 It is condemned by Steve Larson as against Schenker's intentions; cf. the discussion between David Neumeyer and Steve Larson on the theme of Mozart's A-major Sonata – a piece of music that would have been saved many analytical hardships, had the reductive community been less blinded by prejudiced notions of tonal structure. Cf. Neumeyer, "The three-Part *Ursatz*", *In Theory Only* 10(1987)1/2, 3–29; Larson, "Questions about the *Ursatz*, A Response to Neumeyer", *In Theory Only* 10(1987)4, 11–31, and Neumeyer, "Reply to Larson", *In Theory Only* 10(1987)4, 33–37. Behind Larson's orthodox attitude there is presumably also the ideal of a stiff-upper-lip analysis that cannot put up with ambiguities: theories should be strong enough to do away with all alternatives but the "best", the one that is supported by decisive structural arguments; cf. Kofi Agawu, "Ambiguity in Tonal Music: A Preliminary Study", in Anthony Pople (ed.), *Theory, Analysis, and Meaning in Music*, Cambridge University Press 1994, pp. 86–107, and Bengt Edlund, "In Defence of Musical Ambiguity". The Mozart theme is discussed in Bengt Edlund, "Analytical Variations on a Theme by Mozart".

And yet von Cube's solution is unsatisfactory. An essential property of the A-sections is that they bring a sense of rising, but if e_b^2 is there right from the start, there is nothing to achieve. And even worse, if the fifth degree is posited (or somehow attained) already in the A-sections, the B-section will seem to be robbed of its very object of structural culmination. As a kind of compromise, von Cube introduced local descents from the third degree, attempting to capture on a lower structural level the tonal process within the antecedent and consequent.

How can you best make sense of von Cube's two fundamental lines? Well, the A-sections may perhaps be heard in terms of a lower strand, peaking at the third degree and its upper neighbour note, and enjoying temporary prominence. And rather than being an episode in which a formerly covering $f^2-e_b^2$ layer takes precedence, the middle section with its fifth-degree dominance may represent a normalization. Whereas e_b^2 (within a Schenkerian paradigm) may be understood as a covering note in mm. 6 and 14 (and perhaps even as late as in m. 20), it certainly emerges as carrying the fundamental line in the B-section.

While variations cannot be conclusive in any strict sense as regards the tonal analysis of the theme from which they derive, some of the variations of the first movement of Op. 26 do give some support for von Cube's idea of a structural fifth degree even in the outer sections of the theme. After all, Beethoven might have entertained this option in his no doubt well-developed tonal mind.

In his reductive sketch of the first variation, cf. Ex. 2g,¹⁶ Schenker highlights a rising step from c^1 to d_b^2 in mm. 1–2, a connection that eventually reaches its peak at f^3 . And along with the inner-register a_b-g-a_b thematic neighbour-note motion, eventually producing a not-very-prominent third-degree c^1 in m. 3, he discerns a subordinate but quite conspicuous middle-register motion $c^1-d_b^1-e_b^1$ in mm. 1–3, suggesting an initial ascent to the fifth degree. Later on, if we take the d_b^1 in m. 5 to be a structural fourth degree, the descent from the fifth degree may already be on its way; cf. von Cube's reading of the closing consequent of the theme. What we see in

16 Cf. *Der freie Satz*, Ex. 120:5.

mm. 5–8 of the first variation are two descents sharing the same notes – an example of co-existing fundamental lines.

The third variation exhibits an upper line that seems quite at odds with the paradigmatic models offered by Schenkerian theory; cf. Ex. 3b. After an initial neighbour-note allusion to the theme, both the antecedent and the consequent bring unequivocal ascents from the first to the fifth degree. These ascents take place in the treble as well as in the bass, and (disregarding the quick fall to the tonic note finishing off the consequent) the fifth degree is certainly the tonal goal of both motions. The third variation lacks structural descents – or to put this observation in a way that does not depreciate the music: contrary to a tonal law at the core of Schenkerian theory, this variation brings structural ascents, not descents.

That variation III is indeed all about the fifth degree is evident also from its middle section: in mm. 22–26, the right hand brings us from a_b^2/a_b^1 down to e_b^2/e_b^1 . This falling melody supports the structural importance of the peak-note a_b^2 in m. 22 of the theme, as well as the auxiliary structural descent from a_b^2 to the tonicized e_b^2 in m. 26 that von Cube draws attention to in his foreground reduction. Schenker did not consider this connection important; Beethoven apparently did. It seems as if the melody of the theme, not its would-be “upper line”, is crucial for its tonal structure.

Correcting the disciple

We will now turn to Schenker exercising his right and duty as master and originator of tonal reduction. William Drabkin has translated the correspondence between Schenker and von Cube, adding perceptive comments to it. However, since Schenker gets the last word – whether von Cube was eventually convinced by his teacher’s arguments we will never know – and since Drabkin is very diplomatic, there is a need to take a stand.¹⁷ What

17 This was quite diplomatic, too. As a matter of fact, I was now and then a bit annoyed at Drabkin’s neutral and dispassionate way of disentangling the turns of this conflict between teacher and pupil – Schenkerian analysis is still around, and there is so much in it to crack. My dissatisfaction with Drabkin’s article was one of the reasons for writing the present essay, and the three sections to follow may be read as a more sceptical reformulation of his article.

was wrong with von Cube's reduction, and how strong are Schenker's arguments?

The first letter from the master offers some corrections entered directly in von Cube's reduction (cf. Ex. 3a), but few explanatory comments. "3, not 5", Schenker writes, and calls von Cube's "error" "understandable".¹⁸ The first note of the fundamental line is c^2 in m. 4 since this note is the goal of the "real ascent", whereas [presumably] the e_1^2 in m. 26, being just the final note of a sub-surface hidden repetition, is of secondary importance. As a further explanation, Schenker adds the following sentence: "At $c^2-d^2-e_1^2$ in bars 20–24, d^2 is introduced from above by the line $f^{[2]}-e_1^{[2]}-d^{[2]}$, recalling the entire situation in bars 5–8". (Drabkin p. 159) [Schenker must obviously mean d_4^2 .]

For several reasons, this remark strikes as utterly incomprehensible. If the " d^2 is introduced from above", Schenker has in fact given a counter-argument to his own very far-fetched hidden repetition. Extended sub-surface connections should preferably have some support in the music, but by referring to a fact that actually speaks against the third member of his rising sequence of hidden repetitions, the impression of a tendentious note-picking is strengthened: the d_4^2 should somehow be approached from c^2 .

It is furthermore very hard to see that the motion from f^2 in m. 22 down to d_4^2 in m. 23 recalls "the entire situation in bars 5–8" because the similarity is virtually non-existent – the rhythmic, metric, harmonic, and tonal differences are patent. According to Schenker (cf. Ex. 2c), f^2 and e_1^2 in m. 6 cover the dormant and then reactivated *quasi*-structural neighbour note d_1^2 (not d_4^2) from which the principal line proceeds downwards, eventually ending on b_1^1 . In the B-section, on the other hand, f^2 is introduced from above (a fact that is suppressed in Ex. 2f) and d_4^2 is a local resolution of a six-four chord subsequently acting as a local leading-note up to e_1^2 . What is the point of calling attention to an irrelevant falling motion and a negligible similarity in order to substantiate the claim of a very dubious hidden repetition involving a rising motion? But Schenker's remark is to the point (although he scores an own goal) in as far as it actualizes the fact

18 Schenker simply crosses out the e_1^2 indicated as *Kopftón* at the very beginning of von Cube's graphs, but does not tell why this fifth-degree start of the *Urlinie* is out of the question.

that throughout the theme, excepting mm. 24 and 26, the crucial e_b^2 is approached from above, from its upper neighbour-note f^2 .

As Drabkin puts it, Schenker does not give any “reason for according the note e_b^2 a relatively low status in the theme as a whole, despite its prominent appearance in bar 6 and especially bars 20–26”. (p. 163) But Schenker’s analytic notation in Ex. 2f suggests why the e_b^2 in m. 26 is not structural: its tonal function is merely to provide a local consonant point of departure turning the would-be structural upper neighbour-note “ d_b^2 ” (actually d_b^1) into a falling passing-note; otherwise it would have emerged as a self-sufficient dissonant seventh over the dominant. (The “ d_b ” servant has usurped the role of the king, and yet it behaves like a servant.)

Schenker’s underlying motivation for the secondary status of this e_b^2 is a purely theoretical one, put in terms of strict species counterpoint and irrelevant for the passage under consideration. His argument emerges as extremely weak since an accented and consonant main note (e_b^2) should by current harmonic, contrapuntal, and logical standards be more important than the dissonant passing-note (“ d_b ”) following after, and being derived from it. In Schenkerian analysis, strict counterpoint is regularly used to bully “free composition”, but here Schenker goes one step further: by adducing a contrapuntal concept although his use of it runs contrary to its basic meaning, he pays utter disrespect for the principles of counterpoint as well.

von Cube’s defence

Evidently von Cube was not convinced for he sent his teacher a reply letter arguing for his reading. And his recalcitrance is not hard to understand. Schenker only offered him an abstruse *verborgene Wiederholung* as an explanation for the merely secondary structural importance of the e_b^2 in m. 26, an explanation that completely fails to account for the recurrent and increasingly salient presence of this note throughout the middle section. No wonder that the disciple was not satisfied.

Made to defend his reading in terms of abstract counterpoint rather than by recourse to salient traits in the music, what did von Cube reply? Referring to a number of voice-leading sketches, he brings up two (eventually related) issues: how to read the problematic e_b^2 –“ d_b^2 ” turning-point

at the end of the B-section,¹⁹ and how to understand what happens in the second phrase of the antecedent.

Since it is impossible [from a contrapuntal point of view] to have a “self-sufficient” seventh in an *Ursatz*, the “ d_b^2 ” in m. 26 must be a passing-note and therefore, von Cube maintains, the e_b^2 from which the “ d_b^2 ” descends, must also be structural.

Hence there has to be a fifth-degree *Kopftön* either from early on or reached during the middle section by means of an ascent from the third degree, an ascent including the note d_k^2 .²⁰ (p. 164) But von Cube cannot find any trace of such an ascent in the B-section, “since a 3 cannot be heard as prevailing through bars 23–6 but is rather a note in an inner voice that descends to b_b ”. (p. 166) This means that he rejects the last member of Schenker’s set of concealed rising thirds as well as the latter’s idea of a third degree persisting virtually throughout the entire B-section.

Or putting his argument in Drabkin’s words: von Cube “does not accept Schenker’s premise that a note [d_b^2] may enjoy a high structural value because it helps to define the form, but is of lower contrapuntal order because another note [e_b^2] is needed to prepare it”. (p. 167)²¹

19 Whereas von Cube in his original foreground follows Beethoven by writing d_b^1 in m. 26, all his sketches in the letter to Schenker feature the erroneous d_b^2 . Whether this implies a concession to the effect that Schenker had in fact persuaded him into attaching a greater structural importance to this inner-voice agent of re-modulation, or should be understood as just a minor adjustment for the sake of argument, is hard to tell.

20 Initial ascents including a raised fourth degree are awkward from a tonal point of view – the primary note of the fundamental line emerges as belonging to a tonicized dominant chord. Therefore von Cube invokes a precedent for it in Schenker’s own writings, the reduction of the “Emperor’s Hymn” in *Der Tonwille* 10(1924), p. 11–13. Cf. “Syntactic vs. rhetoric structure in music”, ch. 7 in this volume.

21 The words “define the form” does not seem to match Schenkerian methodology – formal considerations rank low among the criteria when deciding the structural importance of notes, and the “ d_b^2 ” (*alias* the d_b^1 of the subsidiary, re-modulating and locally connecting alto voice) is a negligible factor when defining the form of the piece. However, if “form” is understood not as “outer” form, but as “inner” (i.e. tonal) form, the “ d_b^2 ” is of course important, and Drabkin’s account makes sense.

But however valid von Cube's objection to the effect that e_b^2 is a far better structural representative of the B-section than " d_b^2 " (and for that matter that a re-modulating note presupposes an acknowledged modulation), as enlightened Schenkerians we know that it is doomed to fall flat when confronted with the wisdom received from the top of the "reductive" hierarchy. According to the *Ursatz* the upper neighbour-note " d_b^2 " in m. 26 prolongs the third-degree primary note in m. 4, and makes for a "tonal" form that accommodates the middle section; viewed from the tonal top, no modulation takes place in the theme.

Apart from the problems of the middle-section, von Cube still prefers his own idea to locate a structural fourth degree to the d_b^2 in m. 31 to Schenker's notion of a "form"-defining " d_b^2 " in m. 26. He argues that m. 31 is the final and decisive stage in the transformation of the neighbour-note d_b^2 into a truly structural fourth degree. In m. 5 the d_b^2 "is very thinly supported by the f of the fourth-progression above a dormant a_b"; in m. 13 it "is already stronger, since the bass is a true IV in first inversion"; finally in m. 31 the situation "is indeed set apart from the other two by the doubling of the parts". (p. 165)

This notion of a gradual emergence of the fourth degree is an attractive idea, lending a sense of accumulation to the A-sections of the theme, but there are two snags. The two first occurrences of d_b^2 are in fact identical – only in m. 15 comes the change that may (perhaps) alter our perspective of what happened two bars before, only in m. 15 do we know that there will not be any rising fourth in the bass. Reappraisals of events heard just a short while ago are of course possible, but in this case the re-evaluation must assert itself against an idea already established by a previous model. A more serious objection is the fact that the more self-contained this crucial sonority is, and the more the pitch-class F is represented in the left hand (as it is in m. 31), the more does it sound, not as a first-inversion D_b -major chord, but as a root-position F-minor chord with a strong inherent tension forcing its dissonant sixth d_b^2 downwards to c^2 , a note that in virtue of being a resolution should be structurally privileged in a Schenkerian analysis.

As to the antecedent, von Cube maintains that there is a rising octave in the bass – a connection made up of a tonic-to-dominant skip and a

dominant-to-tonic fourth progression, a connection that cannot but boost the tonal importance of the tonic chord on the third beat of m. 7. And he even ventures to take Schenker to task: “one cannot [...] suppose a harmonically important root without further ado, as you indicate here” (p. 165), and he reproduces one of Schenker’s sketches in which the d_b^2 ’s of mm. 5–7 and 13–14 are supported by d_b^1 roots instead of Beethoven’s f ’s.

The latter objection seems fair enough, and Schenker evidently took some (tacit) notice of it since neither in the sketches in his second reply letter, nor in the pertinent sketches in *Der freie Satz* (cf. Exs. 2a and 2c), did he notate any root-position D_b -major chords. But for theoretical, one might say disciplinary, reasons he could not entirely abstain from a manipulation: the “IV” symbol in his readings is probably not just short for IV^6 ; Schenker probably still thought in terms of a root-position D_b -major chord. When the theory of the *Ursatz*, when the idea of strict counterpoint necessarily underlying “free composition” was challenged, when any suspicion of sub-surface consecutive fifths in Beethoven’s music had to be averted, the musical text must be adjusted, one way or the other. In Schenker’s world of “tonal” analysis, Beethoven could not be allowed to mean what he had written; hence the pre-emptive replacement of F minor, doing away with the impending consecutive fifths by showing a harmless passing-note motion within D_b major.

von Cube demonstrates that, if one assumes a mediating and tonic-prolonging fourth progression $e_b-f-g-a_b$, met by a falling tenor line $f^1-f_b^1-e_b^1$, in mm. 4–7, the consecutive fifths disappear and the d_b^2 emerges as a complete neighbour-note prolonging the third degree, resumed with full root-position support in m. 7. In a seemingly contradictory way, he adds that the “octave leap $f-f^1$ gives the illusion of consecutive octaves between the inner voices”. (p. 165)

But why does von Cube call attention to the left-hand leap at the start of the second phrase, which seemingly speaks against his own reading? One is rather bent to assume that he meant this remark as a defence against a possible objection to the effect that consecutive octaves impend if the two phrases of the antecedent are linked together by means of his rising-fourth progression. The contradiction disappears, however, if one exchanges “gives the illusion of” for “covers up the” in Drabkin’s translation. von Cube’s sentence may be elliptic: presumably it should read “*Der*

Oktavsprung täuscht über 8–8 der Mittelstimmen [hinweg] !” (p. 180)
The intended meaning is probably that the octave leap *covers up*, hides, the consecutive octaves, rather than that it “gives the illusion of” (= *erweckt den Eindruck von*) consecutive octaves.

Philological details aside, who is right about the progression in the bass and ultimately about the structural status of the A_b-major chord in m. 7? The verdict must be postponed until Schenker has had his final say.

Enforcing discipline

In the first example in his reply, Schenker demonstrates how neighbour-notes and passing-notes belong to strict counterpoint, and then he simply posits the third-degree *Ursatz* that applies “in the present case”. In spite of the fact that he admits that “the question of 3 or 5, 5 or 8, 8 or 3 is that very question of tonal space that is probably the most difficult to decide”, he gives no explanation of his choice.²² On the other hand, and sweetening his authoritarian attitude, Schenker generously grants people of quality like von Cube “the right to make an occasional mistake: a mistake made along the path to truth”.²³ (p. 168) Taking this third-degree *Ursatz* as his point of departure, Schenker then step by step, prolongation by prolongation, and finally by adding the “imponderable” element of the three ascending sub-surface third-progressions, arrives at a structure that [what a surprise!] fits perfectly with his analysis of Beethoven’s theme. (pp. 168–170)

All these abstract voice-leading graphs look paradigmatically normal beyond any objection, and therefore (Schenker apparently holds) the matter is settled: this and nothing else is, or rather must be, the tonal structure of the theme. But must not his argumentation be regarded as a top/down,

22 One cannot but marvel at the somnambulistic certainty with which Schenker arrived at the decision to select the c² in m. 4 as the primary note “in the present case”. But perhaps he did in fact engage in a bottom/up study of the music, in which case one cannot but marvel at his low demands on the note chosen to do service as the *Kopftön*.

23 Such a mistake, he adds, “is still always of greater value than a mistake made along a path that is itself mistaken”. This fulmination rams with full force the present writer, crawling along the primrose path towards tonal perdition.

assuming-what-should-be-demonstrated exercise, rightly considered to be of no value in scholarly work, and thus doomed to be discarded even in music analysis. No, his reading is in fact the fruit of privileged knowledge, and its foundation is as firm as a rock: “the first middleground layer [...] introduces the neighbour note, strictly in accordance with the rules of strict counterpoint”; “by the composer’s will, this neighbour note plays a part in the form of the piece [...] representing the b-section”. (p. 168) The modest inner-voice passing-note d_1^1 in m. 26 is thus exalted to essential tonal/formal importance, not by the analyst, but by the ultimate criterion of any reduction: “the composer’s will”. Beethoven himself is the arbiter, and he sides with Schenker. Can an ordinary mortal require a more convincing proof?²⁴

But for those not having access to such privileged knowledge, this is a top/down, assuming-what-should-be-demonstrated exercise, rightly considered to be of no value in scholarly work, and thus doomed to be discarded even in music analysis. And it is far too apologetic to think, as does Drabkin, that it is just the reference to an *Unwägbarkeit* like the highly improbable set of hidden repetitions supposed to eventually produce the crucial e_1^2 -then-“ d_1^2 ” in m. 26 that makes invalid “Schenker’s deliberate attempt at scientific reasoning, of logical progression point by point through his explanation”. (p. 172)

Schenker’s “attempt at scientific reasoning” misses the mark entirely because it is fundamentally unscientific. Logic is a prerequisite for scientific conclusions, but it does not in the absence of empirical data make conclusions scientific. You cannot deduce an analysis, valid for a specific piece of music, out of axioms, no matter how much you believe in them.²⁵ And no matter how many times you extend a certain ready-made fundamental structure, posited in advance, by stacking standard prolongations upon it, you will never learn anything more about the tonal structure of a specific piece of music than what you have already taken for granted. To the extent that Schenker’s conviction as to the fundamental tonal structure of this theme

24 Yet, considering the third variation, Beethoven might not after all have approved of Schenker’s reading.

25 Cf. Eugene Narmour, *Beyond Schenkerism*, Chicago University Press 1977; particularly ch. 2.

at all amounts to a hypothesis, he still fails to behave scientifically since he never tests it,²⁶ and since he manipulates the score to make the “explanation” match its object, which amounts to a fraud, scientifically speaking.

With respect to the second phrase of the antecedent, Schenker rejects the fourth-progression $e_b-f-g-a_b$ in favour of his own rising third, because $f-g-a_b$ in the bass “at all times belong together”, and because there is “a combination of two approaches to a_b ” – one from the f below and one from the f^1 above. (p. 170)

The first observation is valid since it takes account of the dividing function of the dominant in m. 4, which von Cube neglects – a dividing function, however, that Schenker himself disregards in order to make way for a connection from the initial tonic to the “IV” (IV⁶) harmony, supposed to control mm. 5–7 and needed to construe a consecutives-free tonal structure for the antecedent in a way that disposes of the tonic chord ending m. 7 as a structural entity by directly attaching the “subdominant” to the dominant in m. 8. But there is in fact not very much continuity, tonally or otherwise, between the A_b -major start in m. 1 and the “IV” chord, *alias* the root-position F-minor appoggiatura configuration, in m. 5.

À propos the second phrase of the antecedent, Drabkin respectfully wonders whether Schenker’s analysis is not “another aspect of his *Fernhören* that enabled him to perceive IV–V progressions over wide spaces, when less acute ears would have allowed a tonic to short-circuit the connection?” (p. 174) Although it may appear somewhat anachronistic, one cannot altogether exclude the possibility that Schenker might occasionally have devoted himself to *Fernsehen*. In any case, it seems quite clear that his famous *Fernhören* ability was sometimes inversely proportional to his *Nabhören* achievements – more acute ears would have allowed the relative minor to challenge the all too desirable subdominant reading of m.

26 As regards the question of whether Schenkerian analysis is at all able to criticize its own fitness as an analytical tool, cf. Craig Ayrey, “Universe of Particulars: Subotnick, Deconstruction, and Chopin”, *Music Analysis* 17(1998)3, 339–381, and Bengt Edlund, “How could analysis be deconstructed by Chopin’s A-major Prelude?”, ch. 5 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag.

5. And whether “short-circuiting” a long-range connection or not, what happens across the bar-line mm. 7/8 sounds very much like a swift tonic-to-dominant cadence.

Turning to the second observation, involving the very far-fetched “falling-sixth” approach to a_b^1 from f^1 , Schenker’s argument carries very little weight, and, moreover, having two motions arriving at a_b^1/a_b cannot but lend more weight to the tonic chord in m. 7 than is suitable for merely a consonant passing-note sonority. The motions supposed to converge on this pitch-class rather suggest that this chord (being a patent local harmonic resolution) should at least have a structural function in the middleground.

Schenker points out that bars 13–16 are a contraction of bars 5–8 in order not to “shatter the regular metric structure”.²⁷ (p. 171) For the consequent to reach down to the tonic note in due time, one bar in the antecedent model must be omitted. Preserving the top-voice continuity, Schenker simply puts the notes $c^2-f^2-e_b^2$ within brackets in order to show how the contraction takes place – in this way a direct connection is established between the d_b^2 in m. 13 and the six-four c^2 in m. 15. This explains why Schenker’s reductions of the antecedent and consequent in Ex. 2a look so similar, but unfortunately his analysis entirely leaves out of account the element of non-linearity in the consequent, the acute sense of a gap in the transition between mm. 14 and 15: d_b^2 is demonstratively left out of the treble line and c^2 takes its place. Surely, there must be a better way to account for this relationship between a model and its varied replica.

Anticipating a topic to be discussed in the next section, it is worth noticing that Schenker nowhere in his letters corrects or even mentions von Cube’s foreground reading of mm. 23–25, despite the fact that his prolongation of the six-four chord, i.e. of a dissonance, runs contrary to an important principle in tonal reduction. Maybe Schenker considered this particular reading to be justifiable, or perhaps he did not want to throw stones in his own glass house: prolonging a dissonance is actually what Schenker himself is guilty of when he makes the F-minor chord with its suspended sixth, *alias* the first-inversion D_b -major chord, last until the beginning of

27 Apparently by oversight, Schenker writes “bars 21–22” instead of bars 13–16.

m. 7. The net effect of this passage in Schenker's Ex. 2c comes quite close to what you see in von Cube's foreground reduction of mm. 23–25.

A main point in the discussion between Schenker and von Cube is how to decide whether a chord has structural status on a certain level, or is merely a secondary phenomenon. The *quasi*-dissonant passing-note turned into a consonance by providing a root-position harmonic support for it (c^2 in m. 7), and the root-position support for a note that only serves as the necessary point of departure for a structural neighbour note (e_b^2 in relation to " d_b^2 " in m. 26) are cases in point. It might be argued that as far as this dilemma just concerns theory-induced voice-leading subtleties, it is an internal Schenkerian problem to keep out of. On the other hand, since such *Unwägbarkeiten* turn up as vital decisions in Schenkerian analyses, they may nevertheless influence our notions as to what actually goes on in the music. It is therefore of some interest to study how these matters are dealt with in a recent tonal reduction of the theme from Op. 26, an effort undertaken from the vantage point of more than half a century of assiduous cultivation and cumulative progress of Schenkerian analysis.

Maintaining discipline: Beach teaching teachers

The reduction presented by David Beach (cf. Ex. 4 a/c and 5 a/c) is based on Schenker's reading of the theme, a fact that Beach frankly declares. (p. 29) This dependence is regrettable, since a fresh reductive effort would have enlarged the basis for conclusions in the present context, but it is also surprising as well as expected. Given the deficiencies of Schenker's analysis, one might have thought that there was a need for an alternative reading. On the other hand, like so many disciplined tonal analysts Beach is apparently convinced that Schenker was a supreme theorist/analyst who (by and large) cannot but have done a fine job with Beethoven's theme. In any case, speaking as a leading theory pedagogue to fellow theory pedagogues assembled to get guidance, Beach is likely to have chosen this very analysis as his point of departure because he considered it to be exemplary rather than problematical.

Schenker is certainly the key to this keynote speech: Beach follows the master's reading quite closely, and yet he offers some improvements and

critical comments. There are less manipulative adjustments of Beethoven's text, relatively more considerations of actual musical features such as motivic content than of principles of strict counterpoint, and the approach is less blatantly top/down – although the persuasive habit of showing the deepest structure on the top of the page is retained. A special bonus is the detailed explanations of the analytic choices.

In order to avoid duplications in the following critical account, the comments will be restricted to points where Beach deviates from Schenker or brings up issues warranting special discussion.

The A-sections according to Beach

In Beach's middleground reduction Ex. 4b, the events before the *Kopf-ton* are neatly nested in accordance with what one could guess already from Schenker's sketch 2b. But the representation of the right hand in the foreground graph Ex. 4c is preferable, since in m. 2 it brings out both the falling third $g^1-e_b^1$ and the rising fourth $e_b^1-a_b^1$. But given this observation, does the higher-level neighbour-note g^1 really "exert control throughout the entire measure" as indicated by the dotted quarter note? (p. 35)

Beach identifies a number of motivic relationships within the antecedent/consequent (cf. 4b) and brings out a set of third progressions later to be found also in the middle section. In m. 4 and following Schenker, the dotted upbeat gesture $b_b^1-c^2-d_b^2$ inherent in the turn figuration makes up "an answer in diminution" to the initial ascent $a_b^1-b_b^1-c^2$ in mm. 1–4, but it is also a "reversal" of the immediately preceding, dotted cadence $d_b^2-c^2-b_b^1$ (cf. 4c), which in turn "foreshadows or anticipates" the same progression in the second phrase, a motion starting only at the d_b^2 in m.7 – or already at the d_b^2 in m. 5. (pp. 35, 37) Furthermore, as shown in 4a, there is also a reverse relationship between the sub-surface ascending third $a^1-b^1-c^2$ within the first phrase of the antecedent and the descending motion $d_b^2-c^2-b_b^1$ underlying its second phrase. (p. 38) In the consequent, the quick rising third in m. 12 is replicated one step lower by the motion inherent in the downbeat turn figuration in m. 15 (cf. 4b).

Beach holds that these thirds serve to integrate the music. The rising-third beginnings of the phrases make them emerge as related, and there is

also an immediate local link between them. Rising and then falling thirds lend a sense of balance within the second phrase of the antecedent as well as between the first and the second phrase.

Apart from the fact that rising/falling thirds are quite short particles when cited as evidence for motivic relationships, how viable are these associations, musically speaking?

Starting with the immediate, falling-then-rising link in m. 4, it might work quite well due to the close juxtaposition and the dotted rhythms – play the turn without the surplus notes (as in 4c) to bring out the similarity – and in spite of the fact that the cadence involves an appoggiatura (within an appoggiatura) whereas the upbeat turn figuration features a passing-note. The similarity between the quick descent in m. 4 and the slow $d_1^2-c^2(-a_1^1)-b_1^1$ motion in mm. 7–8 is weaker, but it is supported by the fact that both passages involve cadences to the dominant featuring resolutions to tonic-supported c^2 's. A replica starting already from d_1^2 in m. 5, on the other hand, is most unlikely since it is “covered” by the motion $f^2-e_1^2$ in m. 6, and since there is a more immediate, intervening soprano/alto $d_1^2-c^2-b_1^1$ falling third in mm. 5–6. As already pointed out in the discussion of Schenker's reduction, the affinity between the extended four-bar initial ascent to c^2 in m. 4 and the rapid turn figuration up to the d_1^2 in m. 5 is negligible. Turning finally to the balancing, rising-falling relationship keeping the two phrases of the antecedent together as a pair, this sub-surface resemblance is plausible only to the extent that the first phrase really emerges as a third ascending to produce the inconspicuous c^2 in m. 4 – actually, the melody leads to the final b^1 – and in as far as one understands mm. 5–8 as a descending third.

Beach marks the major second $f^2-e_1^2$ as a self-contained, quite minimal motif in 4c and 4b. This falling second turns up later on in the B-section, but it is also “answered immediately by the inner-voice chromatic motion $f^1-f_1^1-e_1^1$ in the next two bars”. Indeed, there is “an even larger statement in the bass voice spanning bars 5–8”. (p. 38) The latter $f-e_1$ motion corresponds to the structural progression between the prolonged IV^6 subdominant and the dividing dominant.

A similarity between $f^2-e_1^2$ in m. 6 and the tenor-register chromatic motion in m. 7 may very well be heard (if the pianist so wants), but the latter motion is also, or rather, to be understood as a varied reiteration of the

start of the tenor descent in m. 5, Indeed, the treble $f^2-e_b^2$ motif in m. 6 may emerge as being anticipated by the left hand. Thus, what we get in mm. 5–7 is a set of three falling seconds, appearing in the tenor, soprano, and alto: $f^1-e_b^1$, $f^2-e_b^2$, $f^1-e_b^1$. In the manner of inverted counterpoint, the second phrase also features a further, and just as conspicuous, soprano-tenor-soprano series of falling seconds: $d_b^2-c^2$, $d_b^1-c^1$, and $d_b^2-c^2$. As to the “statement” of $f-e_b$ in the bass, and no matter if it is taken to start in m. 5 or only in m. 7, it is doubtful whether such minimal harmonic bass progressions can function as significant members of motivic networks.

In any case, the $f-e_b$ motion in the bass gives some support for the idea that the second phrase of the antecedent is in fact built upon an F-minor-to-E_b-major progression. However, just as the treble falls from f^2 to e_b^2 in m. 6, the bass descends from f to e_b in mm. 5–8; in other words, the second phrase as a whole is not far from exhibiting deep-layer consecutive octaves. Disregarding the “consonant passing note” in m. 7, a falling-second $f-e_b$ motif in the bass discloses that, in addition to the impending soprano/bass consecutive fifths (twelfths) in mm. 7–8, there are quite obvious subsurface tenor/bass consecutive octaves. Indeed, the second phrase emerges as safely buttressed by various parallel motions – subsurface motions that, whether theoretically admissible or not, conspire to give this passage a sense of direction and a peculiar character.

In Ex. 4c, Beach indicates that from the third beat in m. 5 on there is a bifurcation of the melody – the ascending fourths produce an upper strand $f^2-e_b^2-d_b^2$ that “covers” the principal line proceeding from d_b^2 via c^2 and b_b^1 to a_b^1 . (p. 36) But in the next layer 4b, the intermittent upper line is questionably made continuous by extra notes: the rests in 4c are plugged up by an e_b^2 and a d_b^2 occurring before the actual notes – additions that destroy the hemiola rhythm. In the background layer 4a, however, the “covering” upper line has disappeared altogether.

Two concurrent lines may perhaps be heard in the second phrase of the antecedent – if you are so disposed and if the performance invites to it. But why not simply understand the melody in mm. 5–8 as a melody? In any case, if you want to arrive at a full description of this passage, it is necessary to acknowledge that just as rising fourths produce the upper strand, it takes falling fifths to keep the lower line going.

It is as important for Beach as it was for Schenker to show that the $A\flat$ -major chord in m. 7 belongs to the prolongation of the would-be IV^6 chord, otherwise the desired structural connection between the “subdominant” and the dominant would be destroyed. For the same reason, the resolving c^2 must be turned into a passing-note within the falling-third motion between $d\flat^2$ and $b\flat^1$. If it were allowed to emerge as a resolution, it would become a structural note referring back to the *Kopfton* in m. 4 and turn the $d\flat^2$ in m. 5 into a complete neighbour-note. And accepting a c^2 -still-over- f in m. 7 as structural would produce consecutive fifths in relation to the following dominant chord. [Unless of course the f in the bass is left for $a\flat$, as it in fact is.]

But, as already pointed out, the cake is both eaten and had: the third progression up to $a\flat$ in the bass is considered important enough to avert the consecutive fifths, and yet taken to be insignificant enough to turn the potentially structural c^2 into just a “consonant passing note” that can be taken as a prolongation of the $d\flat^2$ -over-“ IV^6 ”, as well as insignificant enough not to disturb the structural harmonic progression from the “subdominant” f to the dominant $e\flat$ in the bass. (p. 38) Intricate and precarious matters indeed, but Schenkerian theory as well as a piece by Beethoven – a piece actually replete with sub-surface consecutive fifths and octaves – are in danger.

Beach indicates the prolongation of “ IV^6 ” by means of three dashed slurs in 4b, slurs that connect the accented chord in m. 5 with its accented look-alike in m. 7, made to look alike by the faked presence of the second-beat $d\flat^2$ already on the first beat, a manipulation prepared for by a corresponding faked presence of an $e\flat^2$ in the preceding bar. The parenthesized non-existence of the $d\flat^2$ is generously compensated for by marking its importance with a stem. But Beethoven’s second-beat $d\flat^2$ in m. 7 clearly belongs to the upper “covering” line ending on $b\flat^1$ in m. 8, whereas Beethoven’s actual top note $a\flat^1$ on the first beat of m. 7 obviously belongs to the lower “covered” strand, starting from $d\flat^2$ in m. 5 eventually leading to g^1 .

The former fact is admitted by Beach: “I might well have indicated the covering third f^2 - $e\flat^2$ - $d\flat^2$ by a slur in the graph”. (p. 37) But he didn’t, and corresponding to the added “accented” $d\flat^2$ in 4b, 4a features a $d\flat^2$ whose purely virtual existence props up a descending third, issuing from the $d\flat^2$ in m. 5 and leading to the $b\flat^1$ in m. 8. After all, the analysis apparently insists, it is the “covered”, principal lower line that brings the antecedent to its second-degree close. After having fulfilled its “covering” duty, and

suppressing the fact that it actually produces the second-degree b_1^1 , the upper line starting from $f^2-e_1^2$ is left out in 4a. Instead a new lower line turns up, starting from a_1^1 in m. 5, a note that was suppressed in 4c and 4b, and leading to g^1 , a note still shown in 4b as the end-point of the “covered” strand issuing from d_1^2 .

This is indeed state-of-the-art manipulation, a bewildering model specimen of how a “true”, inherent voice leading may be fabricated. Beethoven’s discarded way of leading his voices is unequivocal, however: no matter Schenkerian theory and Beach’s analysis, it is clearly the topmost, “covering” line from f^2 in m. 6 that brings the descent down to the second-degree b_1^1 , while the former top strand issuing from d_1^2 in m. 5 ends on g^1 , after having been “covered”. This is not to say, however, that the upper strand in mm. 7–8 cannot belong to the lower, “covered” line, but then you have to take proper account of how Beethoven provides for discontinuity, of how he suggests the start of a second sub-phrase in m. 7 by referring back to the start of m. 5.²⁸ But whether you attend to voice leading or to phrasing, any attempt at “discovering what makes” a particular piece “tick” must start by paying respect to what makes up its text. (p. 25)

In the consequent, however, things literally take another turn since the ornament from m. 12 unexpectedly occurs in m. 15. In Ex. 4b Beach slurs the “covered” line falling from d_1^2 to the inner a_1^1 in m. 14 as well as the turn figure $a_1^1-b_1^1-c^2$. This makes sense: the “covering” line has evidently been discontinued and the “covered” line has taken over – the turn ornament makes for an association between the c^2 starting the six-four cadence in mm. 15–16 and the d_1^2 in m. 13. The difference between the ambiguous antecedent and the clear-cut consequent is musically essential, but

28 There is little or no trace of this important disruption in Exs. 4a and 4b. Whether the slur between a_1^1 and d_1^2 in 4c is to be read as signifying the start of a sub-phrase is uncertain: the previous slur between c^2 and f^2 bears no such connotation. Since a corresponding “inter-strand” slur between b_1^1 and e_1^2 in m. 6 is missing, and since f^2 and e_1^2 are joined by a bracket to mark a motif, one might rather presume that the slur in m. 7 indicates that the “covered” line has taken over in spite of the obvious continuity of the upper strand. But perhaps the missing slur in m. 6 is a mistake – there is a $b_1^1-e_1^2$ slur in m. 14. Exs. 4b and 4a, showing deeper layers, exhibit seamless continuity.

to capture it the description of the antecedent must be adequate, which (as we have seen) it is not.

In the middleground 4b, showing “what we tend to hear”, Beach indicates the six-four cadential formula ending the consequent by a separate slur. The background 4a, on the other hand, demonstrates “what I think this represents in a structural sense”, and what we now see is a slur from d_b^2 to b_b^1 , just as in the antecedent. This is only “an apparent inconsistency”, however, because the two graphs illustrate “surface design” and “underlying structure”, respectively. (p. 39) It may be objected, however, that even as a representation of the “underlying structure” 4a misses the mark – the tonic end-point a_b^1 is severed from the rest of the descent, as well as from the immediately preceding six-four appoggiatura cliché prompting it, in a most strange way. The transfer of the background third progression d_b^2 - b_b^1 from the antecedent to the consequent, no matter the drastic interruption in the consequent and no matter the final tonic in m. 16, is a good illustration of the Schenkerian principle that the articulation of the surface should not be allowed to influence the structure.

But the presence of a vital difference between an antecedent and a consequent is no reason to put oneself on a bed of nails. Why not bring out the difference? Of course, there should be a “structural” slur in 4a from the d_b^2 in m. 13 all the way to the final a_b^1 – but such a slur misses the point since this “connection” is less a matter of deep-layer voice-leading continuity than an effect of a vivid backwards association brought about by an idiosyncratic surface event, the wilfully interrupting and unexpected downbeat turn figure in m. 15 pointing at c^2 . Furthermore, it can be argued that 4b does not record all “what we tend to hear” – recalling the antecedent, we might also take notice of an upper line starting from f^2 and wilfully skipping d_b^2 on its way down to a_b^1 .

Turning to the problem of the end-point of the initial ascent, the insignificant *Kopfton* c^2 in m. 4, Beach proclaims that this is no problem since “there is no correspondence between duration and structural significance in tonal music”, a principle that it is “crucial to understand” not only “for the beginner” but for [undisciplined?] “colleagues” as well. (p. 37) But tuning in another station, it may be argued that this is the very principle that allows an adherent of the one and only saving faith to

maintain that whatever a certain note c^2 seems to be in terms of “surface design”, it is “the displaced goal of the deeper-level ascending third” and “as it turns out” also “the primary tone” and “thus a member of the deepest structural level”.

Beach’s argument exemplifies dogmatic, top/down “analysis” at its very worst, and those who think that such reductions add up to a scholarly method should take another look – a critical look – at the theoretical literature proclaiming that enforcing a restricted number of deep structures posited *ex cathedra* represents the epitome of musical analysis, and that trots out dead-certain views like “duration [...] does not determine or influence structure”. (p. 37) By the way, who says that duration “determines” structure? A quite defensible and widely held notion among reasonable people is that duration (among other factors) may (sometimes quite effectively) influence structure, and that reduction (even “tonal” reduction) has much to gain if duration is allowed to do so.

As regards m. 4, the resolving c^2 is not only rhythmically insignificant, its structural weight is also considerably diminished by the fact that it belongs to a chord that in its entirety emerges as an appoggiatura resolving into a dividing dominant – a tonal fact that should be decisive when it comes to tonal reduction. From a Schenkerian perspective, the theme badly needs a stable starting point for its *Urlinie*, but Beethoven does not help the analyst out. Instead of using theoretically derived wisdom as to what must be the case, or referring to wishful ideas about things like “displaced goals”, a truly analytic approach, in contradistinction to undertakings over and over again proving and disseminating prejudice, involves taking another look – or rather some unbiased listening – to find out what actually goes on in the music, at the surface as well as beneath it.

The fact of the matter seems to be that the A-sections do not offer any satisfactory structural third-degree c^2 – recall that the other possible *Kopftön*, the c^2 over the root-position A_b -major chord ending m. 7, has to shoulder its responsibility as a “consonant passing note” in order to avert consecutive fifths. As to the B-section, it has very little to do with c^2 . Why not drop the idea of a structural c^2 , why not search for another *Ursatz*, if indeed there is any, or for some other “deep-structure”. Only your belief in authority prevents you from thinking that tonal, or rather musical, order may transcend Schenkerian theory.

Since the phrase mm. 1–4 amounts to an antecedent within the antecedent, the dominant in m. 4 has a dividing function, but this militates against Beach’s idea to regard the structural tonic as being prolonged from m. 1 until the “subdominant” takes over in m. 5; cf. Ex. 4a. But in m. 4, the weak-beat dominant chord makes up the resolution of the accented tonic chord, and according to Schenkerian theory appoggiaturas cannot be prolonged by their resolutions, but always the other way around: hence, the would-be third-degree *Kopfton* belongs to the territory of the dominant. But maybe the dominant in m. 4 is itself a prolongation of the initial tonic? Yes, this is what the diagonal line in 4a comes very close to proposing.²⁹ Anyhow, dividing half-cadences at the end of antecedents (and sub-antecedents) normally imply that the tonic is left. But the I–“IV⁶”–V structural progression aimed at cannot tolerate an intervening dominant, and therefore the dividing V is downgraded.

The B-section according to Beach

“According to my notation, we might understand 32//321 as prolonging 3, which moves to closure at the deepest level only in measure 34.” (p. 39) But granted that the theme exhibits, or rather will exhibit, an AA¹BA¹ form, why does the AA¹ portion of the music, patently closing at the first degree over the tonic, prolong the third degree – as if there were any unresolved tonal tension left in the air in m. 16?³⁰ And considering that the B-section does not dwell on the third degree, and that the music starts all over again in m. 27, why should one even pretend that the alleged *Kopfton* from m. 4 is valid until the very last cadence? Generally, why must all multi-segmented pieces be covered by one and only one wall-to-wall tonal carpet?

29 An oblique line like the one from A₃ to c² at the beginning of Ex. 4a may seem incontrovertible in the rarefied graphic air of a background, but when judged with the music from m. 1 to m. 4 in your mind and ears, its explanatory power shrinks considerably.

30 Tonally and formally the theme might have ended in m. 16. In terms of tonal rhetoric, there may be things that are not quite settled at this point, but they are not shown in Exs. 4 c/a.

Beach introduces punctuation marks to clarify the form of the theme – a very useful pedagogical device, provided that the students know how to use these signs when writing – and there is of course a full stop in m. 16. Maybe it would be a good idea to confine the search for Schenkerian fundamental structures to such smaller, tonally closed units, and to give up the attempts at enforcing *Ursätze* onto complete pieces and large sections, allowing the composer, rather than the analyst, to be in full charge of the unity, whether it is tonal or of some other kind. Pursuing the linguistic analogy, Schenkerian analysis seems comparable to describing the complex design of several, or indeed many, “sentences” by first declaring that they make up one single sentence and then explaining the structure of the whole by recourse to syntactic principles that are (perhaps) valid for sentences.

Taking full stops seriously when it comes to reduction implies, for instance, that B-sections within pieces like the present theme must be granted the privilege to have a tonal agenda of their own, or else to have a tonal agenda that is respectfully integrated into the tonal plan of the whole – just as a new sentence brings in a new thought or modifies what has already been said. We would be much better off if we conceived of (tonal) reduction as a matter of finding the tonal “agenda” of the music rather than of demonstrating tonal “structure” in terms of preordained schemes of overall syntactic closure.³¹

Turning to the B-section, cf. Exs 5 *c/a*, Beach’s reading is successful (and more convincing than Schenker’s) since it pays due attention to the fact that the middle section of the theme is preoccupied with $e^{\flat 2}$ and its neighbour-note f^2 , that it follows up the “covering” notes in the A-sections. But just as Schenker, Beach fails to account properly for the fact that the B-section in virtue of its tonal content is an essential and relatively self-contained part of the theme, a part that must be sensitively integrated within the whole. Such an account might have included the observation that the “covering” notes are now emancipated, and the insight that the musical as well as structural peak, or rather one of several possible peaks, is achieved when the modulation to the dominant is a fact.

31 Cf. “Syntactic vs. rhetoric Structure in Music”, ch. 7 in this volume.

Anyone can see (and hear!) that the tonal essence of the extended, culminating core passage of the theme cannot be hung up on the tiny “ d_b^2 ” (d_b^1) knob in m. 26. Indeed, any analyst worth his salt should be able to notice this flaw in Schenker’s analysis and be utterly dissatisfied. Trivial and boldly ill-fitting at the same time, Schenker’s reading is not just a routine case of discrepancy between musical surface and tonal structure, a kind of failure that some adherents of Schenkerian analysis take as a bonus, but a serious mismatch involving the entire piece and calling for a thorough reconsideration of the analysis as well as its premises. Schenker and Beach miss, or disregard, the tonal “story” of the theme for the miserable reason that a third-degree fundamental descent starting in m. 4 is imposed on the music although the middle section suggests something else.

Right from the start of the middle section, or at any rate from m. 21 on, the “covering” motions emerge as essential, and it is just an article of faith – an *Urlinie*, once begun, is always in charge until the end of a piece – that blocks the analyst from fully acknowledging the fact that the f^2/e_b^2 register not only dominates the music, but that these notes are now structural. Whereas the situation in mm. 6 and 14, and possibly even the one in mm. 17–20, might (if you are so disposed) be described in terms of a principal line being “covered”, this perspective is simply inadequate when dealing with the final six bars of the B-section. Leaving Schenkerian orthodoxy and the questionable intrinsic value of this kind of analysis aside, it appears both legitimate and worthwhile to devise reductive accounts based on the perceived long-term tonal development within the theme.

Anyway, Beach reaps the motifs sown in the A-section; cf. Ex. 5b. Beginning with mm. 17–20, the first notes of the two left-hand entries, f and e_b , respectively, spell out a “temporally expanded statement” of the “covering dyad” from m. 6, a motif that also turns up in its original register as the last notes of the two right-hand phrases. These recurrences are quite salient and make up important observations, whereas the remark that the falling fifths in the bass represent an “ostensibly new” idea is not quite to the point. (p. 42) Beach marks falling-third motions in the left hand to go with ascents from the lower neighbour-notes in the right hand; then follows right/left-hand thirds in contrary motion.

Proceeding to the final part of the B-section, Beach's middleground 5b shows an exchange of tonal positions between soprano and bass in m. 22 – as the bass leaves the third of the F-minor chord for its root, the upper voice occupies the third by moving upwards from f^2 . Or is it the other way around? This standard feature in tonal music is frequently brought out in Schenkerian analyses in spite of the fact that it tends to be devoid of interest, musically and structurally; when an observation is equally valid *vice versa*, it does not explain very much. As to the situation in m. 22, it is a mistake to think that this abstract voice-leading manoeuvre implies that the first-beat f^2 in the soprano “is prolonged” in any way by the third-beat f in the bass – this note belongs to a cadence eventually ending deceptively in C minor – and so it is to think that this “voice-exchange” operation (two sardines exchanging positions in their tin) in any way explains why there is a rise to $a\flat^2$ in the top voice.³² (p. 43) The soprano ascent from $e\flat^2$ to $a\flat^2$ in mm. 21–22 has both a function and an origin, and the fact that there have been two further “voice-exchanges” just before this one might have been used as a clue as to what happens in m. 22; they appear in m. 18 and m. 20 but are not shown by Beach.

According to 5b, the f^2 in m. 22 is “prolonged” until the “stable” $e\flat^2$ in m. 26, a fact that makes up “yet a further expansion of the $f/e\flat$ dyad”. The f^2 is fleshed out by two descending-third progressions $f^2-e\flat^2-d\sharp^2$, the first one issuing deceptively into $e\flat^2$ over C minor (hence the parentheses), the second bringing forth $e\flat^2$ over $E\flat$ major – the dominant goal of the B-section. (p. 43). These third progressions are not convincing, however. For one thing, the falling gestures do not start from f^2 , but from $a\flat^2$ and (dissonantly but no less effectively) from g^2 , respectively. The next note of the falling thirds, the six-four $e\flat^2$'s, are not “dissonant passing tones” – according to basic theory, passing-notes do not occur on primary accents. The fact that such a contradictory concept has to be evoked indicates that the analysis runs against the grain of the music.³³ These $e\flat^2$'s are appoggiaturas

32 Yes, this note (suppressed by Schenker) is allowed to show up in Beach's middleground, but it is not entrusted to have any meaning.

33 It should be noted that in this case (involving an exposed, standard appoggiatura that has to be slighted as merely a passing-note) Beach allows melodic considerations to take precedence over harmony, counterpoint, and rhythm,

and the $d\sharp^2$'s are their resolutions bringing applied dominants: in virtue of being leading-notes, the $d\sharp^2$'s lead to $e\flat^2$'s, first deceptively to C minor, then as expected, i.e. completing the modulation to $E\flat$ -major. In short, the two falling-third motions shown by Beach (and Schenker) miss their starts, get their core notes wrong, and miss their goals.

These would-be descending thirds – according to Beach, the second of them starts already in m. 22 and subsumes the first one, ending within parentheses – are contained within the “further expansion” of the covering motion f^2 – $e\flat^2$ extending from m. 22 to m. 26; cf. 5b and 5a. (p. 43) But $e\flat^2$ is conspicuously present already in m. 21, and it is then frequently revisited and perceptibly prolonged by neighbour-note motions both from above and below. (Let's assume that dissonances can be prolonged; cf. below.) Thus, the passage as a whole makes up a complex set of neighbour-note motions rather than just a falling second.

Beach is sceptical of Schenker's “imponderable” rising third c^2 – $d\sharp^2$ – $e\flat^2$ covering the middle section: “in the end I think we must use our ears as well as our minds in making analytic decisions”. (p. 45) He is of course quite right in dismissing the abstruse motion up to the $e\flat^2$ in m. 26. And the general principle is very fine, too, but when it comes to its application, Beach's mind sometimes tends to take over. This is exemplified in his inconsistent and ultimately inconclusive discussion of how the B-section is attached to the rest of the piece.

In accordance with Schenker's argument, Beach at first requires Beethoven's theme to exhibit contrapuntal solidity: “one *might* interpret the

whereas in m. 4 (involving the necessity of exalting an insignificant note to structural status) the local contrapuntal situation was allowed to outweigh the harmonic context as well as melodic and rhythmic considerations. Turning to m. 5, the dissonant appoggiatura note $d\flat^2$ over the root f was to be understood as a *quasi*-structural neighbour-note, and hence the chord was read contrary to its contrapuntal nature as well as parsed as a $D\flat$ -major sonority despite its F-minor quality. Another example is to be found in m. 7 where the resolution note c^2 was understood as a “consonant passing-note”. Evidently, basic theoretic principles and observations are negotiable, and the primary concern is not to do justice to the music but to pave the way for whatever reading that is deemed theoretically desirable.

dominant that is the goal of the b section as supporting its seventh (d_b), the upper neighbor note of the primary tone (3), which is reinstated over the tonic harmony before the final descent to closure”. Then he adds: “This large-scale motion to the d_b *may* be viewed as a further expansion of the neighbor-note relationship exploited in the initial section. Such an interpretation, though perfectly correct in my opinion, is rather abstract in that it diverges from the actualities of the musical surface.” And he does point out that the crucial note “only appears as a passing note in an inner part on the last beat of measure 26”. On the other hand, reminding the reader of the fact that he has shown that the B-section “is really controlled by an expanded statement of the f/e_b dyad” stemming from the A-sections, Beach also contends that “this dyad *may* be viewed as covering or leading to the structurally more important d_b ”. (p. 45)

The italics in the above citations stem from the present writer, but the words thus marked must reasonably be taken to stand for various shades of uncertainty or even dissociation – several different explanations for the “ d_b ” are presented. Uncertainty is quite legitimate in analysis since music is sometimes ambiguous, but in as far as Beach is really sceptical, he is not specific.³⁴ How can anything be “perfectly correct” if it is not only “rather abstract” but also “diverging from the actualities of the musical surface”? It is also hard to understand why the low status given by Beethoven to the pitch-class D_b in m. 26 (that of a local passing-note d_b^1 in an inner voice) is insufficient in the “further-expansion” case (i.e. the similarity association involving “ d_b ” as an upper, primary-line neighbour-note in the A-sections and in the theme at large) but apparently sufficient in the “expanded-dyad” case (i.e. the inter-sectional similarity association involving a descending second eventually extended to include “ d_b ”). All the same, Beach seems to prefer the descending approach to the unfortunate “ d_b ” (d_b^1), although his formulation “covering or leading to” is bewildering: if an event is “covering”, can it really “lead to” another event that is itself not “covered”?³⁵

34 Cf. Bengt Edlund, “In Defence of Musical Ambiguity”.

35 Consider the second phrase of the antecedent, where the upper “covering” strand certainly seems to “lead to” the allegedly structural d_b^2 in m. 7. Splitting hairs, are these two descriptions really compatible? If not, does the “covering” invalidate the sense of leading to, or conversely, does the “leading

Whatever Beach's comments, the descending bridge, crucial for the tonal coherence of the theme, is shown in the background 5a. It is made up of f^2 in m. 22, e_b^2 in m. 26, " d_b^2 " (actually d_b^1) in mm. 26, and c^2 in m. 27 (actually m. 30). The continuity according to Beach is thus a matter of a "covering" falling second that attaches to a structural falling second. But the e_b^2 of the tonicized dominant is insistently held out so as to sound along with the connecting and re-modulating, inner-voice passing-note d_b^1 , which (in its capacity as " d_b^2 ") is valid as a high-level upper neighbour-note connecting over a distance of four bars and one octave to the post-ascendant primary tone c^2 of the resumed *Ursatz* in the finishing consequent. There is arguably more mind than ears in Beach's account of this crucial passage of the theme's tonal structure.

In his discussion of the middle section, Beach takes the opportunity to deride an anonymous student for his/her inability to handle the six-four chords properly; cf. Ex. 6, Solution A. Just like von Cube did, this student understands what happens between the two second-inversion E_b -major chords in mm. 23 and 25 as a package of upper and lower neighbour-notes, appearing in a *quasi*-symmetric contrary motion in the right and left hand. But this means that a dissonant chord formation is prolonged in a way that incorporates as its core a consonant chord – an impossible configuration in a Schenkerian reduction.

to" (retrospectively) annihilate the sense of covering? It seems that the concept of 'covering' entails that what follows (or precedes) is somehow separated from the covering events – otherwise the event following upon the covering events will lose its relative status as structural and emerge as part of the covering; in such a case a 'leading-to' relationship obtains. Conversely, the notion of 'leading to' appears to imply that the events concerned belong to the same structural level; in practice, this means that the preceding events will emerge not as covering, but as structural if the following event itself is structural. Turning to the situation at the end of the B-section, Beach perhaps uses "or" in a loose sense as just referring to different ways of describing the situation. If, on the other hand, "or" means alternative readings in either/or terms, Beach's argumentation at large seems to indicate that he opts for constructing this passage as involving "covering" in a sense that implies different structural layers, which would prevent a true "leading" connection between the "covering" e_b^2 and the structural " d_b ".

According to Beach (Ex. 6, Solution B), the correct way to deal with this passage is as follows. The soprano f^2 in m. 22 immediately heads upwards for the outer a_b^2 while concurrently starting falling-third motion to the inner $d\sharp^2$ in m. 23; at the same time, however, it also resolves into the more distant C-minor e_b^2 in m. 24. But the events in m. 23 and most of m. 24 make up a detour that can be bracketed out since the neighbour-note f^2 at the third beat of m. 24 is recharged over $a\sharp$ in the bass for a second descent via e_b^2 to the $d\sharp^2$ in m. 25. As regards the bass, it does move upwards from a_b in m. 21 to the deceptive c^1 in m. 24, but according to the bracket the net result is a cadence extending from the a_b back in m. 21 via $a\sharp$ to the b , and e_b in mm. 25–26. (pp. 43–44)

But do we really hear the second part of the middle section in this way? Where is, for instance, the harmonic root f under the top-note a_b^2 ? And why should we hear it as Beach says that we must? Beach provides answers, but only in negative terms: “Certainly we do not hear the last two bars of this sub-phrase as tacked on, nor would we play it in that way, since the goal is not reached until measure 26”. (p. 34) It is true that we do not hear the last two bars as “tacked on”, but nor do we hear the preceding two bars issuing into C minor as bracketed out.

What happens when we listen attentively to the passage is presumably something like this. Forewarned by the diminished seventh-chord at the preceding upbeat, we will suspect that the downbeat of m. 24 will be harmonically deceptive, and when m. 25 (preceded by its now familiar melodic upbeat) turns up, we will have a sense that the six-four chord of m. 23 is back again – that the music, as it were, has given itself a second chance – and that the last beat of m. 23 and the two first beats of m. 24 made up a detour.³⁶ The non-diminished seventh-chord then promises E_b major in m. 26.

36 If you want to count bars from m. 21 on so as to reconstruct its underlying (and pedestrian) four-bar regularity, you would count 1 2 3 4 3' 4'. Bars 25 and 26 are certainly not “tacked on” (they are of course decisive) whereas mm. 23 and 24 proved to be a *cul-de-sac*. Parentheses do not work very well if you want to clarify a situation involving a distinction between foresight and hindsight, but if anything should be bracketed out in this case, it is the third beat of m. 23 and the first and second beats of m. 24, i.e. the passage from where the

There is a sense of circularity in this passage, which is not done justice to in Beach's reduction, treating the C-minor chord and the full cadence with the bass progression $f-B_b-B_b-c!$ leading to it as a disposable blockage on the way to E_b major. Beethoven demonstratively puts the first cadence on a par with the second by means of the same (technically awkward) trill, making us believe that both passages are to be understood as closing. Nor does Solution B reduction catch properly the sense of a rectifying repetition from a qualitatively changed and progressive point of departure. The upbeats to mm. 23 and 25 are different in two important respects that make for a converging voice leading prompting the final outcome: the upbeat gestures in the soprano issue from a^b and g^2 , respectively, whereas their bass support shifts from a_b to a_7 .

We might also ask what happens if we think creatively of the passage, i.e. if we deal with the music from the vantage position of being able to influence its course. As a pianist, you are not startled by the diminished seventh-chord in m. 23 and what follows from it – whether playing by heart or reading from the score, you know that there will be a deceptive cadence to C-minor – whereas in m. 25 you know that the outcome will be normal. Thus, you are highly aware of the fact that the two identical six-four chords will produce quite dissimilar outcomes. Being highly conventionalized dissonances, six-four chords are strongly anticipatory, and it is likely that especially in the mind of the pianist these two chords are understood as introducing two parallel statements of an irreducible pair – which is what Beethoven's *subito piano* markings may be taken so suggest.

It should be added that it is also hard to embrace the student's Solution A, and for a similar reason: it does not correspond very well to what you hear – or to what you play. The circular “package” of symmetric neighbour-note motions is a quite economic description, but it gets the circularity wrong since the second six-four chord does not close anything, but opens for the second attempt. Or differently put: the neat enclosure between the two identical E_b -major six-four chords makes the C-minor

music deviates from what could be expected up to the point where it signals that it is back on the track.

chord emerge as inactive. It brings the first outlet – a deceptive outlet, to be sure, but no less important and preceded by a trill boosting its importance – and it has a function in the tonal layout at large.

But student's reduction of mm. 21–22 is preferable to the one proposed by Beach for two reasons: the slur in the treble shows a highly significant rising motion, and the analysis does not leave out the fact that there is an F-minor root in m. 22 ready to start a cadence.

Tonalizing interpretation

So far three tonal reductions have been scrutinized with respect to how well they fit with Beethoven's text, and to whether they capture essential features of the musical process. The outcome was not very edifying, but the final evaluation will be postponed until a study of the relationship between reduction and interpretation has been undertaken. What do these reductions suggest to the pianist: what is the gain, if any, of "tonalizing" interpretation? The three analyses will be revisited, extracting whatever consequences they may have for interpretation.

Schenker's analysis

We will first deal with Schenker's analysis, starting with the first phrase.

The *Kopfton* c^2 in m. 4 is of paramount importance for the entire piece (if we adopt a Schenkerian perspective), but it is quite insignificant in itself, and it is put in the shadow not only by the appoggiatura d_b^2 but also by the immediately ensuing b_b^1 closing the phrase. A pianist might think that the tonal analysis of the whole theme (2a) summons him/her to somehow back up the long-range significance of this note. But is there any way to boost this c^2 so as to give the listeners an impression of its structural importance? It cannot very well be emphasized, and yet it should at least and somehow outdo the following b_b^1 . But it seems that understating the b_b^1 and hence the phrase demarcation is quite ineffective – without perceptibly bringing the c^2 into focus, the listeners' attention would rather be transferred to the accented d_b^2 in m. 5, or back to the dissonant d_b^2 in m. 4.

Furthermore, one must question whether it would be advantageous (as 2a seems to suggest) to hide the demarcation between the phrases in order

to suggest the presence of a third-degree primary note. Would such a “long line” really enhance the tonal unity of the theme or even of its first eight bars? Wouldn’t a performance suppressing the sense of an interior new start take away some of the impulsive freshness of the turn figure?³⁷ By all means, you may suppress the demarcation if you like, but trying in vain to demonstrate the presence of a hopeless primary note is a bad reason for doing so.

As to the treble line of first phrase, the neighbour-note figuration within the passing-note motion shown in 2b does not match the sequential perspective that musicians are bound to entertain, and therefore it seems to defy rendering. You cannot very well suppress the falling resolution to g^1 just because you want to bring out the initial ascent up to the primary note. On the other hand, a prominent neighbour-note motion would destroy the intricate appoggiatura-resolution-passing-upbeat melodic construction in m. 2. To the extent that you manage to bring out the neighbour note g^1 , the activating impulse of the second rise from e_b^1 to a_b^1 will be lost. There is, it seems, a more dedicated sense of continuity in the two rising fourths shown in Ex. 2d than in the “long line” made up of the neighbour-note formula and the superordinate passing-note motion.

The best you can do is to think of the second g^1 in m. 2 as the first note of a local descent, rather than as the due-time confirmation of the resolution already heard, and to play accordingly, i.e. head downwards to the quick upbeat e_b^1 . The gradually emerging upbeat quality of m. 2 should issue from the lower right-hand line, not from the g^1 in the upper one, being just an added afterbeat to the resolution on the second beat.

Needless to say, Schenker’s reduction of mm. 5–8 cannot be rendered, nor suggested at the keyboard – Ex. 2c simply does not comply with the score. The threefold subdominant-to-tonic motions imputed on the music, for instance, are very distant from the actual harmonic substance of the second phrase, and much inferior to what Beethoven offers – so why should you even try to suggest them?

37 As will be argued in due time, there *is* a trait in Beethoven’s design making for a “long-line” connection between the first and the second phrase, and it is not only quite compatible with a demarcation – it requires that the new phrase is marked off.

Turning to details, how can you render the motion f^2-e^2 in m. 6 as a “covering” motion? The most obvious solution is that it has to be suppressed so as not to disturb the lower, “long-line” connection between m. 5 and m. 7, a manner of playing that would be most detrimental to the expression of the very crest of the melody. It seems, however, that a (retroactive) sense of covering – or perhaps rather a sense of a dead end – might be suggested by bringing out the elements of discontinuity at the bar-line mm. 6/7; you might play so as to draw attention to the sub-phrase shift, so as to remind the listeners of m. 5 when playing m. 7. But since both these bars have been gravely misrepresented in 2c, Schenker does not tell you how to achieve this effect.

A flaw in Schenker’s sketch of the antecedent from the point of view of interpretation is that Beethoven’s articulation and dynamics are disregarded. The analysis is thoroughly predicated on continuity whereas the renewed starts from f^1 in the tenor voice and from f in the bass, as well as the slurring and the *subito piano*, ask for discontinuity between mm. 6 and 7.³⁸ And yet it is sometimes claimed that Schenkerian analysis, in virtue of revealing the composer’s innermost intentions, has a privileged status as a guide when it comes to interpretation.

Whatever it is called when explaining away consecutive octaves, the root-position A_b -major chord in m. 7 is in fact a weak-beat resolution, and hence it might very well be “structural”. For various reasons, emanating from idiosyncrasies within his theory, Schenker denies that this chord resumes the third degree. (It is a pity since the primary note badly needs a second foot to stand on.) But this is of little consequence for the pianist since the structural quality (if any) of this c^2 is very difficult to bring out – its connection back to m. 4 is modest, to say the least, and in m. 7 it is again quite insignificant due to its position very close to a dividing dominant.

38 While as a musician you may occasionally deviate from interpretation marks – there may be several conflicting aspects of the music that demand or invite to be expressed, or you have found something “new” in the music that it would be interesting to show – the analyst should stick to them because they might offer important clues to the musical design. Interpretation can afford to be “creative” in a way that analysis cannot.

There is a tonic touch to the entire phrase in as far as the third beats of mm. 5, 6, and 7 all feature various A_b -major chords. But an interpretation somehow based on this observation would presumably seem quite shallow, as if it fearfully avoided the harmonic tensions that Beethoven introduces along the route. The best you could do as a pianist, having Exs. 2 a/c before your eyes, is to entirely forget about the would-be structural status of the c^2 in m. 4, and then (somehow) treat the second phrase as a prolongation of the dissonant d_b^2 -over-f. Whether you think of this constellation as an F-minor appoggiatura chord or (less adequately) as a first-inversion D_b -major chord is not very important as long as you do not trivialize Beethoven's conception by believing that in some unfathomable theoretical sense it represents a root-position subdominant.

Schenker's reduction of the entire theme (2a) does not (or does only indirectly) reflect the gap caused by the unexpected turn ornament leading to c^2 in m. 15. But to a performer, this abrupt disruption within the second phrase of the consequent (corresponding to the less obvious sense of discontinuity in the sub-phrase shift in mm. 6/7) is bound to emerge as a very important feature of the music. It opens up for various options of interpretation, and it is therefore quite disappointing that the reduction does not offer any guidance.

The dominant-then-tonic drone, underlying both the antecedent and the consequent, is an interesting observation in 2d. It cannot be expressed in a straightforward way, but being aware of it – and the sense of brightening it lends to the second phrases – may nevertheless influence and inspire the pianist.

The reduction of mm. 17–20 (2e), on the other hand, is not very stimulating, and the analysis, in which the right-hand ascending fourths are exchanged for just rising seconds, does not indicate any motifs of interpretational significance. Musicians are best served by an open-minded analytical approach showing various possibilities instead of suppressing them in favour of the one and only permissible reading, in this case a reading that suggests a quite pedestrian interpretation.

What can a performer make out of Schenker's analysis of mm. 21–26, shown in Ex. 2f? Not very much since it involves misreadings of the text. Yet it brings some implicit advice, presumably in the interest of some “long

line”: don’t make a fuss about the deceptive cadence to C minor – according to the reduction it is just a parenthetical insertion within the cadence to the tonic in m. 27, so it is not important – and don’t make a fuss about the fact that the middle section actually and quite emphatically issues into a tonicized dominant in m. 26 – this is merely a non-structural non-modulation that prolongs the tonic.

What inspiration can be gained from this defoliating account of the musical process? How interesting would a performance be that managed to be guided by this jaded analysis, poisoning the sources of musical pleasure by means of pre-empting “structures” that have not yet taken form? And they never will take form since the implicit demand of the analysis is that they should be suppressed. However much it may seem desirable to demonstrate tonal unity – but keep in mind that there are other things you could devote yourself to, whether you are an analyst or a musician – do we really want performances trying to establish tonal unity by relegating harmonic deceptions out of consideration – recall the fact that also the deceptive cadence is marked for attention by an uncomfortable trill! – and by sweeping crucial modulations under the carpet? Doesn’t effective story telling imply that the teller believes in (or at least pretends to take seriously) the words being uttered?³⁹

Is it a good idea to suppress the a_b^2 in m. 22 in favour of the preceding f^2 , which is merely a passing-note on the way to the peak note – and is it even possible? No matter how you play, can this f^2 really be heard as connecting to the e_b^2 in m. 23 as if there were no intervening peak note? And if you really did succeed in conveying this falling second, the upbeat gesture issuing from a_b^2 would be gone, and so will later on the association activated by the similar falling inflection starting from g^2 in m. 24. Recall that this association is of crucial importance in order to hear the sense of a falling motion from a_b^2 towards e_b^2 throughout the passage – a crucial “long line”, and an undesirable descent that Schenker had to suppress because it questions the unifying “fact” that no modulation takes place in the theme.

39 If the theme has a tonal content, there is also a “story” telling it.

Is it possible to express and make the listeners' understand that there are two falling thirds, $f^2-e_b^2-d_4^2$, in the passage, when everything speaks against their presence? The first f^2 is put in the shadow by the intervening peak at a_b^2 , the second one is an insignificant resolution working as a passing-note; both $e_b^2-d_4^2$ motions are appoggiatura-resolution motions.

As regards the connecting inner-voice d_b^1 in m. 26, is there anything to be gained by somehow making it “structural”, by somehow linking it with the upper-voice e_b^2 in the same bar – a fifth degree being intermittently but insistently present all through the B-section and stubbornly sustained up to its very last bar-line?⁴⁰ This is at least what Schenker shows by means of his strange high-level neighbour-note “ d_b^2 ” in Ex. 2a, a connection that the graph seems to suggest that you should somehow implement. But how can the alleged high-level structural neighbour-note status of “ d_b^2 ” be shown in performance? If it cannot be shown, the reason may very well be that it has no such status. Why not just render the actually existing, local passing-note d_b^1 as an element of surface counterpoint, giving it its due value as part of a tight inner-voice mediation between the sections, and as a vitally important agent of the re-modulation?

According to 2a, the *Urlinie* of the theme is made up of the insignificant c^2 in m. 4, the insignificant alto d_b^1 in m. 26, and the insignificant c^2 in m.30 after which it gives in to its theoretically preordained destiny and descends to the first degree of the final tonic chord. In what ways is this deforestation of the music of any help for the performer? The middle section is virtually excluded from this *Ursatz*. The tonal *raison d'être* of the B-section – the gradually emerging and eventually very prominent note e_b^2 , and the expanded tonal space that this note introduces and eventually confirms by being tonicized – is only attached to Schenker's “structure” by means of its capacity as support, as an artificial contrapuntal point of departure,

40 As von Cube was told and as we must recall, Schenker's explanation of the actual e_b^2 runs as follows: it turns up in m. 26 as the final product of a series of (extremely) hidden rising thirds; turning to the “analytic” e_b^2 , it is merely the strict-counterpoint origin and excuse for a structural seventh, the “ d_b^2 ” (actually d_b^1).

for a local passing-note, actually occurring in another, subordinate voice.⁴¹ What else than an impossible and undesirable understatement does Schenker's reduction and especially his belittling treatment of the crucial note $e\flat^2$, and by extension of the entire B-section, suggest or require when taken at face value? What is the use of restraint in order to preserve "long lines" if their interest and credibility are close to nil? Is it really incumbent upon performers to make sense of, or being informed by, analyses like this one?

von Cube's dual descent reading

The presence of two upper lines in the antecedent and consequent in Ex. 3a are likely to strike performers as quite odd and unwieldy – not because there is anything wrong about dual upper lines (they may be co-existing or suggest interpretative alternatives) but because these two lines *are* odd and unwieldy. Whereas pianists would presumably feel quite at home in a reduction, in which the B-section is allowed to rise in a fully structural sense above the tonal level of the outer sections, they are likely to be at great pains to render the A-sections as representing the fifth degree – it is difficult enough to play the initial four-bar phrase as an ascent to a structural third-degree. And if a pianist somehow succeeded in bringing out $e\flat^2$ as structural from the very beginning, it would steal the wind from the middle section, robbing it of its expansion upwards in tonal space. It is also hard to see how it is possible to convey an impression that the tonic is prolonged from m. 1 until the end of m. 7 as suggested by von Cube's rising-octave connection in the bass. Such an interpretation would entail an undue suppression of both the dividing dominant and the quite emphatic new start at $d\flat^2$ over F minor in m. 5.

Turning to the concluding consequent, it is of course possible to give von Cube's *quasi*-subdominant in m. 31 some extra emphasis, but who would suspect that this $d\flat^2$ begins the decisive structural descent from the fifth degree being around since m. 1?

The fact that von Cube brings out an auxiliary descent $a\flat^2$ – $e\flat^2$ in mm. 22–26 is no doubt a gain in comparison with Schenker's analysis. This

41 Schenker's picture of the tonal structure of Beethoven's theme recalls the anatomy of the elephants in Salvador Dalí's painting *The Temptation of St. Anthony*.

falling fourth, which is perfectly possible to render, lends a rewarding sense of direction towards the ultimate, tonally redefined statement of e_b^2 . Even von Cube's unorthodox treatment of the two E_b -major six-four chords has a (somewhat paradoxical) point. Although the deceptive C-minor chord in m. 24, emerging as just a by-product in the sketch, is likely to be understated, von Cube's foreground reduction brings out the symmetric neighbour-note motions and (albeit somewhat inadequately) the circularity involved – the sense of being back again that is underscored by means of the *subito piano* dynamics. But no hint is given as to whether the apparently enclosed C-minor chord has any more far-reaching tonal function that may or should be expressed. Due to the preceding trill, it is most difficult to render this chord as subordinate, which is what the graph suggests.

The contrived theoretical debate between Schenker and von Cube on the relative structural prominence of e_b^2 and “ d_b^2 ” at the end of the B-section is no problem for the pianists: von Cube is simply right. The final e_b^2 is of course an extremely important note for them because the middle section has circled around it all the time and has finally arrived at it – this note simply has to be structural in some sense. But it is certainly not important due to the “fact” that it acts as a chaperon for an allegedly even more important, wrong-register d_b^1 , which is obviously much less significant. The crucial tonal role of e_b^2 can be expressed whereas the would-be high-level “ d_b^2 ” is an absurd construction that cannot be conveyed. What the pianist can and certainly will do in m. 26 is to choose among the three connecting auxiliary lines and bring out one of them, presumably the descending alto strand, as more important than the others, giving the passing-note d_b^1 its due share of expression as becomes the crucial agent of the re-modulation.

Beach's analysis

Beach draws attention to a number of motivic recurrences within the theme: rising/falling thirds and descending seconds involving the pitch-classes F and E_b ; cf. Exs. 4 and 5.

The descending seconds tend to be quite exposed and can readily be heard, and most of them may, if the performer chooses to underscore their undeniable musical presence, also be brought out when playing. But it should be observed that the relationship between the pitch-classes F and

E_b seems to be redefined from falling seconds to a series of complete neighbour-note motions issuing from the lower note. This happens after the root-position entry of e_b^2/e_b^1 over the tonic in m. 20/21 – an important turning point that the pianist should pay attention to since it signifies the ultimate emancipation of the “covering” layer introduced in m. 6.

This emancipation is a crucial aspect of the music that Beach’s reduction perhaps suggests but does not bring out with sufficient clarity. Turning to interpretation, there are several options: should this emancipation emerge already in mm. 17–20, or only after m. 21? Or perhaps it might be foreboded as early as in m. 14? Indeed, an aspect of this emancipation is present already in the second phrase of the antecedent: it is apparently the “covering” upper strand that leads to the top notes in m. 7. Whether this “leading to” really takes place depends on how you treat this bar, notated by Beethoven so as to suggest a gap that seemingly upsets the voice leading. And what about mm. 14–16, obviously featuring a gap in the upper line and also an association back to the beginning of the phrase? Maybe this difference indicates that the lower, “principal” line has recaptured the initiative? Generally, what are the interpretational consequences of dealing with a “principal” and a concurrent, “covering” upper line – if this is what the second phrase of the antecedent and consequent embodies?

The falling-third progressions, on the other hand, are more problematic. Those marked by Beach in the middle section are very doubtful both with respect to their analytic credibility and musical function, whereas those in the A-sections – to the extent that they are analytically tenable and perceptible – do have a potential to balance and connect the melodic units. Due to the considerable surface differences that go with these sometimes quite vague similarities, the pianist can do very little to clarify the associations. The immediate inversion relationship between the cadence and the turn figuration in mm. 4 and 12 is an exception: the c^2 within the ornament might be slightly emphasized so as to hint at the melody and rhythm closing the preceding phrase. However, since c^2 is obviously a passing-note within the turn, the passing, non-structural quality of this note in the preceding melodic inflection will be retroactively strengthened.

A conclusion that might be drawn from Beach’s reduction is that the dividing dominant in m. 4 belongs to the “outer” formal design, and that

it should therefore be suppressed in favour of the “inner” voice-leading connections leading over into the next phrase – i.e. the further rise of the alleged third-degree primary note c^2 to d_b^2 in the treble, and the bass progression from the initial tonic to the f of the would-be first-inversion sub-dominant. Whether slighting the demarcation between these phrases is a good idea, musically speaking, is doubtful, but the warning of fragmentation implicit in Beach’s middle-ground reading is redundant: given the weak-beat position of this dominant chord, you cannot very well make a very dividing event out of it.

Offering very little in terms of structural explanation, the voice-exchange indicated in m. 22 is quite disappointing also from the musician’s point of view. And the musical process is trivialized when the important rise to a_b^2 is shown as just a diverting rising-third motion issuing from a neighbour-note.

The anonymous student’s analysis of mm. 21–26 is not accepted by Beach although it in fact supports the goal-oriented interpretation that he advocates. By prolonging the six-four dissonance over three bars the tension is preserved, but at the same time the deceptive outlet into C minor, arousing the listener’s expectation of the proper, withheld E_b -major goal, is inactivated by being spun into a cocoon of neighbour-note motions. As pointed out above, the student’s patently non-Schenkerian solution is far from optimal because the structural and expressive capacity of the deceptive, deflecting turn of events is wasted, and yet this very aspect of the reading emerges as a way of achieving a “long” Schenkerian line.

Searching for the theme’s “tonal content”

Evidently, a musician has not very much to learn from Schenkerian reduction when it comes to matters of interpretation – at least as far as this particular theme is concerned. But perhaps reductions of a different kind might be somewhat more helpful?

In due time, three non-dogmatic reductions will be proposed, reductions that do not bury Beethoven’s theme under a third-degree (or any other) *Ursatz*, and that do not “tonalize” the events making up the musician’s material. Instead, these “focal” readings are based on crucial events in the music, joining them so as to form patterns, or rather processes, which in various ways reflect and set free the tonal growth inherent in the

music. Such aspects of emerging tonal “content” may correspond better to a musician’s intuitions of the music.

But identification of suitable material must precede the construction of these tonal “narratives”, and therefore this concluding part of the study will start with a presentation of some traits of the music that have so far not attracted due attention, or been entirely neglected, in the Schenkerian readings.

Rising fourths and falling seconds; a network of implications

There are several recurrent motifs in Beethoven’s theme, and some of them have already been mentioned. The falling seconds involving the pitch-classes D_b – C and particularly F – E_b , being even more exposed, are no doubt important elements in the tonal design. In addition, it appears that rising fourths are systematically used as a constructive interval. Ex. 7 shows ascending fourths (stems) and descending seconds (slurs) in the antecedent and the middle section.

The first rising fourth e_b^1 – a^1 , receding to g^1 in m. 2, is heard again at the start of the next sub-phrase, but is in turn promptly “covered” by a further rising fourth a_b^1 – (b_b^1) – d_b^2 , receding to c^2 .⁴² The turn figure starting the second phrase may be taken to embody a diminished fourth, and this alteration appreciably serves to make the renewed gesture up to d_b^2 more urgent, introducing a tension demanding immediate resolution to a_b^1 and/or c^2 , a tension that in spite of m. 5 is not fully resolved until the corresponding perfect fourth begins the second sub-phrase in m. 7. Meanwhile and overlapping with the recess to c^2 in m. 5, a further “covering”/exceeding rising fourth occurs, starting a falling sequence of fourths: c^2 – f^2 , b_b^1 – e_b^2 , and (after a gap in terms of dynamics and articulation) a_b^1 – d_b^2 , followed by a descending motion to c_b^2 .

Summarizing these events, it turns out that the antecedent gets tonal momentum from a “ladder” of three rising fourths, e_b^1 – a^1 , a_b^1 – d_b^2 , and c^2 – f^2 , piling up in a way that gives the melody a cumulative push right

42 As used here, the word “cover” does not bear any Schenkerian connotations to the effect that some “structural” event is overlaid by some less important material; quite to the contrary, common to most of the “covering” events to be presented is a musically vital sense of exceeding what has just happened.

from the beginning towards the peak of the passage and that lends a strong sense of tonal expansion to the music. A stepwise falling sequence of rising fourths then brings relaxation. Within the antecedent, there are no less than three rising skips reaching up to d_b^2 and then receding to c^2 , skips starting from a_b^1 (or b_b^1), from a_b^1 and finally from a_b^1 .

The rising fourths and falling seconds in the antecedent make up a network of implication-realization gestures; cf. Ex. 8. The gaps opened by the rising fourths are filled in by stepwise motions returning towards the point of departure.⁴³ The descending sequence of three overlapping rising fourth/falling second patterns in mm. 6–8 gives rise to a tight melodic coherence as well as to a sense of fission: the melody can be heard as proceeding in two strands. The second phrase is also held together by the hemiola rhythm produced by the top notes of the fourths.

The series of rising-then-falling gestures bringing out the d_b^2 – c^2 motions and announcing the sub-phrases from m. 3 on makes for a strong connection across the dividing dominant. Even the composite ascending seventh e_b^1 – a_b^1 – d_b^2 in mm. 2–4, formed by two superimposed fourths, is (if you like) followed up by an extended descent bridging the demarcation between the phrases. This grand realization starts in the soprano, and after the a_b^1 of the turn ornament, it is pursued first in the alto, then in the tenor voice all the way down to e_b^1 in m. 7.

Concurrently, the importance of the dividing dominant chord is strengthened – it is crucial for the implicative gesture beginning the second phrase that the turn figuration gets a fresh start. As to the separation of the final sub-phrase, Beethoven has supplied a new slur and a *subito piano* indication. It should also be observed how the first two d_b^2 – c^2 realizations, featuring c^2 's that are rhythmically and harmonically unstable, respectively, make for a sense of consummation in the third d_b^2 – c^2 motion. Due to this process towards a fully satisfactory realization, the c^2 in m. 7 is “ripe” in a way that lends a certain structural weight to the root-position A_b -major chord.

The melody of the second phrases of the antecedent and consequent is tightly constructed in terms of intertwined implication-realization patterns, but

43 The implication/realization idea is presented in Leonard B. Meyer, *Explaining Music*, Chicago University Press 1973.

it should be noticed that Beethoven has introduced disruptions both in the antecedent (as already mentioned) and especially in the consequent. The latter brings a metrically displaced turn figuration leading up to c^2 , not d_b^2 , an intervention in the melodic process that arrests all falling realizations, and most notably the hemiola line pursued in the top layer of the melody.

The notion of rising fourths sheds additional light on the quite drastic interruption and the voice-leading hiatus in the second phrase of the consequent. It has already been established that the two swift turns make for an association between the accented d_b^2 in m. 13, a note clearly belonging to the “principal” line in Schenkerian terms, and the weak-beat c^2 in m. 15, having a peculiar quality of being a delayed accent. This second-beat c^2 may also, or perhaps rather, be taken to belong to the receding upper strand, having this time skipped the note d_b^2 that duly turned up in the antecedent on the second beat of m. 7. In implicative terms, the turn in m. 15 might be understood as a further rising fourth g^1-c^2 , bringing a varied and transposed replica of the *quasi*-upbeat ascending fourth $a_b^1-d_b^2$ in m. 7, a deviation suggesting that a sudden lowering by one step has suddenly occurred in the final two bars of the consequent.⁴⁴

The net effect is that both of the inherent lines of the melody seem to be robbed of one note in m 15: a first-beat a_b^2 should have turned up in the “covered” connection whereas in the “covering” strand a d_b^1 should have occurred on the second beat. If you think in terms of this comparative association between the antecedent and the consequent, the (otherwise upbeat-like) turn in m. 15 will not appear as metrically displaced at all – both g^1 and c^2 arrive just in time, but they seem one semitone too low. However, due to its inherently accented nature, the second-beat six-four chord in m. 15 cannot but be heard as out of phase.

Notwithstanding the patent cadences in mm. 8 and 16, the sense of closure is not complete. The f^2 and e_b^2 at the very peak of especially the consequent are unstable in a way that generates a vague expectation that the music will eventually return to these top notes and establish them more

44 To test this idea, play a suitable turn figure at the first beat of m. 7. It should be pointed out that these observations are not dependent on the identification of rising fourths; they also make sense if the turn figurations in mm. 4, 12 and 15 are (more straightforwardly) thought of as rising thirds.

firmly. And this is exactly what happens in the B-section, making for a connection between the two A-sections and the developmental middle section; the latter appears to pursue and eventually achieve something that was left in a provisional state.

Proceeding to the B-section but returning to Ex. 7, there is immediately a pair of rising fourths, recalling those exposed at the peak of the A-sections: the sub-phrases mm. 17–18 and 19–20 embody the fourths c^2-f^2 and $b_1^1-e_1^2$, rhythmically augmented by means of initial lower neighbour-note motions. Taken together, the pair of sub-phrases starting the B-section may be understood as a varied imitation of the crowning falling second $f^2-e_1^2$ in m. 6 (14). But listening carefully, these two right-hand entries may disclose another affinity as well. If you substitute the five notes $c^2-b_1^1-a_1^1-b_1^1-c^2$ (in some quick, turn-like rhythm) for $c^2-b_1^1-c^2$ in m. 17, and deal accordingly with m. 19, you will recognize the turn figurations in mm. 12 and 15 leading to d_1^2 and c^2 , i.e. to the “covered” notes in mm. 18 and 20.

And last but not least, the crowning motion $e_1^2-d_1^2-e_1^2-f^2-g^2-a_1^2$ in mm. 20–22 clearly makes up a further ascending fourth, a rhythmically expanded and yet turn-like gesture starting from the level of the “covering” layer and bringing the ultimate, fourth rung of the “ladder”, reaching the upper tonic note and receding to g^2 only in m. 24.

It is worth noticing that neither Schenker nor Beach, the latter showing a greater interest in motivic relationships, pay any attention to the last-mentioned, conspicuous and musically quite meaningful, motivic similarity, lending both local continuity to the B-section and a sense of culminating expansion to the theme as a whole. The fact that they also miss several other important motivic associations – some of them have already been pointed out, others will be – clashes with the claim, voiced by some proponents of Schenkerian theory, that tonal reduction is the best way, indeed an infallible method, to identify motivic associations.⁴⁵

In this particular case, it is easy to see why Schenker and Beach failed to notice (or refused to acknowledge) the final fourth $e_1^2-a_1^2$, being certainly a contribution to what makes the theme “tick”. The top note a_1^2 had to be

45 For a discussion of these matters, cf. Bengt Edlund, “Hidden Repetitions and Uncovered Parallelisms”.

ignored as just a non-structural third over f^2 (Schenker), and was explained away as just a routine product of a nonsensical “voice exchange” (Beach), because nothing really important could be allowed to happen above e_b^2 , itself just a non-structural, covering offshoot in relation to the insignificant primary note c^2 back in m. 4, and subsequently serving as just the consonant, excusing point of departure for the structural neighbour-note “ d_b^2 ” (d^1). It seems that carrying a Schenkerian theoretical ballast may impede the discovery of vital motivic relationships.

The e_b^2 – a_b^2 motion opens up the culminating implicational gap of the theme; cf. Ex. 8. The peak is actually approached by means of a stepwise motion, and yet there is a very strong expectation that a descent will ensue: the two rising fourths in mm. 17–20 are immediately preceding and readily recognizable models, and invite to be understood as implicative gestures, but they have but incomplete and non-occurring realizations, respectively.

The filling-in descent down to e_b^2 is broadly conceived, and features two descents: first a provisional one from a_b^2 skipping the note g^2 , then a decisive one (fuelled by the change to $a\sharp$ in the bass) starting from g^2 , the previously left-out and hence implied note. Or putting this observation in terms of the goal: two six-four e_b^2 's and one deceptive e_b^2 over C minor are tried before the tonally satisfactory E \flat -major e_b^2 is attained in m. 26 – an enlargement of the realization matching the expanded implicative gesture. This descent, extremely important as a tonal motion within the theme, is noticed by von Cube, but ignored by Schenker and Beach – it was presumably regarded as lending a too great, theoretically undesirable structural emphasis to the fifth degree in m. 26. It takes considerable analytic sophistication and melodic “intelligence” (more than von Cube could mobilize) to leave this descent out of account.

The six-bar e_b^2 – a_b^2 – e_b^2 arch spanning mm. 21–26 brings a quite strong sense of arrival within the theme as a whole in spite of the fact – or rather due to the fact – that the peak occurs over a root-position F-minor chord, and that the final note comes with a full modulation to the dominant. In terms of pitch-class content, this grand motion might be understood as an enlarged version of the melodic idea opening the theme in mm. 1–2, thus closing the circle.

In addition, there are two further rising fourths in the B-section that merit mentioning – they are less prominent, but not without interest. Starting in the

bass and proceeding in the tenor, an implicative inner-voice motion $a\flat-d\flat^1-c^1$ starts in m. 21; it may be taken to proceed to $b\flat$ in m. 25 and finally issues into $a\flat$ in m. 27. In fact, this extended left-hand connection pursues in a lower register the descending sequence of rising fourths begun in the right hand in mm. 17–20, and just as the third member of the original chain of fourths in the antecedent model, $a\flat^1-d\flat^2-c^2$ in m. 7, it occurs after a disruption.

Turning to m. 24, there is a rising fourth g^1-c^2 in the alto voice. In an abstract tonal space, it may be taken to represent a position above $e\flat^2-a\flat^2$, the fourth rung in the “ladder of fourths” or conversely, turning back to the second phrase of the antecedent, to make up a further link of the descending sequence of fourths – a motion to be realized only by the unexpected turn of events in m. 15 of the consequent. But as regards the “ladder”, the alto g^1-c^2 fourth does not add anything to the sense of tonal expansion felt throughout the theme; in this case, pitch-classes count for less than pitches. But it may have a function as a connective device bringing us back to the concluding A-section – the descent closing this gap starts with $b\flat^1$ in m. 25 and proceeds via transitory notes to $a\flat^1$ in m. 27.

The relationships in terms of rising fourths/falling seconds seem to be of great importance for the tonal coherence of the theme and may bring consequences for its interpretation. The rising fourths gradually piled up on top of each other infuse an element of powerful expansion to the music – most of them also have an urging upbeat quality. If these fourths are thought of as giving rise to implication-realization patterns, a sense of seamless growth spanning the entire piece comes to the fore; indeed, it seems that the process is started by the very first motif that also (transposed by an octave) eventually serves as the culmination of the theme.

A model and its expanded, inverted-counterpoint replica

Some of the observations already made indicate that there are similarities between the second phrase of the antecedent and the B-section, and a closer study of these correspondences reveals that the affinity is quite astounding. In a most intricate, systematic and yet flexible way, the second phrase of the antecedent has apparently been used as a model for the middle section, making ten bars out of four. Some elements of this comprehensive and quite complex web of similarities are no doubt difficult to identify when

listening, and most of them do not lend themselves to expression when playing, which is not to say that this set of varied recurrences is devoid of interest when it comes to interpretation.

Expressions like “model for” and “compositional design” should not be read as a claim to the effect that Beethoven actually construed the middle section along the lines that the following analysis will suggest – although this may seem likely. Unlike Schenker, I have no privileged access to Beethoven’s “will”. The affinities are patently present in the composed structure, in the score; on the other hand, since not all of them are readily recognizable when listening, the scheme as a whole is not part of the perceived structure. Nor does this set of recurrences, this tonal “content”, make up a “tonal” structure in a Schenkerian sense, although some of the similarities may contribute to a (free) reduction of the theme.

It is a fact (noticed by Beach, but ignored by Schenker) that the most conspicuous feature in mm. 5–8, the crowning motion $f^2-e_b^2$ in m. 6, is patently and doubly present in the sequenced pair of phrases beginning the middle section – starting the left-hand entries with upbeats, f and e_b are as unmistakable as f^2 and e_b^2 , the afterbeats ending the right-hand sub-phrases; cf. Ex. 1. And those who so want may also notice that the falling motion $d_b^2-c^2$ from m. 5 is present in both hands and at accented positions in mm. 17–20. But these falling seconds are only the most obvious traces of a more comprehensive scheme, and again the rising fourths reveal the compositional design.

As noticed by Beach, the rising fourths c^2-f^2 and $b_b^1-e_b^2$ from mm. 5–6 are readily identifiable in the right-hand phrases in mm. 17–20. But the melody in the antecedent is in fact a fourth/fifth sequence, and the passive falling fifths $f^2-b_b^2$ and $e_b^2-a_b^1$ in mm. 6–7 are just as patently present in mm. 17–20 as the active rising fourths: transposed one octave down, they turn up in due order making up the framework of the two left-hand entries, f^1-b_b , $e_b^1-a_b$; cf. Ex. 9. (These falling fifths do not bring an “ostensibly new” idea as Beach claims.)

Another conspicuous motion in mm. 5–6 is the falling chromatic motion $(f^1-e_b^1-d_b^1-d_b^1-c^1)$ in the tenor register, and it can be found in mm. 20–22, crossing the actual voice-leading strata from alto to tenor. And as already mentioned, the last rising fourth in the antecedent, $a_b^1-d_b^2-c^2$, is replicated in the left hand, starting with the bass a_b in m. 21 and then shifting to the

tenor voice, $d_b^1-c^1$. This reminiscence eventually includes the melodic cadence $c^2-a_b^1-b_b^1$ from mm. 7–8 if the tenor strand (holding on by means of neighbour-notes) is followed until $c^1(-a_b)-a_b-b_b$ in mm. 24–25.

The left-hand counterpoint in mm. 7–8 issuing into the dominant, $f-g-a-b$, should, if mirroring of voices obtain in the middle section, turn up in the right hand – and so it does, beginning with the f^2 in m. 22 and ending at the e_b^2 in m. 23, or indeed at the E_b -major fifth degree e_b^2 in m. 26.

This means that there is just one conspicuous motion within the second phrase of the antecedent left to account for – the chromatic tenor descent $f^1-f_b^1-e_b^1$ in m. 7 – and it can be retrieved in the middle section as well, if you are prepared to accept the minimal motion $f^1-e_b^1$ in mm. 23/24 as a diatonic substitute for it. But in support of this faint reminiscence, it may be observed that the alto motion $a_b^1-g^1$ in m. 6, which may be understood as leading to the more exposed tenor descent in m. 7, can be found in mm. 22–23; in this way, a more convincing four-note recurrence $a_b^1-g^1-f^1-e_b^1$ comes to the fore.

It is also important to notice that there is a comprehensive connection in mm. 17–26 that is not explained by this model-replica relationship (or so it seems, cf. below): the barely sub-surface, crucial top line ($e_b^2-a_b^2-g^2-f^2-e_b^2$ ending on and bringing out the fifth degree has no counterpart in mm. 5–8. Perhaps Beethoven felt that it was a good idea, or indeed necessary, to add this culminating and tonally decisive line to the collage of replicated motifs. Of course, you can do without this descent from a_b^2 towards e_b^2 , but it means that much of the passage's tonicizing effect is gone. (You can try this by playing mm. 21–26 with f^2 as the top note.)

Looking at the relationship between mm. 5–8 and the B-section from a larger distance, one might say that the top layer of the melody in mm. 6–8 is replicated by the crucial notes f^1 , e_b^1 , d_b^1 , and c^1 in the left hand in mm. 17–25. Turning to the right hand in mm. 18–23, d_b^2 , c^2 , f^2 , and e_b^2 bring the essential top-voice motion in mm. 5–6. Finally, considering the augmented-replication relationship between the second phrase of the antecedent and the theme's middle section, it is not surprising that the top line of mm. 5–6 can be found as well. Transposed by a crowning third upwards, an extended $f^2-e_b^2-a_b^2-g^2$ contour hovers over mm. 17–26.⁴⁶

46 It is interesting to notice that the theme of the variation movement of Mozart's Piano Sonata K. 331 features a similar expansion upwards in tonal space, and

This description in terms of copy and replica raises a question that may have entered sceptical minds for a while. Is this intricate web of motivic associations credible or just an analytic delusion? Although some of the similarities making it up might be doubted, had they appeared in isolation, the massive accumulation of recurring motifs and the systematic and orderly, quasi-inverted-counterpoint nature of the replication at large mean that the various observations give each other mutual support and lend credibility to the scheme as a whole.

On the other hand, its plausibility may perhaps seem to be affected by the fact that another set of motivic similarities between the second phrase of the antecedent and the B-section, similarities involving rising fourths and falling seconds, has also been demonstrated. But the analysis proposed in Ex. 9 is not to be taken as an alternative to the “ladder” of fourths in Ex. 7 or the web of implicative patterns in terms of rising fourths and falling seconds in Ex. 8; quite to the contrary, these two readings are compatible and complementary in a way that rather makes for mutual support.

It seems that several more or less different schemes of affinity, based on more or less the same surface events, are possible. Or put in another way: one and the same analytic discovery sometimes appears to have more than one derivation. To what extent are the motivic similarities in Ex. 7 really different findings or – reversing the formulation and the problem – to what extent is the replication scheme in Ex. 9 really new? This Beethoven theme may just be very tightly integrated; when there is an epidemic, it is difficult and useless to establish specific paths of infection.

Anyhow, using virtually all notes in mm. 5-8, a complex montage of already introduced motifs emerges as the constructive backbone of the B-section. The “recycling” of motifs in the middle section is creatively free and yet quite strict. No transpositions (other than octave transfers) are involved, and the order of appearance is by and large the same; the middle section of the theme, and particularly its final six-bar portion, emerges as

that in both pieces the fifth-degree level includes an excursion to the eighth degree. Mozart's theme is discussed in Bengt Edlund, “Analytical Variations on a Theme by Mozart”.

a playful exercise in inverted counterpoint.⁴⁷ It is certainly not the duty of the pianist to bring all these similarities out – it can't be done – but the systematic nature of this ingeniously varied replication of previous material cannot but influence one's idea of the entire theme in a way that is bound to have effects on reduction as well as on interpretation.

The middle section turns out to be an intensified, expanded, and eventually quite determined statement of the unstable and provisional second phrase of the antecedent. Whereas the antecedent gets stuck at $d\flat^2$, “covered” by f^2 or not, the B-section clearly represents a breakthrough: transcending the Schenkerian would-be fourth-degree “subdominant” of the A-sections, the fifth-degree is eventually attained – after circling around $e\flat^2$, this note eventually becomes the upper-line goal of an emphatic modulation (the pitch class $E\flat$ is overwhelmingly exposed in m. 26). In other words, the top-voice insistence on and ultimate confirmation of the fifth-degree $e\flat^2$ as an auxiliary tonic bote in the B-section is no less tonally decisive than the bass arrival at the fifth-step $e\flat$ in the cadence to the dominant in m. 8. The inverted-counterpoint fact that these notes occur as end-points of the same motif, interchanged between the hands, strengthens the observation that the relationship between the second phrase of the antecedent and the developmental middle section is a most important element in the overall tonal and formal design of the theme.

Tonal structure in terms of “drones”

Turning to the tonal make-up of the theme, it might be productive to follow up what happens to the “drones”; cf. Ex. 10.

The first drone level is the dominant note e^1 , kept throughout the first phrases of the antecedent and consequent. The $e\flat^1$ is then raised to f^1 , the point of departure for the descending tenor motions in the second phrases – motions that come to a rest on $e\flat^1$. The next persistent tonal level is that of the tonic note $a\flat^1$. Being intermittently present from the very start of the theme, it assumes its role as a drone in m. 5 when the motion up to $d\flat^2$

47 For an example of a similar network of replicated motifs making for a kinship between different works, cf. pp. 96–97 in “Allusions and affinities” in Bengt Edlund, *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag.

is a confirmed fact. After serving as a reference point in the alto voice for three bars, it yields to g^1 in m. 8; in m. 16 this second drone “line” makes for closure by returning back to a_b^1 . The third degree c^2 occurs just twice in the second phrases and does hardly qualify as a drone.

Turning to the B-section, the motion $f^1-e_b^1$ is resumed by the left-hand entries in mm. 17–20, and the drone on e_b^1 is then confirmed over the tonic chord in m. 21, provisionally redefined over the deceptive C-minor chord in m. 24, and finally reconfirmed over the tonicized E_b -major harmony in m. 26, from where it descends chromatically to the c^1 of the tonic chord starting the closing A-section. At the very same moment the original e_b^1 drone turns up again, making for a virtually unbroken presence of this note throughout the theme.

The upper fifth-degree e_b^2 is repeatedly exposed in the soprano: gently introduced by its upper neighbour-note in mm. 17–20, it is prominently present throughout the following six-bar phrase. Already before the bar-line mm. 20/21, it is put into focus by being rhythmically anticipated, and then it gets firm tonic support by the root-position A_b -major chord starting m. 21. Occurring at every first beat in mm. 23–26, it is finally established as a temporary first degree by the modulation to E_b major completed in m. 26 and by the extended and tonally decisive motion down from a_b^2 .

A third-degree drone on c^1 is furtively introduced in the tenor register over the tonic chord in m. 21; ultimately it connects to the concluding A-section via b_b to the a_b in m. 27.

According to this analysis, and as far as the Schenkerian notion of primary notes and structural descents applies at all in this theme, the drones on the third degree (together with their descents) are relegated to a supplementary role. Prepared from the very start by the drone on e_b^1 , the upper fifth-degree e_b^2 is firmly established as a drone by the tonic in m. 21, but it is not followed by any descent. Apart from the excursion to a_b^2 and back again, this top-voice note is maintained for the rest of the B-section, and it is tonally redefined (for the second time) just before the formal return. It seems, then, that the decisive, deep-layer tonal progression, a progression away from the A_b -major tonic, takes place in the B-section. The third-degree drone on c , introduced only in m. 21, is merely connective whereas the upper, exposed fifth-degree drone on e_b^2 eventually undergoes an emphatic tonal

redefinition over the dominant, after which this top “line” comes to a halt and is exchanged for the lower drone on e_b^1 , now supported by the tonic.

It has already been established that one element making the music “tick” resides in the “covering”, i.e. exceeding, motions. Another such feature seems to be the tendency to anchor the evolving musical structure at ever higher, tonally decisive “drones”: e_b^1 , a_b^1 , e_b^2 (including an excursion up to a_b^2). In both cases, the musical key to the theme appears to be its tendency to ascend, not its Schenkerian “structures” bound to descend and providing (at best) the merely local and quite predictable cadences closing the A-sections. It has been shown that these descents from the third (or for that matter the fifth) degree are not able to integrate the tonal process of the theme or to explain its vital events and individual traits – especially the middle section was poorly accounted for. But *Urlinien* hold no monopoly or even any privileged status when it comes to tonal understanding. It seems that an altogether other approach than that of the disciplined and disciplining *Ursatz* is called for in order to capture the tonal development of this theme – its tonal development as opposed to its tonal “structure” in terms of hierarchically organized cadences.

Tonal structure in terms of “focal” events

The core event within the A-sections is no doubt the harmony based on f and topped by the d_b^2 appoggiatura appearing in mm. 5 and 13: this quite unstable, relative-minor sonority, rather than the cresting f^2 , is what the preceding melodic rise actually achieves. The dissonant d_b^2 , not the resolution note c^2 appearing in both mm. 5 and 7, will therefore serve as input for the “focal” reductions to be proposed in the next section, and it is no doubt a note that listeners attend to and that pianists want to express.

The consonant third-degree c^2 is obviously the “tonal” favourite in the second phrases of the A-sections. As already mentioned, there is a gradually emerging emphasis on the tonic function throughout these phrases – in the antecedent, the last weak-beat events of mm. 5, 6, and 7 are relaxing second-inversion, first-inversion, and root-position A_b -major chords, respectively – but having the third-degree c^2 in your mind when playing these phrases seems tantamount to an interpretation with very little driving force. Their theoretical precedence notwithstanding, nobody is really interested in resolutions (unless they somehow go against the grain).

Bars 6 and 14 make up inconclusive attempts at reaching further, and the fifth degree strived for in the A-sections is what the middle section eventually attains, but when this e_b^2 at long last emerges as a stable fact, it is supported by a dominant chord, patently tonicized by a quite elaborate modulating (II–V) cadence, including a deceptive internal cadence to C-minor. But the fifth degree has already been introduced: after four bars of groping for it from above, e_b^2 is firmly established in m. 21 over a root-position tonic chord. But this fifth degree is posited, not achieved, and hence it seems unsatisfactory, too easily won. The following six bars, on the other hand, amounting to a two-stage (I–III–V) harmonic redefinition of the fifth degree, turn e_b^2 into a note that is gained with effort.

Melodically, this ultimate e_b^2 is reached from above by means of a quite prominent descent from a_b^2 , introduced over a root-position F-minor chord – an event that, preceded by an emphatic rise, no doubt represents the climax of the theme in terms of melodic rhetoric. Thus, the ultimate fifth degree in m. 26 is not produced by “covering”/exceeding a lower tonal level, as it was in the frustrated attempts within the A-sections. Harmonically, the tonal redefinition of e_b^2 and the motion out of the tonic make up the most important structural progression in the theme – the emergence of E_b major as an auxiliary tonic represents its climax in terms of tonal rhetoric. This culmination is not at all slighted by the fact that the final consequent makes another vain attempt to reach beyond the d_b^2 -over-f sonority: the A-sections frame, but do not assimilate, the focal harmonic progression taking place in the middle section.

Apparently, the theme features two culminations of different nature, but does it have a turning point? Yes, so it seems, and it is located in mm. 21–22, a most important juncture preceding both the melodic and the tonal climax. Bar 21 is the point of departure for two implicative rising fourths (cf. Ex. 8), as well as the place where two motifs within the antecedent/middle-section replication scheme intersect, and where the inverted counterpoint starts (cf. Ex. 9). And using e_b^2/e_b^1 as a firm starting point, the indecisive $f^2-e_b^2$ falling seconds so far characterizing the music are transformed into complete and quite determined $e_b^2-f^2-e_b^2$ neighbour-note motions; this is where the formerly “covering” $f^2-e_b^2$ layer definitively takes over.

The situation in mm. 17–20 may still be heard as ambiguous: f^1 and e_b^1 eagerly start the left-hand units, and f^2 and e_b^2 almost demonstratively finish off the right-hand phrases by being added after d_b^2 and c^2 , whereas within each melodic sub-phrase d_b^2 and c^2 still emerge as accented applied-tonic goals due the rhythmic and harmonic construction. The shift as to structural emphasis made manifest when the octave e_b^2/e_b^1 is anticipated in the right hand.

Turning to more obvious contrapuntal matters, there are several traits that contribute to the sense of density suggesting that mm. 21–22 is an important node in the music; cf. Ex. 11. The upper-line octaves and the tenor are tightly linked up as *quasi*-imitative parallel thirds while there is a concurrent, powerful contrary motion between the upper octaves and the tenor/bass $e_b^2-d_b^2-e_b^2-f^2-g^2-a_b^2$ vs. $c^2-b_b^2-b_b^2-a_b^2-(e_b^2)-f$. Thus, if we dispense with the meaningless Schenkerian idea of a soprano/bass voice exchange in m. 22, we can readily see and hear that the soprano and the bass are involved in a more extended symmetric motion, including $f^2-a_b^2$ vs. a_b-f . This opens up for a further observation: m. 24 brings the quasi-symmetric configuration $e_b^2-g^2$ vs. c^1-a_b/a_b^1 . Thus, while mm. 23 and 25 are virtually identical, mm. 22 and 24 are similar beyond the immediate surface.

“Focal” reduction and interpretation

Using observations that have emerged during the analysis so far, three reductive graphs will be advanced, the intention being to describe the theme in ways that might be of use for musicians. These reductions are “focal” in the sense that certain events of the compositional design of this particular piece are selected as musically essential, i.e. the events are not fixtures making up some underlying framework supposed to have general validity, but elements of this unique musical course of events. Differently put, these reductions are predicated on the theme’s tonal “content”, not on its tonal “structure”. This means that primary attention will be paid to the dynamic qualities of the music as an evolving process, to how the “focal” events are approached and left, and to the ways in which they produce singular musical effects by defying rather than conforming to conventional tonal schemes.

The reductions are not to be thought of as excluding each other; quite to the contrary, they are complementary and co-existent. Like most of the analytical observations already presented, these readings testify to the

ambiguity and richness of Beethoven's theme. Their main purpose is to suggest substantially different and analytically warranted interpretations, but needless to say, it is impossible to play the theme in a way enabling listeners to positively distinguish which of the analyses that you have in mind.⁴⁸

The first "focal" reduction is based on the pervading presence of prominent falling seconds and on the sense of two competing pitch-class levels; cf. Ex. 12. It must again be pointed out that the upper pitch-class level is not "covering" in the Schenkerian sense, a notion bringing too static connotations – the upper level repeatedly overbids the lower one and finally overcomes it.

If the turn figure in m. 4 is straightforwardly rendered so as to embody a rising third, the d_b^2 heading the second phrase of the antecedent will be heard as a resumption of the top note of the first phrase, also preceded by an eighth-note upbeat from b_b^1 . The appoggiatura-resolution motion $d_b^2-c^2$ in m. 5 certainly calls for expressive treatment, and so does its exceeding follow-up $f^2-e_b^2$ in m. 6. In order to suggest that the latter motion is a replication of and less important than its predecessor, its second-beat b_b^1 can be understated so as not to be heard as melodically significant, and the expressive left-hand $d_b^1-d_b^1$ motion might be slightly brought out in order to detract attention from the top line. The first-beat a_b^1 in m. 7 should be subdued so as to let the resuming, rhythmically displaced appoggiatura-resolution motion from d_b^2 to c^2 emerge more clearly. The association back to m. 5 is promoted by the gap in the *legato* and the *subito piano* indications, i.e. by the artificially induced discontinuity between mm. 6 and 7, and it may be further underscored by a firm restatement of the f in the bass.

According to this reading, it is the lower right-hand line that has recaptured the initiative in m. 7, and the dissonant d_b^2 emerges as "prolonged" in mm. 4–7 only in a non-Schenkerian, non-hierarchical sense. Motivic associations are important to keep this note alive; you may bring out the implicative gaps starting from the notes b_b^1 , a_b^1 , and a_b^1 , motions that head

48 Cf. Jerrold Levinson, "Performative vs. Critical Interpretations in Music".

the three sub-phrases and insist three times on d_b^2 before the c^2 in m. 7 eventually brings a short moment of stability and relief (cf. Ex. 8).

The lower strand dominates the second phrase of the consequent as well, but it is necessary to come to terms with the abrupt linear discontinuity between mm. 14 and 15 in order to render this passage in a meaningful way. The poignant d_b^2 - c^2 motion heard in m. 7 is expected to turn up also in m. 15, but it is quite bluntly exchanged for the one-step-lower dominant six-four cliché c^2 - b_b^1 . The first-beat turn has opened up a trap-door in the melody, as it were, inviting the performer to add a sense of grim, stiff-upper-lip humour. After a very short, delaying moment of silence, this odd, out-of-metric-place and too-low cadence might with good effect be played strictly and in tempo, offering a contrast to the preceding sub-phrase.⁴⁹

Turning to the first part of the B-section, the anticipated f^1 and e_b^1 prompt the left-hand entries whereas the quite prominent after-beats f^2 and e_b^2 in the right hand may emerge as literally superimposed on d_b^2 and c^2 . It is possible to suggest this exceeding relationship by giving more emphasis to the higher notes than to the lower ones, merely bringing the conventional and accented targets of the preceding neighbour-note motions. But no matter how you play, in comparison with the antecedent/consequent the relative importance of the upper and lower pitch-class layers will seem to be reversed.

In the second part of the B-section the upper tonal layer is safely established in the right hand – the too-early, syncopated e_b^2/e_b^1 in m. 20 is most conspicuous – while the lower one is relegated to the left-hand c^1 , having to wait until the downbeat. The octave f^2/f^1 is still heard in m. 22, but after this point the dominance of e_b^2/e_b^1 is uncontested.

The fifth degree is eventually tonicized over the dominant, but however vital and unmistakable this process is, there is not, according to the present reading, a full modulation: the tonal context of the crucial fifth degree is just changed from A_b major (I) via C minor (III) to E_b major (V). These harmonic

49 Analysis apart, performances making much expressive ado about mm. 15–16 (and 33–34) seem somewhat overdone; these conventional cadences do not warrant such a treatment, cannot quite sustain the so far prevailing emotional intensity.

transformations of e_b^2/e_b^1 are urged by two similar upper-voice inflections falling from a_b^2 and then from g^2 , swiftly suggesting further descending seconds from f^2 , and by the two six-four chords directing attention to their deceptive and expected resolutions, respectively. To clarify that there are two cadences to e_b^2 , the first, deceptive one to C minor should be brought to the fore – the chromatic rise $b_b-b_b-c^1$ in the bass is important – after which the final cadence might follow in a receding, less demonstrative manner.

The second “focal” reduction takes as its point of departure the frequent occurrence and cumulative piling up of rising fourths followed by stepwise descents; cf. Ex. 13.

This tonal “story” begins already in mm. 1–4, featuring two $e_b^1-a_b^1$ motions; in the second phrase of the antecedent the motivic pace in terms of rising fourths is considerably increased, making for a two-layered hemiola rhythm – the initial turn figuration should preferably be played so as to suggest a diminished fourth. Since the lower notes of these fourths will also get some emphasis as internal quasi-upbeats, the right-hand melody will tend to split into two intertwined strands, of which the upper line fed by the rising fourths issuing from the lower line will assume musical precedence. These two connections descending along the scale from f^2 and c^2 , respectively, should not be appreciably disturbed by the discontinuity in terms of phrasing and dynamics introduced by Beethoven at the start of m. 7, but a slight perturbation in the course of events may be suggested by bringing out the renewed start from f^1 in the tenor and the ensuing chromatic motion. Generally, this reading invites to a prominent tenor counterpoint, contributing to the overall falling tendency.

In the consequent, on the other hand, the sense of interruption is acute. In both right-hand lines, and especially in the upper one, a strongly expected note is missing. The upper line gets c^2 , a note that is one step too low, whereas the lower line seems to have been discontinued; the main note of the turn is not a valid stand-in. (If you wish to suggest that the two layers of the sequence are still there, the ornament might be rendered so as to bring out its inherent rising fourth.) Again, the final sub-phrase may involve a sense of humour – this time of a more whimsical kind. A pianist wanting to make the most out of this unexpected twist might subdue the artificial discontinuity at the bar-line mm. 6/7 in order to make

the deviation in the consequent, bringing actual discontinuity, all the more surprising.⁵⁰ The six-four formula in m. 15 can be quickly tossed off, as if shrugging off the somewhat pathetic seriousness of the preceding bars.⁵¹

According to this “focal” reduction, the middle section is about the durational expansion and ultimate pitch level of the rising-fourth motif, eventually producing a decisive descent from a^2 down to a point of rest outside the reach of the tonic. This means that the slow rising fourths c^2-f^2 and b^1-e^2 , inherent in the sub-phrases in mm. 17–20 and expanding those in mm. 5–6, are to be highlighted so as to prepare for and make readily recognizable the following filled-in and crowning ascent from e^2 to a^2 . In order to give this final gesture greater emphasis, you may bring out the contrary motion in the bass from c^1 down to the F-minor root supporting the top note. The deceptive cadence to C minor should be subdued in favour of the following, successful attempt at reaching E_b major.⁵² The forthcoming modulation can be signalled in m. 24 by the a_b-a^{\sharp} motion in the bass preparing for the second six-four chord and the last, decisive motion down to e^2 in the treble. According to this interpretation, the final and strongly tonicized E_b -major chord emerges as the outcome of a broad, modulating cadence featuring F minor (marked for attention by means of its leading-note e^{\sharp} in the bass) and the applied B_b -major dominant.

While giving rise to interpretations that are substantially different, these two “focal” reductions, predicated on distinct long-term features in Beethoven’s theme, nevertheless have a few things in common.

Both readings take (in various ways) account of the discontinuity in mm. 6/7 and of the interruption in mm. 14/15, treating them as local phenomena affecting the expected voice leading and as higher-level events influencing the understanding of the theme as a whole. The consequent emerges as a peculiar deviation from the antecedent.

50 This deviation from the score appears acceptable since it has a clear purpose.

Considering the fact that *subito piano* indications are frequent to the point of mannerism in this theme, subduing one of them may even be an advantage.

51 That a sense of humour may be involved seems to be confirmed by the corresponding passages in the fourth variation – the music is suddenly displaced to the low register, and a touch of mockery appears most fitting, almost inevitable.

52 If you dare, you might consider leaving out the trill in m. 23.

Furthermore, common to these reductions is a sense of growth and expansion that overrides formal demarcations as well as “tonal form” as defined within Schenkerian theory. It is true that there are patent cadences to the dominant in mm. 8 and 26, and to the tonic in mm. 16 and 34, but these facts – and whether or not there is any single, encompassing fundamental structure confirming the ultimate rule of the tonic – is of little interest and of no consequence for the musician.

It seems that an important dual fact when devising an interpretation of this piece – and when otherwise trying to understand it – is that there is a sense of frustrated rise and a core of unresolved harmonic complexity within the second phrases of the antecedent and consequent, and a complementary sense of consummation in the B-section, bringing the suspended tendencies to fulfilment and achieving (if only momentarily) a new, raised tonal centre. Expanding and transforming the material of the second phrase of the antecedent, the middle section brings ultimate culmination as well as a transient moment of stability, and this is a “long line” as good as any.

If this theme has an “*Ursatz*”, it is likely to be a “focal” one featuring a fundamental *ascent* starting from the first degree in m. 1, an ascent that twice makes a halt at dissonant fourth-degree $d\flat^2$ s, resolving to c^2 s, before arriving at the decisive passage mm. 21–26 with its cresting top note $a\flat^2$ and its tonally redefined fifth-degree $e\flat^2$. The reduction shown in Ex. 14 may be helpful for pianists wanting to charge the music with a sense of a struggle to escape the rule of the tonic.

The f^2 – $e\flat^2$ motions in the antecedent and consequent are vaguely implicative, holding out the prospect of a forthcoming passage in which these notes are put into focus. The local descents in mm. 7–8 and 15–16, reaching the second and first degree, respectively, are just matters of the tonal framework. In mm. 17–20 the incomplete neighbour-note motion involving the pitch-classes F and $E\flat$ attracts the listeners attention, and this implicative gesture is promptly satisfied by the fifth-degree $e\flat^2/e\flat^1$ octave over the tonic in mm. 20/21. The following six bars, bringing the culminating melodic ascent to the eighth-degree $a\flat^2$ and eventually the goal $e\flat^2$, make up the expressive core of the theme as well as the focus of its tonal course. Along with the shifting target chords, the fifth-degree $e\flat^2$ is redefined to third degree in C minor and then to first degree over $E\flat$ major, and these stages are preceded by $d\sharp^2$ s, i.e. by raised, lower-neighbour notes.

Conclusions

So what have we, at the end of a very long day, found out? The critical study of three reductions of this Beethoven theme has shown that authoritative Schenkerian, emphatically “tonal” reductions – representing normal, presumably exemplary, analytic practice – are of little or no value. In these reductions, trivial cadences are highlighted as the “structure” of the music, and the structures are imposed on the music in ways that in vital respects contradict its letter as well as its spirit, making the reductions impossible to apply when looking for guidance as a pianist. On the other hand, the three “focal” reductions emerge as illuminating. These readings are based on observations of motivic associations and melodic implications; they make use of *ad hoc* criteria of reduction and aim at bringing out the unique long-term connections inherent in the musical process. They are also possible to express since their tonal “content” is compatible with a musically defensible analytic treatment of important surface traits.

Obviously, this outcome will be of relevance for artistic and particularly for instructional practice. To the extent that it turns out that Schenkerian analysis is less useful as an aid to interpretation than has often been taken for granted, its role within the training of musicians has to be reconsidered. Musicians should be saved the trouble of trying to come to terms with distorting readings emanating from idiosyncrasies within the Schenkerian theory. On the other hand, it seems that less rigid approaches to reduction, analyses dealing with the musical process rather than with its “tonal structure”, may be of avail for musicians when probing a work for its musical essence.

The result of the present study should also be highly relevant for analytic practice, but it does not seem very likely that any reconsideration will take place.

Chapter 3 Is tonal music hierarchic? An impenitent sermon

*You don't get universal just because you are not specific.
(Unknown thinker)*

Introduction

Off-off Downing Street, No. 10 refers to the chorale *Ich bins, ich sollte büßen* in Johann Sebastian Bach's St. Matthew Passion. The music is so awesome – plain and yet complex, expansive and yet intimate – that one cannot but search for its structure; cf. Ex. 1. Ever since a certain book was published in 1935, quite a few music analysts believe that we live in the best of worlds, and that “structure” is established by means of “tonal reduction”, by means of a recursive, hierarchic selection of musical events undertaken according to laws that are once and for all laid down in the very nature of tonal music.

What follows is an attempt to overcome the concept ‘tonal structure’ and its hierarchical connotations in order to arrive at a less constrained, less contrived, idea of musical structure. As most endeavours to conceive of something new, or just different, this attempt will be ungrateful to past achievements.

To begin with, two analyses setting out to make tonal sense (or at least tonal theory) of the chorale will be scrutinized and dismissed as unsatisfactory.¹ Then another reading will be critically studied, a reading in which Bach's chorale serves as a specimen to demonstrate the potential of a most ambitious, empirically grounded theory of musical cognition.² Finally, I will advance an admittedly eclectic attempt of my own to come to terms

-
- 1 The analyses are to be found in Heinrich Schenker, *Fünf Urlinie-Tafeln*, Wien 1932, Universal Edition (New York 1969, Dover Publications), and Nicholas Cook, *A Guide to Musical Analysis*, London 1987, Dent, pp. 47–59. Offering his own reduction as an alternative, Cook devotes much space to a critical discussion of Schenker's analysis.
 - 2 Fred Lerdahl & Ray Jackendoff, “An Overview of Hierarchical Structure in Music”, *Music Perception* 1(1983/84), 229–252.

with this piece of music, a non-hierarchical attempt that perhaps accounts more realistically for how listeners understand what goes on in the music, and that sheds another light on its unique features.

Since ‘hierarchy’ is a key concept in what follows, a short introductory explanation is due. There are many kinds of hierarchies, and even within the study of music the idea of hierarchical organization has been applied in several domains and for several purposes. In order to distinguish theoretically less strict and less consequential types of hierarchy from the more powerful one at the core of the present investigation, we will succinctly account for three ways in which music has been thought of as hierarchical, and that are pertinent for the following investigations.

The organization of metric/formal units within a piece of music is often described as a hierarchy. The antecedent and consequent, for instance, are understood as subunits forming a pair that in turn makes up a higher-level unit, the period. Generally, conceiving of two units as a pair presupposes that they exhibit certain common properties and also some sense of continuity in spite of the demarcation between them. The word “period”, with its linguistic connotations, is in many ways an apt designation for the super-ordinate unit and its syntactic qualities, but a musical period cannot be said to dominate its subunits, nor is any of them subsumed under the other. Formal hierarchies of this kind appear quite convincing when you look in the score, but when listening to the music the sense of hierarchy tends to dissipate; the hierarchy turns into a sequence. It might be fair to say that higher units such as periods function as summarizing categories, as a kind of mental paper clips.

When shown along with the notation, and especially when there are several of them, L. B. Meyer’s “implications” may emerge as super-ordinate melodic layers.³ This impression is deceptive, however. The “layers” make up a network rather than a hierarchy, and the notes forming the various melodic connections are selected because they are reasonably salient and have a capacity for arousing and then satisfying musical expectations. The non-selected notes are simply not members of the musical gestures to

3 Cf. Leonard B. Meyer, *Explaining Music*, Chicago University Press 1973.

be demonstrated, but they are not removed. Quite to the contrary, they may be quite important since they give rise to the delays and deflections producing the musical effect of some implicational patterns.

Tonal reduction, as practiced by Schenker and his followers, aims at establishing the subsurface tonal unity inherent in tonal music, and the layers make up a (more or less) strict hierarchy. Depending on their relative tonal importance, i.e. depending on whether they contribute to the next layer, notes are recursively selected until a quite basic structure comes to the fore: the comprehensive authentic cadence called the *Ursatz*. The excluded notes become redundant in the ever more sparse voice-leading connections emerging at higher levels. From case to case, the status of the selected notes seems to be regarded in two logically distinct ways. The retained note may be an actual note that represents and dominates a number of subsumed notes, or it may be a virtual event that includes or absorbs all lower-level notes within its domain.⁴

Two ways of presenting tonal reductions

Before entering into its details, the overall arrangement of Schenker's analysis should be commented upon; cf. Ex. 2. The fundamental structure, the *Ursatz*, is placed on the top of the page whereas the "foreground" – already quite different from the actual music – is to be found at the bottom together with two additional explanatory sketches. To readers not used to Schenker's habits, this way of presenting a reductive process will probably seem strange, and it should in fact arouse suspicion in all of us. Given our ingrained convention of reading from the top of the page towards its bottom, we should not be immediately presented with the ultimate structure, i.e. the analytic result, highlighted as the point of departure due to its top position. First and foremost we should be made to critically consider the reductive process leading from the surface/foreground to the deep structure,

But to Schenker, empowered or overpowered by his own firm convictions, it was quite natural to conceive of tonal reduction, and to present

4 I owe this important distinction to a most interesting paper by Richard Cohn and Douglas Dempster, "Hierarchical Unity, Plural Unities: Toward a Reconciliation", pp. 156–181 in Bergeron & Bohlman (eds.), *Disciplining Music. Music and its Canons*, Chicago 1992.

it, as a series of prolongations. Being positive that he had found the key to the music of the great masters, he apparently considered it proper to usurp their prerogative as creators. But if analysis is to be a kind of scholarly activity, it must open itself to criticism, it should encourage objections. As a matter of principle, reductions must be undertaken “bottom/up” – after all, they are (or should be) gradual discoveries – and they ought to be presented accordingly, i.e. with the foreground on the top of the page.⁵ The premises should precede the conclusion, not be shown quasi-deductively as if they were derived from it.

But never mind Schenker’s unfortunate way of presentation, it might be argued, everything is there to be seen. Yet a grain of suspicion is not out of place: the top/down arrangement of his analyses is inherently authoritative and paves the way for manipulations.⁶ Scepticism is essential in scholarly work, but whereas a reduction presented as a bottom/up sequence (i.e. as a reduction) makes one ask “why?” at each stage of the process – a productive question demanding reasons why certain notes are selected at the expense of others, and encouraging the reader to come up with alternative readings – an analysis shown as a top/down hierarchy of prolongations rather gives rise to a series of useless “why-nots”.

Why should (assuming for the sake of argument that so far the reduction of the chorale is acceptable) “level 2” in Schenker’s graph be reduced to form “level 1”, lacking the bass note f in m. 7? Why should not the (still divided) *Ursatz* at level 1 be prolonged to form level 2, in which the bass note f turns up? Putting the matter so as to suggest a general methodological caveat, the bolder and more astounding the prolongation, the greater the risk that the corresponding reduction is questionable or even unwarranted.

5 Unfortunately, the current terminology is confusing. If you speak of music in terms of “surface” and “deep structure”, true reductive analysis might be thought of as proceeding top/down. On the other hand, when speaking of hierarchies, we rather tend to think of the “deep” structures as residing at higher levels, and hence reductions should be undertaken bottom/up.

6 It is praiseworthy that many of Schenker’s followers have abandoned his manner of presentation. To what extent their analyses are actually undertaken bottom/up is another matter.

Thus, irrespective of how Schenker in fact arrived at his *Ursatz*, or of what he thought he was doing when he did so, it is advisable to follow his account of the chorale's "tonal structure" by starting with and proceeding upwards from the foreground to be found at the bottom of Ex. 2.

Schenker's reduction: the first half of the chorale

The treble voice of the first phrase is analysed as an "unfolding": from $a\flat^1$ there is an "initial ascent" which after a detour up to $e\flat^2$ leads to the primary note, the c^2 closing the local cadence at the $A\flat$ -major tonic. The unfolding sign assures us that the accented $a\flat^1$, supported by a root-position $D\flat$ -major subdominant chord, is to be understood as belonging to an inner "covered" strand; in addition we are asked to conceive of the $e\flat^2$ as belonging to an outer, "covering" strand. Generally, this kind of transactions between imaginary voice layers should be taken with more than one pinch of salt. Do we really hear such things; don't we rather attend to one single line behaving as a melody? Aren't unfoldings and covered/covering strands merely rationalizations resorted to in order to dispose of notes that do not fit in with the analyst's top/down plan for certain other notes?

The very beginning of the analysis exposes a dilemma – the structural bass starts immediately whereas the structural upper line enters only at the end of the first phrase. Schenker apparently wants to conceive of the unfolding motion from $a\flat^1$ to c^2 as an *Anstieg*, but a structural ascent should start from the tonic; hence the questionable "I" label under the very first chord, which (unless we do not resort to hindsight) is not a tonic chord but (as it immediately turns out) an applied dominant. This problem is not cleared away in the middleground graphs just because first the "inner-voice" $a\flat^1$ and then the structural c^2 are placed above this initial would-be tonic. It may of course be argued from a top/down perspective that the entire phrase represents the tonic, but isn't the point of the beginning of the chorale that its first phrase gradually brings forth the $A\flat$ -major tonic? Anticipatory prolongation is little short of a *contradictio in adiecto*, and registering tonal events before they have happened is a bad analytic habit. Schenker's reading of the fourth phrase is of course an even worse example of this – listeners do not count their chickens before they are hatched.

The closing c^2 in m. 2 is certainly a stable event but – challenged not only by the preceding e_b^2 , the root-supported endpoint of the melodic rise, but even more by the e_b^2 's of the second phrase – is it really capable of being structurally retained until the c^2 in the middle of the third phrase as the dashed line suggests? The two e_b^2 's over first-inversion tonic chords in m. 3 are harmonically less stable, of course, but one may nevertheless ask oneself whether they might not, in virtue of being the second thrust towards the fifth degree and of being the culminating peak notes within the first half of the chorale (and indeed in virtue of being unstable events), outdo the c^2 closing the first phrase. Can't stability give in for other considerations when it comes to pitch selection? Schenkerian tonal structure is predicated on stability, but is *musical* structure? Furthermore, taking for granted that the third-degree c^2 from m. 2 is not really present in the listener's mind during its second-phrase hibernation, is there really any perceptible sense of recognition in m. 5? Does this c^2 suggest that a certain, crucially important note is back again? It could be argued that structurally valid tonal persistence should be something more than just the usually non-conspicuous fact that a certain note recurs.

Supporting this would-be connection in the treble, the root-position e_b in m. 3 is read as a member of a "coupling" motion downwards along the A_b -major triad, a motion that via the insignificant c in m. 5 eventually reaches A_b , thus boosting the structural importance of the note c^2 in the third phrase. The importance of the second-phrase cadence to E_b major in m. 4 is shrewdly minimized by selecting the e_b in m. 3 to be the retained note: a pre-emptive slur robs the harmonic motion towards the dominant in m. 4 of its closing effect. As to the $a_b-(e_b-c)-A_b$ coupling, two middle-of-the-phrase notes do not make up much of a mediating connection, and one may doubt whether the octave identity is conspicuous enough to make the second phrase structurally subordinate; after all, it is responsible for bringing us from the tonic to the dominant, and for taking the soprano down to g^1 .

A possible explanation for Schenker's reading is that (in addition to recruiting another piece to confirm his grand theory of tonal music) he tried to conceal a peculiarity, or perhaps even what he may have regarded as an embarrassing flaw, in the chorale. The second phrase brings a somewhat veiled and yet unmistakable three-member authentic cadence to E_b ,

major, but unfortunately it features a theoretically undesirable final top-note, a seventh-degree g^1 that cannot be allowed as dividing. And although it starts by re-tonicizing $A\flat$ major, the third phrase emerges as a tacked-on and perhaps somewhat bland plagal progression issuing into an already established dominant; in this redundant cadence, the root-position tonic in the middle of m. 5 functions as an applied subdominant. But on the other hand and most fortunately, the cadence of the third phrase lets the top voice come to rest at the desirable, dividing second-degree $b\flat^1$.

Schenker presumably felt that the authentic cadence to the dominant in m. 4 had to be slighted in favour of the following plagal one, and so he resolutely did by putting the C-minor chord starting its three-member cadence within parentheses, and by reading the unwanted g^1 as the “covered” product of a subordinate falling-third unfolding starting over a mid-phrase (and hence apparently non-cadential) $e\flat$ in the bass. The net result of all this is that the authentic half-cadence to the dominant, which is ultimately shown to underlie the entire first part of the chorale, is brought to its end over the dead body of the second phrase and by means of a tacked-on plagal progression – hardly a convincing reading. It would have been better to simply take account of the cadences of the three phrases and to establish that, by and large, the chorale opens up towards the dominant, and that the harmonic outcome of the plagal third phrase merely confirms that of the authentic second – as plagal motions often do.

It seems, then, that to Schenker the weight of the cadence to $E\flat$ major in m. 6 is guaranteed, not by its own properties, but by its necessity as a midway interruption. Its structural importance is derived top/down all the way from the background, as is demonstrated by the fact that the large-scale $c^2-b\flat^1$ treble motion of the first part is inscribed already in the foreground, no matter the weak evidence for it in the actual melody, whose meandering path takes us to various temporary goals.

Thus, the evidence for the reduction is the prolongation; or otherwise put, the reduction cannot but reflect its deep-layer point of departure since reduction is exchanged for prolongation. Bach, who may have been greater as a composer than was Schenker as an analyst, and who may have been more interested in devising an ambiguous hybrid between bi-partite tonal form and variation than in supplying an *Ursatz*, apparently felt that the $E\flat$ -major dominant closing the second phrase might need some further

emphasis. Hence the conspicuously short third phrase and its confirming plagal cadence, bringing out the dominant by means of a lengthened final chord and concurrently challenging the sense continuity in the chorale and preparing the listener for a necessary continuation. (Imagine the chorale without the third phrase!)

The dashed c^2-c^2 upper-line connection is very important in Schenker's analysis, and as shown in the foreground as well as in both middle-grounds, it is made up of a falling and then a rising third progression. But the smooth falling $c^2-b^1-a^1$ motion coming to the fore in the "level 2" middleground is very far from obvious when listening to the music since, as becomes clear in the foreground, it ignores the detour to e^2 on the way to b^2 , a note that in turn starts a subordinate unfolding producing the inner-voice g^1 , a motion that is taken down as the "level 3" essence of the second phrase. This convoluted reading cannot but emerge as distorting.

To make the weaving into and out of the super-ordinate treble line in mm. 1–4 appear more convincing, the two unfoldings, forming the "level 3" substrate for the falling-third progression, are shown on "level 2" as simultaneous thirds by displacing the lagging notes forwards. Bach's melody is regarded as a specimen of horizontal harmony, as an object for an exercise in verticalization.⁷ The "level 2" middleground not only looks fine, it also sounds very well when you play it, which amounts to an often recommended test for the correctness of Schenkerian reductions. But this *Satzprobe*, as it is called, all too easily makes one forget to check how the allegedly essential notes were selected; its corroborative power is illusory, and it is of no use when it comes to convincing thinking non-believers.

If "tonal analysis" is understood in the bottom/up sense as a recursive set of reductions, one may ask whether Bach's melody is really heard as proposed on "level 2". On the other hand, if one takes for granted that a reduction can be thought of as a series of prolongations, why should not these parallel thirds make up the tonal background of Bach's melody?

7 Here, and no doubt elsewhere, I profit from the criticism of tonal reduction advanced in Eugene Narmour's *Beyond Schenkerism*, Chicago University Press 1977.

Turning again to the bass, it should be recalled that already in the foreground the root of the A_b-major tonic is introduced along with the very first chord – two bars before the arrival of the third-degree primary note in the treble – and that this initial chord is likely to emerge as an applied dominant to the following accented D_b-major chord to listeners who do not already know what is going to happen, i.e. have access to top/down information.⁸ This starting a_b is nevertheless coupled with the A_b in m. 5, a connection that according to both middlegrounds is mediated by a motion along the tonic triad. But this coupling is tonally undermined in several ways: by the intervening cadence to E_b major in m. 4, and by the dual fact that the initial root-position A_b-major chord functions as an applied dominant whereas the final one emerges as a (tonicized) applied subdominant.

Furthermore, since the second as well as the third phrase close at root-position dominants, it makes more musical sense to understand the A_b in m. 5 as the fairly insignificant turning point of a most obvious stepwise down-then-up excursion between two e_b's. This in turn cannot but bring a consequence for the reading of the upper line: the structural counterpoint to this between-two-cadences motion in the bass is evidently a barely-beyond-the-surface rising-third progression from g¹ to b¹_b, an “unfolding” not to be found in Schenker's analysis.

The second half of the chorale

For rhythmic reasons as well as due to the fact that the soprano melody starts to repeat itself, the final dominant of the plagal half-cadence in m. 6 cannot but seem dividing. But this fact does not prevent Schenker from maintaining that there is a coupling in the bass from the A_b in m. 5 to the a_b appearing only in m. 11, where it supports a high-level pre-cadential c². It must be pointed out, however, that there are two intervening a_b's before the one in m. 11, and that there are formidable harmonic obstacles to Schenker's octave connection in the bass: the fourth and fifth phrases end with plagal cadences to F major and C major, respectively.

8 And even after having heard the entire first phrase they may be reluctant to change their minds as to the transient auxiliary-tonic quality of the second chord.

This $A\flat-a\flat$ coupling as well as its preceding $a\flat-A\flat$ counterpart seem quite irrelevant if you wish to understand what actually goes on in the music. They exemplify the kind of visual rather than aural observations that some analysts proudly present and want to make everyone else see (rather than hear), no matter whether their findings really illuminate the music or not. Perhaps the $a\flat-A\flat$ plus $A\flat-a\flat$ couplings are to be understood as Schenker's way to demonstrate that the chorale, despite its interrupted *Ursatz*, is also through-composed?

Furthermore, the cadences to F major and C major cannot but substantially diminish the function of f (introduced in m. 7) as a kind of structural drone as shown in Schenker's foreground and middlegrounds. The note f is arguably important for the sense of through-composition, but not in any hierarchical sense since it is certainly not prolonged all the way to m. 11 as the "level 3" graph seems to suggest. The fact of the matter is rather that many listeners are likely to discover that all three phrases feature initial $f-g-a\flat$ bass motions, an association that may entice ordinary listeners into thinking that the chorale's second part predominantly "is" in F minor. Another option, not adopted by Schenker although it fits in with his divided, non-through-composed "level 1" background, might have been to take account of the recurring $A\flat$ -major root-position chords within the chorale's second part and hear them as reminders of the original tonic.

Anyhow, using the supposed structural "drone" on f as its most important constituent, but in concurrence with the $A\flat-a\flat$ coupling and incompatible with the strongly dividing function of the dominant in m. 6, another questionable distant connection appears in the middleground graphs: a rising-fourth progression between the finishing $e\flat$ in m. 6 and the $a\flat$ in m. 11. It is true that $e\sharp$ (supporting an applied dominant) mediates between $e\flat$ and f in mm. 6-7, but this motion is a local affair; similar (but falling) chromatic links appear in mm. 8 and 10 in the alto voice.

It is a dual and incontrovertible fact that the melody of the second half of the chorale up to the very final notes exactly replicates the melody of its first half, and that Bach composed an entirely new harmonization to go with the last three phrases. Schenker was no doubt aware of this basic feature of the musical design, and apparently he had reasons and guts to

acknowledge the melodic identity while suppressing the harmonic difference and obscuring the sense of through-composition in the chorale.

Step by step everything that distinguishes the chorale's second half is reduced out of structural consideration until only the identity with the first half remains. Is this what the theoretically most privileged listeners among us hear, and hence what all of us ought to hear? But who wants to eat stones instead of bread? If the astounding display of the art of reharmonization in the second half of the chorale is a crucial feature of the music, and this seems hard to deny, why is this trait not allowed to show up in its structure, why should we not be encouraged to hear it?

The amazing make-over starts already in the foreground where Schenker tries to convince us that it is admissible to associate the first c^2 in m. 8, actually the final fifth degree within a cadence to F major, with the bass note a_b of an A_b -major chord embedded in next phrase heading for C major, that it is illuminating to understand this note as the restatement of the third-degree primary note. Already in the "level 3" middleground, the plagal B_b -minor-to-F-major and F-minor-to-C-major cadences disappear altogether – pawn victims in Schenker's tonal strategy, evidently. In the "level 2" middleground the melody of the fourth phrase, so far understood as an "unfolding", collapses into a vertical third relocated to the beginning of m. 7; a similar verticalization is undertaken in the fifth phrase. What we now see are the parallel thirds from the chorale's first part. The forgery of Bach's music is completed in the "level 1" background, whose initial 3-over-I is apparently to be understood as a manifestation of the invalid oblique dyad c^2/a_b derived from mm. 8–9. The note f and the F-minor chord that actually start m. 7 have disappeared, and a non-existent A_b -major start of the second half of the chorale is established as the deep-layer truth of the music.

Whereas it might strike a credulous observer as most remarkable, it should rather evoke suspicions that the middleground representations of the melody in mm. 7–10 look the same as those in mm. 1–4. Has Bach really managed to do away with the mutual dependence between melody and harmony? Can the second part of the chorale be heard – or even analysed – in this way? Even if construed as a top/down series of prolongations, doesn't the transformation from background to foreground strain credibility to the utmost: even the all-permissive "why-not" questions (like why should not an f turn up in m. 7 on "level 2"?) are hard to answer in

the positive. Given that there are connoisseurs of all sorts, does Schenker's reading of the second half of the chorale really offer an interesting "comparison" with the actual music?⁹

A similar, but less momentous, manipulation occurs in the final cadence. In Bach's chorale, the c^2 in m. 12 enjoys dissonant support by $d\flat$ in the bass – and adhering to Schenkerian theory this amounts to a very poor support for a structural third degree – whereas the preceding quasi-structural upper neighbour-note $d\flat^2$ lacks a root-position chord beneath it. Both these deviations from the rules of tonal theory are swept away in Schenker's analysis, where the $d\flat$ to come in the bass takes care of the $d\flat^2$, and where c^2 shares bass fundament with the following $b\flat^1$ giving rise to a six-four chord on $e\flat$, a chord that does not exist in the chorale.¹⁰

The additional voice-leading graphs under the foreground of the fifth phrase – they show an alternative (co-existing or competing?) voice-leading pattern in terms of consecutive tenths – explain very little since the added and deleted notes, the voice exchanges and the register shifts combine to make these sketches deviate considerably from what is given in the score.

It appears that the ingenious harmonic variety of the music has been sacrificed in favour of a circular exercise. Bach's chorale has been forced to produce an *Ursatz*, i.e. the very kind of fundamental structure that simply has to be present because it is postulated in Schenker's theory of tonal music. And this (apparently) successful demonstration of an underlying "tonal" unity of the prescribed sort in a masterpiece with a most idiosyncratic musical design, composed by no less than J. S. Bach, has once again underpinned Schenkerian theory. The reduction (i.e. the prolongation) has shown that the essence of the chorale is made up of a divided authentic cadence of the standard variety that (allegedly) underlies countless

9 Cf. Nicholas Cook, "Music Theory and 'Good Comparison': A Viennese Perspective", *Journal of Music Theory* 33(1989), 117–141, and "Schenkerian theory and better comparison: An out-of-the-way perspective", ch. 1 in this volume.

10 Since the sixth of a six-four chord is a suspended dissonance, it actually lacks root support. This exception from the rule of consonant support, granted the theory by its founder, has rescued many a late *Urlinie* hurrying down to reach the tonic note before the section/piece is over.

run-of-the-mill Classical periods. Alternatively, since Bach's six-phrase chorale embodies something quite else, the theory has again proven its uncanny power by producing an unwarranted reading that forcibly goes against the grain of the music, violating its text and running contrary to many aspects of its aural meaning.

To the extent that a hierarchical tonal analysis of the chorale is at all worth pursuing, Schenker's analysis might be amended somewhat. It would be quite possible to select the accented but transient A_b -major c^2/I chords appearing on the third beats of mm. 1 and 7 as corresponding and reasonably similar points of departure for the fundamental treble and bass connections of the two halves of the chorale. Such a reading would slightly enhance the chances of hearing a structural repeat issuing from the tonic, and there would be no need for any awkward oblique-line groping in m. 9 in order to find an A_b -major root for an F-major c^2 in m. 8.

A further advantage of such a reading would be that it directs attention to a harmonic similarity between the first and fourth phrases: both of them start with applied dominants and reach A_b major chords only after visiting metrically exposed D_b -major and F-minor auxiliary tonics, respectively – in both phrases the third-beat tonic chords are approached from the outside, as it were. But we must not forget that there is an important difference that prevents A_b major to fully function as the structural point of departure for the second half of the chorale. Whereas the first phrase is in fact started by an A_b -major chord and may be understood as made up of two veiled cadences to A_b major – hints to the affect that A_b major may be taken as the tonic of the first half of the chorale – the transitory A_b -major chord in the fourth phrase has no such supporting context. This phrase starts by tonicizing F minor and closes with a plagal cadence leading from B_b minor to F major.

An alternative amendment, allowing the fundamental descents of each half of the chorale to start at matching events, would be to select the c^2 -over-the-F-major-or-minor f in m. 8 as the post-division point of departure. The redefinition from fifth to third degree might then be located to the c^2/I chord in m. 11 where the shift back to A_b major is manifest. Such a reading would be favourable since it does some justice to the complexity of the chorale's tonal design; it takes at least some account of the F-minor-then-F-major fourth phrase, and it acknowledges that the post-division

resumption of the *Urlinie* (if a resumption it is) involves a qualitatively different, F-minor-context primary note, 5/VI. An upper-line anchor that highlights a tonal change is arguably more interesting than a grapnel relying on a far-fetched, oblique identity.

Schenker perhaps thought that the second half of the chorale must have the same fundamental structure as its first half just because they share the same melody. Fundamental structures interrupted at 2/V and then resuming from, say, the relative minor, are otherwise acceptable in Schenkerian analyses along with structures continuing from the dominant or starting anew from the tonic. But this solution might have appeared impossible to him in this case because it would have been tantamount to accepting that the second half of the chorale starts from $a\flat^1$ over the strong-beat F-minor chord in m. 7 – a start bringing out an undesirable parallelism with the $a\flat^1$ over $D\flat$ major at the main accent in m. 1. In order to avoid *Urlinien* issuing from the ($A\flat$ -major) first degree over non-tonic chords, he might have chosen the F-minor upbeat to the fifth phrase with its third-degree c^2 , but it would have corresponded to the F-minor upbeat to the second phrase, an unwanted association undermining the sense of $A\flat$ -major-as-tonic.¹¹

Cook's discussion of Schenker's analysis

Nicholas Cook reproduces Schenker's reading of the Bach chorale in his *Guide to Musical Analysis*, but it is hard to tell from his many-faceted discussion – positive and negative views are mixed – whether he commends or rejects it.¹² But since he has chosen this very analysis for his textbook, it seems reasonable to assume that he considers it to be an interesting and representative specimen of Schenkerian reduction.

Cook points out that “many postulates of the Schenkerian system” emerge as “purely conventional”: the idea that structural dissonances cannot be prolonged; the privileged role of triads; the insistence on descending

11 Isn't there anything wrong with an analytic system that due to its own rules falls into checkmate situations? Does Schenker's inability to deal with this chorale in a way that respects its integrity really make for a “good comparison” in Cook's (or any) sense?.

12 Judging from Cook's writings in general, one may perhaps say that, in spite of his doubts, he is basically in favour of Schenkerian analysis.

structural upper lines contained within an octave; the necessity of strict counterpoint at middleground and background levels; the basic assumption that pieces must derive from a single tonic. Although it might be argued that each and any of these limitations amounts to a gravely disabling blind spot in a system of analysis raising scholarly pretensions, Cook seems to accept them since “in the absence of such shared conventions and expectations nobody would understand anybody else’s analysis properly”. (pp. 58–59) But isn’t this Babylonian vision overly pessimistic?

Cook also regrets the tendency of Schenkerian analysis “to ignore ambiguities whereby a given foreground might be interpreted in different structural ways”, and hence that it does not present “a truly credible model of the way listeners normally experience music”. According to Cook, the theoretically correct analytical decisions are reserved for a small number of properly trained persons, and he points out that the primary note cannot be determined unless one works top/down, i.e. unless one draws retrospective conclusions. But as he puts it, listeners “do not work backwards”. (p. 57)

On the other hand and due to its standardized procedures, he gives Schenkerian analysis credit for being “a valuable historical and style-analytic tool”. (p. 58) However, given its just-mentioned blind spots and its tendency to ignore ambiguities, as well as (it might be added) the fact that Schenkerian analysts sometimes resort to manipulations of the text, it is hard to concur in this opinion. A keen sense of justness is necessary when you compare complex things like musical styles, and prejudice, single-mindedness, and fraudulence are therefore not any assets.

For instance, is there or isn’t there a sub-surface six-four chord in the last bar of *Ich bin’s*? Should style-analytic inferences be based on what Bach wrote or on misrepresentations of what he wrote? Schenker’s analysis is useless if one wants to find out whether Bach tends to use six-four chords in the cadences of his chorales. Analytic artefacts cannot be counted as evidence.²¹³

Although the “lack of direct correlation between score and analysis does create certain difficulties in judging and verifying Schenkerian

13 The chorale *Wer hat dich*, No. 37 of the St. Matthew Passion, having the same soprano melody as *Ich bin’s*, does in fact feature a six-four chord in its m. 12 – which is not typical of Bach’s chorales, according to Lerdahl & Jackendoff, p. 249, footnote 7.

interpretations”, Cook maintains that “the ability of Schenkerian analysis to demonstrate graphically what is one of the most intuitively striking features of musical form, namely that the same things are experienced differently in different contexts, is the best possible demonstration of its power and sensitivity as an analytical technique”. (p. 55) Again it may be argued that the blind spots, the ignored ambiguities, the manipulations, and (it might be added) the consistent favouring of some criteria of reduction over others should temper the enthusiasm for Schenkerian analysis as a source of musical insight. For when it comes to the crunch, the power of an analytic theory may be quite inimical to its sensitivity.

The two halves of the chorale feature the same melody in radically different harmonizations: is it really enlightening to demonstrate that their sub-surface upper lines are nevertheless virtually identical? And is it true? Top/down tonal analysis does not only allow ends to retrospectively dominate beginnings, but works the other way around as well: the melodic repeat notwithstanding, must the second half of the chorale issue from c^2/I , just because the first half is taken to do so? If one cares to engage in tonal analysis in a more careful and respectful manner than Schenker apparently was capable of, the melodies of its two halves are in fact not the same since the underlying chords radically change the tonal qualities of the soprano notes. What Schenker’s reading of the two, harmonically very different, halves of the chorale shows, is that “tonal” analysis has the power, but certainly not the sensitivity, to demonstrate graphically that quite different things are experienced in the same way. But is it really a striking feature of this chorale that its two quite different parts are experienced, or can be analytically construed, as virtually identical?¹⁴

As his role of a textbook writer bids, Cook devotes much space to expound Schenker’s decisions and the workings of tonal reduction. But in

14 One might even imagine that there are quite a few listeners, not necessarily very bad ones, who get so fascinated by the harmonic progressions of the second half of the chorale that they forget that the soprano melody starts all over again. (This may even more apply to keyboard players, having a host of different notes to play from m. 7 on.)

doing so, he fails to discuss a number of analytic choices and theoretic principles that might have been questioned.

The interruption sign “is Schenker’s way of correlating the single directed motion from 3 to 1 in the background [i.e. in the *Ursatz*] with the binary design of the musical surface”; “the middleground and foreground voice-leading of the first half is related to [the midway cadence] in the same way as that of the second half relates to the final, and this time structural, cadence”; “at every level except background, the 2 of bar 6 functions as a resolution of the primary tone”, which after “another initial ascent” is resumed in m. 8. (pp. 48–49)

If the *Urlinie* is a “directed motion”, what is it that makes it move in a certain direction? Can a motion be both “single” and divided, and if so, how can it happen? Why is the midway dominant, crucially important as it arguably is, not allowed as a member of the topmost structure? Or, putting the last question in another way: what has the primary note back in m. 2 to do with the “structural” second degree in m. 12?

It seems that the second-degree b^1 over the dominant in m. 6 is essential both for the formal bisection *and* for the sense of overall tonal motion in the meandering soprano strand of the chorale. For disregarding the very weak tonal momentum inherent in the *Urlinie* start from 3/I in m. 2 – after all, this tonic chord is the stable goal of a complete cadence – and apart from the fact that a quite stable 7/V dominant precipitates already at the end of the second phrase, it is the surplus 2/V dominant closing the third phrase that induces whatever faint sense of long-term directed upper-line motion there might be in the first half of the chorale. What, an alert listener is likely to wonder, will be the next move? (Entertaining a sense of directed motion is, it seems, largely a matter of expectations.) And this uncertainty is not due to a theoretical conclusion deriving from the top layer, but grounded in local properties. The chorale is a short piece, and its midway 2/V is not a reductive artefact but the confirmed arrival at a competing tonal centre, i.e. an event with unmistakable musical substance.

Hence, at no level does the second-degree b^1 in m. 6 function as a “resolution of the primary note”; quite to the contrary, in virtue of representing an important tonal shift away from the tonic and also due to its sheer duration, this note makes for added tension. Without it, the *Ursatz* – with its “structural” dominant eventually encapsulated as a kind of tonal cash

receipt within the final cadence – would hardly emerge as a very directed motion, and the chorale would rather turn out as a series of phrases with but little sense of tonal direction, as a vagrant harmonic excursion.

To test this, let the soprano voice of the second phrase end with c^2-b^1 as shown in Ex. G(b), and then take away the third phrase altogether. The opening, non-resolving quality, making for expectations, is still there. And this effect is not a matter of the second degree; the seventh-degree g^1 works just as fine; cf. Ex. G(a). Thus, like in stock Classical periods, the (more or less) midway “dividing” dominant of the chorale deserves to be called the true structural dominant – its structural weight is far greater than that of the late E_b -major chord in m. 12, being just the next-before-the-final-tonic member of a local cadence.

However, designating the b^1 -over-V in m. 6 as the structural dominant, which is what the core of Schenkerian theory really bids, is a most un-Schenkerian move since according to the same theory you are not allowed to insert a whole array of harmonic progressions between the “structural” dominant and the final tonic. “Structural” dominants (however disappointing and quickly disposed of they may be, musically speaking) are simply to be found within the final cadence, or else quite close to the final tonic. Their importance solely derives from the deepest *Ursatz* structure that unifies the piece by insisting that it ultimately makes up a I-V-I cadence expressing the tonic. But such late dominants do not bring anything about in the tonal form, they do not keep up the tonal span from tonic to tonic – as they once did in more primitive tonal structures.

It is important to notice that the motion-inducing, truly structural dominant in m. 6 also mediates between the two parts of the chorale. And it does so by requiring further motion – a motion that is first arrested by the excessive duration of the event itself,¹⁵ then postponed by a long harmonic

15 I have several times referred to the long duration of this dominant. But whether the categorical difference between the quarter-notes of the other cadences and the dotted half-note ending the third phrase is exactly reflected in actual performances, is most doubtful. But since most Bach conductors are prone to be guided by the text, having arrived at a full stop in m. 6, it seems very likely that this fermata will last perceptibly longer than the other ones. I am indebted to professor Dan-Olof Stenlund for sharing with me his knowledge and experience of Bach chorales.

digression, and eventually completed as a result of the final modification of the repeated melody.

Needless to say, due to the radical harmonic differences between the two parts of the chorale, the voice-leading of its second half cannot very well relate to the final cadence “in the same way” as the voice-leading of its first half related to the midway dominant. This correspondence is just something that Schenker shows at the cost of gravely misrepresenting what happens in particularly the chorale’s second half.

All this being said, it should again be stressed that the plagal confirmation of the dominant in m. 6 is of course also a dividing event in the surface design of the chorale. Indeed, its effect when it comes to make for tonal motion and continuity derives to a considerable extent from this dividing quality, marking it for attention and boosting the listeners’ tonal expectations. Due to the dividing dominant, the two halves of the chorale may in fact be said to make up a kind of generative-event-followed-by-realization in L. B. Meyer’s sense. This is a point that may be generalized: if extended upper-line connections are to work as perceptual realities, they must somehow be fuelled by tonal expectations, and this goes especially for “interrupted” connections – how else can the sense of interruption be explained?

The idea that the midway 2/V cadence is the true structural dominant of the chorale would militate against the Schenkerian principle “that each tone of a structural motion remains active until it is resolved by the next, and that it influences the harmonic character of the passage throughout which it is active”. And accepting a fully structural second degree in m. 6 would also violate another rule in the system, the one stating that “a structural note, once quitted, cannot become ‘active’ again”. Cook cites Oswald Jonas, generalizing on the basis of how dissonant passing-notes are heard: “It is as if the dissonance would always carry along with it the impression of its consonant origin”. (p. 52)

The idea that you cannot, or must not, return to a structural note is of course merely another dogma (or “convention”) regulating how tonal reduction (prolongation) is to be undertaken and what amounts to a permissible fundamental structure. As to Jonas’s remark on dissonant passing-notes, it is doubtful whether this analogy applies to extended passages like the first half of the chorale. A very questionable assumption

in Schenkerian theory is that whatever is valid in small-scale, contrived examples is true also when it comes to reductions of long and complex passages of actual music.

Turning to the chorale under consideration: no matter the A_{\flat} -major chords occurring in the first three phrases, and no matter the alleged $a_{\flat}-A_{\flat}$ coupling in the bass, E_{\flat} major is in fact established already by the complete cadence of the second phrase and then confirmed by the plagal cadence of the third phrase. Hence, it seems quite unlikely that we will remember the c^2 in m. 2 as a note that is active throughout its alleged three-phrase tonal territory. The e_{\flat}^2 top notes will undermine the sense of a prolonged c^2 , and then we cannot but take account of the cadential g^2 , a consonant dominant note holding up *its* prospects for the future.

Jonas and Schenker may seem right if you play through the “level 2” middleground, but this is a very deceptive proof of the existence of a three-phrase tonic domain in the first half of the chorale since, along with the notes reduced out of sight, the musical time has collapsed, and since this middleground relies on a “reduction” predicated on this very prolongation of the tonic.

Needless to say, Schenker’s “resumed” oblique $3/I$ in mm. 8/9, extremely questionable in itself, is even less “active” during the harmonically expansive second half of the chorale. At great pains to arise and survive even in its own immediate and most hostile harmonic environment, how can it hold a greater territory, and how can it be “active” in m. 7, i.e. before it is a “fact”?

Nor is of course the midway $2/V$ prolonged (active) throughout the second half. But, notwithstanding or rather due to its dividing quality, it makes up a well-remembered and enhancing tonal backdrop for the music to come. The b_{\flat}^1 -over- E_{\flat} -major in m. 6 is patently dissonant in relation to the fourth and fifth phrases, and most of the second half of the chorale is likely to frustrate your expectations: an applied dominant to an F-minor chord is not what you envisaged in the short perspective, nor did you expect the ensuing harmonic excursions. This is why Schenker’s A_{\flat} -major reading of the second half, a reading based on the far-fetched “ $3/I$ ” in mm. 8/9, prolonged both backwards and forwards, emerges as so trite and untrue. Bach’s bold re-harmonization of the repeated melody, and the tensions it gives rise to, is not acknowledged as an essential phenomenon but shrugged off.

Turning back to Cook's explications, the "strongly articulated surface", i.e. the quite salient midway cadence to the dominant and the following repeat of the melody, makes us hear the fourth phrase as a return to the beginning, tonally speaking: "the 3 after the fermata is a direct reference back to the primary tone, over the top of the 2 that precedes it". (p. 53)

First of all, it should be pointed out that reference is an associative relationship, not a hierarchic one, and this implies that the would-be resumption of the "3/I" tonic in mm. 8/9 must not necessarily be subsumed under the third-degree-over-I back in the first phrase. Secondly, if one keeps to Schenker's reading of the chorale, according to which the primary-note c^2 is located to the A_b -major cadence ending the first phrase, it is hard to find a counterpart to it in the fourth phrase: what we get at the corresponding spot is a quite different c^2 over an F-major chord. Since very few of us are squint-eared enough to hear "the 3 after the fermata" as the oblique line in Schenker's foreground graph urges us to do, very few listeners will recognize it as a reference back to the 3/I of the first phrase (which according to the foreground requires squint listening in the opposite, bass-before-top-note direction). Thirdly, entertaining associations between primary and allegedly re-activated primary tones (somehow) occurring at the end of phrases is not very helpful when it comes to discovering that a melodic repeat has started: you have to identify the melodic recurrence in m. 7 right from the start in spite of the re-harmonization. And thanks to Bach this is not altogether impossible – both halves of the chorale start with applied dominants.

Cook's alternative reduction

In order to broaden his presentation of Schenkerian analysis, Cook offers his own alternative reduction of the chorale, a reading that he presents as "Schenkerian enough in most of its details" but "less so" when it comes to "its major features"; cf. Ex. 3. Cook wants to bring out two features that are suppressed in Schenker's reading: the frequent and prominent top note e_b^2 and the accented B_b -minor chord in m. 8. He selects the fifth-degree e_b^2 as his point of departure for the structural upper line in spite of the fact that it lacks root support in m. 3 and has to rely on its general A_b -major context, and lets the B_b -minor chord, "approached by the longest scalar

movement in the bass of the entire piece”, serve as support for the fourth degree. Furthermore, he wants to pursue the idea that the chorale as a whole might be through-composed, an idea that “does away with the interruption altogether”. (p. 55)

Cook also envisages a possible (Schenkerian) objection: “can the entire passage from bars 8–11 be convincingly regarded as a prolongation of a B_b-minor formation and in particular a D_b in the upper voice?”; “isn’t the D_b markedly foreign to this passage with its D_b’s?” In defence of his reading he points out that the “dissonant relation [of d_b²] to this passage serves to underline its ‘active’ character as the first move away from the primary tone”, that “it generates an impulse towards resolution which was absent in the first half”, and that “it is picked up by the D_b’s of bar 11, which is when this resolution is achieved”. (p. 55)

All this makes good perceptual sense, but it should be observed that Cook’s line of reasoning would fit equally well (or better) for a structural b_b¹ in the first half of the chorale. This note is introduced as consonant in the second phrase, and then turns into a quasi-dissonant passing note in the third phrase until it comes to rest again at the E_b-major cadence in m. 6. Adapting Cook’s argument to Schenker’s upper connection issuing from c² in the first phrase, a second-degree b_b¹ might be regarded as prolonged from the middle of m. 3 up to the end of the third phrase, a reading that makes as much or as little sense as Cook’s prolongation of the fourth-degree d_b² in the second half of the chorale. But the interesting and subversive thing about Cook’s argument is of course the notion that something that is, or will be, dissonant can be prolonged.

The facts that the top note e_b² turns up three times in the first part, and that d_b²/II in m. 8 is marked for attention by being accented and approached by a long scalar movement, are not likely to score very high as reductive criteria from a Schenkerian perspective. Surface salience is far from decisive when selecting events to be passed on to higher structural levels; indeed, keeping to salient events is considered as a beginner’s mistake bound to make for unrewarding or incorrect results.

But leaving aside this questionable, contemptuous attitude towards events that you can readily hear, there are problems in Cook’s reading. A fundamental line beginning with two fifth-degree primary notes in m. 3

and followed by a fourth-degree d_b^2 in m. 8 is problematic since the same two exposed e_b^2 's turn up after the structural d_b^2/II chord, which implies that this chord should rather be understood as a top-level neighbour-note phenomenon – at least if you keep to the Schenkerian rule that structural notes cannot be resumed unless there is a formal interruption. (But why should you respect this “convention”?) Anyway, the embarrassing e_b^2 's in m. 9 (the second of which enjoys root-position tonic support) simply disappear in Cook's reduction of the fifth phrase, which (together with the last chords of the fourth) forms a series of descending thirds, a strained reading that might have been imposed on the corresponding passage of the first half of the chorale as well. These falling thirds – a result of the unwarranted disposal of the fifth phrase as an inner-voice affair – obscure the obvious parallelism between the phrases.

It might also be argued that the structural importance of the B_b -minor chord is undermined by its function as a local applied subdominant in a plagal cadence to the tonally distant F-major chord, and that its fourth-degree d_b^2 may be understood as merely an appoggiatura coming to rest at c^2 . Besides, since the next phrase features a quite similar plagal cadence to C major, one would strongly prefer the two units of this structural rhyme to be treated in the same way.

Turning to Cook's middleground, the falling sequence of three rising thirds spanning the chorale certainly lays bare a quite orderly tonal plan for a through-composed piece, but it makes musical sense only if the melody really emerges as dissociated into two pitch strata in the way the unfolding symbols suggest – which is hardly the case. The $b_b^1-d_b^2$ unfolding and the associated bass progression e_b-b_b are understandable, given Cook's ambition to do away with the interruption, but these two motions completely (and intentionally) obliterate the sense of a dividing dominant – which is arguably a most important feature of the chorale. Furthermore, just as Schenker's reading, Cook's alternative account suppresses the F-minor point of departure for the chorale's second half.

But the most regrettable traits of Cook's reduction are the disappearance of the melodic repeat and the way the internal cadences are tucked away. The chorale certainly emerges as through-composed in his analysis – and in concurrence with the obvious midway bisection and the melodic repeat this is

admittedly a crucial feature of its musical design – but one aspect of its sense of being through-composed is the sequence of cadences that in turn bring the listener to E_b major, F major, and C major, and this feature is resolutely suppressed in the graph. The roots of the target chords of the cadences of the third and fourth phrases are used as starting points for rising-fifth progressions, motions ending on the penultimate, applied-subdominant chords of the plagal cadences of the fourth and fifth phrases – quite implausible readings.

As to the C-major cadence in m. 10, it is hidden by an almost inexplicable tenor-to-soprano, no-matter-the-intervening-upbeat connection, shown at the expense of the actual e₄¹–e₃¹ falling-semitone continuity in the alto, a link that obviously replicates the corresponding a₄¹–a₃¹ inflection in m. 8. Cook's reduction is not free from analytic mischief: the smooth voice leading shown in mm. 8–10 is the result of a fanciful distortion involving notes that are added, temporally displaced, or interchanged between the voices. Indeed, his analysis is “Schenkerian enough in most of its details”.

Lerdahl and Jackendoff's “Generative Theory”

Fred Lerdahl and Ray Jackendoff's article is a separate demonstration of the systematic approach to music analysis put forth in their book *A Generative Theory of Tonal Music*.¹⁶ Although the final outcome of their analysis of *Ich sollte Büßen* is fairly consonant with the deeper/higher layers of Schenker's reading, the contrast as to method is radical.

According to the article, the theory is “a detailed theory of musical hierarchies”, and being inspired by generative linguistics, the proposed “grammar” “is intended to model musical intuition”, and “it takes the form of explicit rules that assign, or ‘generate’, heard structures from musical surfaces. [...] By ‘heard structure’ we mean all the structure a listener unconsciously infers when he listens to and understands a piece”. (pp. 229–230) The latter statement is qualified later on, however: “The theory provides

16 Cambridge, Mass. 1983, MIT Press; in this book another chorale, *O Haupt voll Blut und Wunden*, also from the St. Matthew Passion, is chosen as one of the main examples.

structural descriptions only for the final state of a listener's understanding of a piece." (p. 230)

Rhythm – giving rise to two hierarchical structures, one for grouping, one for metric accent – is accorded great significance since it influences a third bottom/up hierarchy that recursively determines the relative importance of pitch events within ever larger time-spans. These events then serve as input for a further and decisive hierarchy, that of prolongational reduction, working top/down and taking account of our intuitions as to tonal tension/relaxation.

The hierarchies, subject to well-formedness rules, are quite strict; when necessary, a few transformation rules may be invoked to make the musical surface fully hierarchic. A number of preference rules, ultimately derived from perception psychology, are advanced to explain how listeners tend to understand music, and it is these rules that actually do the analytic job.

Exaggerating slightly, one might say that L&J turn the art of analysis into a science, which is both salutary and somewhat saddening. It is hard to imagine that many analysts would consider applying L&J's theory completely and consistently, which (apart from being quite laborious) would amount to a kind of abdication of analysis as an art. On the other hand, one must appreciate that the decision procedures are rendered open and transparent, and that the analyses are negotiable: several preference rules may apply in a certain situation and they may conflict, making it possible to argue for different ways of listening. Hence, their system allows of ambiguity – on the condition that the divergent readings are shown in separate, concurrent analyses; the strictly hierarchical account must not be compromised.

Another asset is that the authors carefully point out in what ways their theory is incomplete. Due to its hierarchical nature, implicative and associational aspects must be disregarded when it comes to generating structural descriptions, although parallelism does have a role as input in some preference rules.

After this very short introduction to L&J's theory for generating analyses of tonal music, we will in due order discuss some points in their reduction of the Bach chorale and by extension consider a few aspects of their analytic system. Already from the outset, it must be acknowledged that the critical remarks to follow will be unfair in as far as it is impossible in the present context

to account for the often quite complex web of preference rules involved in L&J's analytic decisions and sometimes making for ambiguous situations. The ensuing critical discussion is simply what the authors ask for when saying that their theory "can be verified or falsified by comparing the analyses it generates with one's intuitions about particular pieces of music". (p. 230) If my intuitions lead to results deviating from L&J's final-state readings, either my intuitions are idiosyncratic or there is something wrong with the rules or their specific application; a third possibility is that some situations are ambiguous in ways that the hierarchic mode of description cannot account for. No matter which of these alternatives that applies, L&J's comprehensive and painstaking theoretical effort and open-minded approach to music analysis deserve great respect.

The first phrase: metric accents and rhythmic groups

Let's start in the rhythmic domain and deal with the first phrase only. The dots in Ex. 4a signify the relative accentual weight, strictly distributed according to the hierarchic metric organization obtaining in regular quadruple time.

But how do we know that the initial A_b-major chord is less accented than the D_b-major chord after the bar-line? If we were looking at a notation of the very first chords of the chorale without time signature and bar-line, or were listening to a deadpan rendition of this fragment, the situation would be less clear-cut, but not impossible to settle.¹⁷ When the chorale starts, we are more prone to identify an authentic dominant-to-tonic progression, implying a weak-to-strong pair of chords, than we are to hear a plagal

17 In a follow-up paper, "Musical Parsing and Musical Affect", *Music Perception*, 9(1991), 199-229, Ray Jackendoff offers a penetrating discussion of the uncertainties inherent in the first phrase and of how they are resolved as it reaches completion. Serving as an example to explain how the musical structure "parses itself" during real-time listening – the workings of the *Generative Theory* and its preference rules are clearly demonstrated – he begins by disregarding any disambiguating cues deriving from performance. Jackendoff's primary aim is to give a background for proposing a plausible mechanism for real-time musical understanding. I largely agree with his account although I think that the first phrase balances more evenly between A_b major and D_b major.

tonic-to-subdominant, strong-to-weak relationship.¹⁸ Thus, the apparently accented D_b-major chord is (at first) likely to be understood as the chorale's tonic – unless there are performance characteristics suggesting otherwise.

Metric signs are normative, and most performances of the chorale are likely to signal the prescribed upbeat/downbeat start in some way or other, and this is all the more important since the first two chords are potentially ambiguous with respect to their harmonic function. (An accented first chord, signalling a tonic-to-subdominant progression, would easily make listeners hear a quite possible, but wrong triple-meter start of the chorale.) Indeed, it seems to be a very good idea to bring out the D_b-major chord as a downbeat tonic since the initial weak-to-strong rhythmic configuration is a recurrent feature throughout the chorale, particularly important at the beginning of the fourth phrase, starting the repeat of the melody with a similar, and unmistakably applied-dominant-to-auxiliary-tonic progression.¹⁹

The rhythm becomes gradually clarified when the passage continues beyond the two initial events. Due to the fact that a subdivided strong beat is a less common configuration than a subdivided weak beat, it will appear as a quite emphatic event when it does occur.²⁰ Hence, the D_b-major complex after the bar-line brings a structural cue for accent, and it will emerge as a strong beat, unless it is not outdone by the next chord. But the

18 It seems that metric and harmonic understanding are often inseparably joined in the same percept like two sides of a coin. Whereas Jackendoff argues (p. 204) that the initial motion c^2-a^1 (unlike the non-occurring leading-note c^2-d^2 motion suggesting a preliminary D_b-major tonic) speaks for a subdominant D_b-major chord, the rising fourth a^1-d^1 in the bass emerges as a characteristic sign of a dominant-to-tonic progression. Besides, a (D_b-major) chorale starting with a leading-note motion in the upper line appears quite unlikely.

19 Both analysts and performing musicians have the advantage of knowing the music in its entirety. Whereas analysts should start by abstaining from this knowledge so as to be sure of capturing all aspects of a certain passage, musicians might use this privilege in order to create references between events.

20 From his strictly structural point of view, Jackendoff argues (p. 206) that the subdivision turns the preceding A-major chord into a strong event. It is correct that subdivisions are more frequent at weak beats, but when they in fact do occur on strong beats they tend to work as structural emphases reinforcing the sense of an accent.

following event, an incomplete second-inversion E \flat -major seventh-chord, is unlikely as an accented beat, a fact that suggests that the next downbeat is postponed until the ensuing beat offering a stable root-position A \flat -major triad, introducing another rhythmic subdivision making for a sense of accent. This means that a triple-metre start of the chorale from the D \flat -major chord seems excluded. A triple metre would also militate against the rest of the first phrase, obviously organized in duple metre – this is patently established by the two-chord suspension formula preparing for the true A \flat -major tonic on the third beat of m. 2.

Thus, when the entire phrase is a fact, it will retrospectively turn out that the second chord was after all a subdominant, but this does not wipe out its original, immediate sense of being a tonic. What the above piecemeal rhythmic parsing (taking full account of Bach's notation) has shown is that the second chord is understood as a downbeat, which in turn implies that the initial A \flat -major sonority was originally taken as an applied dominant and that the second, accented D \flat -major chord emerged as its tonic.

These niceties aside, the metric structure shown in Ex. 4a is quite defensible: this is the accentual pattern that will eventually present itself when the entire first phrase is a fact, and that will do so even in a deadpan rendition. But it is of some interest to notice that the two most accented events in the first phrase are a D \flat -major root-position chord and a quasi-D \flat -major dissonance.

Proceeding to the rhythmic grouping, the accent on the D \flat -major chord is preceded by an upbeat and followed by an afterbeat. This is plain and quite obvious, but due to the strictly hierarchical representation of L&J's system – we are, and we must be, shown a larger bracket containing a smaller one – the importance of the D \flat -major chord is understated in Ex. 4a. The initial amphibrach group is, as a matter of phenomenal fact, made up of a iamb (corresponding to the initial authentic harmonic progression) overlapping with a trochee kept together by the eighth-note, but this tight three-unit configuration with its D \flat -major core cannot show up. The downbeat within the amphibrach group gains extra weight by being a nexus chord, by being both the goal and the point of departure in a composite group, a fact that confirms our initial impression that the D \flat -major chord is a tonic rather than a subdominant.

Pursuing the analysis beyond L&J's intentions, it seems that the grouping properties influence the metric weights at the double-whole-note level not shown in Ex. 4a. Due to its nexus function within the grouping structure, the first-beat D_b-major chord emerges as more accented than the dissonance starting m. 2, a sonority that may either be understood as a suspension representing the subdominant or as a suspension delaying the dominant; cf. below.

The first phrase: time-span reduction

Ex. 4c shows the stages of the time-span reduction. Due to the connecting eighth-notes, the third chord is attached to the preceding strong-beat D_b-major chord, whereas the initial A_b-major chord, despite its local upbeat quality but in virtue of being the “structural beginning” of the phrase, becomes the event from which the package of the two following chords issue. This means that the accentual priority as well as the auxiliary-tonic harmonic interpretation of the D_b-major chord are literally over-ruled. It also implies that an element of top/down thinking has sneaked in and replaced the bottom/up perspective supposed to be the *modus operandi* of accent/grouping analysis as well as of time-span reduction (which is to supply the input for the top/down prolongational reduction) – a shift that cannot but obscure how the music actually proceeds when you start listening to it. The upbeat A_b-major chord is undeniably the first chord of the phrase, but does it really begin its “structure”, and if it does, when do we know that it did?²¹

The layers of the time-span reduction show how this A_b-major upbeat chord, this not-yet-tonic chord, first supersedes the D_b-major chord as the main event in the first part of m. 1 and then takes over the entire bar. And since the beginning of a first phrase counts for more than its end – considering the upbeat start is this true of this particular phrase? – the initial

21 Jackendoff (p. 209) adduces a preparing, but equally top/down argument when it comes to selecting the most important events among the first four chords: the first and last of these A_b-major chords form a strong prolongation, i.e. they make up a strongly preferred harmonic configuration. But it might be argued that the dual fact that the initial chord is both anacrustic and functionally ambiguous cannot but undermine this strong prolongation from a perceptual point of view.

chord eventually dominates the whole phrase. Thus, the top/down perspective not only robs the D \flat -major chord of its privileged metric position but also of its capacity as a quite possible tonal point of departure for the phrase – recall that the time-span reduction (inbred from above) will serve as input for the prolongational reduction.

But it is very doubtful whether a harmonic re-evaluation of the second chord ever takes place. Isn't a subdominant-as-tonic beginning an interesting trait that is likely to be retained even in the "final state" of a listener's understanding of the phrase, indeed of the entire chorale? But this presupposes that listeners are not quite as addicted to hierarchical tonal structure as L&J's system takes for granted. It should be added that final-state listeners keeping to a subdominant point of departure for the chorale are not necessarily neglecting their tonal duties in a regrettable way. They might have noticed that the fourth phrase, starting the repeat of the melody, also begins with an applied dominant leaning towards its auxiliary tonic, and from this fact they might have concluded that the first phrase emerges as a model for the harmonic expansion to take place in the fourth phrase. If so, this exemplifies a worthwhile top/down (or rather backward-tracking) observation using a non-hierarchical similarity association as input.

A corresponding suppression of the subdominant can be seen in the second bar, which is ambiguous in a way that the strictly hierarchic tree notation in Ex. 4c cannot do justice to.

The strong-beat dissonant sonority is evidently read by L&J as a suspension, and according to Schenkerian (as well current) practice they retain the weak-beat resolution chord as the main event. But the sense of a clash does not only apply to the dissonance between the soprano d \flat^2 and the repeated c 2 of the alto voice; in fact, three voices are about to move in an appoggiatura-like way so as to accommodate to the half-note in the soprano. The result is a dominant seventh-chord, leading to the following A \flat -major tonic chord, which is shown in layer b of the reduction as occupying m. 2 at the primary downbeat. According to layer c, m. 2 is essentially equivalent to a two-member authentic cadence as in the re-composition shown in Ex. A.

However, the three sonorities closing Bach's phrase may also be understood as a complete three member-cadence starting with a first-inversion

subdominant chord. A root-position relative-minor chord with an added sixth is a less likely reading since c^2 is the (virtually) tied dissonant note that will yield downwards. The D_b -major interpretation of the accented chord may even be preferred over the E_b -major one since it is more parsimonious – only one note is taken to be dissonant. Avoiding suspensions, the first cadence of the chorale might be rewritten as shown in Ex. B. Returning to Bach's (much better) cadence, if the first chord is understood as a first-inversion subdominant, the following first-inversion dominant seventh-chord sounds like a passing chord – both the alto and the bass are involved in passing motions.

The attachment of the second chord in m. 2 emerges as genuinely ambiguous in a way that cannot be expressed in a strictly hierarchical analysis. If it is understood as issuing from a preceding subdominant chord, it should be represented by a right branch; if it is taken to be the resolution of a dominant suspension, the left-branching shown in Ex. 4c is appropriate. It should be added that whether heard as a passing or a resolution chord, just in virtue of being a dominant, the second chord is of course closely linked as a left branch to the final tonic chord, a fact that makes for a flawed hierarchy if the bar is understood as starting with a right-branching subdominant chord.

It is not uncommon in Bach's music that resolutions of accented dissonances and harmonic progressions occur simultaneously. Such complexities can be understood quite well aurally, and analytic systems devised to model listening should be able to account for them, instead of setting up either/or alternatives, or (as in the present case) ironing out the ambiguity out in order to maintain a strictly hierarchical approach.

The problem with the double attachment of the dominant chord disappears if the end of the first phrase is understood as a veiled two-member, subdominant-to-tonic cadence, betraying a kinship with the quite obvious, root-position plagal cadences of the fourth and fifth phrases. Its aural effect is similar to that of the cadence shown in Ex. C. It is also illuminating to compare, and to appreciate the difference between, the cadences of the first and second phrases of the chorale; the latter closes with a complete three-member authentic cadence featuring a root-position C-minor chord and a second-inversion dominant seventh-chord, introduced as the resolution of a root-position F-minor seventh-chord.

According to layer c of L&J's time-span reduction, the first phrase can be understood as starting with a stable tonic chord, which is then visited again and finally returned to; according to layer d, it features two three-member cadences, both of them issuing from and arriving at the tonic. But alternatively, the first phrase may be taken to bring two subdominants at the most privileged metric positions. These manifestations of the subdominant have an active quality – the root-position $D\flat$ -major chord beginning m. 1 is quickly left, and the initial chord in m. 2 is dissonant – and in this perspective the beginning of the chorale features two three-member attempts to reach the tonic. Figuratively speaking, the first phrase holds two static tonic ducks and/or two dynamic subdominant rabbits.

L&J's time-span reduction, however, strictly observing hierarchical decorum, gradually filters away everything but the tonic chords by suppressing the subdominants. To a listener understanding the first phrase otherwise, their analysis emerges as a kind of majority decision, rigged to be on the safe side. As already pointed out, the alternative “subdominant” way to understand the music brings two important associations that are obliterated in L&J's reading. The first phrase may seem to begin as the fourth phrase will start, namely by an applied dominant leaning towards its auxiliary tonic, and the first phrase may be heard as closing in the same way as the fourth and fifth phrases will end, i.e. with two-member plagal progressions.

Furthermore, regarding mm. 1–2 as a massive tonic platform as in the final stages of L&J's time-span reduction makes the first phrase stand out from the others in a way that does not agree with our impression of the music. If we start from the accented, first-but-one chords, all phrases, including the first, take us from one chord in the (eventually quite expanded) $A\flat$ -major universe to another, different one. To the extent that reduction is valuable as a guide to interpretation, and that, conversely, a musically rewarding interpretation may be taken to indicate that the corresponding analytic reading is worthwhile, little speaks for the result of L&J's time-span reduction of the first phrase. Starting with a tonic-to-tonic phrase would mean a very bland beginning of the chorale, a beginning lacking the tonal momentum necessary to get the music going. To think of the first phrase as somehow corresponding to Ex. D (cf. layer c in Ex. 4c) is quite uninspiring, for musicians as well

as for “final-state” listeners, and this disappointing comparison should make you ask yourself whether you are on the right track.

Just as Schenkerians recommend, L&J advise their readers to “penetrate” the analysis by playing “the actual piece and then its successive reductional levels”, and when doing so “each level should sound like a natural simplification of the previous level”. (p. 242) But if “penetrate” is equivalent to verify, their advice is questionable, and one might wonder whether layer c in Ex. 4c is “a natural simplification” of what happens in Bach’s first phrase (which is still recognizable on layer d) or rather portrays the barren music shown in Ex. D.

The first phrase: prolongational reduction

Doesn’t the prolongational reduction, cf. Ex. 4d, with its nested “strong” prolongations connecting (nominally) identical harmonic events, i.e. the stable root-position tonic chords, prove that the all-A \flat -major time-span reading shown in Ex. 4c is the one to prefer?²² Well, in addition to confirming the slack “A \flat -major” idea that nothing really happens in the first phrase, the prolongational reduction (strictly confined to what the time-span reduction makes available on each level) apparently presupposes, indeed takes for granted, that listeners pay primary attention to events that represent stasis rather than to events that subvert or challenge harmonic tautologies, and that listeners favour such events when assigning final-state structure to music.

But are these presuppositions true? Maybe there are listeners who prefer to notice “progressions”, trains of events that take the music somewhere, rather than to just register recurrences putting it to rest? Using L&J’s terminology, the former option means that m. 1 might be heard as a right-branching, opening progression issuing from the D \flat -major quasi-tonic and leading to the A \flat -major tonic; m. 2 then complements with a local left-branching plagal cadence to A \flat major – recall that plagal cadences sound more open-ended than authentic ones. For such listeners the phrase as a whole with its falling-then rising line in the bass and its contrary motions

²² Notice that the third chord, as its dominant quality bids, is allowed to transgress its time-span segment and attach to the following tonic chord.

in the upper voices might emerge as a subdominant complex, eventually issuing into the tonic.

It should be observed that whereas harmonic identity by definition gives rise to “strong” prolongations in L&J’s system, it makes for a quite weak sense of tonal hierarchy because the element of tension/relaxation is attenuated between identical events. Thus, if mm. 1–2 are really understood as a strong prolongation permeated by the tonic as shown in Ex. 4d, is there in fact much of a tonal hierarchy within the first phrase? And if a hierarchy of (quasi) identical root-position tonic chords is to be established in this phrase, what does its prolongational tree look like? It seems that several options are possible.

Although it is a local upbeat and hence perceptually weak, the first A_b-major chord is selected by L&J to be ultimately preserved since in virtue of being a “structural beginning” it has been boosted to availability and eventually primary importance already in the time-span reduction (and perhaps also since the A_b-major cadence with its non-root chords may appear as too insignificant to compete with the prior sense of a start). But on the other hand, the second tonic chord with its dominant upbeat and its appended “weak” prolongation, introducing the top note of the phrase, is the finishing-then-starting nexus chord of two motions, one back to and the other away from the A_b-major tonic; the rhythmic energy injected by the subdivisions in three of the voices also makes this juncture chord quite prominent. As to the third A_b-major chord, it will emerge as considerably strengthened if one takes full harmonic account of the two chords preceding it. The structural weight of the accented D_b-major sonority is arguably suppressed in Ex. 4d, and notwithstanding the fact that the two pre-tonic chords in the cadence do not appear in root position, it is hard to deny that, along with the plagal cadence, there is also a sense of a complete three-member authentic cadence.

So when it comes to the crunch, which of the three root-position A_b-major chords is likely to be chosen by the listener as the primary one – granted that he/she at all construes the chorale as starting from the tonic?

Since the first phrase may also be taken to close with a complete three-member cadence, is it really quite true that it does not qualify as a local “normative prolongational structure”? Turning for a while to the second

phrase, it seems that the root-position C-minor chord serves quite well as the first chord of a three-member cadence to E \flat major, a cadence featuring a penultimate second-inversion dominant that can easily be exchanged for a root-position chord; cf. Ex. G(a). Good composers do not always trumpet out cadences, and it is our task as listeners, musicians, and analysts to take due notice also of less patent varieties of harmonic closure.

What the prolongational reduction (and particularly the rigged, all-tonic time-span reduction) of the first phrase shows, or rather illustrates, is the retrospective, or perhaps the gradually emerging, impression that the first phrase “is” in A \flat major. When listening to the chorale, we are (subliminally but none the less) aware of the fact that there are no members of the pitch class G \flat in its first phrase, and hence of the fact that the music “is” not in D \flat major. Yet, by subduing the crucial presence of D \flat major in the first phrase, L&J’s time-span and prolongational reductions all-too positively and all-too early establish that this is an A \flat -major chorale, although it derives some of its boldness from the recollection (presumably kept also in the “final-state” understanding) that its harmonic process once seemed to issue from the subdominant. This denial of an initial auxiliary-tonic subdominant may be an asset if you just want to use the chorale as an example when advancing a general theory, but it amounts to a drawback if you truly wish to understand this particular piece of music. But as L&J put it when comparing their endeavours with Schenker’s: “His purpose is to illuminate musical masterpieces, ours to find principles of musical cognition”. (p. 248–49)²³

Issues of “final-state” understanding

We will now turn to the chorale in its entirety. The time-span reduction is shown together with the grouping structure in Ex. 4e, and the prolongational reduction is given in Ex. 4f.

23 The previous discussion has shown that Schenker was not always very successful as an illuminator, and that he certainly entertained ambitions to establish tonal principles. This double purpose might explain why he so often mistreated the masterpieces he was to illuminate – he did so in order to procure evidence for a theory that he was already convinced of.

The short third phrase comes to a conspicuously premature end with a dominant E_b-major chord already at the first beat.²⁴ If we imagine a chorale with only three phrases, it could very well have closed with a broad cadence to the tonic in the middle of m. 6; cf. Ex. E. Thus, the third phrase is not only one soprano note too short from a rhythmic point of view; it seems harmonically curtailed as well since the expected discharge into the tonic is cancelled. This rather uneventful phrase is finished off with a plagal tonic-to-dominant motion, prefiguring the plagal cadences to come in the second half of the chorale, but it is different from them due to the target-oriented way its final chord turns up on a primary accent.

In the time-span reduction, the E_b-major chord in m. 6 is attached back to the initial tonic, to which it certainly belongs in terms of large-scale grouping. Being the last, dividing chord of the first half of the chorale *and* an opening chord within its overall tonal form, this dominant has a most vital function. Locally, the third-beat tonic in m. 5 is attached to it as a left branch. As to the chorale's second half, the fourth phrase and fifth phrase (via the fourth) are associated with the final cadence.

In the prolongational reduction, on the other hand, the fourth as well as the fifth phrase are attached to the dominant end-point of the first half via the F-minor chord starting m. 7; the dividing-dominant chord is in turn connected with the structural beginning, i.e. the initial A_b-major chord. Indeed, the entire second half of the chorale up to its very last cadence is shown as being subsumed under the very first chord; even a considerable part of the sixth phrase, making up a final time-span segment of its own, goes with the beginning of the piece.

The treatment of the dominant chord in m. 6 provides a clear demonstration of how bottom/up listening gives in to top/down, “final-state” understanding. According to L&J such shifts are necessary in tonal analysis because “the prolongational importance of an event – its role in patterns of tension and relaxation – is determined by its larger context”. Furthermore, “an event’s importance cannot be evaluated solely from its pitch

24 This fact brings far-reaching musical consequences, but there is a poetic (and yet most prosaic) explanation for it: the third line of the text closes with a one-syllable word.

content, rhythmic information is also needed”; “in our theory, the requisite contextual and rhythmic information is not a matter of the analyst’s artistic intuition, as in Schenkerian analysis, but is derived formally from the time-span tree for the piece, which in turn encodes all the rhythmic information concerning grouping and meter”.²⁵ (p. 245–46)

Since L&J’s prolongational reduction, designed to show how “final-state” listeners assign structure to a piece of tonal music, may appear counterintuitive to quite a few listeners, we must ask what the top-down considerations are that can overthrow the structure that emerges when we listen bottom/up. What is the “larger context” like that has the power of eventually transforming our “intuitive” beginning-towards-end perceptions into analytically positive backward “evaluations”?

The key concept is evidently “patterns of tension and relaxation”, and the workings of this core principle of prolongational reduction can readily be seen in Ex. 4f. For instance, a tension is assumed to exist in the chorale already from its very beginning, and this tension, which should eventually be discharged, is due to the fact that the music starts with a third degree perched on top of a tonic chord. Hence, the ultimate structure should be a weak prolongation or, being more specific, the chorale should close with a clear cadence bringing us down to a first degree over the tonic.²⁶ And such a cadence is what this chorale eventually comes up with, which means that everything occurring between the start and the final cadence is relegated to a lower status within the tonal hierarchy.

This all-embracing tension/relaxation pattern is also at work at lower levels, and the prolongation graph carefully marks as “strong” prolongations whenever the first A_b-major chord revisits its initial, the 3-over-I starting configuration during its course towards ultimate resolution. (The only exception is the embedded A_b-major chord in m. 7 corresponding to

25 Let’s not forget that Schenker managed to combine artistic intuition with sheer dogmatism. But Heinrich the Great aside, what is the difference between “artistic intuitions” and the musical intuitions that (good or just average) listeners might entertain, and that L&J are prepared to respect when it comes to evaluating the analyses proposed in their book?

26 “Should” is a better word than “must” since L&J are careful not to be normative: fundamental tonal structures of other kinds than Schenkerian *Ursätze* are allowed in their system.

the third-beat one in m. 1.) Thus, since 3-over-1 chords turn up in mm. 5 and 11, the fourth and fifth phrases (along with the dividing dominant chord in m. 6 to which they are ultimately attached) are to be understood as layered events subsumed under the strong prolongation obtaining between the chorale's upbeat and the middle of m. 11.

That a vast majority of tonal pieces start from the tonic and eventually return to it, is a fair generalization (that may nevertheless fall short of being a satisfactory or let alone exhaustive definition of tonality). And some of these pieces also exhibit falling upper strands coming to rest on the first degree – but before accepting this observation as a norm for all tonal music as Schenker did, it should be treated as a hypothesis that must be substantiated in each and every case by careful and non-biased analyses that refrain from suppressing counterevidence. One should furthermore ask how important this generalization is for listeners. Empirical studies indicate that they do not bother very much whether or not the tonic turns up again at the end of even quite short pieces.²⁷ And the idea that listeners actually store in their memory (more or less) initial and faintly unstable tonic chords topped by third or fifth degrees, chords that are supposed to perceptibly demand first-degree final resolutions, emerges as most unlikely.

Change the last phrase of the chorale as shown in Ex. F, and you will have a second half keeping to F-minor throughout. Would such a chorale make listeners very upset? And suppose that its beginning-versus-end tonal mismatch were detected, would this chorale be heard as a tonal failure since it did not manage to find its way back to its starting A \flat -major tonic, or would it be enjoyed as an interesting piece that only in its second melodic take arrives at its F-minor tonic? The notion of ultimate tonal redemption by means of a final return to the tonic appears to be a quite weak force when it comes to listening, a force that is insufficient to make us re-evaluate past musical events perceived during real-time listening, or

27 Cf. Nicholas Cook, "The Perception of Large-Scale Tonal Closure", *Music Perception* 5(1987), 197–205, and Bengt Edlund, "Tonal Closure – Fact and/or Fiction", *Proceedings of the Third Triennial ESCOM Conference*, Uppsala 1997, pp. 140–144, and "Tonics and returns. A modest investigation", ch. 8 in this volume.

even to make us reconsider musical events when the music is contemplated in a “final-state” way.

As to Bach’s chorale, can any idea of an eventual “normative prolongational structure” (if some such notion enters your mind at all) make you somehow separate the dividing dominant chord in m. 6 from the first half of the chorale, and make you hear it as a kind of initial tonal anchor for the next two phrases? Can this chord really be broken out of its time-span, its phrase-three group, and be understood as divorced from the first half of the chorale? And do the following two phrases in any substantial sense issue from it?

It is true that the e_{\sharp} in the bass supplies a local chromatic connection between e_{\flat} and f , but this leading-note e_{\sharp} is the bass note of a first-inversion applied dominant pointing forwards to the root of its F-minor auxiliary tonic. The slur in Ex. 4f (a) directly connecting e_{\flat} and f is not convincing if it is to be understood as implying that F minor issues from the dividing E_{\flat} -major dominant. And this goes for the treble slur from b_{\flat}^1 to a_{\flat}^1 as well: the a_{\flat}^1 comes from its upbeat c^2 . What happened to the rhythmic “information” “encoded” in the time-span tree; information that patently separates the E_{\flat} -major and F-minor chords from each other, although they look immediately adjacent from Ex. 4e (c) on? An important factor behind the time-span segmentation, and our impression of the chorale, is no doubt the sheer closing length of the halfway E_{\flat} -major chord.

Is the “strong” prolongation obtaining between the 3-over-I chords in m. 5 and 11 really strong enough to contain everything that takes place in between? It may be argued that the strong relationship between these chords is privileged; after all, they correspond to each other, and it is at this very point in m. 11 that we may have a sense of being back in m. 5. But there are also listeners who have long ago discovered that the second half of the chorale uses the same melody as its first half, and listening to a variation does certainly not imply that whatever occurs between any two points of recognition is heard as being subsumed. It is true that similarity associations do not give rise to hierarchies, and that they are therefore as a matter of principle not ascribed decisive importance in L&J’s theory of tonal analysis, being exclusively concerned with hierarchical structure. But variation is nevertheless a most important principle of musical

construction, and it cannot be denied that it gives rise to structure, to sequential, non-hierarchical varieties of structure.

Imagine another, quite boring chorale whose second half is identical with its first half (except for the fact that this stupid chorale closes on a 1-over-I chord as shown in Ex. E) – i.e. imagine a chorale that corresponds to the background structure in Schenker’s analysis (cf. Ex. 2). Anyone will notice that its two halves start in the same way (let’s for the sake of argument assume that they begin with “structural”, but metrically weak A_b-major tonics), but does this exact recurrence make for a strong prolongation, entailing that what happens in the first half is subsumed under the “super-event” node formed by the two initial 3-over-I chords? Isn’t the impression of a new start – which is a non-hierarchic phenomenon deriving from the dividing dominant just heard and the perception of a recurring melody, i.e. from matters of form – a much stronger determinant for our musical understanding than the order supposed to derive from tonal identities, whether the hierarchy is a dimly apprehended thing emerging as the music proceeds, or a detached, final-state fact established only when the music is over? Generally, is tonal music really heard in terms of (more or less) initial, all-important tonic chords with enormous appetite, capable of generating and consuming everything up to the last cadence?

Granted that long-term connections are not just armchair analyses ascribed to the music, for how long can we realistically assume that their starting events are in power when we listen? For instance, doesn’t the structure-generating tension supposed to issue from the chorale’s initial 3-over-I chord decrease from faint to virtually nil when we travel from m. 1 to m. 2 to m. 5 to m. 11, strong-prolongation places where the tension is supposed to regain power?²⁸ Or is this just an example of tendentious chord picking, however much the selection is backed up by reference to undeniable strong-prolongation relationships, the very acme of horizontal stability. You can instruct a computer to identify (say) 3-over-I chords at

28 Recall that it is not self-evident that the first phrase starts from (and then throughout expresses) the tonic; it has been argued that it rather begins with an applied dominant in upbeat position followed by an auxiliary tonic, just as does the fourth phrase.

the expense of everything else, including local contexts, but is establishing long-range “strong” prolongations how we actually “assign structure” to this chorale when we listen to it as tonal beings?

Turning to a related matter, isn’t the final cadence in fact merely a local affair, being conclusive in virtue of its own melodic and harmonic properties, and of the fact that (in this chorale) it completes what was demonstratively left open in m. 6, i.e. at the dominant ending the first harmonization of the melody?²⁹

Choosing another (nominally) recurring event, do really the two syntactically quite different root-position F-minor chords in m. 7 and 10 give rise to a musically valid strong prolongation, to a relationship making most of the fourth and fifth phrases collapse into a single, somehow intervening and somehow subsumed, tonal compound – even when “heard” in top-down, final-state hindsight?

Indeed, even the “strong” prolongation of the tonic within the first phrase may be questioned since its initial main event is an applied-dominant upbeat. The sense of a tonic loop would no doubt be considerably strengthened if the second, D_b-major chord were exchanged for an A_b-major one, as in Ex. D. On the other hand, if one takes the accented D_b-major chord starting m. 1 of Bach’s chorale into full account, the first phrase will rather emerge as a subdominant-to-tonic progression, which implies that the large-scale strong prolongation of the chorale (if one insists on such a connection) must issue from the last chord of the first phrase – or be altogether discarded. Needless to say, the chorale as a whole is not a IV-to-I affair either, so one might wonder whether the chorale, also leaning towards F minor, in fact has a single, comprehensive harmonic structure or exemplifies some kind of more dissociated tonal design.

Are listeners that have come to understand the chorale as a basically non-hierarchical montage made up of two very different harmonic outfits of the same melody – the first with a plagal and rhythmically curtailed ending, the second featuring a complete authentic cadence – harmonizations demarcated from each other by a dominant chord with a dividing function as unmistakable as that of a semicolon in a written text – are such

29 Being a non-hierarchic aspect of music, implications are not included in L&J’s theory.

listeners deplorable victims of their “intuitions”? Or are analysts striving to tailor the final-state experience of the chorale so as to match a hierarchical clothing possessed by a preconceived idea?

It should be mentioned that L&J have an alternative reading of the second half of the chorale up their sleeve. It is merely sketched at the higher levels in Ex. 4e by means of braces, and betrays a kinship with Schenker’s reduction (and the boring chorale to which it corresponds) in as far as it may be taken to suggest that $A\flat$ major instead of F minor can be chosen as the tonal anchor for the fourth and fifth phrases. But our “artistic intuition” cannot but tell us that the very point of the second half of the chorale is that it introduces the relative minor as a new tonic. Whether this shift of key is temporary or not, we do not know for sure as real-time listeners, but it is an ineffaceable aspect of our “final-state” experience of the music. Furthermore, an $A\flat$ -major reading of the second half of the chorale would rest on shaky grounds. If the privileged analytic status of $A\flat$ major in the first phrase was based on a rigged majority of chords, the two root-position $A\flat$ -major chords within the context of the fourth and fifth phrases make up an unqualified minority.

Cadences and branching

The less explicit, three-chord authentic cadences of the first and second phrases (let’s for the moment assume that the former does not end with a disguised two-chord authentic or plagal cadence) as well as the complete root-position cadence closing the chorale are quite correctly shown as relaxing left-branching units in Ex. 4f, although for some reason the C-minor chord in m. 3 is divorced from the cadence it apparently starts. The prolongational trees corresponding to the plagal cadences of phrases 3–5, on the other hand, merit some discussion.

The $B\flat$ -minor/F-major progression ending the fourth phrase is shown as a tensing right branching, which for two reasons does not make sense. In virtue of being the relaxing goal of the plagal cadence, the F-major chord in m. 8 is the main event to which the $B\flat$ -minor chord should attach – and must attach, simply because it is the first event of this two-member cadence; the result is bound to be a left branching. Alternatively, the $B\flat$ -minor chord, being more accented, may emerge as a suspension duly resolved

downwards to produce an F-major chord. According to current practice in tonal reduction, this means that the second, resolving chord is to be retained at the expense of its predecessor, and again we have a left branch, suggesting relaxation.

It seems that L&J chose to give priority to the B_b-minor chord because they wanted to show a tensing, right-branching progression in relation to the F-minor chord at the beginning of the phrase. Their choice also agrees with the important “artistic intuition” that accented dissonances (even virtual ones such as this root-position chord heading a plagal cadence) are more interesting, last longer in memory, and may count for more even in a tonal structure, than their (sometimes rather bland) resolutions. Anyway, the result is bound to be a right-branching configuration – the F-major chord is simply the second event in the unit – a representation that inadequately signifies a rise of tension within the cadence. The decision to give priority to the first, B_b-minor chord of the plagal cadence is also contradicted by the rising scale of eighth-notes in the tenor voice, a motion leading up to f¹ and making for an emphasis on the F-major chord, which cannot but counterbalance the sense of suspension and support the idea of a relaxing left branching.

In other words, the cadence of the fourth phrase is highly ambiguous – as was the cadence of the first phrase, but for other reasons. It is unfortunate that the strictly hierarchical approach of L&J’s system means that interesting structural options have to be left out of account. The core of the problem seems to be that plagal cadences, usually making up strong-to-weak metric configurations, are hard to reconcile with the dual meaning of the branching symbol: order of appearance clashes with the aspect of tension/relaxation.

One might furthermore ask why L&J did not choose to bring out the F minor/major contrast that spans the fourth phrase. Perhaps they were held back by the fact that this harmonic relationship makes up an awkward hybrid between a “weak” prolongation and a “progression”? But this overall stabilizing relationship is arguably, along with the subsurface F-minor-to-B_b-minor tensing progression, an important element of the final-state understanding of the fourth phrase, and it is a pity that it is neglected.

The problem of finding tree-notations that correspond to our perceptions of authentic and plagal cadences in various metric configurations is

apparently quite complex and cannot be solved here. Ideally, the strong-to-weak plagal cadences of the fourth and fifth phrases should look different from the weak-to-strong plagal cadence ending the third phrase – a cadence that does not show up at all in Ex. 4f – and none of them should be represented as the strong-to-weak authentic cadence of the second phrase. As to the first cadence, it has no less than three interpretations: it might be understood as authentic, plagal, and complete (cf. Exs. A, C, and B, respectively). The qualitative differences between these ways of arriving at A₁ major should be reflected in a “prolongational” reduction designed to capture the experience of tension and release.

The final chord of the virtually identical F-minor/C-major cadence of the fifth phrase is not attached to its immediate predecessor at all; it is instead connected as a tensing right branch all the way back to the F-minor chord in m. 7. The rationale of this reading, turning the local plagal ending into a distant authentic opening, is evidently the intervening identity relationship supposed to obtain between the root-position F-minor chords in m. 7 and 10. But this “strong” prolongation is based on a questionable association between a starting auxiliary tonic and a (virtually) dissonant sonority involved in a cadence, a relationship that cannot plausibly supplant the perceptually primary sense of a local plagal cadence, clearly echoing the close of the preceding phrase.

As illustrated by the L&J’s analysis of these two cadences, the hierarchical approach implies an inherent bias: distant connections enjoy priority at the expense of immediate ones. But considering the fact that music is also, or rather predominantly, a sequence of events, is this always illuminating? As to the cadence of the fifth phrase, can the C-major final chord of this plagal cadence really serve as a member of a large-scale authentic opening progression? Can the immediately preceding sonority, making up a strong prolongation, really actualize the distant F-minor chord? And what happens to the sense of plagal close also or rather inherent in the F-minor/C-major progression? It is a pity that this aspect must be left out of account because the strictly hierarchical representation does not allow of multiple and/or intersecting attachments.

But there is a further, quite strong preference involved. These twin plagal cadences – they are most likely to persist in our final-state understanding of the chorale since they make up a kind of structural rhyme – should

be represented in the same way, and a local plagal cadence (phrase 4) is certainly not equivalent to a large-scale authentic opening (phrase 5), even if both of them are shown as tensing, right-branching progressions, as they are in Ex. 4f. This is not to deny that the C-major chord in m. 10 may have a sense of an opening dominant within the second half of the chorale, but this is an impression that seems to derive from a non-hierarchical and straightforward comparison between the harmonic goals of the fourth and fifth phrases (F major and C major, respectively) rather than from any sub-surface progression between the F-minor chord in m. 7 and the C-major chord in m. 10.

Furthermore, there may be listeners who, given the general A \flat -major and F-minor contexts of the melodically bisected chorale, might equate the cadence to the C-major dominant in m. 10 with the one to the E \flat -major dominant in m. 4. Taking a look at L&J's prolongational tree of the first half of the chorale, there is (by and large) an equivalent A \flat -major-to-E \flat -major opening progression in mm. 1–4, but the harmonic facts do not quite support the correspondence. As already argued, the first phrase issues from the downbeat D \flat -major chord rather than from the A \flat -major upbeat, whereas the harmonic point of departure of the fourth phrase is no doubt the downbeat F-minor chord. The impression that the first phrase issues from an accented auxiliary-tonic subdominant is certainly not erased when we listen to the similar authentic-cadence start of second half of the chorale.

L&J diminish the structural weight of the F-major chord in m. 8 chord by showing it as a low-level event tacked on to the B \flat -minor subdominant of F-minor, whereas they boost the importance of the corresponding C-major chord in m. 10 by regarding it as the major dominant of a high-level progression issuing from the F-minor chord in m. 7. This contradiction suggests two different agendas, of which L&J favour the first. If you want to “assign tonal structure” to Bach's chorale, it is theoretically advantageous to keep the F-major chord out of the picture as much as possible since it does not fit in with the overall A \flat -major-then-F-minor-then-A \flat -major tonal layout. On the other hand, if you are trying to “illuminate a masterpiece”, L&J's hierarchical representation conceals not only the presence of two rhyming plagal cadences but also the resuming and quite moving major/minor contrasts following upon each of them.

When looking at the central portion of Ex. 4f (b), one gets a strong impression that the fourth and fifth phrases form a complex issuing from and dominated by F minor – several tensing right branches are attached to the stem rising from the F-minor chord in m. 7. There may be some truth in this, but it is regrettable that the representation is spoiled by the idea to let the starting F-minor chord emerge as a right branch from the preceding dividing dominant.

Five branches issue from this F-minor anchor chord – A_♭ major and B_♭ minor are attached as “progressions”, then F minor forms first a weak and then a strong prolongation, and finally C major brings a further progression. One might ask whether all these harmonic relationships at various hierarchic levels and yet referring back to the same chord, really carry any musical meaning in relation to the F-minor chord in m. 7, or whether they are entered in the graph just because they are incontrovertibly true in virtue of being facts to be found in the score. But according to L&J, they should at least be relationships that the listener “unconsciously infers”. And again, what about the F-major target chord in m. 8? Striking as it is, doesn’t it have any perceptible or interesting relationship with the initial F-minor chord starting the phrase?

Issues of grouping and form

Due to the metric context, the cadence to the dominant chord ending the third phrase is unequivocal: the E_♭-major chord certainly emerges as the relaxing downbeat that the immediately preceding A_♭-major complex leads up to, and hence this weak-strong plagal cadence should be represented as a left-branching configuration. But instead the reduction shows a “strong” A_♭-major prolongation ranging from the very beginning to m. 5, a distant connection that questionably robs the dividing dominant in m. 6 of its immediately preceding applied subdominant and annihilates the local plagal cadence. As already mentioned, the E_♭-major chord (and a host of second-half events that L&J questionably attach to this dividing dominant) is understood as a high-level right branching, i.e. as a tensing opening that at last brings the music out of the tonic domain. This reading conflicts strongly with the grouping structure (cf. Ex. 5e), but there is some truth in it: at the cost of the obvious sense of a local plagal closure and obscuring the sense of a formal bisection, the prolongational reduction

brings out an aspect of high-level continuity, namely the fact that the chorale is through-composed.

But the opening effect of the midway dominant seems exaggerated at the expense of the second phrase where the dominant is introduced. There is in fact a competing tonal organization within the first half of the chorale: the E \flat -major dominant chords closing the second and third phrases make up a “weak” prolongation that does not show up in Ex. 4f but that may be at least as important as, and also more conspicuous than, L&J’s “strong” prolongation obtaining between the initial A \flat -major chord and the tonic chord at the third beat of m. 5. According to the competing reading, the final chords of the first and second phrases form an opening progression, but unfortunately it cannot be shown since (from a hierarchical point of view) it is not compatible with the weak prolongation connecting the closing dominant chords of the second and third phrases. The g 1 /e \flat chord closing the second phrase cannot be doubly attached.

The basis for the strong prolongation of the tonic lasting from m. 1 to m. 5 is prepared by the final stages of the time-span reduction; cf. levels d and c of Ex. 4e, showing the remaining events available for the high-level prolongational reduction. At level d two events (not one) are retained in the relatively short time span corresponding to the third phrase, whereas only one event is kept in the larger time spans corresponding to the first and second phrase. Then, at level c, the initial tonic chord alone stands for the first *and* second phrases, which means that the dominant chord in m. 4 with its awkward top note g 1 disappears (it is too low to attach stepwise, i.e. properly, to the initial c 2), and that the initial tonic emerges as adjacent to the dominant in m. 6, now the only surviving event in the time span of the third phrase. It is true that the third phrase begins by re-tonicizing A \flat major, but it is also quite obvious that it is the second phrase that introduces the dominant by means of a somewhat veiled and yet unmistakable three-member authentic cadence, a fact to which the time-span reduction as well as the prolongational reduction fail to do justice.

It might be argued, then, that the second phrase and the third phrase, both issuing into the dominant, form a composite group. It goes without saying that if the grouping structure of the first half of the chorale is modified to form a 1+2 configuration of phrases, corresponding changes should be

undertaken in the time-span and prolongational reductions. But this alternative reading of the grouping structure is advanced for the sake of argument only; it is after all not the one to be preferred. What we hear is rather that the third phrase makes up a closely attached, confirming but otherwise redundant plagal addition to the second phrase. And yet, the grouping structure of the first half of the chorale emerges as an ambiguous confluence of a 2+1 and a 1+2 organization that eludes hierarchical description.

Take the third phrase away, and the chorale will nevertheless work. Needless to say, this quite unusual five-phrase chorale would be an altogether different work since in formal respect the third phrase with its obviously dividing, lengthened dominant is essential; without the third phrase, the through-composed aspect would dominate in spite of the melodic repeat. The sense of bisection can be somewhat strengthened, however, if one makes room for the dominant root B_♭ in the cadence of the second phrase; cf. Ex. G (a). The structural effect of this cadence is equivalent to the one shown in Ex. G (b) where the soprano ends on b_♭¹, instead of on g². Evidently, a second-degree top note is not a necessary prerequisite for the sense of a dividing dominant; the seventh degree does just as well.

It is also possible to re-compose the second half of the chorale so as to remove the element of melodic repeat while saving its harmonic process; cf. Ex. H. The result is of course an increased sense of non-hierarchic through-composition. Indeed, if the second phrase is left intact while the third phrase confirming the dominant is removed, and if the second part is rewritten as in Ex. H, the last vestige of hierarchic tonality will be replaced by a meandering tonal process.

Disregarding the attachment of most of the second half of the chorale to the dividing dominant, the over-all look of L&J's prolongational reduction suggests that there is a kind of structural parallelism between phrases 1–3 and phrases 4–5. Assuming that F minor emerges as a temporary tonic in m. 7, both these compound units take us from a third-degree-over-the-tonic to a second-degree-over-the-dominant. locally speaking. But this parallelism is substantially diminished by the dual fact that the first unit comprises three phrases, not two, and that the downbeat F-minor chord in m. 7 obviously corresponds to the downbeat D_♭-major chord in m. 1, not to the initial A_♭-major upbeat.

But one might also, or perhaps rather, hear another configuration in the chorale, a kind of symmetric configuration based on kinship in terms of contrast: phrases 1–2 feature authentic (or even complete) cadences whereas phrases 3–4, using the same melody, end more openly with plagal ones. This reading – that presupposes that the first phrase is not understood as closing with a plagal cadence – turns the third and sixth phrases into separate units within the form, units with opening and closing duties, respectively.

Analysts who are fond of stepwise fundamental descents may object that the mm. 1–4 unit deviates from its mm. 7–10 counterpart by exhibiting a fourth, not a second, between their starting A \flat -major and F-minor top notes and the top notes of their E \flat -major and C-major final chords. But this flaw, if any, may easily be amended if (as is preferable) the first phrase is heard and analysed in the same way as the fourth by giving priority to its downbeat D \flat -major temporary tonic in m. 1 topped by a¹ instead of to its upbeat, not-yet A \flat -major tonic topped by c².

A consequence of this would be that the cadence of the first phrase is likely to take on a plagal rather than authentic quality, which cannot but diminish the association in terms of contrast between the cadences of phrases 1–2 and 4–5. More detrimental to this symmetry, however, is the fact that the D \flat -major/E \flat -major relationship obtained between start and close of the compound unit mm. 1–4 would be quite different from the relationship between F minor and C major in mm. 7–10. On the other hand, harmonic as well as upper-line descending-fourth similarity will result if one chooses to compare the target chords of the cadences in mm. 2 and 4 with the closing chords in mm. 8 and 10.

Assigning hierarchical structure to music

When explaining reduction, L&J describe how “pitches perceived as relatively embellishing” are filtered out, “leaving at each stage a simplified residue of structurally more important material” until “only one event remains”, the tonic. And they “broadly define” “tonal” music as “music that is heard in such a hierarchic fashion”. (p. 235) But if the latter definition is supposed to amount to an empiric statement, it is too simplifying to be true, whereas if it is meant as a stipulation, it is too expedient to be productive. This is not to deny that we have a capacity to distinguish main events

from ornamental ones, and that (some of) this capacity may be used to construe some kind of (presumably fairly fragmentary) hierarchical organization when we listen. But tonal music, whatever it is, is certainly understood in many ways, some of which are far from, or not at all, hierarchical.

This view may be shared by L&J, but due to its clearly stated methodological constraints, their analytical system cannot but lend support to the idea that ‘hierarchy’ is a concept of crucial importance when it comes to understanding the structure of tonal music. On the other hand, if you are not convinced of their definition of tonal music as something that we understand hierarchically, their point of departure rather discloses a methodological bias that is characteristic of much music theory and that, if not complemented by other approaches, might give rise to blind spots.

That L&J’s system for assigning structure to tonal music aims at and produces reductions, follows from their linguistic point of departure.³⁰ But beyond their no doubt very important work, must tonal analysis aim at musical understanding in hierarchical terms, and must hierarchical approaches to tonal music necessarily result in reductions? Do reductive layers make up the only property of tonal music worthy of analytical attention, and first and foremost, is music, even tonal music, really all that hierarchical?

It seems that these questions must be answered in the negative. Some aspects of tonal music may be described in terms of layers, in terms of events that dominate or are subsumed (contained), but this approach is hardly exhaustive since tonal music may have other equally, or more, important features, features that emerge if you study it as (say) an associative network or a temporal sequence. Nor must the existence of musical layers lead to thinking in terms of reduction. Looking beyond analytical systems devised to “assign structure” to tonal music – such systems tend to appear with pretensions that are far-reaching to the point of trying to explain virtually everything – and turning to tonal music as an auditory experience, hierarchical organization tends to be eclipsed by other, more vivid and less orderly, perceptions.

30 According to a widely spread consensus among present-day linguists the scholarly prestige of generative linguistics à la Chomsky has waned, but this does not necessarily preclude that L&J’s application of such principles to music is without merits.

Musical events are no doubt heard within their contexts, but one question is inevitable: how far backwards and, even more crucially, how far forwards into the musical future do such contexts reasonably extend? If one wants to arrive at analytic results matching what (attentive) listeners actually hear, it is important not to overestimate the effective range of these contexts, the formats within which “connections” determine how musical details are understood. It is reasonable to assume that events heard long ago, and especially events that will turn up in the more or less non-foreseeable future, have but little effect when it comes to evaluating and re-evaluating our musical perceptions – unless the events in question are very prominent.

Hierarchical analytic thinking involves the risk of letting top/down structures (like complete prolongational reductions) supersede the more tentative structures evolving bottom/up in real-time listening. Needless to say, we do not listen backwards, and we are much less prone to draw inferences, conscious and unconscious, from ends to beginnings than adherents of hierarchical tonal structure tend to take for granted.

Generally, the preference rules in L&J’s system are quite reasonable as such, and many of them derive from principles established by experiments in perception psychology. But when dealing with music one must keep in mind that these principles are often applied in situations that are quite extended temporally and that involve much intervening, confusing information, i.e. in situations that are far from the simple and carefully controlled experimental set-ups in the psychological laboratory. The preference rules must therefore be carefully reconsidered when using them to assign encompassing hierarchical structures to complex music. And it goes without saying that the validity of the analyses cannot be verified by listening to the reductive results that emerge when the time formats have been diminished and the details removed. Thus, from a methodological point of view, warning signs should be posted whenever extended connections are proposed. Are they plausible as responses in real-time listening or even as net results of repeated encounters with the music – or are they just fixtures belonging to a quite cerebral kind of final-state “listening”?

When events are subsumed under a superior-level event – for instance when harmonic identity is supposed to give rise to a strong-prolongation node – or when events occur between two events selected to form a superior-level

“progression”, they may be said to be “contained”. But some scepticism is not out place. In what sense are “contained” events relegated out of consideration, and does the word “prolongation” always refer to situations where you really feel that something is prolonged? Let’s turn to Ex. 4f for two illustrations.

A strong prolongation obtains from the very first event to the middle of m. 5, but does it really manage to “contain” the cadence to E_b major in m. 4, do we really feel that A_b major rules, is prolonged, all the time? Although it is not to be found Ex. 4f, there is (as already pointed out) an intervening weak prolongation between the E_b-major cadences of the second and third phrases: is this “weak” relationship perhaps more successful, does it perhaps manage to “contain” the “strong” return to A_b-major in m. 5? After all, the short and rather uneventful third phrase may preferably be heard as a confirming, tacked-on ending after of the previous authentic E_b-major cadence, as an added plagal cadence serving to bring out the dominant as a dividing chord.

According to L&J, a strong prolongation exists between the F-minor chord at the beginning of the fourth phrase and the one heading the plagal cadence in m. 10, but it seems that this connection is at great pains to swallow the intervening B_b-minor-to-F-major cadence. Don’t both phrases primarily and irreducibly make up a joint progression bringing the music from F minor to F major to C major? And the end point is not really the temporary C-major goal in m. 10 since this is an event that we cannot anticipate when listening to mm. 7–8. It is a pity that top/down prolongational reduction replaces uncertainty with facts, that “final-state” analyses – unlike the structures of pieces we listen to (or have just listened to) – leave no room for tonal adventures.

L&J point out that “the theory provides structural descriptions only for the final state of a listener’s understanding of a piece”, and claim that “a substantive theory of real-time listening processes cannot be constructed without first considering what information these processes must deliver”. (p. 230) Trying to devise an analytic system predicting “final-state” understanding is of course a quite legitimate undertaking, and “real-time” listening processes must reasonably precede and provide the input for a theory of such understanding. But the idea that considering what [real-time listening

processes] “*must deliver*” provides the basis for “a substantive theory of real-time listening processes” is either incomprehensible or comes close to be suggestive of a vicious circle. But rather than quibbling, L&J’s analytic practice should be studied.

The prolongational reduction in Ex. 4f often disregards the cadences and obliterates the phrase units. Are there in fact some real-time listening experiences of this kind that “deliver” the “structural descriptions”, the raw material for the alleged final-state tonal understanding? This seems most unlikely. What there certainly is to experience, is a piece that brings a series of phrases demarcated by cadences to various chords, and that exhibits a not very hidden sense of symmetry. Hence, it seems that L&J’s final-state prolongational structure derives from a number of late-stage, correcting observations or inferences, from additional considerations that are not exclusively or perhaps not even predominantly aural.

There is a further, related problem involved in L&J’s approach: if there is eventually a prolongational final-state structure in the listeners’ minds, what happened to the tentative structure(s) that the real-time listening experiences gave rise to? Although it seems clear from their account that top/down prolongational reduction must supersede time-span reduction in order to arrive at the tonal structure, L&J may perhaps be taken to mean that what we actually hear when listening to the chorale, or perhaps rather what we “hear” when thinking of it in final-state terms, is some reasonably detailed mixture of the (mainly) bottom/up time-span and the top/down prolongational perspectives. Otherwise put, perhaps we have access to some kind of time-span residue (including metric and grouping properties) along with the prolongational structure.³¹

If L&J’s analytic strategy is to yield solid results, one must have quite strong reasons to invest all one’s faith in the final-state structure built upon

31 It seems that Jackendoff’s additional essay (pp. 213–215) sheds some light on the relationship between “final-state” understanding and “real-time” listening. His “parallel multiple-analysis model”, and the “selection function” contained in this multi-channel “processor”, means that along with the final-state structure-to-be, that we are aware of, there are elements of real-time listening being deactivated or reactivated as the music proceeds. It is a consoling thought that we have not as yet arrived at a final-state understanding of musical understanding.

the selected details. Schenker knew in advance and quite positively what such structures were like, but it would be a pity if lesser persons were mistaken, if the “final-state” understanding turned out to be more cerebral than musical? Real-time listening processes “must” not deliver anything, nor must Bach’s music. After all, isn’t the converse more plausible: an empirically grounded theory of final-state musical understanding cannot be constructed without first considering in each case what the real-time listening processes *actually do* deliver, or are likely to deliver.

Summary of the reductive accounts

Let’s first sum up the insights gained from Schenker’s and Cook’s readings. Schenker’s interrupted *Ursatz* certainly brings out the two-partite design of the chorale, and his analysis indirectly highlights the melodic recurrence by suppressing and misrepresenting the essential element of harmonic variation. Cook’s reduction, explicitly devised as an alternative to Schenker’s, shows the chorale as a through-composed piece at the expense of its bisection and the fact that its second half makes up a varied repeat.

Is it too much to ask for a reduction of the chorale that both respects its musical text *and* does justice to its complexity, that straightforwardly brings out the melodic repeat and the dividing (and very structural) midway dominant *as well as* takes account of the sense of through-composition, i.e. the sense of overall, but not necessarily hierarchical, tonal continuity that seems to be inherent in the chorale despite the fact that it is an exercise in re-harmonization? And considering the tight sub-surface voice leading and the over-all harmonic closure constitutive of both Schenker’s and Cook’s reductions: why do so many analysts take for granted that we are not interested in the ambiguities, the disparate elements, and the sense of non-closure that music may also offer?³²

On the whole, it seems that Lerdahl and Jackendoff manage to strike a better balance between the opposites of this Janus-faced chorale. Their analysis does suggest that the music is bisected and yet continuous, and the element of harmonic variation is not swept under the carpet. But their strictly hierarchical approach and the decisive role eventually granted to

32 Cf. Bengt Edlund, “In Defence of Musical Ambiguity”.

top-down considerations give rise to a tonal structure with some musically counterintuitive traits. Although serving as a demonstration of an empirically grounded theory of musical cognition, their analysis predicts a way of listening, or rather a final-state “listening”, that does not seem realistic.³³ Furthermore, the strictness of their system means that important non-hierarchical observations as well as various aspects of ambiguity must be left out of account, or relegated to a subsidiary role, which cannot but be detrimental to a full understanding of the actual musical process.

Towards a non-hierarchical analysis

This chorale defies easy description, to say the least, so what can be offered as a fourth attempt to understand it? The three reductive analyses discussed so far give ideas both as to what to strive for and what to avoid. The analysis aimed at, and eventually to be proposed here will be much less detailed than Schenker's and Cook's readings and especially L&J's complex system of hierarchical accounts. Since listening to tonal music will not be thought of as an altogether, or even primarily, hierarchical undertaking, the reductive element will be confined to the small-scale, more or less routine structural inferences that listeners are likely to make *en passant* in real-time listening.

Hence, most of the observations and connections will be of other, non-hierarchical kinds. The structure eventually arrived at should be regarded as preliminary, as possibly subject to changes when listening repeatedly to the chorale. The approach will be eclectic, and the structure will not be assigned to the music as the final product of a systematic endeavour; it will rather arise from ideas presenting themselves when informally applying different theoretic perspectives during listening, and when trying to

33 This six-phrase Bach chorale may be a quite awkward object if you want to demonstrate the advantage of a hierarchical approach to tonal music. It seems that almost any Classical eight-bar period would have served this purpose much better, which is not to say that hierarchical tonal reduction is the only, the natural or obvious, methodological choice even when dealing with that kind of music; cf. Eugene Narmour's critical discussion of Felix Salzer's Schenkerian reading of the first-movement theme of Mozart's D-major Piano Sonata K. 576 in *Beyond Schenkerism*, Chicago 1977, pp. 55–57.

grasp and remember the musical events. Hopefully, the analysis will reveal something about the chorale as an object of aesthetic contemplation. After all, glimpses of meaning or beauty, not elements of structure, are what we should be listening for in the first place and what makes analysis, the *raison d'être* of theory, a worthwhile pursuit.

First of all, the source of Bach's melody should be identified. Its initial two phrases betray a quite close similarity to the first two phrases of Heinrich Isaac's famous *Innsbruck, ich muß dich lassen*. This melody, like Bach's, features a repeat of its first three phrases, the third of which is shorter than the two preceding ones. Furthermore, the last phrase of Bach's chorale appears to be a shortened version of the last, iterated and more florid phrase of Isaac's work.³⁴ It can be assumed that Bach drew on this old and very popular tune when composing his chorale, and that many among his listeners recognized the similarity. Thus, the chorale owes its peculiar melodic/formal design to its model whereas the idea to disguise the melodic repeat by harmonic means stems from Bach.

Before presenting the analysis in graphic form, a number of events and patterns pertinent for the reading to be proposed will be accounted for, but the readers are free to take a look at Ex. 5 at once. We will first dwell upon some melodic properties that may be important when forming our idea of the music as it evolves.

All phrases share a melodic particle: a stepwise rising third that occurs in two forms. Phrases 1/4 and 3/6 begin their ascending gestures with the quarter-note motion $a_b^1-b_b^1-c^2$ whereas phrases 1/4 and 2/5 are topped by the eighth-notes $c^2-d_b^2-e_b^2$. The slow rising third rounds off each half of the melody while the quick one, leading up to an accented e_b^2 followed by a further, afterbeat e_b^2 , brings a sense of culmination in phrases 2/5. Thus, within each half of the melody, there is a growth towards a climax followed by a receding tendency.

34 I am grateful to professor Folke Bohlin for drawing my attention to the kinship between the melodies.

The function of the first phrase, with its comparatively narrow distribution of the four voices, is to prepare for the quickly left melodic acme of the second phrase – the voices are now widely spread. The third phrase, featuring a wide distribution at its highpoint, slowly echoes its predecessor but does not reach as far.

The motivic similarities in the soprano make for a meaningful network of non-hierarchic associations between the phrases in the harmonically relatively static first half of the chorale, and the overall impression is that the melody moves within the A_b-major triad. In two passages (mm. 1 and 5) the bass voice perceptibly brings a contrary-motion counterpoint to the soprano.

The rising-third particle is no doubt still an important element when listening to the second half of the chorale, but due to the radical harmonic re-interpretation many first-time listeners perhaps only recognize the repeat of the melody at the culmination of the fifth phrase. But already the F-minor upbeat to m. 9 might disclose what has been going on, that we are in fact in the middle of a varied repeat of the first half of the chorale. This insight will not retroactively change how the fourth phrase was heard, but it might influence future encounters with the music and contribute to the cumulative understanding of it. Another consequence of the element of harmonic variation in the chorale's second half is that the pitch contour of the top voice may be thrown into the shade; instead the harmonic process and the two poignant minor-to-major plagal cadences will come to the fore.

Turning to the bass of the second half, it is a striking feature that rising f–g–a_b thirds appear at the beginning of each phrase, a motion that supports the ascending melodies in the treble. From a harmonic point of view, these thirds suggest the presence of two drones. They lend renewed presence to the note f, the root of the relative minor introduced in m. 7, and make for the impression that F-minor serves as tonic for the second half of the chorale. But in virtue of leading up to a_b, these motions also bring out a competing, subsurface tonic, the original tonic A_b major.

The three rising-fifth motions along the scale closing phrases 3–5 are also likely to be noticed. These eighth-note ascents underscore the final chord of the plagal cadences, and as a result the distribution of accentual weight in mm. 8 and 10 emerges as more even than it would otherwise have been. By the same token the quick falling-fifth motion in m. 11 signals the start of the final three-member cadence.

The listeners will no doubt savour the two falling chromatic inflections in the alto voice, binding together phrases 4, 5, and 6, and effecting major-to-minor shifts by flattening the third of the chords. A rising chromatic motion in the bass makes for a sense of continuity between the two halves of the chorale despite the rhythmic hiatus and the fact that the C-major applied dominant points forward to its F-minor tonic.

Since the chorale consists of six more or less separate phrases, the listeners are likely to keep track of the melodic cadences, and at least after having heard the chorale a few times, they will probably associate the conspicuous $d\flat^2-c^2$ and $a\flat^1-g^1$ soprano motions in the first half with the same inflections in the second. This means that phrases 1–2 and 4–5 are likely to be understood as forming pairs, and that phrases 3 and 6 will appear as additions. But matters emerge as less clear-cut when the harmonic differences are taken into account: the two plagal cadences in the second half deviate from the two authentic cadences in the first. And even this is not a plain fact since the close of the first phrase may also be heard as a plagal (or complete) cadence.

If the first phrase is assumed to issue from $A\flat$ major, phrases 1–2 take us from the tonic to the $E\flat$ -major dominant, and it may be noticed that this large-scale opening progression is replicated in phrases 4–5, featuring a corresponding progression from F minor to C major. This symmetry is broken, however, if one understands phrase 1 and phrase 4 in the same way, i.e. if one hears the first phrase as introducing an accented, temporary $D\flat$ -major tonic. It should be added that if the first phrase is not taken to begin in $D\flat$ major when the chorale is heard the first time, it is likely to be so when listening to it the next time since the $D\flat$ -major chord obviously occupies the same tonal and metric position as the F-minor chord, the unequivocal tonal point of departure for the second part.

Listeners who are fond of tracking falling fundamental lines between beginnings and ends might prefer the $D\flat$ -major reading of the first phrase since it restores the top-voice correspondence between phrases 1–2 and 4–5 (which is lost if the first phrase is understood as starting from $A\flat$ major): the same falling semitones $a\flat^1-g^1$ will frame each two-phrase unit. But they must put up with the difference in terms of (local) tonal degrees involved in this “identity”.

It was suggested above that the third and sixth phrases emerge as additions to the paired phrases when considering the grouping structure, but it must be stressed that these solitary phrases are crucial from a tonal point of view. What the third phrase left open with its plagal cadence to the dominant – i.e. with a progression that seems to crave further resolution to the tonic – the sixth phrase closes with a most solid cadence. But the dominant has already been reached by means of the three-member authentic cadence of the second phrase, and therefore the plagal cadence of the third phrase merely, but once more, establishes the fact that the tonal centre of the music has left the tonic for the dominant. It is essential to notice that the dual role of the dominant in m. 6 as both an opening and a dividing event is very much a matter of local rhetoric. The first-beat metric position of this dominant chord is quite important: it suggests that the third phrase is curtailed, that there is sufficient metric space to proceed to a tonic chord (as shown in Ex. E).

This leads over to some observations on the rhythmic process in the chorale, and especially on the rhythmic properties of the cadences.³⁵ The endings of the first and second phrases make up trochees with stressed accents due to the suspensions, and they serve as the background against which the cadence of the third phrase is heard. This phrase seems acutely curtailed because the dominant chord at the first beat is neither a suspension, nor a chord allowed to lead to a close at the third beat. The preceding rising-fifth motion in the bass further underscores the sense of a firm, nothing-more-will-follow downbeat.

What happens in the second half of the chorale is that the downbeat status of the initial beat within the cadences is gradually undermined. Due to their metric position, these plagal cadences have a quality of being suspensions, and the falling inflections in the soprano are still understood as trochaic. But the rising-fifth motions now lead to the resolutions on the third beat, making for a competing sense of metrically displaced iambs. The sixth phrase is then heard with this ambiguity in mind, and therefore it does not come as a surprise when the final tonic chord arrives at the

35 The terms to be used derive from the method for rhythmic analysis advanced in Grosvenor Cooper and Leonard B. Meyer *The Rhythmic Structure of Music*, Chicago 1960. (I don't share L&J's criticism of this book.)

third beat, now emerging as the primary accent of the bar at the cost of the first beat carrying the subdominant chord of the complete cadence.

Turning to the overall harmonic process in the chorale and disregarding for the moment the fact that the first phrase digs its heels in the subdominant, as it were, the first half of the chorale moves from the tonic to the dominant. It is most important to acknowledge (and you can hear it very well) that the dotted-minim E_b-major chord in m. 6 is structural in at least two important respects: formally, it has a mid-way dividing function in a six-phrase piece made up of two parts of which the second is a harmonic variation of the first; tonally, it confirms that the music has left the domain of the tonic.

The second half of the chorale starts from the relative minor, and due to the fact that all three phrases take the bass note f as their point of departure, it arguably holds on to F minor more persistently than the first half kept to A_b major, the fairly frequent tonic chords in mm. 1–6 notwithstanding. Cadences to F major and C major do intervene, but F-minor chords turn up in both the fourth and fifth phrases. Whether the chord beginning m. 11 still expresses the relative minor or already the A_b-major tonic – as the resolutions of the first- and second-beat chords suggest – is hard to tell. As mentioned above, the three rising f–a_b thirds in the bass draw attention to the mid-phrase A_b-major chords, which makes for a sense of a competing tonal centre throughout mm. 7–11. It seems fair to describe the second half of the chorale as bipolar in harmonic respect.

An emphatic cadence to the tonic closes the chorale, but to talk of the penultimate dominant chord of this last and yet local closing formula as a structural event at the highest level for this tonally meandering chorale is likely to appear as mumbo-jumbo to listeners that are not hierarchic-minded enough (or not sufficiently mislead) to conceive of entire pieces in terms of encompassing cadences. Adopting the every-day sense of the word, there is a crucially important and quite obvious “structural” dominant in the chorale – formally as well as tonally – and it was heard already in m. 6.

It seems that the chorale is also held together by some implications in Leonard B. Meyer’s sense. The note d_b² is almost demonstratively left out in the melody of the fifth phrase (and so it is of course in the second phrase

as well if you want to consider a very distant “generative event”), and when this note turns up on the fourth beat of m. 11, its occurrence may emerge as a “realization”.³⁶ Alternatively, the note d_b^2 in m. 11 may seem to be implied by a long-range expectation: the e_b^2 's in mm. 3 and 9 are marked for attention and appear to demand a falling resolution.

Melodically, you might expect a b_b^1 on the first beat in m. 4, but you have to wait until the beginning of m. 6 to hear this note at the proper main-beat position. It seems that the latter note, together with the impression that the third phrase is curtailed, gives rise to a further implication. A motion down to a_b^1 should have occurred on the third beat of m. 6, but nothing happens there. This frustrated expectation is satisfied only when the melodically quite similar sixth phrase comes up with the realization: delayed by a “deflection” up to the local neighbour-note d_b^2 , the motion c^2 – b_b^1 is allowed to proceed to a third-beat a_b^1 .

Finding the “focus” of the chorale

Principles of hierarchical dominance/subordination are no doubt applied when understanding local events, but it seems that at least in this chorale, and presumably in many other pieces, layered listening is of less importance, and in any case more difficult to achieve, when fathoming the tonal process within larger time spans. Quite beyond its original purpose, L&J's tree notation will be informally used to catch an aspect of music that is radically different from their idea of prolongational reduction. Instead of establishing a hierarchy of strong/weak prolongations and “progressions”, it may seem worthwhile to locate the passage (or passages) that is most distant from the tonic, and that reasonably brings the most charged moment(s) of the music. The heights of the stems making up the dashed trees in Ex. 5 simply indicate how remarkable the tonal events seem to be.

Which passage, then, stands out as the “focus” of the chorale? Most people would probably hold that the fifth phrase, and particularly its

36 Describing this (fourth-degree) note as a melodic realization is far more enlightening than to say that it is a last-moment, quasi-structural upper neighbour-note to the distant, m. 2 *Kopfton* of the chorale's *Uralinie*; cf. Ex. 2. It should be added that discovering implications is a matter of sensitivity (or hypersensitivity); there is nothing compulsory about them.

melodic peak, makes up the most intense moment. But why does the similar culmination in the second phrase score lower? The explanation seems to be that (preceded by a phrase replete with A \flat -major chords) the crowning e \flat ²s in the second phrase are supported by first-inversion A \flat -major chords, which do not bring anything qualitatively new. It should be observed, however, that the peak of the second phrase gains in expressive weight if the first phrase is thought of as starting from a temporary D \flat -major tonic.

The three last phrases issue from the relative minor, which means that the melody is freed from its previous association with A \flat -major. But it should be added that there is a choice involved when it comes to the harmonic structure of the second part of the chorale. If you don't pay much attention to the rising-fifth motions transferring emphasis to the third beats in mm. 8 and 10, i.e. if you take less account of the resolving F-major and C-major chords than of the quasi-appoggiatura B \flat -minor and F-minor sonorities, phrases 4–5 appear more commonplace.

In addition to the plagal cadence issuing into a distant harmony, there are further reasons why the fifth phrase stands out as more remarkable than the second. The more complex and unpredictable harmonic progressions as well as the tight chromatic connections between the phrases conspire to turn the fourth and fifth phrases into a single, compound unit of high tension. Indeed, some people may feel that the fourth phrase can compete with the fifth as the focus of the chorale. The pitch of its melodic cadence is higher than that of the fifth phrase and, as Cook points out, a grand rising scale underlies the entire phrase. But on the other hand, the tension of the very acme of the fifth phrase is enhanced by the steep drop of the melody after the highpoint and by a subtle rhythmic shift due to the harmonization. The first-inversion E \flat -major chord makes the first e \flat ², occupying the primary metric position, seem less accented than its afterbeat e \flat ², supported by a root-position A \flat -major chord – a poignant reminder of the alienated tonic, if you like.

Another cause of the greater impact of the culmination in the fifth phrase is simply the order of appearance. Especially if you are aware of the fact that the same melody is being varied by harmonic means, the second highpoint in m. 9 is likely to be compared to, and hence to be boosted by, the less emphatic first culmination in m. 3. Indeed, a kind of implication

seems to be involved: the somewhat restrained, first-inversion-tonic peak in the second phrase is followed-up by a fully satisfactory one, bringing a delayed root-position-tonic chord and a concomitant shift of the locus of the accent.

Putting these differences between the chorale's halves in a nutshell, one might say that phrases 1 and 3 assist phrase 2 whereas phrases 4–6 are members of a continuous joint project, the primary aim of which is certainly not just to bring the chorale back to its tonic, but to produce a culmination that rivals and outdoes the preceding one. It goes without saying that this comparison is not a hierarchical affair. The promised fourth analysis of the chorale is now highly due, cf. Ex 5, and it can be read and understood without much further comments. The signs used in the analytical notations should be self-explanatory and do not involve any far-reaching theoretical commitments. The graph brings out several disparate elements that may be of importance in a musically competent person's real-time, but not necessarily first-time, encounter with the chorale. The various aspects of understanding are complementary, and they should be thought of as coexisting and interacting. The implicit assumption is that listeners are capable of mixing them so as to form a coherent and flexible representation of the music. There is also an implicit conclusion: understanding tonal music may be far less a matter of hierarchical structuring than is often taken for granted.

Chapter 4 Prolongation vs. implication

Introduction

As the title makes clear, the purpose of this paper is to compare and evaluate two analytic approaches. One of them has given rise to a widespread school of analysis, the other one less so, and they have sometimes been confronted with each other, often to the detriment of the most recent tradition. The earliest of these analytical systems was codified in Heinrich Schenker's *Der Freie Satz* (1935), and Schenker's ideas eventually turned out to be very influential. Especially in post-war America his many followers have applied and developed his ideas, efforts documented in textbooks such as those of Salzer (1962) and Forte & Gilbert (1982), and in a host of analytic essays.¹ The later approach to analysis has been propounded in works by Leonard B. Meyer (1956, 1973, and 1989) and Eugene Narmour (1977, 1990, and 1992).²

The main issue of Schenkerian theory is to show how tonality imparts unity to pieces of music by means of the coherence guaranteed by the *Ursatz* and its recursive prolongations. In all music that makes tonal sense, it is held, there is such a fundamental tonal structure underlying not only the whole piece, but also its hierarchically arranged sections. Schenkerian theory is normative and top/down whereas the practice of "tonal" analysis is (or should be) a mixture of top/down deduction and bottom/up reduction, proceeding from the actual music to ever-deeper layers (ever-higher levels) and to ever more encompassing sections of the music.³ The theory

-
- 1 Heinrich Schenker, *Der freie Satz I-II*, Wien 1935; Felix Salzer, *Structural Hearing I-II*, 2nd ed. New York 1962; Allen Forte & Steven E. Gilbert, *Introduction to Schenkerian Analysis*, New York 1982.
 - 2 Leonard B. Meyer, *Emotion and Meaning in Music*, Chicago 1956, *Explaining Music*, Chicago 1973, *Style and Music* (Philadelphia 1989) and Eugene Narmour, *Beyond Schenkerism*, Chicago 1977, and the later sequels *The Analysis and Cognition of Basic Melodic Structures*, Chicago 1990; *The Analysis and Cognition of Melodic Complexity*, Chicago 1992.
 - 3 When speaking of tonal analysis, the designations are not consistent since we tend to vacillate between two opposite ways of understanding musical

presupposes that the works demand to be heard in a way that approximates the result of a tonal analysis: in order to fully understand a piece of tonal music as a unified organism, the listener should always and on every level be able to distinguish between structure and prolongation.

When it comes to the reductive choices and to the validation of the emerging structures, harmony and voice leading serve as the main, decisive criteria. Certain harmonic progressions, especially root-position chords making up standard cadences, are considered structural. In the basic *Ursatz* structures, the notes of the fundamental upper line (the *Urlinie*) and the bass arpeggiation (the *Bassbrechung*) should coincide, lending mutual support to each other. Various standard voice-leading patterns serve as models for the prolongations – the actual music is conceived of as a hierarchic set of more or less free elaborations of underlying, increasingly abstract layers of strict counterpoint.

Melody and rhythm as well as matters of articulation and form hold modest positions as reductive criteria. These elements are regarded as the sources of variety in music and as such they belong to the surface – the layer that must be penetrated in order to arrive at the deeper structures. Consequently, there have been critics arguing that these aspects of the musical design tend to be unduly neglected or violated in Schenkerian analysis.

It must be acknowledged (as it sometimes is) that theoretically received ideas as to what ought to emerge on relatively deeper layers tend to determine the reductive choices in Schenkerian analysis. Yet, admitting that an analysis has more or less been guided by top/down considerations (or even that the music has actually been studied backwards) is not considered by tonal analysts as a concession that might rob the reading of its credibility. Generally speaking, there is of course a scope for a legitimate dialectic between parts and whole, between different structural layers, in music analysis.

When studying music from the score, one has the advantage of literally reading the music as an open book with all its events and relationships concurrently present, and in all aural encounters (excepting the very first)

structure. If the actual music is thought of as a surface, reduction means probing into deeper layers, but the actual music may also be conceived of as emanating out of abstract, higher levels.

with a piece of music, the listener has some knowledge of future events. This being said, the point of the criticism of top/down decision procedures in Schenkerian analysis amounts to a suspicion of circularity: certain notes are selected to be preserved since a desirable structure to be established at some deeper layer requires these very notes. As a result, standard configurations turn up throughout the hierarchy whereas other, possibly quite interesting ones might have emerged, had the music been studied bottom/up (i.e. surface/down) with an unprejudiced mind.

The analytic method invented by L. B. Meyer addresses another problem, that of demonstrating the coherence of music as a web of “implications” and “realizations”. An implication (or “generative event”) is a musical event of some kind that holds out the prospect of some more or less definite continuation to be realized sooner or later during the course of the music.⁴

Implications are not strictly hierarchical but may nevertheless form complex quasi-layered networks in several ways: they can be superimposed on each other; an implication already on its way may be deflected by intervening generative events suggesting other realizations; generative events sometimes evoke both an immediate realization and a more distant one; realizations may be provisional, which means that the envisaged outcome did not turn out quite as expected and that the final, satisfactory realization is postponed, thus increasing the suspense.

Implications might be generated/realized by any and all factors of the musical surface (melody, voice leading, harmony, rhythm, form, etc.), and they arise as the joint result of the specific musical design and the prevailing stylistic conventions; ultimately they turn out to be applications of general principles of perception. However, much of the interest has been attached to the melodic and rhythmic domains, and most of the theoretic innovations have been made within the field of melody.

4 A concise statement of definitions and methods within implicative theory is to be found in Meyer (1973), pp. 114–130. Some confusion is due to the fact that the term “implication” in current analytic parlance is used both for the generative event that sparks off the implicative relationship and for the complete binary relationship generative-event-followed-by-realization. The latter use is obviously derived from the concept of ‘implication’ as met with in logics, i.e. the if/then-relationship between two propositions.

Basically, implications are phenomenal facts: a musical event makes the listener more or less consciously expect a future event. If the musical situation is ambiguous or vague, several alternative events may be envisaged. Although implications are ultimately a matter of subjective identification, the theory claims objective status. The generative events are there to be seen in the score when read by a competent reader, familiar with the style, and so are the realizations that the implicative gestures hold in prospect. This is so because the connections between the generative events and their realizations are mediated by probability. A good listener will entertain reasonable hypotheses as to what will happen in a certain situation since he/she has internalized the objective probabilities of a great number of more or less normal outcomes of such situations within the style in question.

Being rooted in stylistic insight and musical experience, the analytic decisions are also open to criticism. The musical credibility of the implications and realizations can be evaluated, and so can the link between them. If a generative event or its realization does not seem convincing, the implicative connection can simply be disregarded. In other words, the method lacks normative elements.

Both prolongational and implicational analysis involve selection of events, and both bring out encompassing connections, but (as already pointed out) whereas implications may give rise to networks, prolongations form hierarchies.

A deeper-layer, relatively more structural event in a Schenkerian analysis absorbs the notes having just been reduced out of sight. The selected note represents the notes that prolong it as well as (when applicable) the subordinate progressions that lead up to and away from it. This is not the case in implicative analysis where certain notes of the musical surface are picked out in virtue of their prospective meaning and of what they lead to. In a mental experiment, as it were, the skipped notes are temporarily disregarded, but the selected, highlighted notes are still part of their full contexts.

Since the events kept on a certain level in a Schenkerian analysis has recursively absorbed events of lesser structural significance, and since implications/realizations still are embedded in their contexts, it is illusory to think that either kind of analysis can be corroborated by playing and listening to the selected events. The shown connections make sense since they are selected so

as to make up acknowledged harmonic and/or voice-leading structures, and so as to form patterns evoking and satisfying expectations, respectively; they are abstractions that do not *per se* allow of any conclusions as to whether they have been derived in a convincing or (at least) defensible way.

Schenker and his followers have also taken an interest in musical similarities and affinities. When probing into the musical depths to find structures expressing the tonality of the music, various patterns may be found that recur in more or less orderly ways. Such “hidden repetitions”, turning up as by-products in the voice-leading graphs, are assigned great importance in Schenkerian analysis as additional elements making for musical unity.⁵ Whether fundamental structures or standard voice-leading configurations emerging on various levels by default, as it were, should be thought of as hidden repetitions is a moot point.

In Meyer’s theory of music style and music listening, similarities or “conformant relationships” are assigned several functions. A recurring formulation within a specific work might be remembered and recognized by the listeners and then used as a basis for expectations; similarities reflecting stylistic or tonal stereotypes might function as implications because they display patterns that are already known. Whether recurring in identical form or being varied, conformant relationships create a network of references within (as well as between) works.⁶ Meyer does not consider the Schenkerian *Ursatz* to be a universal law of tonal music; it makes up a frequently occurring type among the relatively stable and enduring melodic/harmonic schemata to be found in tonal music.⁷

It should be observed that while Schenkerian hidden repetitions usually belong to the deeper layers and require reductive voice-leading analysis to

-
- 5 Hidden repetitions are studied in Charles Burkhart, “Schenker’s ‘Motivic Parallelisms’”, *Journal of Music Theory* 22(1978), 145–175 and John Rothgeb, “Thematic Content: A Schenkerian View”, (Beach, ed., *Aspects of Schenkerian Theory*, New Haven 1983, pp. 39–60). Cf. also Bengt Edlund, “Hidden Repetitions and Uncovered Parallelisms”, in which the views and observations of Burkhart and Rothgeb are critically discussed.
 - 6 Meyer’s ideas on conformant relationships are succinctly put forth in Meyer (1973), pp. 44–79.
 - 7 Cf. Meyer (1989) pp. 50–51.

emerge, Meyer's conformant relationships, being related to thematic similarities in current sense, lie closer to the musical surface.

Implications and prolongations in the *Les Adieux* introduction

A detailed comparison between a Schenkerian "tonal" reduction and a set of implicational observations seems worthwhile, and the two methods should preferably be applied to the same piece. Fortunately there is at least one such piece, or actually fragment of a piece: the introduction to the first movement of Beethoven's *Les Adieux* Sonata Op. 81a. It has been analysed by Leonard B. Meyer,⁸ and Nicholas Cook presents his own tonal reduction of it to provide an example of tonal analysis.⁹ At the same time he evaluates the two methods to the advantage of Schenkerian theory.

In Ex. 1 the two readings are reproduced and arranged so as to disentangle the various tonal connections and implications, respectively. Cook's reductive layers (C a/c) are shown in a fairly strict hierarchic order above Beethoven's music; the uppermost layer presenting the fundamental structure also contains a number of hidden motivic repetitions.¹⁰ On the first three staves beneath the excerpt from the sonata are reproduced most of Meyer's implications (M a/c); the bottom staff (Md) shows conformant

8 Cf. Meyer (1973) pp. 242–268; a conformant relationship within the introduction is also commented upon, cf. pp. 73–75.

9 Cf. Nicholas Cook, *A Guide to Musical Analysis*, London 1987, pp. 81–89. Cook's reduction incorporates fragmentary analyses found in Schenker (1935) – Fig. 119,7 exemplifying a hidden repetition, and Fig. 124,4 demonstrating a melodic diminution extending to an upper register – and in Forte & Gilbert (1982) – Ex. 188d illustrating arpeggiation by means of overlapping, and Ex. 194 showing various occurrences of the motto (being identical with the fundamental line).

10 Since Beethoven's music, serving both analyses, is placed in the middle of Ex. 1, Cook's layers should be studied from the foreground (Ca) upwards to the background (Cc). Reading these layers downwards from the top of the page should be avoided because it substitutes reduction for prolongation. Although this is how Schenker himself used to think of his analytic work, it is a most unfortunate habit since it does not invite to critical scrutiny. As to the staves presenting Meyer's network of implications, they can be studied in any sequence – the distribution of his observations is merely a practical matter.

relationships. The presentation of Meyer's reading is incomplete in as far as most of his rhythmic analysis is omitted, but when called for in the discussion, matters of relative accent, grouping, meter, etc. will be considered. The various tonal connections and implications, respectively, are numbered for convenient reference.

According to Meyer, the motto is implicative – various statements of it are shown in Md. The deceptive VI harmonization of e_b^1 in the first motto (Ma:2) undermines this otherwise stable note, a fact that demands a later, correcting $d^1-e_b^1$ motion bringing an authentic cadence. But no such realization emerges before the second, even more deceptive motto (Ma:5) has reinforced the same expectation; this time there is a provisional realization in m. 12 that starts the transition to the *Allegro*. Only after the third, disguised motto (Ma:9) follows a fully satisfactory realization – the resolution of the appoggiatura in m. 19.

In Cook's analysis, the first motto (Ca:1) brings no such later consequences, but the e_b^2 in m. 4, emanating from the e_b^1 in m. 2, is shown as having some (unexplained) relationship with the d^2 in m. 12 (cf. the slurs indicating Cb:3a). The second motto Ca:[5] is denied independent status since it is absorbed into a two-bar dominant complex leading to the deceptive b VI⁵ chord in m. 8; cf. Ca:5a. But the reading of these two bars as expressive the dominant does not convince since the chord at the main downbeat in m. 7, i.e. the chord following after the melodic transition, patently in the dominant, is clearly deceptive and certainly not a dominant – quite to the contrary, this diminished seventh-chord replaces the E_b -major tonic chord that in immediate retrospect should have headed the second motto.

The expansive melody in mm. 3–6 is heard very differently by Meyer and Cook.

Meyer identifies three consecutive rising gaps implying filling-in realizations (Ma:3, Mb:2, and Ma:[4a]). The first two of these gap/fill-gestures combine to a form rising C-minor triad demanding the octave e_b^2 as its final note (Mc:2). The gap (Ma:3) requires a second motto to complete its tendency to be filled in, and this realization turns up in m. 7 preceded by an a_b^1 referring back to the generative gap. The realization of the second implicative gap (Mb:2) is deflected twice – first by the implied motion

along the C-minor triad up to e_b^2 (Mc:2), then by the octave transposition of the melody – before it is allowed to complete its descent via the chromatic bridge leading to the second motto.

The gap-fill-in motion in the high register (Ma:[4a]) – not indicated by Meyer – is (perhaps) pursued in m. 17. In spite of the connecting ornament, the motion $c^2-e_b^2$ has a gap-like quality (Mc:4), and its realization may perhaps be taken to occur in mm. 11/12; cf. the implications Mb:1 and Mb:3 to be presented, and also the long $e_b^2-d^2$ slur in Cb. Instead of Ma:[4a], Meyer pays attention to the b_b^2 being left in m. 6 (Ma:4) and associates it with the b_b^2 in m. 20 quickly dropping to g^2 , a note that in turn is strongly implied by the a_b^2 in m. 17; cf. Ma:8. The idea of a persisting b_b^2 is not very convincing, however. It is preferable to include the whole melodic gesture in mm. 4–6; it makes up a partly filled-in sixth gap (Ma:[4a]) implying a continued falling movement down to g^2 , a motion that is perhaps finished only in m. 21.

Still another possibility is to apprehend the $c^2-b_b^1$ in m. 4 as an incomplete and harmonically unstable realization of the $g^1-e_b^2$ gap latent in the C-minor arpeggiation (Mc:2), and to interpret the following, manifest rising sixth $g^2-e_b^3$ in the upper register as an intensification of this implication. This renewed gap leads to a realization reaching one half step further to b_b^2 , and then (after re-harmonization and transfer to the lower register) all the way down to the g^1 in m. 7, joining with and finishing the original realization and starting the second motto. These alternative implications are shown as Md:1 and Md:1a.

Cook's reduction also features a C-minor-chord arpeggiation (Cc:3). According to Forte & Gilbert (1982) this motion is produced by overlapping voices – a quite far-fetched explanation. What you hear is a rising melody, so where do the new voices come from and where do they go? Anyway, this pile of notes (Ca:3) is followed by an interchange of voice positions – the third c^2 -then- e_b^2 proceeds to the sixth b_b^1 -over- d^1 – paving the way for a falling motion (Ca:5b), starting from c^2 (or d_b^2) in m. 3 and ending with the bridge to the second motto. It seems that the purpose of conceiving the melody in mm. 3–4 in terms of overlapping voices followed by a voice interchange is to launch this hidden chromatic connection.

In the middleground, this c^2-g^1 connection is replicated in diatonic form as Cb:3, and when the first motto is attached to it by means of a register shift (Cb:3a), the stepwise descending motion from the initial g^1

is balanced by a stepwise connection falling back to g^1 . Similarly, but on a larger scale and associating back to the motto by means of two register shifts, the high-register chromatic descent (Ca:4) is diatonically connected to the distant a^b^2 in m. 17 and g^2 in m. 21 (Cb:4/4a).

Meyer's analysis of the second melodic expansion mm. 9–11 is in keeping with his reading of the first; they begin in much the same way. For rhythmic reasons, presumably, the first motive $g^b^1-c^b^2-c^b^2-b^b^1$ does not give rise to an implicative gap – due to the anticipation/appoggiatura, the c^b^2 is directed primarily towards its local resolution b^b^1 starting another gap.¹¹ Meyer identifies four closely intertwined gaps (Ma:6, Mb:4, Ma:7, and Mb:5) as well as a rising E_b -minor triad (Mc:5), again completed up to the octave by a gap. All these gaps are filled in with little delay, and three of them point towards the second-inversion dominant seventh-chord ending the first section of the introduction and launching the five-bar transition.¹²

A lack of credible middleground connections linking the second melodic expansion with the transition is apparent in Cook's analysis. The "voices" again pile up to form a chord arpeggiation (Ca:6), and in addition there is a high-register, chromatically altered echo (Ca:7) of the motto and a chromatically falling line divided between soprano and tenor (Ca:8). The latter connection leads with huge leaps from g^b^2 to d^b^2 in m. 12, and it is regarded as corresponding to the previous connection Ca:5b. But it is as difficult to follow the zigzag motion of Ca:8 as it is to figure out the point of likening it to Ca:5b – it is certainly quite far-fetched as well but it has an altogether different derivation.

Turning to the falling bass motions in mm. 1–12, Meyer regards the second bass descent (Mb:3), reaching f (a point of relative stability), as completing the realization of an implication present already in the first bass descent (Mb:1) ending on g . Apparently, this idea presupposes retrospective listening. At the cadence to G major in m. 4, the first bass motion seems to be finished; only when the second motion ends by g^b/e^b^2 followed by f/d^b^2

11 For another possible interpretation, cf. Ex. 2, implication Ea:4.

12 Meyer also takes account of the melodic sequences in mm. 10–11 as a bilinear motion falling towards the dominant.

in mm. 11/12 does the previously closing interval $g/e\flat^2$ in m. 4 appear implicative, cf. Mb:1a.¹³ This means that the implications Mc:4 and Mb:1 mutually support each other, and that both of them are prompted by the implications Mb:5 and Mb:3, bringing immediate realizations. Meyer also stresses the fact that the falling bass motion of mm. 9–11 is continued in the transition section and beyond (Mb:3+Mb:7+Mc:7).

And so does Cook, taking notice of the chromatic descents (Ca:2 and Ca:9). As regards the first seven measures, he points out that the bass exhibits a complete harmonic cadence ending in m. 7 (Cb:1). It must be objected, however, that there is in fact no final tonic harmony in this cadence, but a diminished seventh-chord replacing the implied tonic chord, and also that this bass progression conflicts with Cook's reading of the melody in mm. 6–7 as a linking passage prolonging the dominant; cf. Ca:5a. And even worse, the initial I–VI progression of this supposed I–VI–III³–V–I cadence leaves out of account the vital sense of harmonic deception involved in the first I–V–VI motto.

Considering the transition passage and the first five measures of the *Allergro*, Meyer brings out three overlapping falling bass motions leading down to the final dominant in m. 20 (Mb:7, Mc:7, and Mb:9). The transition builds up momentum by means of repeated implicative three-note motifs related to the motto (cf. Md) arranged in contrary motion (Mb:6/7); finally, the suspense is increased by presenting three weak beats in succession; cf. the rhythmic symbols entered in Beethoven's score. The three-note motifs are then joined, and the dual implication of the contrary motions is finally released in mm. 19–20, cf. Mb:8/9.

These motions are supplemented by the diminished-fifth gap, arching the transition from the d^2 in m. 12 to the a^2 supported by the IV⁶ chord in m. 17. This gap has two realizations, one complete and immediate, involving the transformed statement of the motto (Mc:6), and one incomplete and delayed, bringing the g^2 in m. 21 (Ma:8).

Cook also takes account of the ever-descending bass and the contrary treble motion (Ca:10 and Ca:11). Observe that Cook's rising connection

13 For another way to construe essentially the same relationship, cf. Ex. 2, implication Eb:1.

in m. 20 does not reach b^2 in the same way as Meyer's corresponding rising implication: Cook reads this note as a covering note, overshooting the target g^2 of the neighbour note a^2 .

He interprets the whole passage mm. 12–20 as a prolongation of the dominant seventh-chord, being transformed from an unstable second-inversion configuration to stable root position (Cb:5/6). Thus, when evaluated with respect to its tonal and voice-leading significance, the subdominant IV^6 chord bringing the downbeat start of the *Allegro* emerges as a subordinate passing chord. It should be noted that (however transient) there is also a resolving root-position tonic chord in m. 19 that even more attenuates the sense of an anticipatory prolongation of the structural dominant appearing only in m. 20.

Turning to more or less static, encompassing connections, Meyer reads this introduction as essentially retaining g^1 in the treble, leaving it temporarily for the upper neighbour-note a^1 in m. 17 (Ma:1). Harmonically, he interprets the music as an elaborate cadence: I–VI/I–VI/I_b– IV^6 – V^7 –I (Mc:1). This means that he brings out the two deceptive VI chords, of which the second, C_b-major chord is regarded as a chromatic neighbour-chord between two chords based on c^1 , and that he accepts the prominent subdominant chord in m. 17 as structural although it does not appear in root position, and although it is preceded by a dominant – the unstable second-inversion seventh chord in m. 12. In addition, he identifies a further long-range implicative connection (Mc:3) involving three rising octaves, the last of which is the b^1/b^2 leap in mm. 21/22. This pattern requires more expectation than the present writer can provide, however.

Cook holds that the initial g^1 is prolonged by means of two hierarchically nested upper neighbour-note motions (Cc:1 and Cc:2), the second of which is pursued in the g^2 register. Disregarding the very first E_b-major third – presumably because the bass voice is not yet present – the fundamental cadence emerges as incomplete: VI– VI^5 _b– V^7 –I (Cc:3). This means that he takes the altered VI chord in m. 8 to be a passing chord leading to an anticipatory prolongation of the dominant beginning in m. 12 and ending only in m. 20. As already pointed out, his prolongation relegates the conspicuous subdominant IV^6 chord in m. 17 to subordinate status as a passing chord within the structural dominant.

According to Cook there is a further encompassing connection, $g^1-g_b^1-f^1-e_b^1$ (Cb:2). But this line, amounting to a (chromatic) fundamental descent from the third degree, must be dismissed. In order to derive its first two notes, the obviously parallel passages mm. 1–3 and 7–9 must be read differently in a way that seems very strained – g^1 starts the first motto whereas g_b^1 begins the melodic expansion following upon the second motto. Furthermore, while the g_b^1 of this far-fetched connection may perhaps reflect the drastic harmonic change in mm. 7–11, one might question whether it can truly represent it since the crucial alteration, i.e. the motion from g to g_b , happens in the alto voice under e_b^1 , the last note of the second motto. The tonal coherence actually emanates from the deceptive harmonization of the second motto which is entirely left out of account in Cb:2, a connection that is certainly not bettered by the removal of the final e_b^1 from the pre-dominant tonic in m. 19, where it actually occurs, to m. 21.

A less objectionable fundamental descent for the introduction might have used the two g^1 's starting the mottos, but such a reading would not have provided a good description of the music because the crucial C_b-major episode is not accounted for. But no matter these problems, the connection Cb:2 is apparently valid in Cook's tonal reduction as a structural descending third that can be combined with the harmonic progression Cc:3 and with the large-scale neighbour-note motion Cc:2.

Finally, we will present the conformant relationships and hidden repetitions, respectively. The occurrences of the motto and its inversion in Meyer's analysis are self-explaining (x and xi in Md). Less evident, and yet just a consequence of these quite salient associations, is the observation that the first 4 bars of the *Allegro* may be understood as a condensation of the 16-bar *Adagio*.

In Cc are entered the more or less hidden motivic repetitions identified by the Schenkerian analysts, or are likely to have been so. The second motto in the *Adagio* is included in Cc, although it is suppressed in Cook's reading – no matter the reductive agenda, nobody can miss the formal parallelism and the fact that there is a second motto. The contrary motion in m. 6 was noticed by Schenker, and it may be a valid retrospective observation after having heard mm. 12–15. It seems evident from Cook's presentation of his analysis that the falling connections Cb:3 and Cb:4,

elaborating the nested upper neighbour-note motions Cc:1 and Cc:2 prolonging the fundamental third degree, are to be understood as hidden repetitions contributing to the coherence of the music. Likewise, he regards the questionable large-scale connection Cb:2 as an augmentation of the first motto – but if this line is to count as a hidden repetition, it does much better without the untenable g^1 in m. 8.

Comparing prolongations and implications

It seems that the most objectionable traits in Cook's analysis – the actual, but disregarded harmonic non-closure of the first middleground “cadence” spanning mm. 1–7 (Cb:1), the extended non-all-dominant “single dominant upbeat” to e^1 in m. 8 (Ca:5a), and the questionable structural-third line $g^1-g^1-f^1-e^1$ (Cb:2) – all stem from the same source: the neglect of the second motto. No matter its surface salience (the long notes are highlighted by the sudden inhibition of all other activities) and its significance in the network of motivic associations, it is sacrificed in order to demonstrate, indeed to impose, tonal continuity. The seemingly diatonic long-range connection Cb:4, for instance, spans over so disparate a harmonic ground that it lacks credibility.

The transition between mm. 7 and 8 cannot reasonably be heard as anything else than a dominant being drastically deceived, and the quarter-note diminished seventh-chord, exposing g^1 , clarifies that a second motto is about to come – and it certainly does, and it is certainly very important since it brings about a crucial harmonic change. If Cook's soprano g^1 in m. 8 has any long-range tonal significance at all, it derives from its relationship with the corresponding e^1 in m. 2, cf. Mc:3; it has nothing whatsoever to do with the g^1 starting the first motto.

According to Cook, an extra bonus of his analysis is that it clarifies the metric pattern of the introduction. Instead of Beethoven's quite regular and understandable (2+2+2)+(2+4+4) scheme (cf. the figures added beneath the score) – i.e. (motto + melodic expansion + octave transposition followed by a bridge passage) + (motto + melodic expansion + transition in the dominant) – he claims that there is a more “straightforward” metric configuration (cf. the figures above the music). Chopping off the first bar of the motto, a (3+1) bar unit leading to a 2-bar transition swallowing the

second motto comes to the fore, a pattern that “persists” in the 4-bar second melodic expansion, starting with the last chord of the second motto.

The metric price for Cook’s “single dominant upbeat” and for his falling third Cb:2 from the (now non-chopped-off) g^1 starting the first motto via the non-corresponding g^1 in m. 8 is very high indeed. If his reading really occurred to a pianist, and if this pianist really succeeded in rendering it, the listeners would be left with Beethoven’s quite evident metric symmetry made unintelligible and with only one motto – the second *Lebewohl*, even more poignantly deceptive than the first, would have disappeared into a questionably prolonged dominant. A devastating interpretation that beyond doubt proves Cook’s point that, given that “the aim of analysis is to advance from the obvious to the non-obvious, Schenkerian analysis has the advantage”.

Generally, Cook considers Meyer’s brand of analysis “useful for observing surface features” but less successful when dealing with continuity, and implicative analysis therefore emerges as merely a complement to Schenkerian reduction, which “tends to clarify the long-range harmonic continuity of music but suppress foreground contrasts”. And he especially mentions three passages where the differences between the analyses speak in favour of the Schenkerian approach.

As we have just seen, Cook “feels that there is harmonic continuity leading to the return of the motto”. There is some continuity in the music, but arguably too much of it in his analysis since his dominant swallows the second motto but its last note. Meyer, on the other hand, offers no less than three melodic implications (Ma:2, Ma:3, and Mb:2) pointing at the beginning of the second motto, and the first of them provides harmonic continuity as well since it issues from the tension left in the air by the deceptive outcome of the first motto.

Notwithstanding the fact that Meyer demonstrates that the second-inversion dominant seventh-chord in m. 12 is strongly implied – a number of implications demand it (Ma:2+5, Ma:6, Ma:7, Mb:5, Mb:1+3 or Mb:1a, and Mc:4) – “the characteristic thing” for Cook “is the way the music blunders onto it”. But Cook’s description agrees much better with his own unsatisfactory reduction than with the music: in his analysis, the dominant chord is only connected in three very questionable ways with previous events – the entirely unwarranted Cb:2 connection via g^1 , the

extremely contrived zigzag line Ca:8, and the very hard-to-hear relationship back to the e_b^2 in m. 4; cf. the slur in Cb.

There is more substance, perhaps, in Cook's criticism of Meyer's treatment of the IV⁶ chord in m. 17. In the middleground harmonic progression linked to the unfortunate connection Cb:2, this powerful subdominant chord emerges as merely a passing chord within an ever more ripe dominant prolongation encompassing the transition as well as the beginning of the *Allegro*. While Meyer certainly identifies a number of implications spanning the same dominant field, he nevertheless assigns greater importance to this first-inversion subdominant – he accepts it as a member of the basic harmonic progression and marks it as a high-level rhythmic downbeat. By letting it interrupt the large-scale dominant build-up highlighted in Cook's reading, Meyer brings out the IV⁶ chord as a fresh start, which it certainly is in terms of formal layout and motivic substance. This is not only where the *Allegro* starts, but also where the disguised motto is launched by an initial note that does not belong to it. The interesting thing about this disagreement between Cook's and Meyer's readings is that it may inspire to two different interpretations.¹⁴

There is a further, and quite important, difference that Cook does not mention: the fact that he starts the bass of his fundamental harmonic structure on the deceptive VI chord (Cc:3), which turns the introduction into an incomplete cadence, whereas Meyer prefers a full cadence starting from the tonic represented by the initial right-hand third (Mc:1). Cook is apparently not willing to let the first motto be included in an encompassing tonic-to-tonic progression.

Leaving further evaluations of the two analyses aside, it is of interest to compare Cook's tonal connections and Meyer's implications. Are some of the tonal connections "implicative"? Do any of the implications have "structural" significance? These questions are important since the quite

14 Meyer's structurally upgraded start of the *Allegro* does not necessarily entail any thumping from the pianist. There is no reason to unduly stress a_b^2/a_b^1 (opening up a high-level implicational gap), and had Meyer proceeded to a further level in his rhythmic analysis, the tonic downbeat in m. 21 would no doubt have outweighed the subdominant in m. 17.

disparate theoretical backgrounds of prolongations and implications, respectively, should make these phenomena quite different.

Deeper-layer tonal connections exist in a static way. Whatever energy they may have leading them towards completion, it is granted by the tonal “gravity” inherent in the scale-degrees or by whatever voice-leading configuration they may be part of; their goal as well as their momentum emanate from higher-level considerations or indeed from preordained tonal destinies. Implications, on the other hand, are *ad-hoc* bipartite dynamic relationships, in which the generative event supplies the energy necessary to spark off a certain realization, to push the music forward to the goal held in prospect by the initial gesture.

The nested Cc:1 and Cc:2 together equal Ma:1, and none of these neighbour-note connections is intrinsically implicative. But Cc:1 is fuelled by the generative gesture Ma:3, just as later on the distant neighbour-note $a^{\flat 2}$ of Cc:2 is activated by the implications starting in m. 12 (Ma:8 and Mc:6). On the other hand, and considering the large-scale bass progressions (Cc:3 and Mc:1), Cook’s incomplete cadence, featuring an initial VI chord and then a passing $\flat VI^5$ chord on the way to the dominant, emerges as more introductory, as more charged with suspense, than Meyer’s full cadence starting at the initial tonic chord and featuring a lower-neighbour C \flat -major chord, a reading that rather suggests repose.

The connection Cb:3 gains momentum only when sparked off by the gap opening in Mb:2, and the same applies to the encompassing motion Cb:4 when read as an implication (Ma:[4a]). And the otherwise quite passive relationship between $e^{\flat 2}$ in m. 4 and d^2 in m. 12 (shown by a slur in Cb) gets some active substance if it is conceived of as an implication (Mc:4) – provided of course that the remote generative gesture is strong enough to survive the abundance of deflections.

The contrary-motion voice-leading configuration within the dominant (Cb:5/6) is activated by means of both stepwise (Mb:6/7 and Mb:8/9) and gap (Ma:8 and Mc:6) implications. It should be observed how both gaps highlight the $a^{\flat 2}$ in m. 17, and how especially Mc:6, bringing immediate realization, imparts prominence to the IV⁶ chord, which arguably emerges as too passive within Cook’s prolonged dominant. Mb:8/9, finally producing an octave between the outer voices, indicate that the penultimate, merely “covering note” $b^{\flat 2}$ in Ca is in fact quite strongly implied.

The voice-overlapping arpeggiations (Ca:3 and Ca:6) and the descending bass motions (Ca:2 and Ca:9), finally, show up as implications in Meyer's analysis; cf. Mc:2 and Mc:5, and Mb:1 and Mb:3, respectively.

When corresponding items are selected for comparison in the two readings, it turns out that the tonal connections are not implicative as such. Their momentum, if any, seems to derive from the fact that they may concurrently be understood as implications or as somehow attached to implications.

Meyer sometimes identifies roughly the same large-scale, more or less static, "structural" connections as Cook. They disagree about the start of the overall harmonic framework, the tonal significance of the subdominant in m. 17, and the Cb:2 chromatically falling third which is entirely absent in Meyer's analysis – but most of Meyer's implications do not belong to the tonal "structure" in Schenkerian sense. On the other hand, by either starting a generative event or closing a realization, Meyer's implications tend to suggest the formal and motivic layout of the music by bringing out certain crucial points – the return of the motto in m. 7, the beginning of the dominant transition in m. 12, the subdominant start of the *Allegro*, and the decisive arrival at the tonic in m. 21.

Cook considers Schenkerian analysis to be "more helpful in refining musical interpretation" since "the difficulty lies in achieving some kind of background continuity". But it has been shown here that it is also quite rewarding to identify the implicative network because implications by no means just concern "the fantastic contrasts of the foreground" or just deal with what is obvious and trivial. Besides, in as far as keeping to the obvious is tantamount to avoiding misrepresentations of the music, it emerges as far from a trivial endeavour; indeed, scholarly speaking, it emerges as both an asset and a duty.

It seems that Cook's conclusion as to the value of Schenkerian reduction when it comes to interpretation may be contested.¹⁵ For example, let's assume that the long-range neighbour-note configuration Cc:2 imparts

15 For further discussions, cf. Bengt Edlund, "Music at the analyst's couch and at the musician's stand", ch. 3 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag, "Interpreting Bagatelles", "Reduction and

“background continuity”. How can the pianist use this insight to “refine” his/her interpretation? Well, it seems that implications might be quite helpful: you might first try to bring out Mb:1a, prompted by Mb:1 and Mb:3, and then Mc:6, getting its momentum from Mb:6 and Mb:7.

There are some spots where the two readings, and the mental representations of the music that they give rise to, seem crucial for the way one might play the music. The IV⁶ chord in m. 17 is a case in point: it is a structural event according to Meyer and merely a passing one in Cook’s reading. How can a passing quality be expressed, considering the actual *subito-forte* prominence of the chord? Turning to m. 12, is the second-inversion dominant seventh-chord an event that is strongly implied or an event that “the music blunders onto” as Cook puts it? If there is any “blundering” (which is doubtful), the pianist can counteract this impression. And even the very first moments of the introduction involve a choice that might make a difference when you play: do you want the music to “begin” with the tonic starting the first motto or with the deceptive VI chord ending it?

A selection of observations

So far the account of the tonal connections and implications inherent in the first 22 bars of the *Les Adieux* sonata has offered an almost impenetrable mess of observations. The present author owes the readers an excuse, and so do Cook and Meyer having presented even their most convoluted findings – as well as Beethoven writing so complex an introduction.

To conclude this essay, a few selected observations (Schenkerian connections or Meyerian implications) will be presented and shortly discussed; Ex. 2. Their *raison d’être* is whether they are reasonably supported by the surface design of the music, and whether they make some fairly immediate musical sense – if not, if they elude your ears and lack meaning, they would most likely defy expression and be irrelevant when it comes to interpretation.

On the first staff is shown how an almost seamless continuity is achieved by a network of small-scale implications. The first generative event, sparked by

Interpretation”, and “Disciplining reduction and tonalizing interpretation”, ch. 2 in this volume.

a rising fourth, (Ea:1), has no immediate realization – it is deflected by the second gap (Ea:2). The second motto (shown on the second staff) is implied concurrently by the first gap (Ea:1) and by the deceptive harmonization of the first motto (Eb:1). The realization of the rising-sixth gap (Ea:2) is delayed *and* prompted by the high-register replica (Ea:3). Turning to the second melodic episode, it is essentially analysed in analogy with the first: a rising-fourth-gap (Ea:4) is again followed by a rising sixth (Ea:5), which generates a downward motion met with and finished off by the rising-third implication Ea:6; both of them point towards the second-inversion dominant seventh-chord in m. 12, just as does the deflected implication Ea:4. The rest of the introduction features implications in contrary motion. The first set (Ea:7/8) moves slowly and creates a strong sense of suspension; it leads to the interval $a^2/c\sharp^1$ and the release of the *Allegro*. The second set (Ea:9/10) is swift and proceeds one step further to b^2/b , the ultimate point of the dominant.

The other staves show more encompassing connections. If the first motto is conceived of as a motion leading to VI (rather than as a motif starting from I), a two-voice implication Eb:1, featuring a chromatically falling sequence of sixths, issues from the deceptive cadences of the two mottos and suggests a motion leading towards the dominant in m. 12.¹⁶ The overall bass progression Ed:1 is closely associated with Eb:1, and it turns implicative, it seems, because a root-position dominant does *not* occur in m. 12 where it might have turned up. This withholding produces considerable tension and makes for two elaborate descending bass motions from *f* towards B \flat ; cf. Ea:8 and Ea:10. The two-voice configuration Eb:2 brings out the large-scale contrary motion underlying mm. 12–20, a motion in the dominant that contains, or is temporarily interrupted by, the subdominant starting the *Allegro*.

But the introduction also features a (seemingly more) static upper neighbour-note line (Ec:1) in concurrence with the dynamic patterns just accounted for, and it seems that a good interpretation has to balance these options carefully. Several implications of various range – Ea:1, Ea:2, Ec:2 (highlighting the subdominant in m. 17 and the start of the *Allegro* theme)

16 The middle-register implicative pattern Eb:1 replaces in a convincing way Cook's "connection" Cb:2, violating both the melodic and metric properties of the musical surface.

and finally Ea:9 – involve the notes a \flat ¹ and a \flat ², respectively. These motions to the upper neighbour-note give some substance to the sense of a prolonged third degree and are associated with the start of the second and third (varied) motto.

The mottos are of paramount importance in this reading. Issuing from the initial tonic, the mottos are implicative and in turn they bring three harmonic realizations: the C-minor deception, the C \flat -major deception of the deception, and finally the E \flat -major tonic; cf. Ec:3.

If this account makes sense, it has been shown that a convincing coherence on both low and high levels may be demonstrated by means of a quite economic application of implicative principles, and without evoking preordained tonal connections in a top-down fashion. All connections indicated in Ex. 2 have a reasonably straightforward support in the score, and they are not unduly extended, straining the musical imagination beyond plausibility. Reflecting both background continuity and foreground contrasts, they may be relevant for interpretation, and they open up for interpretational differences. Some of them might effectively and yet unobtrusively be expressed in performance while others are likely to influence interpretation by just being present in the pianist's mind.¹⁷

17 I should finally declare that my critical remarks on Cook's Schenkerian analysis of this Beethoven fragment are not representative of my opinion of his book. On the contrary, I find that *A Guide to Musical Analysis* is excellent in many ways. It is a well-written, open-minded, and clear-sighted discussion of important issues in music theory, and I have used it with much benefit for many years in my theory classes. It should also be made clear that Cook does not belong to the ardent, no-matter-what proponents of Schenkerian theory – as all readers of his *Guide* as well as everybody else having read his later contributions to the theoretical discussion will know – cf. especially “The Perception of Large-Scale Tonal Closure” in *Music Perception* 5(1987), 197–206, and “Music Theory and ‘Good Comparison’: A Viennese Perspective” in *Journal of Music Theory* 33(1989), 117–141). By claiming that a worthwhile analysis is illuminating to the extent that it does not just reproduce features of the musical surface, Cook has drawn attention to a crucial *and* questionable principle applying not only to Schenkerian reduction, but to analysis in general; cf. “Schenkerian theory and better comparison. An out-of-the-way perspective”, ch. 1 in this volume.

Chapter 5 A hitch-hiker's guide to the repeat

I believe [...] in everything that does not yet know its meaning
Britt-Marie Eklund (1927–2011)

Introduction

Taking part in a discussion about the Scherzo of Schubert's B \flat -major Piano Sonata D. 960 is a privilege that can become a burden if you disagree with the keynote speaker.¹ Sincerity demands frankness while decorum bids you not to speak out. And whereas it is of scholarly interest to expose conflicting opinions, the time at disposal does not permit doing justice to your views.

I consider reduction to be a legitimate and quite important analytic approach because music, to some extent and somewhat like language, may be understood as a hierarchy in terms of main events and subordinate details. But I am loath to accept Schenkerian "tonal analysis" since it seems to me that its premises and claims are unfounded, and that when practiced it all too often gets out of hand. When accepting to take part in the discussion, I suspected that Carl Schachter's analysis of the Scherzo would be quite Schenkerian, and that I probably would not be able to approve of it. And my misgivings came true for this lovely piece was not spared the fate of having a standard *Ursatz* forced upon it.

This does not mean that I disliked everything in Schachter's paper. His main problem – to give a structural explanation of the magical false start in m. 68 – is certainly worthy of attention. And he deals with the relationship between analysis and interpretation, a very important topic. I sympathize with his suggestions as to how one might play the crucial moment of return in the Scherzo, and I also agree with his general standpoint in these matters, namely that analysis should not, and cannot, be used as a means to find the one and only way of playing a piece, and that interpretation

1 The panel discussion that occasioned the present text took place on 11th August 2004 at the Sibelius Academy in Helsinki during the 14th Nordic Musicological Congress.

might serve as an important input for analysis. Finally, he enriches the study of the Scherzo by actualizing a sketch for it, a first version that furthers our understanding of the final work.

But again, I cannot shrink from declaring that I am not at all convinced by Schachter's analysis. Indeed, it is imperative that I formulate my objections – most of which could not be brought up in the discussion due to lack of time – since they exceed the particular and amount to matters of principle, since they bear on the validity of a widespread analytic method enjoying high prestige.

There is one problem, however. What the members of the panel were given to read in advance was a short (and probably somewhat preliminary) paper without music examples, a text that Schachter enlarged upon in his keynote speech. Just before the session handouts were administered: hand-written reductive graphs and other sketches illustrating his analysis, as well as a facsimile of the first, discarded version of the Scherzo. This means that I have no authoritative published text and no definitive music examples upon which my critical remarks can be based – a state of affairs that appears not to have changed since the conference. In order to do justice to Schachter's views, I will quote passages from his text, and since the reader should also have access to authentic music examples, I will reproduce his analytic graphs just as they appeared in the handout.

I will start with a general presentation of Schachter's reduction, outlining its main features and stating my objections so as to give an idea of the issues to be discussed. Then follows sections devoted to reduction, motivic analysis, and questions of rhythm and metre, respectively. Along with a quite detailed criticism of Schachter's reading, several arguments supporting and preparing for my own analysis will emerge. Since he also comments on the tonal structure of the Trio, there will be a section dealing with this part of the movement as well.

After having set aside a counter-argument advanced by Schachter – this section touches the root of the controversy – my alternative attempt at a reduction will be advanced. When analysing music, I think that the approach should be multi-faceted rather than monistic. Hence I will, as it were, adopt the attitude of a hitch-hiker – having no car of my own, I will use various theoretical perspectives as a free commodity and with no

commitments, hopping into and out of as many vehicles as I need, and caring little about the route as long as it promises to lead to the goal, i.e. to shed light on crucial aspects of the music.

When opportunities arise, I will bring up the interpretational consequences of the analytic observations, and in addition some crucial issues of interpretation are dealt with in the concluding section.

Main objection

What I find most objectionable in Schachter's analysis is the way the *Ursatz*, the obligatory structural archetype of "tonal analysis", is established against the grain of Schubert's music; compare Ex. 1 with the deep-layer connections added to Schachter's voice-leading graph, Ex. 2. No matter the series of retreats into subdominant regions, an all too target-oriented linear *Anstieg* is started in the middle section, and in a squint-eared moment when "tonal" and "formal" form fall one bar apart, the theoretically required third-degree *Kopfton* turns up, not as a *Deus ex machina*, but as a result of cunningly selected evidence. Hence, the main disagreement concerns the deep structure of the piece, but I am also sceptical of the details of Schachter's reduction as well as of several other elements of his analysis – elements apparently meant to support his reduction.

The would-be structural ascent $b^{\flat 2}-c^2-d^{\flat 2}/c^{\sharp 2}-d^2$ lacks continuity between $b^{\flat 2}$ and $d^{\flat 2}/c^{\sharp 2}$, and presupposes that in retrospect the A_{\flat} -major passage starting in m. 25 is heard as structurally less important than its preceding E_{\flat} -major twin beginning in m. 17, a reappraisal that is most unlikely. And the descending counterpoint $e_{\flat}^{\flat 1}-d_{\flat}/c^{\sharp}-b_{\flat}^{\flat}-b_{\flat}$, supposed to go with this ascent, requires an even more deliberate, as opposed to unbiased, understanding. This bass line, starting and ending, but not pursued, with left-hand root notes, is present only if you disregard three important harmonic stages on the way: A_{\flat} major – obviously a counterpart to E_{\flat} major – F^{\sharp} minor – the ultimate link in the chain of subdominants and the quite exposed turning point of the Scherzo – and A major – the crucial point of departure for the return to the tonic.

What particularly flies in the face as entirely unwarranted is how the unstable, "root-position" diminished triad on " C_{\flat} " is raised to structural status at the expense of the firmly established and stable A major

harmony. The misreading concerns mm. 64–67, and the bass note of the chord (not its “root”) is written as $b\sharp$ in the score. For one thing, exalting a patently dissonant chord – actually a transitory product within the local voice leading – while suppressing the stable triad from which it issues is a most un-Schenkerian idea.² But what’s worse is Schachter’s use of a desirable long-range connection to back up a precarious reading of a local event; this reading strongly exposes the analysis to the suspicion that it is derived top/down – and that, to be sure, is a Schenkerian trait. There may of course be dialectic relationships between details and comprehensive patterns in music (as well as elsewhere), but in this case dialectics is by far exceeded so as to form a vicious and quite obvious circularity: the “ C_b ” owes its structural importance to the linear connection, but there is no linear connection without a structural “ C_b ”.

From the listener’s point of view, it is not within the power of the diminished triad with “ C_b ” ($b\sharp$) as its lowest note to shake the structural weight of its A-major-chord origin – and nor can the pianist do very much about it. The unmistakable fact that the A-major chord represents the point of departure for the formal unit starting in m. 58 makes it extremely unlikely that this chord will be erased from the overall structure by the diminished triad gradually growing out of it. Reappraisals do sometimes happen when listening, but only for very good reasons.

Admittedly, the listener is kept in suspense while attending to the diminished triad, but not because it “seems subordinate to A major”, but because it *is* subordinate to it, and because one does not know where the music is going.³ There is maybe a “deceptive ploy” on Schubert’s part – we will return to this issue in due time – but he is certainly not responsible for “disguising the long-range passing function of the bass’s $B\sharp/C_b$ ” since this long-range connection is a delusion on Schachter’s part. The analyst’s

2 But this is not really my problem. If warranted by the music, if there were not a less far-fetched reading of this passage (and of the Scherzo at large), I would have accepted the reading of a dissonance as structural as a laudable deviation from Schenkerian dogmatic.

3 The B_b -major outcome is too smart to be expected. Creating suspense is after all a very common function of diminished triads, and it is quite astonishing to read that the very fact that the note $b\sharp$ is present for eight bars (i.e. surface salience) is adduced as evidence for its structural status.

“ploy” by far outsmarts not only the listener, but presumably the composer as well, and yet the wording of the remark suggests that the composer is implicated in the analysis.⁴

Since I consider Schachter’s reductive explanation for the peculiarity of the re-transition to be invalid, his conclusions as regards its interpretation, however much I sympathize with them, are illusory. This point can be generalized: if a large-scale analysis, no matter of what kind, ignores or misrepresents the details of the music, one cannot expect it to be very informative or helpful with respect to how the composition might or should be played. Analysts heading for overall, unifying accounts sometimes (and for good or evil) treat details with supreme discretion, but musicians cannot do so – the rendering of the whole presupposes a reasonable treatment of each and any detail.

Schenkerian analysis is not exempt from this state of affairs, quite to the contrary. Whereas its fundamental theoretic perspective is hierarchical and top/down – recall Schenker’s bad habit of positing the background “results” of his reductions-conceived-as-prolongations on the top of the page – a musician can never escape making a convincing sense of the music as a sequence of events, i.e. bottom/up.

It should be pointed out once again that I have nothing against conscientious reductions-pursued-as-reductions, and I take it for granted that the Scherzo somehow makes reductive sense. But no “deep structure” of analytic interest or of pertinence for interpretation will emerge unless you read the music without preconceived ideas as to what ought to be present.

The first section

We will now turn to the details of Schachter’s reduction; cf. Ex. 1 and 2.

His foreground reading of the first section (mm. 1–16) begins with an inner-voice f^2 that does not exist, and the incomplete interior-voice motion (f^2)– g^2 – f^2 in mm. 1–4 is then taken to duplicate the left-hand accompaniment motion f^1/d^1 – g^1/e^1 – f^1/d^1 in mm. 1–3. Is this really how we hear the start of the melody – or does this reading reflect how Schachter plays the

4 Persuasive formulations suggesting that the composer agrees with the analyst are not rare in Schenker’s writings.

start of the theme? The quite patent tenth parallelism in m. 4–6 is another, later matter. Furthermore, if the d^3 in m. 2 can be derived from the B_b -major accompaniment in m. 3 (or for that matter in m. 1) – can it? – why cannot the d^3 in m. 68 be explained in this way as well, along with the c^\sharp in m. 56, of course? (This would make m. 68 less extraordinary.)

What I hear and play is not a right-hand melody shadowing the left-hand accompaniment, but a melody with a slight bifurcating tendency, a melody whose lower inherent strand suggests a motion b_b^2 – a^2 – g^2 – f^2 , and I have no problems of understanding the a^2 in m. 1, dissonant as it is, as both a lower neighbour-note and a passing-note.

Schachter's reduction of the music up to the double bar raises a question of fundamental importance. After the first eight bars featuring the melody in the treble, the tune starts anew in the left hand, which concurrently outlines the harmonic progression as bass voices are bound to do; the right hand now brings the accompaniment. The accompaniment-above-melody texture – frequent in music with low-pitched solo instruments – can evidently be handled in two ways when making a tonal reduction. Talking in terms of categorical alternatives, the high register can either be regarded as the principal layer in which the structural upper connection is pursued, or be treated as a subordinate layer, situated above the structural melody line. The latter option may be closer to how we listen to such passages, especially when (as in the present case) a duet-like sense of imitation is involved.

Schachter obviously reads the left-hand consequent phrase as both a melodic strand and a bass progression,⁵ and yet he sticks to the right-hand accompaniment in order to keep the initial note b_b^2 of the structural upper-line connection alive. And stick to the right hand he is bound to do also in the third section of the Scherzo in order to achieve final and exemplary tonal closure.

In Ex. 2, the midway shift in texture is marked by two arrows: the one from b_b^2 to b_b connects prominent closing and starting notes that happen to belong to the same pitch-class, whereas the one from f^1 to f^2 does not show any connection of interest. What we do hear at this juncture is that

5 There is Ex. 2 a slur between g and b_b in mm. 14–15 in spite of the almost demonstrative melodic non-continuity between these notes; the same applies to mm. 82–83.

the theme reappears in the left hand – i.e. that the *initial* b_1^2 from m. 1 now turns up as b_1 – and that the left-hand accompaniment figuration is taken over by the right hand. With all due deference to “voice leading”, what we must not miss here is that the hands are simply involved in an inverted counterpoint exchange over a distance of eight bars.

In the right-hand top voice Schachter eventually singles out the b_1^2 -over- g in m. 14, serving both as a very faint reminder of the b_1^2 's in the right-hand antecedent and as a very faint hint of the b_1^2 to come in m. 17. But the latter manoeuvre seems unnecessary – when the melody returns to the treble in m. 17, most listeners will associate back to the starting note in m. 1 anyway.

The two left-hand b_1 's starting and closing the antecedent phrase are shown as belonging to the deepest structural layer of the piece; not so with the corresponding upper b_1^2 's. This is likely to appear as a striking discrepancy to unprivileged listeners – i.e. listeners who have not beheld the light, listeners not knowing that they have just heard the start of a long *Anstieg*, that the truly structural third-degree d^3 will turn up in m. 68. And after having heard the pre-thematic, alleged *Kopftone* d^3 in m. 68, can we really expect ordinary listeners to go back to m. 1 in order to revise their understanding of the beginning of the movement, thinking that the b_1^2 's in m. 1 and m. 8 were not structural after all – although they sounded as if they were? Schenkerian top-down tonal structures are sometimes utterly demanding for the listener.

Unlike most first sections in Scherzos and similar forms, this one closes in the subdominant. For Schenkerian reasons, the cadence to e_1^2 -over- e_1 in m. 16 is not marked as structural at the highest level – as would be a dividing f^2 -over- f dominant cadence – in its place, the questionable g^2 -over- e_1 is shown in Ex. 2. Is it really given in the tonal nature of things that plagal endings are less structurally dividing than authentic ones? This very Scherzo does feature a first section issuing into the subdominant from which the middle section starts – why cannot this quite important fact be duly respected when making a “tonal reduction”?

The third section

Schachter's reading of third section of the Scherzo is different from that of its first section, although listeners are likely to hear both parts in

essentially the same way. Now a fundamental upper line, starting from the pre-thematic d^3 in 68, is superimposed, not only on the right-hand theme, but also on the right-hand accompaniment of the consequent. Why? Because it is theoretically imperative that this accompaniment provides the structural descent. Otherwise there would be no chance of establishing an *Urlinie*, closing the Scherzo and resolving the third degree that the middle section has so persistently strived for – according to Schachter's reading.

The actual support for this fundamental descent is quite weak, however. The right-hand antecedent phrase is in fact just as preoccupied with the first-degree b^2 as it was in the first section, and yet this passage is taken to somehow prolong the pre-thematic, upbeat-like third degree. Since the next d^3 's turn up only in mm. 81 and 82, a local C-minor e^3 in m. 82 is recruited to uphold the connection. The importance of this would-be high-level neighbour-note is in turn boosted by a connection back to an E-major e^3 in m. 77. But there is in fact no upper neighbour-note e^3 over this subdominant chord for the unfortunate *Kopfton* back in mm. 68 to attach to – there is only a patently non neighbour-note e^1 in the left-hand melody/bass. This matters quite a lot since Schachter's already precarious upper-line reading of the Scherzo badly needs consistency at least in terms of a retained high register.

The prolongation of IV has actually ceased already in m. 79 – just as the corresponding tonic in the antecedent, the subdominant lasts for just three bars. Consequently, the chord in m. 82 is not a IV chord featuring a sixth instead of a fifth, but a root-position C-minor chord, preceded by its own applied, diminished seventh-chord dominant. The long slur e^1 – f in Ex. 2, suggesting a structural bass connection between subdominant and dominant, is undermined since it is blocked by this tonicized C-minor chord.

Schachter's structural descent combines wishful thinking and eventually a very questionable concession to tonal convention/Schenkerian dogma: the final motion down to the tonic note b^2 in m. 84. When finishing off *his* music, Schubert persistently keeps to d^3 as the top note – why must he be censored? This reading should be compared to the one in mm. 14–16, where it was desirable to downgrade the cadence to the subdominant: the auxiliary-tonic note e^2 was only allowed to belong to an inner, subordinate strand whereas the g^2 above it was granted a greater structural

importance. In order to make the b_b^2 in m. 84 belong to a falling upper line, Schachter curtails the accented rising inner line g^2-a^2 obviously heading for b_b^2 in mm. 82–84, so as to give priority to the off-beat upper-line from d^3 that never produces any *Urlinie* b_b^2 .

But up his sleeve Schachter has an additional argument for the anticipated structural neighbour-note in m. 77 – i.e. for the actually absent e_b^3 : “If one plays the main tones of my reduction [...], one will almost inevitably discover that both the upper-voice line ($B_b-C-D_b-D^{\sharp}$) and the lower-voice line ($B_b-E_b-D_b-C_b-B_b$) strongly suggest a culmination on E_b . [...] In m. 77, the music arrives at a strong subdominant, fulfilling the implicit promise of the earlier outer-voice counterpoint”. The evidential value of playing selected notes, being actually very far apart in the music, as if they made up a real fragment of counterpoint is very slight, however, and this low validity is in turn crucially dependent on the analytic credibility of the encompassing connections, on how the notes making them up are selected. But, as will soon be shown, Schachter’s reading of the middle section is not credible. Anyway, this bird’s-eye/analyst’s-finger perspective explains Schachter’s addition of the notes e_b^3 and e_b in his sketch; exceeding by far what Schubert wrote and almost outdoing the *Ursatz*, these extra notes are products of analytic extravagance.

By boosting the importance of the subdominant in m. 77 – its actual weight derives from the fact that it is the starting point of the left-hand statement of the theme – Schachter exaggerates the *Bassbrechung* element in the third section. Looking at the left-hand part of his reduction, it suggests an overall continuity as well as a parallelism between the antecedent and the consequent, two questionable features. Starting with the parallelism, the analytic slur between c^1 and g in mm. 75–76 marks (as far as the bass is concerned) a plagal cadence, whereas the one between c^1 and f in mm. 82–83 is devoid of harmonic content since the first note is an auxiliary tonic and the second brings the dominant of the main tonic. Schachter’s slur between g and e_b (actually e_b^1) in mm. 76–77 connects a closing bass note with a starting melody note, hardly a very notable connection. Thus, whereas one may, despite the midway shift in texture, perhaps hear an overall I–IV–V–I cadence in the third section of the Scherzo, it is not appreciably mediated by any harmonic $b_b-g-e_b-c^1-f-b_b$ motion in the bass.

The middle section

The first thing to notice in Schachter's reduction of the middle section is that the virtually identical eight-bar units mm. 17–24 and 25–32 are read differently despite the fact that a listener cannot but hear them in the same way. The motion $b_b^2-c^3$ beginning the first unit is accorded primary structural status whereas the corresponding rise $e_b^2-f^2$ in the second unit is denied it. Why? Because the latter motion features undesirable notes, notes that have to be cleared away since Schachter wants to derive a line from $b_b^2-c^3$ in mm. 17–19 to d^3 in m. 38, a crucial ascent that will eventually produce the all-important *Kopfton* d^3 in m. 68.

The straightforward way to grasp both eight-bar units is of course to attend to the melodic exchanges between the right and left hand. These shifts are all the more unmistakable since (just as was the case in mm. 8–9) they involve the same pitch-class, and since the left-hand entries allude to the start of the main theme by inverting its neighbour-note motif. Schubert, the composer, leads *his* voices from b_b^2 over c^3-c^2 down to c^1 , and from e_b^2 over f^2-f^1 to f^1 , respectively, a fact that Schachter, the analyst, acknowledges and yet disregards in favour of a more ambitious, long-range voice leading of his own making.

The suppression of the $e_b^2-f^2$ motion in the A_b -major unit is achieved by representing it as taking place in an inner voice, structurally speaking – a manoeuvre prepared already in the E_b -major unit. Along with the rise from b_b^2 to c^2 , the melody in mm. 17–20 is read as bringing a lower, connecting line $g^2-f^2-e_b^2$ down to the e_b^2 in m. 21, a note that is in turn prolonged into the e_b^2 in 25. The latter observation may hold true, but the analytic tie obscures the fact that the second e_b^2 primarily starts the principal, upper line of the next unit. It must also be objected that there is no e_b^2 -over- c^1 in “m. 19” (but an e_b^2 in m. 18 or a left-hand e_b^1 in m. 20); nor is there any linear continuity between this “ e_b^2 ” and the e_b^2 in m. 21 since the e_b^2 in m. 18 is clearly a lower neighbour-note leading upwards to f^2 (in m. 18 or in m. 19), and since the left-hand e_b^1 in m. 20 is a dead-end note (implying but being denied f^1) that does not lead to the e_b^2 in m. 21, a wrong-octave note belonging to the right-hand accompaniment starting after a conspicuous textural rift.

In Ex. 2, this Wonderland voice leading is buried under an analytic slur from c^3 to e_b^2 , a slur suggesting that the following A_b -major motion $e_b^2-f^2$

takes place in an inner voice, which is not true. This slur highlights a non-connection at the expense of the obvious association between the $b\flat^2$ in m. 17 and the $e\flat^2$ in m. 25 – both notes, a falling fifth apart, start identical upper-line melodies.

By the same token, there is of course also non-continuity between the non-existent $a\sharp^1$ in “m. 27” and the $a\flat^2$ of the right-hand accompaniment in m. 29. In this $A\flat$ -major unit, Schachter produces another desirable effect: by means of the (reasonable) analytic tie to the $a\flat^2$ in m. 33, the fresh melodic start at $a\flat^2$ in m. 35 is slighted to the point of entirely disappearing from the graph. This start, a rising fourth (falling fifth) apart from the previous right-hand entry, stands in the way of the wanted stepwise ascent from $b\flat^2$ – c^3 to the $d\flat^3$'s in m. 38, so Schachter had to suppress it.

Later on, the $c\sharp^3$'s in m. 50 are given priority over the starting $c\sharp^2$ in m. 53. And there is virtually no trace in Schachter's reduction of the f^1 – f^2 phrase in mm. 41–44: instead, he shows an f^1 – $f\sharp^1$ motion in the accompaniment. Being a part of Schubert's tactics, this phrase does not qualify for a place in Schachter's strategy.

The reading of the bass is even more manipulative. A slurred falling third connects the initial $e\flat^1$ with the c^1 in “m. 19”, which renders the latter note and the transient half-cadence to C major in m. 20 important, much more important than the following $a\flat$ and the sudden intrusion of $A\flat$ major coinciding with the hand shift in the following bar. This key is later to be established by the full cadence preparing for the next shift of texture in m. 25. Over the dead body of the $a\flat$ in m. 21 the upgraded c^1 is in turn brought together with $d\flat$ and $e\flat$ – a very questionable set of notes since the first of them is an applied dominant to an elliptic F minor chord whereas the remaining two notes belong to the cadence to $A\flat$ major. (Being an applied dominant, the $e\flat$ is also slurred to the $a\flat$ in m. 25.)

By means of slurs and stems Schachter's reduction shows a falling fifth from $e\flat^1$ to $a\flat$, questionably subdivided into two falling thirds. But where is the complete and obvious $a\flat$ -to- $a\flat$ cadence patently underlying mm. 21–25 and preparing the ground for the following right-hand thematic entry in $A\flat$ major? It has been swallowed by the hotchpotch “connection” c^1 – $d\flat$ – $e\flat$ – $a\flat$. The same trick is then applied once more in the following eight-bar unit.

What Schachter has managed to hide is the fact that the left-hand melodies make up complete A \flat -major and D \flat -major cadences, respectively, and that the keys of A \flat major and D \flat major are actually introduced four bars before these chords turn up as fully established auxiliary tonics in m. 25 and m. 33. And most importantly, his overall falling-third connection e \flat ¹-c¹-a \flat -f \flat -d \flat hides away the modulation to A \flat major, which would have exposed as structural what we clearly hear, namely the start in m. 25 of a new round of the right/left-hand dialogue, parallel to the E \flat -major one beginning after the double-bar, and making up a link within an anti-clockwise harmonic motion along the circle of fifths – a motion beginning in m. 17 or indeed in m. 1.

Thus, the analysis is tailored to bring out m. 33 and D \flat major, because d \flat is to serve as the second member of the desired stepwise falling motion e \flat ¹-d \flat in the bass, the supporting counterpoint to the *Anstieg*, started already in mm. 17–19 with b \flat ²-c³ and being pursued with the d \flat ³ in m. 38. To boost the importance of the d \flat in m. 33, it is shown as belonging to the just mentioned and very questionable sequence of falling thirds: e \flat ¹-c¹-a \flat -f \flat -d \flat (E \flat major–C major–A \flat major–F major–D \flat major). This progression hides the quite patent sequence of subdominants, of falling fifths, a chain that obviously closes with a further link, unsuitable in Schachter's scheme but certainly part of Schubert's: e \flat -a \flat -d \flat -f \sharp (E \flat major–A \flat major–D \flat major–F \sharp minor).⁶

In mm. 50–56 Schachter applies the already used trick to bring out what looks like another descending third in the bass; it is effected by the progression c \sharp -d \sharp -e \sharp -a \sharp , in which the root-position F \sharp -minor f \sharp demonstratively introduced by Schubert in m. 51 is merely appended after the second-inversion c \sharp in m. 50. In what ways does this reading delude us? It suppresses the unmistakable fact that there is a new episode starting in F \sharp minor – a four-bar right-hand c \sharp ²-c \sharp ³ melody replicating the left-out f¹-f² melodic episode in mm. 41–44, and a harmonic unit making up the last link in the chain of subdominants – and it makes invisible, not a complete cadence this time, but an unexpected modulation from F \sharp minor to A major.

The first delusion is very unfortunate because the F \sharp -minor start in m. 51 is unmediated and thus exceptional: neither preceded by a modulation, nor

6 A slur is apparently missing in Schachter's sketch, the one between a \flat and d \flat , corresponding to the previous slur between e \flat ¹ and a \flat .

anticipated by a cadence as was twice the case previously in the middle section, the new key turns up in m. 51 as the result of an instant clarification of the second-inversion F \sharp -minor (G \flat -minor) chord in m. 50. This introduction of a new key is also remarkable since it puts an end to a long passage anchored at an organ point on d \flat . In retrospect, however, the otherwise sudden emergence of F \sharp minor in root position is not altogether surprising. Perceptive listeners will make an association back to m. 38, where a G \flat -major second-inversion chord (after two bars) is replaced by D \flat major in root position. There is a major/minor contrast between m. 38 and m. 50 that does not show up in Schachter's reduction since the thirds are left out.

Turning to the second delusion, the obliteration of the modulation from F \sharp minor to A major, taking place in mm. 53–56 during the melodic motion from c \sharp^2 to c \sharp^3 in the treble, robs the re-modulation to B \flat major of its first stage – recall the contrasting harmonic immobility of the preceding and otherwise corresponding f 1 -to-f 2 phrase in mm. 41–44. It must furthermore be observed that the F \sharp -minor-to-A-major modulation makes up an *ascending* third instead of the descending-third D \flat -major-to-A-major progression that Schachter wants us to see – and makes us see since F \sharp minor is suppressed. The slurs and stems in Schachter's reduction erroneously suggest that mm. 50–56 are equivalent to mm. “19”–25 and “27”–33, i.e. to artificial units that do not introduce new keys in a comparable way.

But these delusions are essential for the tonal plot that Schachter aims at. However, just as the F \sharp -minor start within his final, would-be falling third has to be resolutely downgraded, it is necessary that the root a of the following temporary tonic A major is not allowed to block the bass on its predestined way from d \flat /c \sharp in mm. 33/50 down to the allegedly structural b \sharp in mm. 61–67, the penultimate note on the route down to the regained tonic fundament on b \flat .

Later on various aspects of re-transition passage and the A-major-to-B \flat -major modulation will be discussed.

Schachter's middleground and Schubert's sketch

Exs. 3a/3b summarize Schachter's findings. Turning first to the bass, the linear descent from e \flat^1 to b \flat now emerges as uncontested since the A \flat -major and A-major passages have been downgraded, and since the musically

vital F#-minor start has disappeared altogether. This large-scale bass progression, mediated by descending thirds, is prolonged in a most regular way by rising thirds – they are same-register versions of the contestable connections that obliterated the actual cadences within the middle section (cf. Ex. 2). As already pointed out, the first two of them are misrepresentations since the initial notes do not match the final ones; the third of them is invalid since the F#-minor root is omitted whereas the fourth motion $a\sharp - a\sharp - b\flat$ makes up a rising third only if an enharmonic exchange is assumed ($c\flat$).

It is particularly noteworthy how the straightforward modulation from F# minor to A major is eradicated in Ex. 3a. What we can see is a rising third “leading” from the root-position $d\flat$ of D \flat major in m. 33 (or from the second-inversion $c\sharp$ of F#-minor in m. 50) to e^1 , actually the E-major applied dominant of A major, but the slur to the following auxiliary A-major tonic is left out. The A-major root is not shown as a goal but issues immediately into a chromatic approach to $b\flat$, the fifth of an E-major seventh-chord, a note that later on is transformed to the “root” of a diminished triad.

In Ex. 3b the would-be stepwise bass descent from subdominant to tonic presented in Ex. 3a – a motion shown as ultimately prolonging the tonic from m. 1 all the way to mm. 68 – is complemented by the upper-voice *Anstieg* from the tonic note to the third-degree *Kopfton* of the *Ursatz*. Each note in the treble line appears twice conjuring up an impression of regularity and commensurability, but as pointed out above, there is no credible continuity between the two c^3 's in mm. 19–20 and the two $d^3/c\sharp^3$'s in mm. 38/50. Moreover, whereas the $b\flat$ in m. 17(–18) belongs to the start of a melodic/harmonic unit, the notes $d^3/c\sharp^3$ and $d\sharp^3$ (in m. 61) finish off their units.

We will return to the question of upper-line continuity when dealing with motivic relationships.

Schubert's sketch for the Scherzo reveals some points bearing on the present discussion; cf. Ex. 4.

It is apparent that Schubert from the very beginning of his work on the Scherzo wanted to highlight the new start in F# minor. In the sketch, the first pair of melodically “empty” bars appears before the melodic entry on $c\sharp$, and the root-position F#-minor chord is apparently introduced already

under the repeated right-hand chords in the final bar of the preceding unit. This demonstratively exposed shift to a root-position F \sharp -minor chord sets off the following unit, and this fact is not appreciably changed by Schubert's later idea to add pairs of empty bars between the preceding phrases as well or by the fact that he postponed the root-position F \sharp -minor chord by one bar. The empty bars mm. 33–34 do bring out D \flat major and the following melodic idea, but the effect is much weaker than the one associated with mm. 51–52 since another D \flat -major root-position chord is expected in m. 35, whereas the later shift from a second-inversion to a root-position F \sharp -minor chord during mm. 50–52 is quite startling. One cannot but compare this passage with the parallel one in mm. 38–40, where nothing happened to the G \flat -major second-inversion chord.

Later on, a comparison between mm. 58–69 of the final version on the one hand, and the corresponding but more straightforward passage in the sketch on the other, leaves little ground for assuming that there is a structural diminished triad on b \sharp . The fact that Schubert eventually discovered that he could increase the tension by extending the stay on this notoriously ambiguous dissonant harmony does not *per se* make it structural. Besides, Schenkerian analysis is as a matter of principle immune to rhetorical emphases; indeed, paying structural attention to matters belonging to the surface tends to be put off as mistakes typical of naïve beginners.

What are the costs of Schachter's reading in Exs. 3a/3b? You must forget about the harmonic sequence of subdominants spelled out by the starts of the units in the middle section, and try to hear the music in terms of step-wise lines engaged in an uncoordinated contrary motion towards unknown goals. You have to erase the unit beginning in A \flat -major from your high-level tonal memory since it does not fit in with this questionable, not-yet-there sub-surface counterpoint; however important and however on a par with its E \flat -major predecessor it might seem, this passage must be heard as subordinate. It is also necessary to turn a deaf ear to the sense of suspense inherent in the long passage based on d \flat in order to convince yourself of its high-level structural stability. Then you must disregard the sense of resolution, the sense of a firm ground, associated with the sudden entry of F \sharp minor in root position, and learn not to take account of the ensuing modulation to A major, because these two stages in the harmonic process are obstacles on

the way to the structurally crucial “root-position” diminished triad on b_2 . Severe demands to live up to as a listener, but what are the gains?

Schachter’s reduction is also impossible to comply with as a pianist. How can you convey an impression of a linear continuity between the c^3 in mm. 19–20 and the d_2^3 ’s in m. 38 when Schubert’s design fails to give any substance to it? How can you understate A_2 major, $F\#$ minor and A major, being immediately salient as well as musically essential stages of the harmonic process (at least to an un-Schenkerian mind)? And why should you? Is this analysis really a result of “considering the problems faced by the performer and coming up with a way to deal with them”? Isn’t there a better way to grasp what happens in the Scherzo and, perhaps, to explain the magic of its triple moment of re-transition in mm. 67–69? Wouldn’t it be possible to start with an unprejudiced, with a theoretically uncommitted analysis and find out whether it informs you as a pianist?

Motivic relationships and the element of dialogue

“Most of the motivic elements of the Scherzo can be related to the melodic/rhythmic figures of the first two measures. Looking back [at Ex. 3b] we can see that the big ascending line is made perceptible to the listener in part because so much of it is derived from the three-note figure of m. 1. [...] The neighbour-note figure changes to repeated notes in m. 4, and the repeated notes are themselves transformed by the octave leap of m. 5.” In Ex. 5 Schachter shows in order of appearance “some variants of the 3-note motive”.

Generally, motivic kinship is established by adopting some reasonable level of resemblance. But the whole business is more meaningful if you consider the music not as a timeless structure allowing of free comparisons, but as a process evolving in time, which means that you have to take due account of the order of presentation of the would-be recurring motifs as well as of their immediate contexts. If you do so, you will realize that not all similarities give rise to a sense of kinship. Again generally speaking, it may be argued that if motivic affinities are to be relevant for listening, interpretation, and meaningful as an input for structural analysis, the similarity should attain some degree of perceptual salience. In what follows, Schachter’s list of motivic variants will be scrutinized.

As a matter of context-free principle, it may perhaps be defensible to derive the three f^2 's in m. 4 from the lower neighbour-note motif on b_b^2 in m. 1, but within context, this observation is of little value. Very few listeners are likely to recognize m. 1 when hearing m. 4 – the vast majority of them will no doubt register m. 4 as introducing a new idea, and considering what happens in m. 5 who wants to claim that they are wrong? And whereas it would be possible to begin the theme with three b_b^2 's, one cannot substitute the repeated f^2 's in m. 4 for the neighbour-note motion $f^2-e\sharp^2-f^2$ without substantially changing the musical properties of the theme – the metric emphasis would be transferred and fall quite heavily on the following $f\sharp^2$, but m. 5 should arguably not be an accented bar within the high-level metre. Furthermore, it seems to be a vital aspect of the theme that the descending tendency inherent in its first three bars is interrupted and reversed in a decisive way, and this is what m. 4 does with its three repeated notes bringing a fresh motif with an altogether different character (*legato* is exchanged for *staccato*). Succinctly put, there is no meaningful similarity relationship between the initial lower neighbour-note motif and the repeated-note motif – in fact, they are rather used as contrasts within the theme. (In due time Schubert will exploit their potential of being related.)

The kinship between the repeated f^2 's in m. 4 and the $f\sharp^2-f\sharp^3-f\sharp^3$ motion in m. 5 is perhaps not immediately obvious, but it is likely to become quite clear when m. 6 has brought $g^3-g^2-g^2$.

After having listened to the preceding three bars, it will seem evident that mm. 7 and 8 of the theme essentially consist of three repeated notes, of which the second is ornamented by a lower neighbour-note. The affinity with the first bar may perhaps be noticed, but only when you have heard m. 8 featuring b_b^2 , just as did m. 1. This (fairly vague) association between initial and closing lower neighbour-note motifs is important since it calls attention to the full circle of the melodic motion. There is also a retrospective affinity between mm. 7–8 and mm. 4–6 – basically, they are all repeated-note motifs – but the rhythmic liveliness of mm. 7 and 8 sets them off in a way that affects the metric make-up of the theme.

The falling-octave motif in m. 20 is much less convincing as a member of the repeated-note, would-be lower-neighbour-note family of motifs because there is no adjacent repeated-note or rising-octave motif that

can make for an association back to m. 6, where the falling-octave motif is integrated as a member of an ascending sequence. For this reason the motif in m. 20 does not contribute perceptibly to “make the big ascending line perceptible”. Quite to the contrary, there is an adjacent left-hand *upper* neighbour-note motif in m. 21 – not included in Ex. 5 – that makes it perceptible that the “big ascending line” (i.e. the *Anstieg* supposed to be launched by the b^2-c^3 motion in mm. 17–20) is transferred to an inner strand where it is brought to a premature and not very glorious end at c^1 in m. 25; a fact that Schachter does not want us to pay attention to.

Turning to the next item in Schachter’s array of variants, it is hard to see the point of pointing out that the “upside-down waltz” accompaniment in m. 33 “ultimately derives” from m. 1. The derivation of this kinship obviously runs from the initial neighbour-note motif via the repeated-notes motif in m. 4 and the falling-octave motif in m. 6, but is this a credible chain of associations, is this similarity really cashed in when listening to the accompaniment in m. 33?

It would have been very much to the point, on the other hand, to include the just mentioned upper neighbour-note motif in Ex. 5 – there are vitally important specimens not only in m. 21 and 29, but also (just slightly disguised) in m. 41 and 53. Since they all start melodic phrases, the kinship with the lower neighbour-note prototype in m. 1 seems quite significant; indeed, mm. 41–42 and 53–54 emerge as variants of mm. 1–2 of the theme. That this association is intentional, can be gathered from Schubert’s sketch, cf. Ex. 4, where “m. 41” and “m. 53” feature manifestly thematic lower neighbour-note motifs reading $f^1-e^{\sharp 1}-f^1$ and $c^{\sharp 2}-b^{\sharp}-c^{\sharp 2}$, respectively. On second (and better) thoughts, Schubert evidently decided to make the similarity less obvious. It would certainly have been a bad idea to let phrases beginning like the theme pave the way for the entry of theme starting the third section.

Furthermore, it should not be overlooked that the first two inverted neighbour-note motifs occur in the left-hand rejoinders – it cannot be a secret at this stage of the listening that the textural idea of the Scherzo is to contrast high and low melodic entries in the manner of a duet – and that the right-hand motif in m. 41 starts at the same pitch as the left-hand one

in m. 29. This suggests that the melody starting in m. 41 does not really belong to the right hand, which up till now has had the initiative, but to the left-hand answers.

It is true that analysis can benefit from using interpretation as an input, but you should also be wary. Whereas your fingers and hands may sometimes tell you interesting things about the musical structure, they may also deceive you. Playing (as opposed to listening to) this Scherzo will certainly not help you in discovering that the duet continues, that mm. 41–44 and possibly even mm. 53–56 belong to the lower, left-hand stratum of the interchange. One way of suggesting that the duet goes on in the long D_b-major episode mm. 33–50, although the right hand plays the melody all the time, is to insert empty bars separating the phrases, which is exactly what Schubert did in his final version of the Scherzo.

As to the phrase starting from c[#] in m. 53, its textural status is in fact ambiguous. According to the established exchange pattern, this phrase, clearly a parallel to the one starting from f¹ in m. 41, should belong to the lower, *quasi*-left-hand answering stratum, whereas in terms of register, it emerges as belonging to the upper layer. The fresh F[#]-minor start in m. 51 supports the latter reading.

However, considering the character of the preceding D_b-major material, another, wider perspective presents itself, and it calls for a reappraisal of what has happened so far in the middle section. The repetitious, high-register right-hand passages mm. 35–38 and 47–50 lack independent substance whereas the *quasi*-left-hand rising melodies in mm. 41–44 and 53–56 are clearly thematic statements. But since they start with the upper neighbour-note motif, these statements invite to be associated with the left hand answers in mm. 21–24 and 29–32. At m. 41, then, the left hand may seem to have seized the initiative, and this happens because the right hand lost it in mm. 35–38 – it merely brings a fragment of its previous material, the falling-scale motif from mm. 19 and 27.

But in m. 58 the right hand takes over by imitating the repeated notes left in the air in m. 56, thus getting rid of the upper neighbour-note when searching its way back to the lower neighbour-note start of the theme. In m. 58 the melody again takes over the final pitch-class of the preceding phrase, just as was the case in mm. 21, 29 and 53, but not in m. 41 where

the new phrase started a sixth below. (Instead, the latter shift features a tight g^1-f^1 accompaniment-melody connection.)

In short, the upper neighbour-note variant of the initial motif is crucial if you want to understand the thematic and textural events in the middle section. It is hard to escape the suspicion that the neglect of the upper neighbour-note motif in Schachter's enumeration of motivic variants is intentional – analysts seldom miss inversions. The inverted motifs indicate connections within the Scherzo that do not fit in with the reading he wants to propose, they do not contribute to “making the big ascending line perceptible” but support the sense of a dialogue between the hands. In other words, Ex. 5 does not feature “some variants of the 3-note motive”, but some *suitable* variants. Eager to prove his structural-ascent-with-contrary-motion-counterpoint idea, Schachter is simply not interested in the left-hand interjections/statements, which is a pity from an interpretational point of view. Needless to say, playing the middle section as a quite eventful right/left-hand dialogue is very different from playing it without entertaining such an idea.

Let's return to Schachter's list of variants in Ex. 5. The repeated-note motif in m. 56 (and before that in m. 50 and 38) is used to finish off phrases, a syntactic difference that cannot but reduce the similarity with the “same” motif back in m. 4, being embedded in its eight-bar melody. And later on, in mm. 58 and 63, the three repeated notes turn up to start phrases.

Only in mm. 65–68 does Schubert establish the association between the lower neighbour-note motif and the repeated-note motif that did not work in the theme. By juxtaposing the two motifs and by letting both of them issue into the octave leap from d^2 to d^3 , he forces the listener to hear the neighbour-note motif as variant of the repeated-note motif (not the other way around). This element of immediate and obvious melodic imitation/variation is highly pertinent for the interpretation at the keyboard as well as for the analytic understanding at the writing desk. It adds a sense of motivic confluence to the re-transition passage, a rhetoric element that cannot be fully appreciated if the kinship between the two motifs is an open-book affair already in the theme.

Turning to analytic methodology, the realization of the potential for similarity taking place in mm. 65–68 cannot be retroactively used to substantiate the claim that there is a musically relevant resemblance between the lower neighbour-note motif in m. 1 and the three repeated notes in m.

4. It should be added that the transient glimpse of kinship in mm. 65–68 does not work “pre-actively” either: there is no association of interest between m. 69 and m. 72.

“Note especially the slur at the turn of mm. 60/61. This slur, derived from the one in m. 5, is in turn the immediate source for the big slur that begins in m. 67 and that plays so important a role in bridging over the beginning of the reprise.” The derivation of the short upbeat articulation slur in mm. 60/61 (and 65/66), and “in turn” the four-bar *legato* slur starting in m. 67, back to the short downbeat articulation slur in m. 5 is both redundant and questionable. Rising octaves are certainly involved, but the rhythmic function and musical significance of these slurs are patently different. Indeed, it is most important not to confuse the short slur in mm. 65/66 and the long one joining mm. 67–70. One might of course say that mm. 67–68 imitates mm. 65–66, but the slurs bring about a vital difference between them: the first slur transfers dynamic emphasis and perhaps also metric weight to the d^3 in m. 66, whereas the second marks for attention the initial d^2 of a four-bar melodic unit and makes for a peculiar kind of deceptive *quasi*-downbeat in m. 67, but not for a true metric accent.

As to the alleged relationship between the slur in mm. 60/61 and the one in m. 5, it is a quite misleading observation. Taking notice of the preceding context, and especially of the final repeated-note motifs in mm. 44 and 56, it becomes apparent that the rising octaves in the re-transition passage mm. 58–68 do not derive from m. 5, but correspond to, bring shortened versions of, the rising octaves inherent in the melodic phrases mm. 41–44 and 53–56.

Schachter’s motivic analysis lacks explanatory power because too many similar, and yet crucially different, motifs are equated already at the outset, i.e. before they have disclosed their kinship (if any) and displayed their functions. The inverted, lower neighbour-note motif is not included in Ex. 5, which is most unfortunate since it might have explained events outside, and even contradicting, the *Ursatz* agenda.

Schachter’s “phrase rhythm”: some critical observations

Schachter rightly devotes a section to “phrase rhythm” – the Scherzo certainly merits to be studied from this perspective, and rhythmic/metric

properties are highly pertinent for interpretation because it is within the musician's power to modify them. But I cannot always agree with his descriptions and conclusions, and there are further complexities to consider, particularly in the middle section. Most of Schachter's remarks deal with the question of whether the "empty" bars are preparatory of, or appended to, the melodic phrases. This is no doubt an important issue, but there is another aspect of phrase metrics, namely the accentual organization within the melodic units, that deserves equal attention. The result of Schachter's study appears from Ex. 6.

Yes, bars 45–46 do continue the D_b-major harmony, and they are parallel to mm. 33–34 – or so they seem. Since the former pair of empty bars starts with a downbeat and emerges as preparatory, Schachter is bent to treat mm. 45–46 accordingly. But whereas m. 33 introduces D_b major as the firm goal of a modulation, m. 45 just restates, and m. 46 merely echoes, the final chord of a complete, circular D_b-major cadence, and the three f²'s in m. 44 have a passive quality. What the melody will come up with after mm. 33–34, we don't know at all; what will happen after mm. 45–46, we don't yet know for certain. The first pair of bars is introductory whereas the second pair rather seems expectant. So another, more apt interpretation is to think of mm. 45–46 as appended.

As to the next pair of empty bars, Schachter's comment reads: "M. 51 is parallel to m. 39, and it is therefore a continuation rather than a beginning." But this is simply not true since the unexpected introduction of F# minor in root-position in m. 51 immediately and unmistakably makes it clear that this bar is *not* parallel to m. 39, and that m. 51 starts a formal unit. Schachter greatly underestimates the importance of the shift in the left-hand accompaniment. In fact, the situation in mm. 51–53 is in a way parallel to the one in mm. 33–35: in both passages, there are two downbeats, the first one starting the accompaniment, the second one launching the melody and resetting the counter, as it were. As to the empty bars 39–40, they are clearly appended and should rather be equated with mm. 45–46.

The shift to root position in m. 51 is crucial for the understanding of the overall musical structure of the Scherzo. The relationship between comprehensive tonal design and musical detail is intimately reciprocal

at this juncture, and when it comes to interpretation, it is essential that this harmonic shift is not subdued. Bar 51 demands to be treated as a preparatory downbeat because the root-position F \sharp -minor chord ends the extended organ point on d \flat , and because F \sharp minor serves as the starting point for the following modulation to A major. Or otherwise put, the abrupt change to root position signals the crucial structural quality of F \sharp minor as the terminal point of the series of subdominants. Recall that this moment was highlighted by the first intrusion of empty bars in the sketch; cf. Ex. 4.

One may assume that it is the desired large-scale tonal connection e \flat -d \flat -“c \flat ”-b \flat in the bass that makes Schachter suppress the fresh start in m. 51 by insisting that it is “parallel to” m. 39, although the shift to root position makes it patently different. Instead of representing a counterinstance to his tonal reduction, the metric reading is turned into a support for it. Whereas the following diminished triad on b \flat has to be pumped up and be enharmonically reinterpreted to serve the tonal plan, the F \sharp -minor point of departure for the return to the tonic must be ignored, cf. Ex. 3a. This cannot be done at the keyboard unless you play very much against the grain of the music by treating m. 51 as a “continuation rather than a beginning”. Schachter’s argument is certainly not “an example of using performance to help analysis”, but one of leaving performance at the mercy of analysis. Playing m. 51 as a beginning should belong to the input when analysing the Scherzo; understating it as a continuation is an artistically useless output of a mistaken analytic idea.

As to the theme of the Scherzo, Schachter writes: “The opening A section divides into two eight-measure phrases, which then are subdivided into 4+4”. But, as he did point out in his keynote speech, the theme is actually metrically ambiguous since it also makes up a 3+5 configuration. Indeed, it seems that the latter option is the only defensible one. If you attend to the melodic contour leading from the octave down to the fifth and then steadily back again, if you take notice of the change of melodic attitude and articulation when f 2 is reached and repeated in m. 4, and if you are responsive to the forward mobility of the underlying dominant seventh-chord in this bar, the theme cannot but assume an irregular 3+5 appearance. This is not the whole truth, however, since

(as already mentioned) the melodic attitude changes once more in m. 7. For this reason, the two final bars seem to be divorced from the rest of the theme, lending it an unusual 3+(3+2) make-up as well as a quite peculiar charm.

Turning back for a while to tonal matters, $a\sharp^2$ and $a\flat^1$ turn up in the right-hand accompaniment in mm. 13 and 15, respectively, but it may be argued that it is not entirely to the point to say that the $a\sharp^2$'s "conflict with the tonicization and emphasize the strangeness of the motion to IV". A corresponding clash (but in the reverse direction from $a\flat^2$ to $a\sharp^2$) occurs in mm. 81 and 83, and common to both passages is the fact that in the left-hand melody the chromatically rising approaches to the foreseeable goals are suddenly abandoned for downward skips. Thus, the two consequent phrases of the outer sections embody striking disruptions rather than continuous motions, within which the pitch-classes $A\sharp$ and $A\flat$ can come into conflict – conflict presupposes contact.

These discontinuities appreciably contribute to the metric make-up of the consequents considered as left-hand melodies. Since their final two bars do not match, they appear to be severed from the preceding six bars, thus underscoring the 3+(3+2) configuration suggested already in the right-hand antecedents. The abrupt cadences in mm. 15–16 and 83–84 no doubt contribute to the humorous character of the Scherzo, and they should be rendered in a way that makes them funny. A very short moment of delay before playing them, or a sudden dynamic increment (or a suddenly subdued loudness if the preceding chromatic ascent in the left hand has been played *crescendo*) might do the job.

Metre and rhythm in the middle section

To reach a full understanding of the Scherzo, it is necessary to dig deeper into the rhythm and metre of mm. 33–76, and to study how these elements contribute to the formal design of the music and not least to the peculiarly extended moment of return in mm. 67–69, which is preceded by a series of metric displacements and ambiguities, a fact that in turn opens up for various options for interpretation. To give a complete and coherent account of this process, some observations already made have to be reiterated. The reader is referred to Ex. 7; in order to clarify the accentual relationships

and the rhythmic grouping, we will use the handy symbols known from Cooper & Meyer's book on rhythmic structure.⁷

But before embarking on this account, it should be pointed out that the metric complexities are not actually a matter of omitted or added bars. Considering the fast tempo and the very short bars, one bar is rather understood as one beat, a fact that cannot but make occurring irregularities more acute.

As a basic point of departure for the observations to come is the fact that the number of "empty" bars (beats) separating the phrases is reduced from two, to one, and finally to none before the start of the theme (preliminarily understood as an extended ten-bar phrase). But how can this pattern of melodic units and demarcating empty bars best be understood?

Starting with the two empty bars 33–34, they present a new D_b-major accompaniment pattern, and for this reason they emerge as introductory to what follows rather than as appended to the preceding eight-bar unit. Pursuing the inconclusive second-inversion G_b-major chord, mm. 39–40 are clearly appended. Thus, having both introductory and appended bars, the first four-bar melodic unit under consideration occupies eight bars.

The metric function of mm. 45–46 is ambiguous. Since the accompaniment and the harmony from m. 44 are continued, these empty bars may be thought of as appended. On the other hand, since what we hear is a root-position sonority that we recall from m. 33, and since (when it turns up) the following melodic unit repeats the one started in m. 35, the parallelism demands consistency: these two bars should rather be conceived of as introductory, as preparing the listener for a renewed melodic attempt. But only the pianist knows for certain about the future course of the music, and why should the listeners be relieved from suspense by clarifying the function of these bars?

It is important to notice that the two units so far under consideration are crucially different from a metric point of view. Whereas the unit mm. 35–40 (including the two appended, but not the two introductory bars) clearly forms a triple (3 x 2) hyper-measure – its melodic constituents are

7 Grosvenor Cooper & Leonard B. Meyer, *The Rhythmic Structure of Music*, Chicago University Press 1960.

patently duple – the unit mm. 41–46 (including the two appended bars) is ambiguous because it may also make up a duple hyper-metric configuration. Melodically Schubert's slurs indicate a triple 3 x 2 organization, but harmonically this phrase makes up a closed cadence, whose final down-beat is prolonged by two bars. Hence, this four-bar melody also suggests a duple 2 x 3 hyper-metre.

It should be observed, however, that the option of treating mm. 45–46 as a duple introduction to the next melodic unit (featuring patently duple constituents) makes for a clash if the preceding melodic phrase is read as a duple hyper-measure with triple constituents. Two adjacent strong bars (mm. 44 and 45) will be juxtaposed, causing a slight rhythmic bump and introducing a sense of eagerness into the music. Those who opt for treating the phrase mm. 41–44 as a duple 2 x 3 hyper-metric configuration and want to counteract the bump, can play the two empty accompaniment bars as weak, appended beats completing the second triple constituent, a rendering that robs the next melodic unit of its two-bar introduction.

The next pair of empty bars, mm. 51–52, might at first be thought of as ambiguous with respect to its attachment. Recalling mm. 39–40, these bars might seem appended, but taking account of the quite conspicuous shift to a root-position F#-minor chord, they are clearly preparatory and unmistakably mark the start of a new unit.

And a melody does turn up in due time, but only one demarcating empty bar (m. 57) is inserted after it, a fact that retroactively affects the metric make-up of the unit. Since the next start in m. 58 with its three c^{#2}'s must be accented, the single empty bar immediately before it cannot very well be a strong bar. On the other hand, the repeated-note motif in m. 56, marking the end of the modulation to A major, demands to be treated as accented. (Comparing the situation in mm. 53–56 with one in mm. 41–44, it appears that a completed modulation is an even stronger cue for final accent than a full cadence.)

Consequently, and the right-hand slurs indicating duple constituents notwithstanding, this phrase (including the appended bar) begs for being played as a duple 2 x 3 hyper-measure rather than as a triple one; after the initial triple constituent follows a second one curtailed to be duple. Taking account of the two introductory bars mm. 51–52, we find that the melody with its initial triple rather than duple constituent is preceded by a duple

“up-bar”. This shift contributes to mark m. 53 for attention – much more so than was the case in m. 41 being preceded by a passive, duple constituent appended to the previous phrase.

At this point, an observation concerning the metre at an even higher level is due. In Schubert’s sketch, cf. Ex. 4, the phrases corresponding to mm. 35–38 and 41–44 in the final version make up an unbroken, but not very coherent, almost haphazard eight-bar unit – the two phrases can in fact be interchanged. And they differ substantially from each other as to melodic character and metre: the second phrase is latently duple on the hyper-level. Furthermore, the start of the second phrase on f^1 strikes as quite unconnected with the d^3 ’s ending the first phrase; up to this point, the phrases have been linked by the fact that they close and start with the same pitch-class. Then follows, all too precipitately juxtaposed, the phrase corresponding to mm. 47–50, and eventually – after two empty bars breaking up the expected pair – the phrase “mm. 53–56”. Schubert evidently wanted the $F\sharp$ -minor start to stand out, and it certainly did, but this unbroken string of three melodic units was simply not a very good solution.

It seems that the generous interspersing of pairs of empty bars long before the introduction of $F\sharp$ minor solved the problem. In the final version the third phrase no longer bumps into the second, whereas the first phrase, as is suitable when introducing a (seemingly) new melodic idea, is set off by two introductory bars. The empty bars mm. 39–40, separating the first from the second phrase, release the duple hyper-metre potential within the latter: in his final version, then, Schubert allows scope for exploiting the contrast between melodic units having a different hyper-metric organization. Turning to the added empty bars mm. 45–46, they neutralize a most unfortunate effect in the sketch, where the unexpected occurrence of two demarcating empty $F\sharp$ -minor bars give rise to a preceding, quite inappropriate twelve-bar aggregate of three melodic units. Along with all these advantages, the primary idea of highlighting the shift from a second-inversion $d/c\sharp$ to a root-position $f\sharp$ is preserved.

Let’s proceed to the melodic unit beginning in m. 58. The inconclusive harmonic motion to A-major’s dominant, and the fact that the three starting $c\sharp^2$ ’s are followed by three d^2 ’s in m. 60 suggest that a triple hyper-measure

is on its way. But the slur transferring metric weight to the first of the three d^3 's in m. 61 and the (forthcoming) fact that three apparently accented d^2 's will follow after only one empty bar, conspire to make for another irregular duple hyper-metric configuration. No matter the ambiguity, m. 62 involves a sense of truncation, just as did m. 57 – these five-bar units are neither fully compatible with a duple, nor with a triple hyper-metre.

Approaching finally the hot spot, the ambiguity as to hyper-metric organization is carried over into the section's last melodic unit, quite similar to, but more static than its predecessor. Either m. 65 or m. 66 might emerge as a strong bar (beat), but due to the low harmonic activity and to the slur giving emphasis to the first d^3 , it might seem that a duple 2 x 3 metric configuration again gets the upper hand. Since there is no empty bar inserted after m. 66, and since you are likely to recall the metrically disruptive one-bar phrase demarcations in mm. 57 and 62, you may both have an impression of normalization and feel that there is a missing empty bar. Due to the latter effect, the *legato* melody beginning in m. 67 might for a short moment emerge as a too-early intrusion, a fact that can be used to infuse a sense of initiative when playing the music. But soon you will realize that nothing was in fact missing, for no matter whether the melodic unit starting in m. 63 was at first construed as duple or triple, regularity in terms of paired bars is restored when mm. 67–68, clearly imitating mm. 65–66, are taken into account. In retrospect, then, mm. 63–68 will probably emerge as triple (3 x 2) rather than as duple at the hyper-metric level.

However unobtrusive in terms of harmony and melody, and however soft you play it, the return of the theme proper in m. 69, gliding in after six bars of preparation, will emerge as metrically accented and as turning up exactly when it should. But this thematic downbeat is associated with the impression that it is preceded by either a two-bar or a one-bar upbeat. Bars 67–68 have multiple, concurrent functions: bringing an imitation of mm. 65–66; introducing an anticipating lower neighbour-note motif; and (due to the confluence of transitional and thematic material in m. 68) suggesting a *quasi*-starting motif, a too-early, wrong-pitch start of the theme.

Stepping back from the immediate impressions, there is a metric explanation for the “omitted” empty bar between mm. 66 and 67 as well as for the apparent expansion of the eight-bar theme into a ten-bar melodic

unit. By means of the two imitative bars mm. 67–68, Schubert restores six-bar regularity after the previous, metrically disruptive insertions of single empty bars giving rise to truncated five-bar melodic units.

This does not prevent metric ambiguity from spreading into the theme, however. If the six-bar bridge passage mm. 63–68 is played as a duple hyper-measure with triple constituents – a rendering that keeps up the suspense by being somewhat against the grain – the theme will assume the irregular 3+5 bar configuration it had at the start of the movement. On the other hand, if a triple organization with duple constituents imprints the bridge passage, the pairs of imitative bars will influence the theme, will (temporarily) suggest that it starts with a 2+2 bar configuration.

Bars 67–68 make up a varied replication of mm. 65–66, and this association makes for a further metric option. Short slurs have given emphasis and also a sense of metric accent to the first d^3 in mm. 61 and 66, and if this is allowed to happen again in m. 68 – its d^3 is put in focus because it coincides with the releasing left-hand shift to the tonic – the hyper-metric regularity of the six-bar bridge passage will be broken in a way that in turn cannot but influence the theme. Either the accented m. 68 is retrospectively redefined into an emphasized upbeat to the start of the theme proper (a reading that will not bring any further consequences), or m. 68 emerges as the metrically strong start of a nine-bar melodic unit. The latter option cannot but substantially change the musical appearance of the theme by suggesting a sense of 4+5 asymmetry. But such a way of playing seems inappropriate. Schubert wrote a four-bar slur, not a three-bar one, starting in m. 68, and hence this metric configuration of the bridge and the theme emerges as unwarranted.

So far we have discussed various metric interpretations of this complex passage of thematic return, but this account should be complemented by a close study of its rhythmic properties. As many moments of musical magic, this one abounds in ambiguities, but in order to gain insight, to identify all options, Pandora's box must be fully opened. We will start with the theme proper, i.e. the eight-bar melody starting from b_1^2 in m. 69, and then consider what happens when the false start from d^3 in m. 68 is included; finally, and as the slur demands, the theme will be conceived of as a ten-bar unit starting in m. 67.

Taking account of just the right hand, the bars make up pairs. The first two pairs are obviously trochees; then the leading-note quality of m. 73 makes for a reversal to iambic grouping, which is of course the only option in mm. 75–76. The sense of a downbeat in m. 74 is supported by the harmonic motion heading for relative stability; hence the overlapping anapaest in mm. 72–74.

If m. 68 is understood and played as just an upbeat, the rhythmic properties of the theme are not changed. But as just mentioned, this bar may also appear to be accented: however softly you sneak it in, the B \flat -major tonic does turn up in this bar, and imitating the emphasis on the d 3 in m. 66, mm. 67–68 may seem to form a iamb. The result will be a metrically strong m. 68 apparently starting a nine-bar theme. This situation can be handled in two ways. An overlapping dactyl starting in m. 68 will give rise to a sense of smooth continuity, whereas a trochee in mm. 69–70, firmly restoring the theme, means that two accented bars (beats) are juxtaposed: m. 69 will sound as a second start, rectifying the false one in the preceding bar.

A ten-bar theme starting from m. 67 implies that mm. 67–68 (like mm. 65–66) make up a trochee; the theme proper will not be affected.

The Trio

Schachter's paper concludes with a few remarks on the Trio; cf. Ex. 1. According to his reading, the third-degree primary note of the *Urlinie* does not appear until the d \flat^2 in m. 109, a location that corresponds to the late occurrence of the third-degree *Kopfton* in his analysis of the main part of the Scherzo. He also points out that this structural note is prefigured in the first section of the Trio: the right-hand inner voice starts twice on d \flat^1 , falling to a \sharp and a \flat , respectively. Presumably, a further reason for choosing a fundamental descent from the third degree may have been the prospect of demonstrating closure in a way acknowledged by Schenkerian theory. Being robbed of its d \flat^2 at the beginning of m. 113, the *Urlinie* is again relegated to the inner voice for a new start on d \flat^1 , from where it might be taken to sink to b \flat in m. 117 – if you make use of the Schenkerian privilege to disregard the actual voice leading in order to produce a desirable subsurface connection, if you use your self-assumed right to pat the cat against the fur.

However, taking account of the actual voice-leading strata of the concluding phrase, it is glaringly evident that the alto line starting from $d^{\flat 1}$ in m. 113 continues past a^{\flat} down to f , and that the upper, would-be covering strand moves from f^{\flat} to $d^{\flat 1}$. Thus, no matter which line you choose, Schubert did not provide much sense of tonal closure by Schenkerian standards, and this is a fact that should be respected. And considering the Trio in its entirety, it is striking that the pitch class B^{\flat} never turns up over a root-position B^{\flat} -minor triad until b^{\flat} appears as an inconspicuous inner-voice note of the tonic chord in m. 117, and that $b^{\flat 1}$ is demonstratively avoided in m. 109, where it is expected after the leading-note $a^{\sharp 1}$; it is replaced by $d^{\flat 2}$. Another extraordinary feature of the Trio is the way its two outer sections constantly repeats the note f^{\flat} – the fifth degree functions as a drone until it finally yields to $d^{\flat 1}$ in m. 116.

Perhaps the Trio might just as well have an *Urlinie*, descending from the fifth degree, as a third-degree one. But both options merit closer consideration.

The virtually constant top-voice presence of f^{\flat} in mm. 91–100 makes it reasonable to conceive of a structural upper-line connection starting from the fifth degree; cf. Ex. 8a. If this idea is adopted, the two four-bar phrases making up the middle section of the Trio may be taken to issue from $g^{\flat 1}$ and $e^{\flat 1}$, respectively, i.e. from the upper and lower neighbour-notes of f^{\flat} turning up again in mm. 103 and 108. A linear ascent is suggested in mm. 101–108: after a stepwise deflection from $g^{\flat 1}$ via f^{\flat} down to $e^{\flat 1}$, you might hear a rise to $a^{\flat 1}$ -then- $a^{\sharp 1}$, implying $b^{\flat 1}$. There is an imitative relationship between the lower right-hand voice in mm. 105–106 and the top-voice motion in mm. 107–108. This fifth-degree reading of the Trio involves a passage of inverted counterpoint in mm. 109–112; it starts by exposing $d^{\flat 2}$, but beneath the upper strand f^{\flat} is as constantly repeated as it was in mm. 91–94.

If you are fond of “long lines”, the monotonous fifth-degree option is just as good as Schachter’s mostly covered *Urlinie* from the third degree. The primary note f^{\flat} survives the middle section by means of its two quite prominent neighbour-notes, and finally it gives way for $e^{\flat 1}$ - $d^{\flat 1}$, but no further, in mm. 116–117. Notice the deep and emphasized, releasing F_1 downbeats in mm. 98 and 116; demonstratively supplanting deep $A^{\flat 1}$ ’s,

these firm notes block the otherwise expected cadences to D \flat -major and forces the music to close in B \flat minor. (For another reading of the last phrase, see below.)

On the other hand, the melodic interest as well as the strongly emphasized left-hand d \flat 's in mm. 92, 96, 114 and the d \flat ¹ in m. 110 support a reading featuring right from the start the inner-voice d \flat ¹ as the primary note of the Trio; cf. Ex. 8b.⁸ There is no reason to wait with the primary note until the d \flat ² in m. 109 – the register of mm. 109–112 is after all not the main register of the Trio – but there is a linear connection up to it in the middle section. Thus, if the focus is transferred to the upper voice in m. 101, as the melodic interest bids, the preceding linear descent in the alto down to a \flat in m. 100 may seem to be resumed in the soprano, taking us with regularly paced steps from g \flat ¹ via f¹ down to e \flat ¹ in m. 105. Retaining the e \flat ¹ in an inner voice, the re-modulation in mm. 107–108 effects a further deflection upwards: mediated by a \flat ¹, the delayed but expected final link d \flat ¹ of the “falling” connection in the middle section appears as d \flat ². The already mentioned imitation conspires to make this transfer of register convincing.

According to this reading, the long-term preservation of the primary note takes the form of a falling scale, repeatedly broken in terms of register, from d \flat ¹ in m. 91 over g \flat ¹ in m. 101 and d \flat ² in m. 109 to d \flat ¹ in m. 113, and the connection is strengthened by the fact that each of these notes introduces a new melodic register and starts a new formal unit. After its return to d \flat ¹ and the inner voice, the third-degree primary note falls to f in the last phrase.

8 The recurring bass motion between the *sforzato* notes d \flat (d¹) and F (F₁) also provides an effective tensing/releasing counterpoint to the repeated right-hand f¹'s. Turning to rhythmic matters, the stressed as well as accented left-hand notes serve two vital purposes. If the preceding off-beat left-hand entries have given the wrong impression that the initial half-notes in the right hand were syncopated, this is rectified by the loud left-hand notes maintaining the true locus of the accent. The right-hand rhythm pervading the Trio strongly suggests a hemiola configuration, but it is contested by the stressed left-hand notes in the middle of the implied double bars; the emphasized notes keep up the pace by reminding the listener of the notated short bars.

Outside the Schenkerian fence, the choice of *Kopfton* and the derivation of the *Urlinie* (if any) are of course immaterial, and when it comes to interpretation, these problems are of even less concern. However mandatory structural descents may seem when devising “tonal” analyses, it is the artistically feasible linear connections that count. There are obviously several ways to balance the voices in this ingenious Trio, and since there are repeats, you have opportunities to give in to various reasons for not being consistent.

Restricting the discussion to the concluding section, an obvious option is to bring out first the upper voice in mm. 109–112 and then the inner voice in mm. 113–118, a reading that closes the Trio with a descending sixth issuing from $d\flat^1$; cf. Ex. 8b.⁹ This imitative way of playing recalls the downward shifts in melodic register and the duet-like design of the main part of the Scherzo, and again the same pitch-class, $D\flat$, is overtaken by the lower voice. Furthermore, ending the last phrase with a descending motion from $d\flat^1$ to f means to replicate in the melody what the left hand has insisted on with its strong-beat *sforzato* notes $d\flat$ and F already in the first phrase.

Needless to say, you can also focus on the fifth-degree f from m. 109, letting it finally yield to $d\flat^1$ in m. 117.

Another interesting option is to keep to the inner voice throughout the passage mm. 109–118, cf. Ex. 8a. Such a rendering suggests a mediation between the competing fifth-degree and third-degree melodic layers in the Trio, and it also makes for a melodically coherent ten-bar motion from f^1 down to f , preserving the insistence on the fifth degree and expressing a sense of non-closure. Just as the theme of the Scherzo issues from and returns to the tonic note, there is a point in construing the Trio as sticking to the less stable fifth degree – or, for that matter, as repeatedly and inconclusively descending from the third degree, cf. Ex. 8b.

9 It is of course possible to escape f as the goal of the final descent by emphasizing the $d\flat^1$ in the syncopated right-hand chord in mm. 115/116 and then bringing out a line ending on $b\flat$. What the analyst should refrain from doing, the musician may allow himself/herself, but such an interpretation has a disturbing sense of being a cheap concession to tonal convention, and bringing out a stable closure in the Trio is perhaps not what the Scherzo as a whole asks for.

Speaking about non-closure, it should be observed that the final chords of the Trio are topped by $d\flat^1$, just as the finishing chords of the main part of the movement feature d^3 as their topmost note. Tonal closure in Schenkerian terms seems not to have been Schubert's first priority when composing this Scherzo.

A question of maps

During the discussion in Helsinki and *à propos* the alternative foreground I proposed – a graph essentially similar to Ex. 9b, but slightly less detailed – Carl Schachter simply retorted that (good) maps of musical pieces should not be too detailed. In other words, and as a matter of routine, he relegated another ignorant critic back to the teether and the rattle. For three reasons, this defence is invalid, however.

Firstly, my graph was obviously a fairly detailed middleground representation of the Scherzo, but it had depth – in addition to a selection of details, it also gave a hint of background connections. In other words, my “map” had roughly the same resolution and the same ambition to show several structural layers as Schachter's own “foreground sketch” (Ex. 2).

Secondly, his retort passed over the crucial point of my criticism, the fact that by demonstrating something else I questioned what he had selected as important in his “map”. As we all know, there are large maps showing many things and small maps showing just a few, but this has nothing to do with whether the map is a good or a bad one. The quality of a map depends on the selection of the things to be seen – whether many or few – and on the purpose of the map; obviously two interrelated matters. If you want to draw a map to be used for orientation (by far the most common use of maps), the choice of what to show is a most exacting task. Neither aerial photographs, nor graphic charts showing preconceived notions as to what the landscape is (or must be) like, are of much value. A more productive approach is to walk on the ground and to remember which things you actually see before ultimately deciding on what to include in your map.

Thirdly, it is far from obvious that reductions of music are to be likened to “maps” at all. When studying scores (which are very detailed maps), we must constantly keep in mind that music happens in time, and good reductive “maps” should take this basic fact into account. This applies

especially to analyses that lay claims to be relevant for musicians and listeners, or are explicitly made to meet their needs, and it means that theory-driven top/down approaches are of little value.

Top/down, i.e. whole-towards-detail, reasoning implies (among other things) that analytical decisions depend on events that have not yet happened. Since analysts use scores, they are tempted to deal with music in a top/down, end-towards-beginning manner, and therefore it is all the more necessary to offer complementary accounts adopting a bottom/up perspective, analyses dealing with music as an evolving process. In short, musicians and listeners should not be lead by analysts as bulls are lead by farmers – ring in the nose and head high so as to prevent them from seeing what is around. Instead, analysts should select landmarks and establish signposts presenting themselves during the course of the music, and the idea of the “map” (a word bearing connotations of being a picture from above) had better be exchanged for the notion of directions for finding the way. Such a change in approach cannot but improve the selection of events to be shown.

This is not to deny that there is some scope for a dialectic relationship between top “structure” and bottom “design”, but it seems that the root of my discontent with Schachter’s reading of the Scherzo derives from the way the Schenkerian structure is allowed to dominate the Schubertian design. Schachter is less a cartographer than a landscape architect, whereas I would humbly regard myself as a pathfinder, a role that is compatible with being a hitch-hiker, but not with relying on scheduled Greyound routes.

An alternative structural account

The following attempt at a reduction of the Scherzo is undertaken from the listener’s point of view, a perspective that a musician cannot manage without. The events will be recorded as the meandering, dissipating or cumulating, mutually influencing musical phenomena they are, and the changing tendencies of the music will be read as important clues as to what the music is up to, what its eventually emerging structural “story” amounts to. Unless clearly suggested by the events themselves, nothing will be assumed as to the future course, let alone the final destiny, of the music; it will be read bottom/up, and Schubert, not Schenker, will be trusted.

The ensuing sections set forth a detailed explanation of the analytic choices and serve as a commentary to the reduction to be presented in five graphs. Ex. 9a is a quite detailed foreground, including important motivic elements. The middlegrounds Ex. 9b and Ex. 9c let the duet-like design, the connecting lines, and the harmonic framework emerge. The background Ex. 9d prepares for the ultimate deep structure shown in Ex. 9e. In addition, a slightly more detailed background is offered in Ex. 9f.

The outer sections

Along with the first note b_1^2 , which is retained for three bars in your memory by means of neighbour-note motions, there is a complementary line leading from b_1^2 towards f^2 ; cf. Ex. 1 and Ex. 9a. But it should be kept in mind that the talk of two “lines” is in a way an analytical artefact. There is only one melody that seems to split into two strands, and the virtual presence of simultaneous “lines” may be explained by the properties of the melody in conjunction with perceptual effects such as pitch streaming and expectation – after b_1^2 – a^2 – g^2 , f^2 is implied. Considering the whole antecedent, the note b_1^2 may also seem to be “prolonged” from m. 1 to m. 8 due to the fact that the lower “line” eventually returns from f^2 to b_1^2 , a motion that is supported by parallel motions in the left hand.

The first three bars obviously prolong the tonic, and some people might also say that mm. 4–7 “prolong” the dominant. And it is true that both m. 4 and m. 7 feature varieties of the dominant seventh-chord, but in terms of the musical process it would be more appropriate to say that the music is on its way from the dominant in m. 4 to the tonic in m. 8. It is a prerequisite when listening to music – and when making reductions – that you have a keen sense of discrimination telling you whether the music stands still or is on its way. Generally, the sense of harmonic progression in mm. 1–8 is weak: except for the tonic chords, there are no root-position triads, and the tonic note in the bass is just left for short visits to its neighbours. It is fair to say, then, that the antecedent as a whole represents the tonic.

Proceeding to the consequent, the fact that the left hand replicates the previous right-hand melody puts the right-hand accompaniment out of focus. The left-hand melody rather abruptly closes on e_1 , the subdominant, instead of returning to its implied tonic goal b_1 . Adopting Schenkerian

terminology, one might say that the first section closes on a “dividing subdominant”. The right hand, starting as a replica of the preceding left-hand accompaniment, concurs half-heartedly – if the eventually descending figuration is read with respect for where its three inherent strands actually lead, the (obviously non-covered) top line from $b\flat^2$ ends on an off-beat g^2 , not on an accented $e\flat^2$ as the guardians of tonal law and order would prefer.

The antecedent of the repeat section is identical with that of the first section except for the fact that it (quite transiently) settles on the tonic’s relative minor. Turning to the consequent phrase, the left-hand melody starts on the subdominant note $e\flat^1$, and again there is an abrupt deviation from the expected route back to this note. Instead the melody returns via the dominant to the tonic $b\flat$, an authentic cadence which is then repeated three times, exchanging the falling-fifth skip in mm. 83–84 for smooth rising fourths along the scale.

As a whole the final section makes up a complete tonic-to-tonic cadence whose main tonal emphasis falls on the subdominant starting the consequent rather than on the penultimate dominant, however “structural” Schenkerian theory wants such dominants to be.¹⁰ The right-hand accompaniment of the consequent, mostly devoid of musical interest, is not likely to be privileged by the listener, who is not obliged to pay attention to fundamental upper lines closing pieces at the first degree in the obligatory (or any) register. As to Schubert, he evades this duty as well: if the facts are not forced, the Scherzo, just as the Trio, ends with the third degree in the top voice.

The middle section

The two passages making up the first part of the middle section, mm. 17–24 (25) and 25–32 (33), are virtually identical, the only difference being the midway points of exchange in the right/left-hand dialogue. In mm. 28/29 both hands are abruptly moved upwards which actually makes for

10 And however many times Schubert repeats it – structurally, the music might just as well have stopped in m. 84. Salience does not necessarily make events structural.

a closer contact between the two melodies – not just the pitch-class, but the same pitch is overtaken by the left hand. Since these passages are so closely similar, they are bound to be heard in the same way. Indeed, even if a different way of understanding the A_b -major passage were demanded by later events, an understanding yielding an interesting (or just theoretically desirable) overall, top/down description, this would not change the way it was heard.¹¹

Starting from E_b major, the right-hand melody mm. 17–20 features a rise from the resumed b^2 to c^3 and a complementary inner-voice motion from g^2 down to f^2 , brought out by the interspersed neighbour-note motifs. Both connections have a strong sense of being incomplete, and this applies also to the motion $e_b^1-d^1-d_b^1-c^1$ in the bass. The final C-major appoggiatura chord in m. 20 implies F minor, but A_b major is substituted for it in m. 21: the shift in the dialogue involves a deceptive cadence. The following right-hand accompaniment does not bring much of interest, whereas the left hand, starting with an inversion of the initial neighbour-note motif, answers the preceding, open-ended melodic fragment with a circular melody from c^1 back to c^1 combined with a complete, overlapping five-bar cadence from A_b major back to A_b major.

Considering the entire eight-bar unit, there is some continuity over the midway shift of texture due to the common pitch-class C. The line transferred to the left hand – if indeed there is a common “line” when the music shows every sign of being a duet – reaches a non-conclusive end at c^1 in m. 25. Rather than continuity, the unit mm. 17–24 (25) embodies a sense of contrast, not only in register, but also since it first displays instability and a (frustrated) sense of direction, then stability and confirmation. A_b major is suddenly introduced at the textural shift and is then established by a cadence paving the way for the next right-hand entry.

In an entirely analogous way, the next eight (nine) bars replicate this contrast and bring a divided “line” from e_b^2 via f^2 to f^1 in m. 33.

Summarizing both these eight-bar units, the dialogue from mm. 1–16 is pursued, but a sense of contrasting complementation between the

11 Once again, the top/down, end-towards-beginning, “vantage” point is not a realistic one, and it emerges as an approach of limited value, indeed as disadvantageous, when dealing with a temporal art.

right-hand and left-hand melodies is introduced. Whereas the former bring in (relatively) new melodic material and are open-ended, the latter begin with an allusion to the theme and are circular.

Turning to the extended passage in D \flat major mm. 33–50, the organ point on d \flat (shortly interrupted just in m. 43) accumulates tension and gives rise to a sense of vague expectation. The interspersed empty bars, whether understood as introductory or appended, are suggestive of irresolution and suspense. The shifts between – and the ambiguity of – the units with regard to hyper-metric structure permeate the music with a sense of instability.

Bars 35–38 and 47–50 draw on the scale motif heard in mm. 19 and 27, but very little is accomplished. The register shifts are abrupt, and the last-moment change to a right-hand F \sharp -minor triad in m. 50 happens as if by an accident. Not until the next bar does it turn out that this move has opened up an escape from the impasse.

As to the contrasting phrase mm. 41–44, the first thing to notice is that its starting note f 1 seems quite unrelated to the final d \flat^3 of the preceding phrase; so far in the Scherzo, the units in the dialogue have been connected by means of pitch-class identity. On the other hand, there is a close connection from the g \flat^1 of the left hand chords in mm. 38–40 to the starting f 1 in m. 41.

The new melody introduced in m. 41 features rising scale motifs instead of falling ones and brings a sense of opposition. And while replacing the inconclusive left-hand harmonic motions based on d \flat with a complete four-bar D \flat -major cadence, it makes up a coherent melody. As already pointed out, the dual fact that this phrase displays a cadence and that its melody starts with an upper neighbour-note motif (just as did the two previous left-hand interjections) turns it into an answer, whereas its content and context rather lend it the character of a statement – although the rising melody and the final repeated notes make it open-ended and indecisive.¹²

The D \flat -major passage mm. 33–50 has a number of qualities that do not speak in favour of selecting it as “structural” in a Schenkerian sense.

12 This impression depends on how you play, depends on whether you think of the unit as having a triple or a duple hyper-metre; the latter option suggests a more determined close.

It is not stable enough to dominate over the highly salient and relatively more stable surrounding passages in A \flat major and A major, and even less is it fit to serve as a bridge between E \flat major and a transitory, would-be structural passage, eventually issuing into an unstable diminished triad on b \natural . The D \flat -major core in mm. 41–44 notwithstanding, mm. 33–50 rather prepare for a passage of greater stability, namely the immediately ensuing F \sharp minor/A major unit.

But for two reasons the D \flat -major stage remains a vital element in a reduction aiming at a meaningful description of the musical process within the middle section. It brings a further link in the chain of subdominants, and twice it produces prominent, but harmonically and rhythmically quite unstable, high-register ending notes – d \flat^3 d \flat^3 d \flat^3 and c \sharp^3 c \sharp^3 c \sharp^3 , respectively – notes whose future implications are still unknown, however.

Due to the way it is introduced without a preceding modulation (or even a mediating applied dominant), the shift to a root-position F \sharp -minor harmony in m. 51 emerges as a crucial juncture in the Scherzo, and this fact is corroborated by large-scale observations. Not only does this chord bring the final link of the subdominant regression in a quite conspicuous way, but retrospectively (i.e. resorting to knowledge of events in mm. 54–55 that we do not yet have heard) it also establishes a firm ground for the ensuing modulation to A major – just one semitone away from the initial B \flat -major tonic.

The phrase starting in m. 53 with still another upper neighbour-note motif picks up the end of the preceding melodic unit, which means that the habit of using the same pitch-class for ending and starting phrases is resumed. Restored is also the twelfth distance between treble and bass root, marking so far the start of all new rounds in the dialogue as well as the confirmation of all new keys, cf. mm. 17, 25, 35, and 47, but not m. 41. Depending on your understanding of the dialogue, mm. 53–56 either mean that the “left hand” brings another statement, or that the right hand has adopted the “left-hand” statement from mm. 41–44.

No matter which of these options you prefer, the entry on c \sharp^2 in m. 53 is structurally crucial. This c \sharp^2 -to-c \sharp^3 phrase has a directional quality that its otherwise corresponding f 1 -to-f 2 predecessor lacked. Due to the underlying modulation, the starting c \sharp^2 -over f \sharp is not identical with the

closing $c\sharp^3$ -over-a; finally, after a long $D\flat$ -major passage characterized by tonal immobility, some tonal progress is made. As already pointed out, the distance between bass root and treble entry in m. 53 is that of a twelfth, whereas the first-beat sixth-chord ground is less stable; just as in m. 41 the distance from the initial left-hand note up to first melody note is a tenth. These observations bears a prospective dimension that should appeal to all long-line-loving analysts engaged in reduction, provided that they have an open mind as to how closure may come about. (Paradoxically speaking, one might retrospectively expect that these “imperfect” distances will diminish until an accented octave brings resolution to both of them).

Turning to m. 56, the repeated-note motif is too open-ended to make for closure, and since only one empty bar is inserted after this phrase, the metrical regularity is disturbed. Securing the tonal gain, the repeated-note motif is then presented as a starting-point in m. 58 over A major. Notice that the treble/bass distance on the first beat is now that of an octave, while the root of the chord, arriving only on the second beat, makes for a tenth, not a twelfth.

In the final two phrases of the middle section, again separated by just one empty bar, the upper neighbour-note inverted reference to the start of the Scherzo is deleted while the rising-octave melodic content is compressed to just a leap. Being static in melodic terms, the passage mm. 58–66 is harmonically eventful. In addition to the exposed shift from $c\sharp^2$ to d^2 in the treble, there are crucial rising motions in the bass and the inner voices, respectively: the chromatic modulation back to the $B\flat$ -major tonic is on its way. But in order to understand how this passage works, some further observations are necessary.

If we refrain from large-scale tonal plots and unwarranted note picking, what can be said about the sub-surface voice leading when approaching the repeat of the Scherzo? The importance of the pitch-class $C\sharp$ and the function of A major as a point of departure is established in m. 58. After having passed $a\sharp$ in the bass, the music moves on to d^2 -then- d^3 -over- $b\flat$ where it gets stuck for eight bars. But this minor-tenth interval is somewhat unstable due to the fact that $a\sharp$ has been passed before the rise to d^2 in the treble; in mm. 60–61 the left-hand $b\flat$ seems to be “tonally ahead” of the top note d^2/d^3 . For this reason, a releasing retreat to $b\flat$ and to a

major-tenth distance between the voices is vaguely expected. This is also what begins to be realized in m. 67 after the suspense has been increased by the rise to f^1 in m. 64, and after three bars of diminished-triad sonority: while the lower neighbour-note motif $d^2-c\sharp^2-d^2$ insists on what has been achieved in the treble, the tonally out-of-phase $b\sharp_1$ is activated. Since m. 33, the decisive bass notes have been heard only as afterbeats, but now, by the introduction in m. 67 of the accompaniment figuration known from the theme, the accented position is at last recaptured. Without further delay, the $b\sharp_1$ quietly falls to the tonic note b_1 in m. 68, making the two lines “tonally simultaneous” and making d^3 fully consonant as a major tenth.

A very smart chromatic modulation from A major to B_1 major, setting the harmonic stage for the theme one bar in advance, has been accomplished: the lower neighbour-note motif anticipates the theme, and the accompaniment figuration is already in place. In concurrence with this, a long-term circuit is closing. After featuring first a twelfth between treble and harmonic root at the phrase entries, then a tenth, the theme proper brings resolution in m. 69: the melody and the root meet on the first beat at the distance of an octave.¹³ In this light, there is a perfect co-ordination between “tonal” and “formal” form in the Scherzo; the seemingly too-early tonic harmony in m. 68, with its lower neighbour-note motif suggesting a too-early start of the theme, is a local event, namely the final stage of the re-modulation, which is fully completed only in m. 89.¹⁴ (Not merely a local event, of course, but a most ingenious local event.)

Although it may be difficult to accept for those having heard and played this Scherzo many times, it can also be argued that the start of the repeat section involves a subtle sense of harmonic deception, amounting perhaps to a “deceptive ploy” on Schubert’s part.¹⁵ The phrase starting in m. 58

13 This long-term structural tendency closing in m. 69 may be seen as a kind of counterpart to Schachter’s contrary-motion scheme spanning the middle section and issuing into the tonic-supported *Kopfton* in m. 68, but it arguably enjoys better support in Schubert’s music.

14 Adopting the Schenkerian habit of talking of entire pieces as if they were handy fragments of background counterpoint, the premature start of the tonic in the left hand cooks down to an anticipated note in a bass progression.

15 The reading to be proposed may at first seem incompatible with the one just advanced, but on second thoughts they emerge as complementary.

leads from A major to an unstable, second-inversion E-major seventh-chord. However, as e^1 is exchanged for $f\sharp^1$ during the next phrase, the most likely harmonic interpretation of the resulting diminished triad rather suggests another applied dominant than the one pertaining to A major: the music rather seems to be held in suspense at an incomplete first-inversion G-major seventh-chord, implying an outlet in C major. That this never realized goal is kept up the sleeve emerges from tendencies inherent in both the bass and the treble. The bass has already passed $a\sharp$ in m. 59, and a further chromatic ascent may be envisaged after the extended stay at $b\sharp$; the right-hand lower neighbour-notes $c\sharp^2$ and $c\sharp^3$ in mm. 67–68 may have a concurrent enharmonic $d\flat^2/d\flat^3$ sense of being leading-tones directed downwards.

If the diminished-triad accompaniment were continued in m. 68, and if $c\sharp^3$ were exchanged for $d\flat^3$, a C-major start of the theme ($c^3-b\sharp^2-c^3$ over c^1) would be quite possible in m. 69. In order to forestall this predictable but tonally undesirable turn of events, Schubert might have felt that it was necessary to introduce the true $B\flat$ -major tonic already in m. 68. In this perspective, what seems to be brought in prematurely emerges as thrown in at the very last moment: the “false” early start of the $B\flat$ -major accompaniment prevents a false C-major tonic from turning up.

Conclusions

Apparently, I am unsophisticated enough to hear and hence to analyse the music, not as a linear contrary-motion ascent/descent, eventually producing a very late d^3 -over- $b\flat$ start of the *Ursatz* in m. 68, but as a regression anti-clockwise along the circle of fifths. A duet-like transfer of melodic strands to lower registers is a pervading trait in the Scherzo up to m. 53. After a long and in many ways irresolute passage in $D\flat$ major, and beginning with the quite conspicuous new start in $F\sharp$ minor, the mode of continuation is appreciably changed. First by means of a diatonic modulation, then by a chromatic one, the music is brought back via A major to the tonic, occurring (prematurely, it may seem) one bar before the actual return of the theme, marked for attention by the restored octave distance between the treble and the harmonic root.

The last part of the Scherzo does offer a local *Bassbrechung* – one in which the midway subdominant outdoes the penultimate dominant in spite of the fact that it asserts itself by repeating the motion to the tonic

three times. But it does not feature any descending *Urlinie* since there can be no doubt that the melody, shifted from the right to the left hand, issues from and eventually returns to the first degree; meanwhile, the right-hand accompaniment keeps to the third degree.

Whereas this account of the Scherzo fails to be Schenkerian, it is nevertheless “tonal”, and it is based on conspicuous local events, actual voice-leading connections, and prominent features within the overall compositional design, heard as an evolving process. The proposed reading does not venture to measure the boldness of Schubert’s piece by the failure of the *Ursatz* concept to capture it;¹⁶ it just tries to bring out the individual, and as it turns out, quite original tonal path of the music.

But doesn’t this Scherzo have anything comparable to a fundamental structure? Presumably it has, and it might, preserving its decisive core progression in the middle section rather than its late and conventional *Bassbrechung*, be boiled down further. This reduction is undertaken in Exs. 9b, 9c, and 9d, graphs that do not require further explanations. Finally, we arrive at the ultimate deep structure, a virtually symmetric stock cube featuring an upper-line motion from the first degree to its upper, harmonically alienated neighbour-note $c\sharp^3$ and back again, and a motion from the tonic root to its likewise alienated, A-major lower neighbour-note; cf. Ex. 9e.

Unlike the middleground and background representations, the ultimate deep structure fails to show certain crucial peculiarities of the music – such as the non-coincidence of harmonic and thematic return in mm. 68–69 – peculiarities that may be highly pertinent for interpretation. But on the other hand it brings out a most important large-scale feature that Schachter’s reading completely fails to account for: the fact that the F# minor/A major shift is the very focus of the tonal trajectory. Being the end-point of the regression into subdominant regions, F# minor is at the largest remove from the tonic. The modulation to A major may seem to bring us

16 Cf. Nicholas Cook, “Music Theory and ‘Good Comparison’: A Viennese Perspective”, *Journal of Music Theory* 33(1989) 1, 117–141, and “Schenkerian theory and better comparison: An out-of-the-way perspective”, ch. 1 in this volume.

even farther away, and yet, as the re-modulation to B \flat major shows, we are just a rising semitone away from it.

But the background Ex. 9d is more useful, and it might be provided with a few details capturing some further important traits of the music; cf. Ex. 9f. The intervals between treble and bass indicate that the Scherzo, understood as a two-voice structure, also describes a circuit from octave via twelfth and third back to octave. The lower neighbour-note motifs clarify what happens at the moment of formal return, and the treble thirds ending the outer sections remind us of the fact that the upper line does not actually, or not unequivocally, close at the first degree. Indeed, while preparing for the Trio, this fact may perhaps also offer some kind of (retrospective) explanation for the “pre-thematic” d 3 in m. 68.

Does the background Ex. 9f look strange when compared to the at long last falling-third *Ursatz* emerging as the final product of Schachter’s reduction? Well, the most characteristic trait in the Scherzo, and one of its attractions, is its wide-ranging modulations – not the fact that it starts and eventually closes in B \flat major – and this is what Ex. 9f ultimately shows. The art of listening and the craft of analysis are not matters of holding down your head under the water as long as possible.

Some issues of interpretation

Turning finally to issues of interpretation, a few remarks on the middle section and the very start of the repeat will be offered.

It has been argued that the D \flat -major episode mm. 33–50 has a sense of suspension pointing forwards to a possibly forthcoming state of greater stability. This impression is rooted in the design of the music, but it also depends on the interpretation, and it appears that the “left-hand” response phrase in mm. 41–44 (46) is of particular interest due to its metric ambiguity; cf. Ex. 7. The question is whether m. 44 should be a weak or a strong bar (beat), and the situation is quite complex since the effects of both options are contradictory.

If the f 1 -to-f 2 phrase starting in m. 41 is played as a triple 3 x 2 unit in adherence to the pattern of duple sub-units prevailing so far in the middle section, m. 44 becomes metrically weak. This underscores the instability of the repeated-note motif and makes for an association back to the

patently duple and quite unsettled previous phrase with its demonstrative final repeated-note motif. By the same token, the affinity with the parallel $c\sharp^2-c\sharp^3$ phrase starting in m. 53 and issuing into A major in m. 56 will be diminished since its final repeated-note motif tends to be heard as accented within a (curtailed) duple hyper-metric unit. Playing the f^1 -to- f^2 phrase according to a triple hyper-metre also implies that the empty bars mm. 45–46 are likely to form a pair with introductory function, recalling the situation in mm. 33–34 and reducing the suspense at the following right-hand entry.

Alternatively, you might decide to break with the prevailing pattern of duple sub-units and play mm. 41–46 as a duple 2 x 3 configuration, which means making the repeated-note motif occur in a strong bar. By itself, such a shift as to hyper-metre gives rise to a sense of instability, but it will also reduce the open-ended quality of the phrase. But if mm. 45–46 are rendered as the weak beats of a triple sub-unit, the suspense at the next melodic entry will be increased. A duple-metre interpretation of the f^1 -to- f^2 phrase brings out its underlying cadence, and it will therefore strengthen the association with the preceding cadence in mm. 29–33 as well prepare for the similar unit in mm. 53–56, bound to end with an accented bar underscoring the arrival at A major.

As regards the root-position F#-minor chord, it has been shown that it makes up a crucial juncture in the middle section. Since its importance is deeply grounded in the tonal structure of the Scherzo, the change from second-inversion to root position in mm. 50–51 *might* be treated with some discretion – whatever you do or don't do, the structural significance of the shift is there. Indeed, consulting Schubert's score, nothing is prescribed in this passage beyond what is indicated already in mm. 38–41.

But the just-mentioned passage is not parallel in terms of tonal importance – nor, it may be argued, should the two passages be treated as parallels when it comes to interpretation. So, if you don't have any analytical reason to hide away the entry of F# minor, if you think that its importance should be brought out since interpretations understating this harmonic shift neglect a structural (or just expressive) point that must be made – what can you do? Well, let's learn from Schachter, the musician. When he plays this passage, he makes a laudable fuss of the change to root position in m. 51. By slowing down considerably in addition to the prescribed *decrescendo* he shows greater musical perceptiveness as a pianist than as an analyst.

In a nutshell, the peculiar thing about mm. 67–69 is that the moment of return is dispersed. First to be introduced are the accompaniment motion and a wrong-register lower-neighbour-note hint of the theme, then come the tonic note b , in the left hand and a correct-register hint; finally the theme proper starting from b ² turns up. From an interpretational point of view, this is the crucial issue: when do you want the listeners to suspect or realize that the first section is approaching, or indeed that it is back again? Should the moment of return, if there is such a moment, be anticipated or should it be discovered after the fact?

Taking the four-bar slur at face value implies that the theme is to be “pre-expanded” so as to comprise ten bars. If such a reading is adopted and allowed to influence performance, a quite radical transformation of the musical substance has been undertaken, a transformation that fairly effectively conceals the thematic entry.

But if the motivic content is considered, the transition emerges as much less clear-cut. The preceding preoccupation with d^2 and d^3 suggests that mm. 67–68 bring a neighbour-note variant of the two repeated-note motifs. On the other hand, taking account of the lower-neighbour-note figuration as such and listening in immediate retrospect, mm. 67–68, and especially m. 68, “pre-imitate” the initial motif of the theme proper starting from b ². This ambiguity means that the two mediating bars 67 and 68 may function both as afterbeats and as upbeats, i.e. they may seem to belong either to the preceding transitory passage or to the following theme. These analytical options may be exploited, giving rise to perceptibly different interpretations.

But analysis is not the only guide to interpretation. One common, and sometimes quite non-analytic, approach is to regard notation as strictly normative: you simply look for guidance in the score, noticing any indications for performance it may hold. But considering – or due to – the intricate nature of the passage mm. 67–69, Schubert is very reticent – there are no prescriptions whatsoever as to dynamics or tempo.¹⁷ The only prescription (or advice) in the score is the four-bar slur, presumably

17 Reasonably, lack of indications does not mean that various (appropriate) interventions, which could have been specified, are out of question or indeed forbidden.

suggesting that Schubert wished the pianists to (more or less) conceal the actual start of the theme by embedding it into a phrase already in progress. Furthermore, the fact that the tonic slips in as an unobtrusive change in the accompaniment before the theme starts can be understood as another, structural clue to the same effect. Like a magician Schubert distracts us with one hand so as to prevent us from noticing what goes on in the other: an understatement of the actual moment of thematic return might be what Schubert wanted.

But it is also possible and appropriate to use one's own, intuitive divining-rod to search out the phenomenal character that seems to be embodied in this passage, and then go for it when playing. Hasn't the dispersed start of the repeat section something of the smooth quality of changing gear with a slightly worn-out transmission? First you shift the gear – the left-hand change in m. 67 – then you hear or feel that something important is happening in the engine – B_♭ major appears in m. 68 – and finally – when the theme proper emerges in m. 69 – the machinery starts to work. Such a way of playing is both sensuous and kinaesthetically quite interesting, and it seems to be compatible with both the four-bar slur and the idea that the return should be concealed.

The option to unequivocally locate the moment of return to m. 68 is not really an option. If the start of the slur in m. 67 is disregarded, this effect will present itself, but is there any point in making the listeners hear a nine-bar theme starting at the wrong pitch? But such an interpretation is unfortunately what Schachter's delayed third-degree *Kopfton* in m. 68 (presumably unintentionally) suggests.

But rather than selecting the correct or best way to render this passage, it is preferable to think that there are several worthwhile interpretations. And since this re-transition passage is to be played three times, you might even be spared the agony of killing all your darlings. (Showing a nine-bar theme might be a funny, surprising ploy when playing the passage the second or third time.) However appropriate consistency may be in analysis, rendering recurring passages in the same way is neither a necessary condition for a valid interpretation, nor always a desirable one.

This does of course not mean that any combination of options works equally well, or at all. Interpretation has a lot to do with psychology and applied rhetoric. The overall course of the music must be convincing, and the

listeners' memory and sense of expectation must be taken into account – and this becomes all the more important if you want to deceive or surprise them. It may, for instance, be rewarding to play mm. 67–69 in the worn-out-transmission way the first time, and then, the next time or when repeating the main part of the Scherzo after the Trio, to launch a four-bar phrase, engulfing the moment of thematic return, or conversely, to clarify that the theme is back only in m. 69. The opposite order – i.e. to obscure later on what was rendered obvious the first time – is not likely to work very well.

Chapter 6 Schubert, Schumann, and Schenkerism. Tonal vs. focal Reduction

Introduction

There are signs that Schenkerian analysis is back in Europe, and even that it may be approaching Scandinavia, a remote corner that has not yet been much afflicted by this particular brand of musical analysis. Provincial retardation is not equivalent to immunity, however, so we should prepare ourselves by paying Schenkerian analysis some critical attention, which is as close as you can come to a vaccination in the humanities.¹

Using two short piano pieces as specimens, I will discuss some of the peculiarities of Schenkerian analysis, but before doing so I should briefly declare my own attitude towards this approach to music. I think that layer-by-layer reduction is an important idea in music theory and may be a valuable tool when it comes to analysis. But “tonal analysis” as currently practiced often means that the hierarchical aspect of music is greatly exaggerated. Music is after all a temporal art, and when we listen to (or play) it, it makes up a sequence, not a static structure with quasi-visual properties.

Furthermore, I do not see why reduction of tonal music must necessarily be “tonal”, why reduction must always be pursued in order to show that such music is unified in virtue of being a set of recursive prolongations of a single and simple harmonic cadence accompanying a descending treble line. There are certainly other schemes or properties that may make for closure, cohesion and unity in music. Why are so many analysts so obsessed with unity at the expense of virtually everything else? Isn't there any worthwhile tonal music that fails to exhibit this classicist good-making property?

This is also the proper moment for filing a protest. The designation “tonal” analysis, adopted by the adherents of Schenkerian theory and passively accepted by many others, is most unfortunate. It appropriates a comprehensive

1 This text is based on a paper, “Schenkerian Analysis Reconsidered”, read at the *13th Nordic Musicological Congress*, held 2000 in Aarhus, Denmark.

and value-laden concept, and makes other kinds of analysis (among them other possible varieties of reduction) emerge as marginal or beside the point. Of course, one might easily think, analysis of tonal music must be “tonal”.

Finally, I am not convinced that the particular set of restrictions with regard to methods and results that defines Schenkerian analysis is necessary or even desirable. I simply take it for granted that we – and the pieces we analyse – would be better off if reduction were less disciplined, less supervised by an inbred analytic community, and more guided by an unprejudiced access to music as a perceived phenomenon.

Salzer’s reading of a Schubert waltz

We will first turn to Felix Salzer’s reduction of the Waltz in B minor Op. 18, No. 10 by Franz Schubert; cf. Ex. 1 and Ex. 1 a–c. It stems from the introductory chapter of his textbook *Structural Hearing*, where it apparently is supposed to illustrate an elementary and exemplary Schenkerian analysis.² In this particular case, the theory works quite well – or so it seems – laying bare a simple and plausible tonal order within the piece, and persuading us that we have found an analytical method allowing us to demonstrate tonal unity in countless other pieces, small and large.

However, Salzer’s analysis is not beyond criticism. Consider what happens in the treble after the double bar. Schenkerian theory has a predilection for voice-leading continuity in terms of diatonic lines, and a descending-fourth progression, $d^2-(c\sharp-b^1)-a^1$, is duly indicated in Ex. 1b, the middleground layer of Salzer’s reduction. But this motion cannot, and should not, be heard since this connection is a glaring example of *structural seeing*, including elements of shrewd manipulation that must be studied in detail because misleading readings of this kind are far from infrequent in Schenkerian analysis.

According to Salzer, the first part of the waltz features a sequence of thirds, formed by the two upper strands, whereas after the repeat sign this parallelism is abandoned; cf. the foreground Ex. 1a. The top-voice d^2 in m.

2 Felix Salzer, *Structural Hearing I–II*, New York 1962, Dover Publications. The graphs are to be found on p. 4 in volume II; Salzer’s discussion on pp. 20–22 in volume I.

8 is retained across the double-bar – a dashed tie connects it to the inner-voice d^2 in m. 9. Then follows a composite progression, evidently made up of the actual top-voice motion with its two falling fourths, *and* a lower d^2 -to- a^1 line, a quite far-fetched connection since the notes are recruited alternately from the second soprano and the first soprano. Turning to the next layer in Ex. 1b, the two lines of the foreground have disappeared, but the arrow from the closing d^2 in m. 8 to the a^1 in m. 12 persists, indicating beyond doubt that the connection retained as structural is the far-fetched lower descent d^2 - $c\sharp^2$ - b^1 - a^1 .³

Leaving wishful structural thinking aside and turning to the actual music, the fact that the first-soprano d^2 turns up again in the second soprano after the double bar does not mean that these notes are structurally identical, their common D-major root notwithstanding. It is incontrovertible that the same key is to be struck once again, but this does not entail that the actual first-soprano line starting from $f\sharp^2$ in m. 9, and later on proceeding with a further falling fourth issuing from d^2 , derives from an alto-voice superimposition and thus merely amounts to a “covering” surface phenomenon that can be disregarded at the next structural level – and yet the first soprano is left out in Ex. 1b.

The superimposed-alto trick might just as well be applied right from the start of the waltz; indeed, in the name of consistency the music should be read in this way right from m. 1. This would make for an *Anstieg* from b^1 establishing the *Kopftön* d^2 in m. 8 over the non-tonic D-major chord – hardly a desirable start for an *Ursatz*. Such a reading, in which the fundamental line is relegated to the alto voice, is of course perceptually unprivileged since it turns the prominent soprano melody into an inessential, covering line, but it makes up a worthwhile intellectual experiment.

Suppose that Schubert had written another waltz in B minor that (as far as one can see) does not conform to Schenkerian principles of tonal unity and

3 Comparing layers of Schenkerian analyses is not unlike comparing pictures of the Party tribune during the 1st-of-May Parades in the good old days. When empirical facts give in to the documentary triumphs of Soviet photographic art, one cannot but look for the faces that are not there and try to figure out what has happened to these people – and why.

yet (as far as we can hear) is satisfactory from a tonal point of view? Can such a piece nevertheless be shown to exhibit a theoretically acceptable tonal structure? Can Schenkerian analysis avert the otherwise inevitable conclusion that this waltz is tonally deficient although it does not seem so? How strong is Schenkerian analysis, how weak the music?

To get an idea of the power of “tonal” analysis, let’s compose a B-minor waltz, closely modelled on Schubert’s waltz and yet deviating from it in ways that reasonably combine to make up a clear violation of tonal unity as conceived of in Schenkerian theory. This new waltz must not at face value emerge as flawed with respect to its tonal lay-out or local continuity – let’s assume that this is compatible with the fact that the waltz is intentionally composed so as to embody a theoretically inadmissible tonal structure. The crucial question is whether the new waltz, when analysed according to the rules and habits of the game, is allowed to exhibit its illegitimate structure, or whether there are analytical devices in the Schenkerian tool box that can be used in order to arrive at an acceptable structure.

It is not difficult to rewrite the waltz so as to avoid all essential visits above b^1 ; cf. Ex. 2. One might think that this b^1 -to- b^1 waltz, which is not tonally deficient as far as one can hear, would preclude a falling *Urlinie* from the third degree – or any of the two other acknowledged *Kopfton* degrees. The first (eighth) degree is in fact approached from below. But one should not leave out of account the Schenkerian analyst within you, eager to prove that his/her cherished theory prevails.

As a waltz composer I have modified the given – Schubert’s B-minor waltz – and your task as a Schenkerian analyst is to avoid the evident – the actual musical properties of the waltz – in order to achieve the desirable – a Schenkerian *Ursatz*. If you fail or give up, non-Schenkerian varieties of tonal structure and unity are apparently possible. If you succeed, you have not necessarily supplied another proof to the effect that Schenkerian fundamental structures underlie all non-deficient pieces of tonal music, but rather shown that “tonal” analysis might be stronger than the music it should serve.

Turning back to Schubert’s waltz and Salzer’s analysis of it, the prominent $f\sharp^2$ in m. 9 is simply not a member of the over-all upper-line structure in

view. When working top/down, as Salzer presumably did although the arrangement of the graphs suggests the opposite, it seems natural to count the chickens before they are hatched, and therefore this note is disposed of already in the middleground. That Schenkerian theory provides technical terms for this convenient re-stratification is no argument. Concepts like ‘superimposition’ and ‘covering’ should apply before being resorted to, and preconception is a bad excuse for application.

However, if we free ourselves from the cherished principles and rescuing equipment of “tonal analysis”, and care to listen with respect to the music, no technical arguments are needed to refute Salzer’s reading. Does the $f\sharp^2$ in m. 9 sound like a superimposed/covering note deriving from the alto-register $f\sharp^1$? No, it does not since the right-hand three-note chords topped by thirds proceed just as they did before the double bar. If you still think that the $f\sharp^2$ is a “covering” note and thus non-structural, you have either completely misunderstood Schubert’s piece or got an ear-crippling notion of tonal structure. The very turning point of the piece and the crucial event in its tonal layout is the way its top line expands into a higher register at the start of the second repeat.⁴ In the Schenker vs. Schubert game the $f\sharp^2$ is not a pawn that the analyst can sacrifice in order to checkmate the music.

Adherents of Schenkerian theory would no doubt hold that I have mistaken surface salience for structural importance when taking account of the $f\sharp^2$; after all, this is a common and typical error of naive beginners. Whether they say it or not, when the “tonal structure” of the music is in sight or must be enforced, musical salience, or lack of it, is no longer a problem – the theory guarantees that, unless the piece is defective, the *Ursatz* is bound to be present. Discrepancies between surface and structure are the very hallmarks of good composition as well as of non-trivial analysis, they would claim, and in this the best of worlds the audacity of the analyst corresponds to the creativity of the composer.⁵

4 For another example of this phenomenon, take a look at – and listen to – the first-movement theme of Mozart’s Piano Sonata K. 331; cf. Bengt Edlund, “Analytical Variations on a Theme by Mozart”.

5 Nicholas Cook comes alarmingly close to this attitude; cf. “Music Theory and ‘Good Comparison’: A Viennese Perspective”, *Journal of Music Theory* 33(1989), 117–141. For another view, see “Schenkerian theory and better comparison: An out-of-the-way perspective”, ch. 1 in this volume.

This arrogance commands a high price, however. If the analytic business is allowed to go on unchecked by what is immediately given, the possibility of alternative discoveries is blocked due to lack of fresh input. Is it really a good thing that naive listening is held up to ridicule, that naive musical understanding is suppressed? Is it fair and productive to disregard input stemming from salient events, to dispose of them as mistakes whenever this is called for?⁶

Returning to Salzer's analysis of mm. 9–12, it must be pointed out that his way of picking notes now from the second soprano, now from the first, in order to construct the wanted but wanting falling-fourth progression is most objectionable – there is simply no voice moving in this way in Schubert's music. Schenkerian theory insists on a distinction between surface motions and true, inherent voice leading – i.e. the very essence of the tonal process, an essence that can be disclosed only by means of “tonal analysis” – but readings like this one bring the concept of ‘inherent voice leading’ into disrepute. In this case there is a better subsurface reading that does not misrepresent what happens: the motion actually inherent in the top voice of the second part of Schubert's waltz is quite interesting although it does not count for much in Schenkerian theory.

It must furthermore be objected that the choice of the d^2 of the D-major chord in m. 8 to start this would-be middleground falling fourth is tendentious. Whereas D major is clearly restated after the double bar and turns active due to the structurally vital raised entry at $f\sharp^2$, this does not apply to the d^2 -over-D-major in m. 8, a closing note displaying no inclination whatsoever to move in any direction. This manipulation is crowned in the background Ex. 1c where the structural III chord in m. 8 is simply moved to m. 9, taking advantage of the salient and very stable presence of the top-note d^2 in m. 8 and transplanting it to m. 9, where its high-level importance is questionable, but where the fresh top note $f\sharp^2$, taken away in Ex. 1b, supplies a prospect of a falling tendency. Ex. 1c erroneously suggests that the second part of the waltz starts with a relative-major chord that all

6 It speaks in Cook's favour that he is also interested in, and pays respect to, how people actually listen to music; cf. Nicholas Cook, *Music, Imagination, and Culture*, Oxford 1990.

by itself brings a falling-fourth progression issuing from d^2 , a local first-degree-note that actually belongs to an insignificant inner voice.

Even when engaging in “tonal analysis”, the music should be respected, and in this particular passage one should ask oneself whether an internal d^2 - a^1 motion within a single D-major harmony is really a good description. Schubert’s mm. 8–12 first presents one bar exposing the relative-major auxiliary tonic and then four bars of soprano/tenor counterpoint modulating away from it. Is this D-major chord really the musical (or even the “structural”, “tonal”) essence of the passage?

Exs. 1b and 1c clearly reveal the top-down character of Salzer’s reduction. To uphold the continuity of the upper fundamental line, the initial B-minor third degree, redefined into a D-major first degree in m. 8, must somehow be retained until the six-four appoggiatura d^2 in m. 15. This is crucially important, theoretically, and therefore one cannot rely on Schubert. The arrows in Ex. 1c show how the required connection is created. The already discussed questionable motion from d^2 to the inner a^1 within the D-major chord supplies the first part of this sub-surface motion, and it is complemented by a returning rise from b^1 to d^2 shown to take place within the B-minor six-four chord.

The support for the ascending part of this visit to a would-be inner voice is just as unconvincing as that of the previous descent, however. The b^1 , first turning up over a B-major applied dominant in the foreground, is shown as the top note of the following subdominant in the middleground. But no matter how much this E-minor chord is labelled as a passing chord, its b^1 does not belong as an inner voice to the following B-minor six-four chord as suggested in the background, nor does it betray any tendency to rise to d^2 . Apparently heading the third member of a melodic sequence of falling fourths $f\sharp^2$ - $c\sharp^2$, d^2 - a^1 , b^1 –, the repeated neighbour-note motif in mm. 13–14 rather implies a further, delayed and as it turns out inhibited skip downwards – keeping to the melodic sequence, a soprano g^1 had been due in m. 14. Turning to the hard facts in the score, the B-minor six-four chord in m. 15 has no b^1 , just as the following $F\sharp$ -major seventh-chord lacks an $a\sharp^1$; what this bar in fact does bring is a tenor b falling to $a\sharp$.

Thus, there is simply no inner-to-upper-voice motion from b^1 back to d^2 within the six-four chord as shown in Ex. 1c; the truth is that we arrive

at d^2 after two top-voice motivic efforts that unexpectedly issue into a skip upwards from b^1 , efforts supported by three re-modulating harmonic shifts in mm. 13–14 brought by the rising bass as shown in Ex. 1a.

The net result of Salzer's reduction of mm. 9–16 is that it annihilates the sense of harmonic break-out-followed-by-return, a crucial feature of the waltz. But according to Schenkerian theory this the-*tonic-is-never-left* reading is most laudable.

I have dwelled upon some details of Salzer's reading since they represent Schenkerian analytic routine at its worst. If you want to understand a piece of music, the primary obligation is to be extremely restrictive and cautious with any manipulations of the text. Disregarding, disrespecting, what Schubert actually wrote, Salzer's analysis forces the music to exhibit the kind of unifying tonal structure that Schenkerian theory demands, the *Ursatz* that simply has to be there unless the waltz is tonally deficient.

But hasn't Schubert supplied any upper-line continuity in the second part of the waltz? Yes, he certainly has, but his way of doing so is resolutely discarded in the reduction. Whether his tonal manners are too straightforward to deserve Schenkerian attention or sophisticated enough to escape it, is hard to tell. The d^2 in m. 8 and the d^2 in m. 15 *are* connected, but the connection is brought about by a motion along the B-minor triad, a motion that almost demonstratively comes to the fore at the most accented positions.⁷ The third degree visits its upper and lower triad neighbours, and its final reappearance in m. 15 is urged by the stuttering motivic repetition in mm. 13–14. But as the great composer he was, Schubert provided for non-continuity as well. The $f\sharp^2$ in m. 9 unmistakably opens up an expanded tonal space, and from this point the lower neighbour-note motif pervading the entire piece issues into falling fourths, in contrast to the stepwise motions prevailing in the first part of the waltz. But actual discontinuity is discarded along with actual continuity in Salzer's all-loss-no-gain reading.

It is a mystery that an analytic theory, that ultimately and essentially aims at de-individuation, and that is obviously very successful in this respect, can lay claims to be vitally important for grasping the tonal meaning

7 In a sense, it is this motion that keeps the waltz within the tonic, not the harmonic process.

of individual pieces, even extended and complex masterpieces. But how can Schenkerian analysis do justice to large compositions if it cannot even cope with small ones like this waltz without distorting it? Music works do not exist to be read against the grain and then serve as evidence for the validity of a set of theoretic preconceptions. Theory, including reductive analysis, should be at disposal as a humble tool to understand music works.

A bottom/up reduction of the waltz

Let's now study how a series of defensible reductions leads towards the fundamental structure. Small-size notes in this bottom/up, evidence-before-conclusion amendment of Salzer's analysis indicate events that are to disappear at the next layer; slurs connect notes that for various reasons belong together. Continuous or hatched ties are used to indicate pitches that are or may be heard as reactivated, and that therefore in retrospect *may* be thought of as having been, not necessarily "prolonged", but retained, latently present all the time.

Disregarding inessential parallel motions in the right hand and passive inner voices, we arrive at the foreground, replete with neighbour-notes, passing-notes, and appoggiaturas; cf. Ex. 3a. A number of these quasi-ornamental notes will be omitted at the next stage of the reductive process, and so will some less important inner-voice motions.

The middleground 3b features two higher-order neighbour-note motions in the first part of the waltz, and two falling fourths plus a cadence with a conventional appoggiatura cliché in the second part. (Alternatively, understanding the dissonances in mm. 2 and 3 of Ex. 3a not as appoggiaturas, but as neighbour-notes, mm. 1–4 may emerge as a double-neighbour, first-e²-then-c^{#2} motion.) Of the two remaining chromatic left-hand motions in the second part, pushing the harmonic progression forwards, only the lower one – apparently reaching its goal f[#] – will be kept (as a diatonic motion) at the next layer. Other details to be omitted are the applied-dominant bass-notes tonicizing D major in m. 8 and (quite transiently) E minor in m. 14.

Turning to the background 3c, the first part of the waltz now shows its deepest neighbour-note configuration, which is supported by a harmonic

motion to the dominant. The second part exhibits a falling-triad motion bringing the treble down from $f\sharp^2$ to b^1 , and it is closed by a complete cadence made up of the subdominant and a six-four cliché representing the dominant. The background also shows a treble note d^2 , possibly heard as retained from its B-minor point of departure to its D-major re-interpretation, and from there on via the triad motion to its late manifestation as an appoggiatura, eventually giving in to $c\sharp^2$ supported by the dominant. From a harmonic point of view, a central relative-major passage emerges; the dominant in m. 4 turns out to have a dividing function within the initial tonic. While belonging to the final cadence, the subdominant in m. 14 also serves as a passing chord within the bass motion towards the dominant.

The *Ursatz* spanning the entire waltz consists of a I–III–V–I fundamental harmonic progression (*Baßbrechung*) and a falling structural upper-line descent (*Urlinie*) from the third degree to the first, a motion in which the initial treble note is redefined from third degree over the tonic to first degree over the relative major.

This revised analysis shows that the waltz is an “organic” whole made up of a fundamental cadence recursively prolonged by means of harmony and voice leading. It also shows that the waltz *can* be read reductively in a defensible way and so as to lay bare an *Ursatz*; this time a theoretically acceptable, “tonal structure” has been established by means of piecemeal reductions, proceeding bottom/up and without forcing the musical facts. And yet even this amended reduction may be contested in the sense that there are alternative ways of conceiving the musical process, alternative and patently non-Schenkerian readings that do just as good, or perhaps even better, justice to our musical intuitions.

Schumann’s *Albumblatt*: a preliminary musical description

We will return to Schubert’s waltz, but only after having gained some fresh ideas (and some courage) from the study of another short piece, the F \sharp -minor *Albumblatt* Op. 99, No. 4 by Robert Schumann; cf. Ex. 4. It has been chosen, not because it seems intractable when subjected to Schenkerian analysis, but because it invites to, indeed demands, a less standardized reductive approach.

In order to make a worthwhile reduction thorough familiarity with the music is indispensable, so we will start by taking a careful “listening look” for properties that might be pertinent for analysis – and the Schenkerian hierarchy of reductive criteria aside, which properties aren’t pertinent if one wants to do a good job? The following inventory of important traits will also show what we can find out about a piece of music without making any reduction of it. After all, reductive analysis is perhaps no more, should perhaps be no more, than an optional, hierarchically ordered way of presenting musical insights that are accessible anyhow?

Formally, the piece is basically an 8+8+8 bar ABA¹ structure, in which the framing A and A¹ sections are subdivided into four-bar phrases; the B section has a 2+2+4 bar construction. Too square to be of much interest, this basic description must be complemented by a demonstration of how various features of the music contribute to the ambiguous and highly individual form of the piece, of how the conventional ABA¹ design is transformed by melodic, harmonic, and rhythmic means into an elusive little masterpiece.

Considering the brevity of the piece, the B section, taking us from A major to C# minor, describes a quite bold but also carefully balanced tension-release curve, in which the final and decisive four-bar phrase is preceded by two insufficient, abandoned two-bar efforts. These two-bar phrases issue in C# minor as well, but they do so in harmonically unstable ways that accumulate tension. The second- and then first-inversion C#-minor chords perceptibly expand the tonal space by means of a contrary motion between the top voice (e² to g#²) and the bass (g# to e). The third, eventually successful thrust increases the tension even more by adding an element of insistence. Preceded by an anticipation, the A-major point of departure is firmly restated at accented position in m. 14, and when the first-inversion C#-minor chord turns up again, it sounds even more unstable since it is highlighted as a syncopation. Then the rhythmic activity dissipates and gives way for a very calm cadence issuing into the most stable c#²-over c# configuration of the target chord. It is hardly controversial to hold that this struggle to reach and eventually establish C# minor is the culmination and core of the piece.

Turning to the A sections, they bring a tonal process as well, but before presenting it a rhythmic/harmonic detail must first be discussed. In mm. 4 and 20, eighth-notes are appended after the main downbeats. These

last-moment falling inflections make up essential parts of their melodic phrases – the pianist must be careful not to give an impression that the eighth-notes are upbeats – and they are vitally important for the rhythmic continuity of the A sections and for the form of the piece. Take them away (together with their counterparts in mm. 10 and 12 if you want to be consistent) and the result will be disastrous: the many catalectic endings break up the piece into a succession of separate melodic phrases.

It should be observed, however, that mm. 4 and 20 are not quite analogous. The appended e^1 in m. 20 cannot destabilize the perfect melodic cadence on the local A-major tonic note a^1 whereas the added $f\sharp^1$ in m. 4 brings the delayed tonic note, a fact that retroactively undermines the accented third-degree a^1 of the $F\sharp$ -minor cadence, already somewhat unstable. Considering the cadences of the piece, what happens in the A section is that the unstable a^1 -over- $F\sharp$ -minor in m. 4 is replaced by the stability of a^1 -over-A-major in m. 8: the $F\sharp$ -minor third degree is stabilized by the harmonic shift from the tonic to its relative major. In the A^1 section, bringing the music back to the tonic, both phrases issue into accented and stable A-major and $F\sharp$ -minor chords, respectively.

That the piece describes a symmetric ABA^1 form has already been established. But if we take account of the points of harmonic departure and arrival for each phrase – they all start from $c\sharp^2$ in the treble – a chiasmic form comes to the fore. It can be written as $X Y zz^1Z^1 Y^1 X^1$, where X refers to phrases staying within $F\sharp$ minor, Y stands for phrases issuing into A major, and z and Z indicate two- and four-bar phrases leading from A major to $C\sharp$ minor. Whereas the B section is framed by two A sections, the central zz^1Z^1 episode is doubly enclosed: it takes two harmonic moves to approach it, and two to leave it.

The deviating start of the Y^1 phrase (i.e. the A^1 section) warrants detailed comments. After the syncopated climax in m. 14 and the subsequent retreat into foreign $C\sharp$ -minor tonal territory in m. 16, many listeners will no doubt experience mm. 17–18 as the most alien and most intensely poetic moment in the piece. This impression is due to a stroke of genius amounting to a kind of musical puzzle picture. The falling-second motif (c) in mm. 17–18 is actually the same as heard twice before in the A section, and melodically we are therefore back in track again – as we will notice when

m. 19, identical with m. 7, turns up and the enchantment is over. But the motivic recurrence is most effectively concealed by the re-harmonization, and by the fact that there are no accompanying neighbour-note motifs (a) in the alto and tenor voices. The start of the recapitulation is disguised and emerges as the breathless turning point of the piece.

The inherently ambiguous diminished seventh-chord in m. 17 and the poignant suspension of its B-minor target chord make up a separate harmonic unit, unrelated to the preceding C#-minor auxiliary tonic in m. 16 as well as to the B-major applied-dominant seventh-chord following in m. 19. Immediately juxtaposed to C#-minor, mm. 17–18 offers a glimpse of a B-minor world, parallel to the F#-minor one beginning the piece.

It should be pointed out that the difference between mm. 1–2 and 17–18 is not just a matter of harmonic content; due to the harmonic difference, the rhythmic properties are subtly changed. The rhythmic relationship between the F#-minor m. 1 and the D-major submediant sonority in m. 2 is trochaic and has an expansive, opening quality urged by the harmonic shift and by the dotted rhythm of motif (a). Its transformed counterpart in mm. 17–18 brings a harmonic arrival, making for a iamb: the two diminished-seventh chords (retrospectively understood as F#-major applied dominants) emerge as dragging upbeats to the B-minor chord.

The deviant harmonic content of mm. 17–18 brings important consequences for the formal structure of the *Albumblatt*. Whether thought of as a framing ABA¹ or a chiasmic X Y zz¹Z¹ Y¹ X¹ form, the piece gets an additional touch of asymmetry. The moment of return is evasive. You may take it to happen in m. 17, or you may notice it only in m. 19 – in the latter case it emerges either as an unexpected entry into a familiar phrase already in progress, or as a retrospective sign referring to a return discovered too late. Anyway, the formal design of the piece becomes ambiguous.

The fact that the return is concealed, and that the top note is retained in mm. 16–17, gives rise to a sense of continuity across the boundary after the C#-minor cadence, a continuity suggesting that the piece has a coexisting rather than competing asymmetric formal layout featuring an extended twelve-bar central episode ranging between the two identical A-major cadences in mm. 8 and 20, a central episode encapsulating the C#-minor cadence. Thus, along with the regular (4+4)+8+(4+4) scheme, there is a further formal configuration with the morphological lengths (4+4)+(8+4)+4.

Indeed, yet another organization may present itself, a layout featuring F#-minor frames and an even more extended core section comprising sixteen bars and bringing the entire harmonic excursion: 4+(4+12)+4.

The falling four-bar melodic motions issuing from c#² and the related descent from g#² in mm. 14–16 make for unity in the piece, but it is important to point out, and to hear, that this unification is not only a matter of association: it is also driven by the fact that full closure is withheld until the very end of the piece. If we take the falling gesture from c#² to f#¹ presented in mm. 1–4 to be an important feature of the music – and as you listen along this will be quite apparent – Schumann’s strategy is obviously to postpone a satisfactory completion of this descent. The first phrase deceptively returns to an accented a¹, relegating the expected target note f#¹ out of metric focus, while the cadence in m. 8 establishes the halfway a¹ as the goal of the second phrase. This is also what happens in m. 20 where the appended drop to e¹ reminds us of the original project, as it were. Only the final phrase brings an unequivocal melodic cadence all the way down to a rhythmically stable f#¹.

Adopting the terminology of Leonard B. Meyer, the piece is spanned by an “implication” that is “realized” evasively three times and thus remains in our minds, until the fourth attempt eventually satisfies our expectations and our demand for closure. As to the B section, a generative rising gesture is cumulatively repeated three times before the gap is closed by a complete descent along the scale from g#² to c#².

The two-bar phrases of the B section seem to offer a new, contrasting melodic idea. But it is neither difficult to see nor to hear, that they in fact bring a (slightly varied) combination of the alto neighbour-note motif (a) from m. 1 and the falling-third motif (b) from m. 4. Another, and more consequential, way of deriving this motivic affinity is to notice that the “new” melodic idea is inherent already in mm. 1–2: crossing the actual melodic strands, the neighbour-note motion in the alto voice can be directly connected to the falling-second motion of the soprano in m. 2, thus supplying the skip needed to bring together the (a) and (b) particles of the “new” (a+b) motif starting the B part.⁸ This makes for an inherent, gap-to-be-filled-in melodic

8 There is nothing suspicious in this crossing of actual strands. Demonstrating thematic relationships/affinities and tracing inventions of a creative mind – or

gesture also in mm. 1–4, for an alternative melodic content in the initial phrase coexisting with the falling fifth from $c\sharp^2$ exposed in the soprano. The importance of this complementary line is underscored by the fact that it is shadowed a sixth below in the tenor; as shown by the $a-c\sharp^1$ slur, motif (a) is to be connected to the (filled-in) motif (b).

Thus, the initial formal unit of the piece turns out to be ambiguous in terms of motivic content whereas the piece as a whole emerges as even more integrated. Moreover, if the thematic relationship between the A and B sections is taken into account, the implicative force driving the melodic process of the piece will be considerably increased – a rising gesture giving rise to a gap arouses more acute expectations than merely a passive falling motion along the scale. This may explain the need for immediate expansion felt after the repeat sign: the rising-third skip in mm. 9–10 is appreciably smaller than the previous alto-soprano rising-fifth leaps, and the original size of the gap demands to be restored. And restoring the original, but hidden gap/fill motion, comprising a fifth, as well as the original four-bar format is what mm. 11–12 and then mm. 13–16 emphatically achieve, a fact that contributes to the sense of culmination.

As pointed out above, another – contrary – effect of the hidden presence already in the A section of the “new” motif primarily associated with the B section is that the element of contrast within the piece emerges as substantially diminished. One should therefore be cautious not to bring out the subsurface affinity between mm. 1–2 and 9–10 too clearly when playing – the music might sound overly repetitious. However, starting the melody of the piece from $f\sharp^1$ in m. 1 might entail some gains as well. The middle section will turn out to be an expanded and intensified, raised-in-pitch ready-steady-go version of mm. 1–4, and the absence of any rising-gap motion in mm. 17–18 will put this deviating passage in even greater relief and contribute to the evasive quality of the formal return.

just searching for options of melodic expression when playing a piece of music – must be distinguished from the Schenkerian business of establishing the true, inherent voice leading as opposed to the motions actually to be seen in the score and heard in the music, and it has other criteria for what counts as convincing findings.

Closing this section on what there is to be heard in, and to be taken analytic account of, in the *Albumblatt*, it should once more be pointed out that the very essence of the piece is to be found in the insistent efforts to reach foreign tonal territory, and in the way in which the C#-minor goal suddenly evaporates by being immediately followed by a magically transformed formal return. Whereas m. 2 has a sense of sanguine release – a quality to be found in mm. 6, 10, 12, 14, and 22 as well – the dissonant harmonic arrival in m. 18 brings a moment of deep sadness, as if the music already knew that the wide horizons opening up in m. 17 will lead back to “m. 7”. Comparing mm. 2 and 18, Schumann seems to have composed the truth that you do not leave and come back over the same doorstep. There may be elements of profound dialectics involved in this piece, a complex set of meanings that it would take a Subotnick (and some hundred deconstructive pages) to fully disentangle.⁹

Some attempts to make reductive sense of the *Albumblatt*

What sense can be made of Schumann’s *Albumblatt* by means of reduction, whether Schenkerian “tonal” analysis or reduction of some other kind?

In order to arrive at a handy foreground, we will begin by disposing of all obviously non-structural notes and by indicating the relationships between the remaining ones; cf. Ex. 5a. It is as easy to see from this two-voice reduction as it is to hear that the piece is obsessed with the note c#: subjecting it to various tonal redefinitions, making repeated descents from it in the outer sections, and dwelling upon it in the middle section, first as a point of departure for three excursions upwards and eventually in m. 16 as a point of rest.¹⁰

Adopting a Schenkerian perspective, it appears that the piece is repeatedly based on structural upper-line descents from the fifth degree; Ex. 5b.

9 Cf. Rose Rosengard Subotnick, “How Could Chopin’s A-Major Prelude Be Deconstructed?”, pp. 39–147 in *Deconstructive Variations*, Minneapolis 1966, University of Minnesota Press, and Bengt Edlund, “How could analysis be deconstructed by the A-major Prelude”, ch. 5 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag.

10 The tonal layout of this *Albumblatt* is in some ways akin to that of *Träumerei*; cf. Bengt Edlund, “Tonal structure and structure as content. On the interpretation of Schumann’s *Träumerei*”.

The melody can be read as four descents from $c^{\sharp 2}$, of which the second and the third fail to arrive at the tonic note. The second descent, veering off into A major and making a halt at the third degree, brings an incomplete fundamental structure, and so does the composite descent in mm. 9–20 forming a central tonal unit set in A major. But it is a strange unit indeed since most of the time it prepares for a broad internal C^{\sharp} -minor cadence having its own descending-fifth *Urlinie*, an intervening cadence that the ruling A-major tonality is at great pains to accommodate. Likewise, to think of the $e^2-g^{\sharp 2}-g^{\sharp 2}-f^{\sharp 2}-e^2-d^{\sharp 2}-c^{\sharp 2}$ melodic contour in mm. 9–16 as a merely a “covering” line, amounts to a very bad description.

If you allow the strongly articulated C^{\sharp} -minor chord to be included in the bass progression of the central A-major unit, its harmonic content (I–iii–ii–I) emerges as quite un-Schenkerian, and so does the i–III–i framework of the whole piece. Furthermore, Ex. 5b is likely to appear unsatisfactory from a Schenkerian point of view since the tonal process emerges as fragmented – the graph does not show any comprehensive upper-line descent, any overall cadence, any imperative tonal unity. (See below)

But if we apply Leonard B. Meyer’s concept of implication, the series of descending fragments makes for a strong continuity; Ex. 5c. The graph is based on the idea that there are two complementary thematic ideas already in the first phrase: in addition to the falling soprano melody, there is also a hidden alto/soprano strand, a gap-fill gesture anticipating the melody of the middle section.¹¹

The first gap $f^{\sharp 1}-c^{\sharp 2}$ is not perfectly closed due to the late, offbeat arrival of $f^{\sharp 1}$ in m. 4, whereas the realization within the second phrase is incomplete since it ends prematurely on a^1 , and since the sudden A-major turn of events makes for a sense of harmonic deception. The middle section comes up with a complex and extended gap-fill configuration, comprising three cumulative rising skips from c^2 followed by a calm, and yet quite emphatic falling fifth back to the point of departure. But as an attempt to reach down to $f^{\sharp 1}$ it comes to nil, of course – for all its sense of closure, the

11 It should be pointed out that a set of implications spanning the piece is present even without the gap/fill idea; falling diatonic lines are implicative in their own right.

B section amounts to a long deflection. The cadence in m. 20 associates back to that of the second phrase, but the situation in mm. 17–20 is more open due to the initial harmonic alienation of the top note, the lack of a rising implicative gap issuing from the alto, the intervening tonicization of the B-minor chord, and the unexpected final drop down to e¹. Only the final phrase, featuring a complete descent down to the anticipated and accented tonic note, offers a fully accomplished realization of the expectation aroused by the first phrase.

This digression into implicational analysis illustrates the fact that unity may sometimes be readily explained if we take account of the evolving flow of the music rather rely on its assumed hierarchical structure. The actual melodic process makes up a valid alternative to the idea of a unifying fundamental upper line in Schenkerian terms; indeed, the implicational reading suggests a more convincing coherence.

If you want to pursue the Schenkerian reduction of the piece, you must search for an all-inclusive structure that can overcome the sequence of local *quasi-Ursätze* presented in Ex. 5b. Reconsidering the diminutions of the actual music (Ex. 5a), a more promising middleground might come to the fore; Ex. 6a. Four falling progressions from c^{#2} frame the central melodic arch, starting from c^{#2} as third degree over A major in m. 9 and ending with c^{#2} as first degree over C[#] minor in m. 16. The bass clearly indicates the various harmonic goals of the piece – the only irregularity being the B-minor subdominant in m. 18 providing a stepwise root connection between the goals of the third and the fourth phrase.

If we disregard the local upper-line descents so as to get an overview, if we select just the starting and closing notes of each melodic phrase and join the five units so as to form three larger ones headed by i, III, and i, respectively, a plausible background will emerge; Ex. 6b. But from a Schenkerian point of view this graph is again unsatisfactory. There is no hint as to what the encompassing, decisive upper-line descent might be, nor is there any permissible overall harmonic scheme in sight – no structural dominant has emerged, and the relative-major III chord, however large a part of the piece it frames, is theoretically out of the question as a stand-in. In short, although the essential C[#]-major outlet is suppressed, this background still does not suggest what the unifying *Ursatz* will be.

This malformed background must therefore be rectified, and it is not difficult to see what to do. The bottom/up (i.e. beginning-towards-end) approach must be abandoned: the tonal tendencies of all passages but the last must be retroactively discarded in favour of a top-down perspective predicated on final closure; the descending fifth of the last phrase must be given priority and so must the complete cadence supporting it.

The resulting wall-to-wall *Ursatz*, together with some remaining traces of the wonderful but wasted harmonic drift of Schumann's music, is to be seen in Ex. 6c. The fifth-degree $c\sharp^2$ in m. 1 is simply retained as *Kopftön* until it is released in the final phrase. As is common and accepted in Schenkerian theory, the third and second degree are accommodated within the six-four formula; although being a dissonance and hence by rights non-structural, the a^1 in m. 23 is elevated to structural status since there has to be a third degree in a diatonically complete *Urlinie*.

Unfortunately, the Protean tonal qualities of the crucial note $c\sharp^2$ are obliterated in this Schenkerian reading. It seems that the encompassing implication-realization scheme brought out in Ex. 5c is a far better explanation of both the impression of a "prolonged" $c\sharp^2$ and the crucial importance of the final descent.

The main drawback with Ex. 6c, however, is that the chiasmic harmonic layout of the work – i.e. the diversion into A major, from there to $C\sharp$ minor (the core event of the piece) and back again via A major – is very poorly reflected. No matter how decisive it is for the experience of the *Albumblatt*, the harmonic excursion making up its musical essence is relegated to secondary status as merely a prolongation, as a swelling within the tonic introduced in m. 1 and prevailing until m. 22. Whereas this reduction certainly brings out the ultimate tonal rule of a framing standard cadence, it does not match up to the significance of the harmonic drift that is unique to the piece. We simply do not experience (or even retroactively think of) this harmonic expansion as being engulfed by the initial tonic, nor do we take the final closing harmonic cadence for the main structural event in the music.

The alternative *Ursatz* shown in Ex. 6d, taking high-level account of the subdominant turning point in m. 18, is not quite as heavy at the back. But most of the huge and improbable prolongation of the tonic is still there, and the disparate harmonic territory of a prolonged subdominant

is impossible to defend – this local resolving chord is made to encapsulate the ensuing A-major cadence as well as the return of the F#-minor tonic.

The *Ursatz* that must be accepted – Ex. 6c – commands a high price in terms of obliterated musical understanding, and yet this never-actually-modulating nesting of A major within F# minor, and of C# minor within A major, to form a most implausible prolongation of the tonic is likely to be praised by the faithful since it demonstrates the power of the theory to iron out compositional wrinkles. What this Schenkerian reduction has in fact achieved is that the essential tonal process of the *Albumblatt*, a process patently supported by the music's form, has been kept out of its fundamental structure, a structure where everything that is considered to be truly structural happens in the final phrase. A Pyrrhic victory.

Musically, then, Ex. 6c is a failure; rather than being a “good comparison”, it makes up a most trivial account. For what does this analysis suggest? Does it somehow explain the tonal boldness of the piece? This *Albumblatt* is no doubt very good composing on Schumann's part, but isn't it a strange theory that must resort to analytic inadequacy in order to cope with tonal boldness, that can (at best) indirectly capture feats of original creativity? Schumann has “decentered” the standard cadence as a unifying device; the Schenkerian reading has reinstated it by marginalizing Schumann's tonal layout. Originality is not a property that emerges readily when it has to assert itself against an analytic theory that is basically and heavy-handedly normative, that transforms or assimilates deviating traits rather than runs the risk of letting them modify its premises,¹² that makes its adherents walk along an entire piece with the left shoe on the right foot.

But why not apply reduction in a way that takes account of the unique features of the piece? Why not try to bring out its musically essential traits by putting them into focus, instead of relegating them to the margins as by-products or entirely suppressing them as abnormalities? Is there perhaps a “focal” structure that does the *Albumblatt* more justice?

Letting the music influence the theory instead of the other way around, we must take a step back in the reductive process in order to derive another,

12 Eugene Narmour, *Beyond Schenkerism*, University of Chicago Press 1977, particularly chapter 4.

slightly and yet crucially different middleground; cf. Ex. 7a. According to this reading, the repeated points of departure in the treble make up a structural “drone” on $c\sharp^2$, a note whose tonal position is redefined during the course of the piece, and that initiates subordinate descents to the local, closing notes of each tonal unit in the piece; the eight-bar central unit features an internal top note ($g\sharp^2$), and does not really leave $c\sharp^2$. Together with the roots of the target chords of the units, the closing notes of the descents in the treble produce a series of rising, then falling octaves spanning the entire piece. In a nutshell, this middleground is not in the first place predicated on what happens in the treble, but on the harmonic process – as becomes a piece of Romantic music.

The background, shown in Ex. 7b, is very un-Schenkerian indeed: no encompassing structural upper-line descent along the scale, no overall standard cadence supported by root-position bass-notes, no strict counterpoint but blatant consecutive octaves. But this representation does take account of the most important tonal features of the piece: the insistence on $c\sharp^2$ and the tonal transformation of this note due to the harmonic drift, the symmetric and yet somewhat askew sequence of tonicized areas, i–III–v–III–i, and the peculiarity of its most moving passage – the way the fourth unit clings to the end of the third by means of the subdominant chord.

The very core of the piece, the resolution to $C\sharp$ minor, emerges as the junction of the upper drone and the rising sequence of thirds described by the roots of the target chords in the bass – “lines” converging to form an octave in m. 16, to create a moment of ultimate resolution. When retreating downwards, this framework touches the poignant turning point of the piece, the transiently tonicized B-minor subdominant. In this reduction, the truly singular and most expressive passage is still represented in the deep structure, standing out as a deviation from a quasi-symmetric and strikingly original tonal process. A graph of this “focal” kind might be helpful for a musician wanting to find the essence of the *Albumblatt*, whereas the Schenkerian “tonal” analysis asks him/her to pack up a bunch of events into a bursting initial tonic.¹³

13 For a study of another short piece that also calls for an unorthodox reductive treatment, cf. Bengt Edlund, “How could analysis be deconstructed by Chopin’s A-major Prelude?”, ch. 5 in *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag.

“Outer” form and “tonal” form; the problem of repeats

That “outer” form (i.e. form as currently understood) and “tonal” form in Schenkerian sense do not necessarily coincide has often been observed, and far from being regarded as a dilemma, this mismatch lies at the heart of Schenkerian analysis, taking a pride in arriving at descriptions that transcend or even contradict the outer form of the music works in order to establish their true, tonally conceived “inner” form. Whether such feats make up a constitutive virtue of Schenkerian analysis or an equally constitutive flaw is open to question, however.

The word “constitutive” is crucial since the Schenkerian notion of (tonal) form is predicated on harmony and voice leading, and since it is obvious that paying equal attention to other aspects of the musical design – aspects such as rhythm, motivic make-up, and formal articulation – and then assigning them equal status as reductive criteria, would bring about a fundamental change in “tonal” reduction. Schenkerian analysis is primarily pitch analysis, but since music is (at least) also a pitch-*time* structure, there must be some scope for varieties of reductive analysis that take account of temporal qualities, and that define musical salience in a comprehensive way – varieties of reductive analysis that it cannot just be considered ignorant or insolent to prefer.

The general lesson to be learnt from the attempt at a Schenkerian reading of the *Albumblatt* is that reductions grounded on preconceived notions as regards what makes up a permissible tonal form may mean that important formal *and* tonal properties of the music are neglected. And when comparing the Schenkerian reductions of the waltz and the *Albumblatt*, it is notable that the modulation to the relative major in the former piece is seamlessly integrated in the background structure, cf. Exs. 1c and 3d, whereas the more radical harmonic expansion in the latter work is kept out of the picture, cf. Ex. 6c – hence the need for an alternative “focal” reduction of Schumann’s piece, making room for its actual tonal form within its deep structure.

Such an alternative reading, bringing out its inherent tonal shift, should be devised for the waltz as well, because it seems that even Ex. 3d, the amended version of Salzer’s analysis, goes somewhat against the grain of the music as an emerging tonal process. More specifically, there are two

aspects of the waltz that subtly militate against the account of it as a tonally unified whole, as a prolonged, monolithic B-minor cadence. But before dealing with these matters, and since the phenomenon of repeats will be touched upon, a short digression is necessary.

If there are repeats in the music to be analysed, the conflict between “outer” form and the Schenkerian notion of “tonal” form is increased: repeats imply an *origami*-like conception of musical form and presumably make for a corresponding experience of the music as well. Repeats are not just a nuisance if you want to establish “organic” tonal coherence, they do in fact cast doubts on the idea that encompassing and goal-oriented tonal progressions, like overall *Ursatz* cadences defining the tonic, make up such an important aspect of music as Schenkerian theory takes for granted. The following implicative poem, inspired by the Waltz Op. 18, No. 10 (as well as countless other double-repeat pieces) and making up the ultimate rhyme, illustrates the problem:

If evolving tonal coherence were really all that important,
if evolving tonal coherence were really all that important,
then it would be a strange practice to repeat both parts of the structure,
then it would be a strange practice to repeat both parts of the structure.

Turning to music listening, the first repeat of the waltz suspends the continuation, and it might be warranted by the fact that it heightens the sense of expectation. The second repeat is more difficult to justify – it means reiterating something that has already been disclosed (the harmonic expansion) as well as something that has already been closed (the final cadence). But what about analysis? Well, since repeats introduce an element of disruption, they are bound to affect reductive (as well as other kinds of) analysis. For this reason, analysts – or at least those among them who care about actual musical phenomena – should not forget to discuss the music both as performed with the repeats and as played without them.

This means that before dealing again with the waltz, I must briefly return to the *Albumblatt*, so far discussed without paying any attention to what happens when the music is repeated from m. 9. Bringing us once again from the relative major in m. 9 to the minor dominant in m. 16, it seems that the repeat underscores the modulation out of the tonic and even more makes this harmonic drift emerge as the core event of the piece. In short, the repeat supports the “focal” reduction. Turning to performance,

it might be a good idea to prepare the return to m. 9 by bringing out the alto-soprano rising gesture inherent in mm. 21–22; when closing the piece, on the other hand, the descending upper line of the last phrase should be allowed to dominate.

Revisiting Schubert's waltz

As very often, indeed typically, happens in Schenkerian reductions, the “structural” dominant turns up very late in Schubert's waltz – it must do so, since being the penultimate chord of the *Ursatz*, the chord leading to the final tonic, it has to be very close to the end. And turning to this Schubert waltz, the dominant in m. 15 does emerge as an important event since its root is the end point of a rising bass motion, and since the subdominant (preceded by its applied dominant) signals that a cadence rounding off the period is under way, a fact that is then confirmed by the six-four appoggiatura chord lending importance to the second-degree resolution on $c\sharp^2$. And yet, however tonally decisive the penultimate event is according to Schenkerian theory, the dominant in m. 15 is first and foremost a local matter.

Listening to the waltz as a process running from beginning to end – i.e. refraining from looking top-down at the music as if it were a timeless object – the dominant in m. 15 emerges as less important than the one in m. 4, a chord that, understood as merely a root-supported neighbour-note, did not survive in the amended Schenkerian reduction; cf. Ex. 3. But considering the fact that this half-cadence emerges as a (temporary) goal in its own right, and especially the fact that the music starts anew in m. 5, the neighbour-note description does not seem to be very apt. A neighbour-note motion is by definition a small-scale voice-leading motion, and it does not explain very much when inflated to cover formats beyond its reasonable conceptual reach. Looking/listening bottom/up, the “neighbour-note” chord in m. 4 emerges as a high-level, form-building event; this dominant has a dividing function, and it belongs to a reductive layer where “prolongation” has turned into structure.

This is a point that deserves to be brought out and generalized. Unwarranted transfer of structural concepts to hierarchical levels where they no longer apply is an inherent weakness in Schenkerian analysis. As ever more encompassing connections are shown within ever larger formats,

the remaining, and actually very sparse, events seem more and more condensed, which implies that emerging high-level connections may mistakenly be thought of as equivalent to motions that belong to and primarily make sense as note-to-note relationships.

This is the reason why you can never check that a reduction is adequate by playing or imagining the selected events forming the higher layers as if they were a piece of music. The impression of a correct (but dull) music is an illusion since the notes actually giving substance to the superordinate tonal connections have been removed – the music you play or imagine does not really exist. Besides, ever greater normality and correctness as you proceed to ever deeper backgrounds is just what is to be expected in Schenkerian analysis since a primary consideration when selecting the events is to recursively “discover” – to give precedence to or even to produce – acknowledged models of small-scale tonal counterpoint.¹⁴ The fact that the outcome of such a *Satzprobe* is passable, does not imply that the reductive decisions giving rise to the tonal connections are unexceptionable or the only possible ones.

The discontent with Salzer’s Schenkerian reduction of the waltz (cf. Ex. 1 a/c) as well as with the amendment of it (cf. Exs. 3 a/d) derives from a feeling that the “inner”, “tonal” form of the music does not quite match its “outer” harmonic organization. We might therefore try to arrive at the tonal form of Schubert’s piece through its emerging outer form – which may be as rewarding as establishing its tonal form in spite of its outer form.

What we hear in the first part of the waltz is a four-bar phrase issuing into the dominant, followed by a parallel phrase settling on the relative major. Starting from and raising the top note of this D-major platform, a double-size unit then brings the piece to its end on the B-minor tonic.

14 The problem of undue transfer applies also to the concept of ‘fundamental structure’. Turning back for a moment to Schumann’s *Albumblatt*, the *Ursatz* works much better as a description of its first phrase than it does as a unifying scheme for the entire piece. The first phrase is a syntactic unit comparable to a clause in language whereas the whole piece makes up a complete utterance governed by additional, non-syntactic rules; cf. “Syntactic vs. rhetoric structure in music”, ch. 7 in this volume.

The second part of the waltz starts from $f\sharp^2$, and it is held together by a triad arpeggiation at accented positions in the treble and eventually by the ascending bass motion. The triad motion lends prominence to the d^2 in m. 15 rather than to the following resolution note $c\sharp^2$. Needless to say, already this concession to salience disqualifies the analysis from a Schenkerian point of view. The second degree cannot be missing in an *Urlinie*, and that the consonance in appoggiatura configurations must be retained at the expense of the accented dissonance is a basic (and yet from case to case debatable) rule in Schenkerian reduction.

In order to do justice to the nesting of triad formations in the treble, implicative arrows have been added in Ex. 8a. Some people are likely to consider such a reference to expectation as a contamination of tonal reduction, but it seems reasonable since, as has already been demonstrated, the upper-line continuity in the second part of the waltz is a matter of time-dependent relationships rather than of anything that Schenkerian analysis is able to come up with.

This picture of the tonal organization is compatible with playing the repeats. It is also realistic in terms of listening since the dominant in m. 4 is not forced by any as yet not materialized top/down tonal scheme to give in to the forthcoming “structural” dominant in m. 15. Indeed, whether it in fact ever gives in to this late event is an open question – according to Ex. 8a these two dominants belong to different substructures and have different functions. Schenkerian analysis is hardly the last word when it comes to music cognition.

This representation of the waltz features three “structural” progressions, and has a piecemeal, “concatenational” look that is quite un-Schenkerian. By refusing to connect these progressions with each other, or to let any of them subsume the others in order to show a single, encompassing and “unifying” tonal progression, Ex. 8a reflects two closely associated and patently un-Schenkerian notions. Music is not always and exclusively monolithic, and when it comes to actual listening, beginnings are not unconditionally dominated by ends.

However, if one plays and listens to the waltz without repeats, it is possible to arrive at an alternative reduction that is more in line with Schenkerian theory, and that discloses a tonal form at odds with the outer form; cf. Ex. 8b. According to this reading, the piece starts with a four-bar

incomplete fundamental structure, interrupted at the dominant. Then follows a renewed and, as it turns out, quite extended effort that eventually, after twelve bars and a broad detour to the relative major, brings a complete *Ursatz*. In this second, completed fundamental structure the root-supported resolution note $c\sharp^2$ emerges as an essential event.

If you want to play the waltz with both repeats, it might be a good idea to begin by rendering its first part according to Ex. 8a, i.e. so as to suggest a high-level dividing function of the relative-major chord. But when playing the first repeat the second time, it is preferable to adopt Ex. 8b, making for a dividing dominant in m. 4 and for continuity across the double bar. For the repeat of the second part, Ex. 8a brings a sense of a fresh start.

As is generally, indeed typically, the case in Schenkerian analyses, the modulation taking place in the waltz is suppressed; cf. Salzer's reading (Exs. 1 a/c) and the amendment of it (Ex. 3 a/d). The D-major stage of the piece (although acknowledged as III in the bass arpeggiation) merely emerges as a halt in the motion towards the penultimate dominant, no matter its status as an auxiliary tonic before the double bar and as a point of departure after it, and no matter that this internal cadence is strongly supported by the outer form. But apart from demonstrating seamless tonal unity in the way that Schenkerian theory demands, nothing is gained in terms of musical understanding by letting the closing and starting functions of D major merge to form a III chord of unspecified, opaque musical significance within an all-embracing cadence.

Using this waltz as one of the examples, it has been shown that most listeners are not aware of, and care little about, whether or not the music finally brings them back to the tonic.¹⁵ But on the other hand, listeners do have keen ears for (and enjoy) when a new tonal centre is introduced, and even when a new chord is tonicized by, for instance, a preceding applied dominant as happens in mm. 7–8 of the Schubert waltz.

That a significant auxiliary tonic has been established in m. 8 is unmistakable – when you listen again to m. 1 after having heard the first part of

15 Cf. Bengt Edlund, "Tonics and returns. A modest investigation", ch. 8 in this volume; see also Nicholas Cook, "The Perception of Large-Scale Tonal Closure", *Music Perception* 5/1987), 197–205.

the waltz, you will no doubt notice that the tonal centre has been abruptly reset. Then, after the double bar, you will hear that the relative-major harmony just arrived at is also the point of departure for the new section, and this impression cannot but be confirmed when listening to m. 9 once again. And even if the repeats are omitted, most listeners are likely to notice that the D-major events around the double bar are marked for consciousness: D major certainly emerges as much more important than the inconspicuous F#-major “structural” dominant in m. 15 which, like the A-major applied dominant in m. 7, is just a member of a local cadence.

If we give in to these impressions (after all, they are not strikingly unmusical) the corresponding reduction might look like Ex. 9a. Instead of a structural dominant – the pillar upholding all truly Schenkerian fundamental progressions no matter how late in the music it turns up – this reduction features a structural relative-major chord, and the tonal process emerges as bisected into a first part coming to a relative rest when d^2 is tonicized, and a second part issuing from the activating $f\#^2$ and proceeding by means of a triad arpeggiation down to the tonic note. According to this reading, the penultimate dominant chord is considerably downgraded, and the $c\#^2$ in m. 15 is understood as a (consonant) passing-note.

Turning to the winding up of D major, it is not quite as smooth as shown in the amended version of Salzer’s analysis; cf. the middleground 3b. It is true that there are rising chromatic connections both in the tenor and in the bass, and especially a chromatic contrary motion making for a strong local continuity over the bar-line mm. 12/13. And yet, in spite of all tight voice leading, isn’t the domain of the B-minor tonic re-introduced with something like a bump? In fact, Schubert has juxtaposed two applied dominants. The D-major seventh-chord in m. 12 holds out the prospect of a further harmonic drift – G major or perhaps a slightly deceptive E minor is in the air – but it is actually followed by a first-inversion B-major chord providing a way to slip back into the tonic territory via its E-minor subdominant. The “smooth” shift is in fact furtively deceptive – a further modulation is cancelled – and involves a harmonic ellipsis. It is a pity that this subtle disruption, this exquisite concurrence of harmonic disappearance and resumption, does not show up in the Schenkerian reduction, but is treated as, explained away as, just a matter of chromatic voice leading.

Since there is no across-the-board reason to consider the experience of tonal discontinuity as a deplorable manifestation of musical non-understanding and incompetence, as a propensity to fragmentation so hopelessly inferior to the responsible no-modulation, single-progression Schenkerian view that it must be stigmatized, we will finally venture to catch the sense of a vanishing relative major by incorporating it into a reductive representation of the waltz. Exactly how this should be done is an open matter. The essential thing to be shown is the impression that the final complete B-minor cadence is already under its way when it turns up, and that it is unrelated both to the out-of-D-major passage immediately preceding it and to the B-minor start of the piece; cf. Ex. 9b. The “fundamental structure” of the four-bar resuming part of the waltz features an upper neighbour-note treble motion starting from and returning to the first degree, and includes an initial, fully structural subdominant chord as well as a conventional dominant appoggiatura.

This patently non-Schenkerian reading might be illuminative for performers since it discloses an option that might otherwise be neglected. It suggests that, for all voice-leading continuity, there is also a sense of discontinuity in the second part of the waltz that might be exploited to offer variety if used when playing mm. 9–16 the first, but not the second time.

Conclusion

Schubert’s sixteen-bar waltz as well as Schumann’s twenty-four-bar *Albumblatt* have given rise to several competing or coexisting reductions, reflecting different aspects of the music. Even tiny pieces may be rich enough to be structurally ambiguous, and in order to do justice to this richness analysis – including “tonal” analysis – must be flexible and unorthodox. Schenkerian analysis is quite distinctive in terms of its criteria of reduction and explanatory purpose as well as with respect to the fundamental structures it accepts. While Schenkerian theory lays claims to occupy a place apart among possible approaches to analysis, it cannot and should not be granted a monopoly at the expense of other approaches or even of other varieties of reduction, for instance reductions focussing on the unique properties of, and the time-dependent processes within, the music works subjected to study.

Chapter 7 Syntactic vs. rhetoric structure. Language, music, and tonal reduction

In what follows will be advanced an argument to the effect that a fundamental mistake may be involved when music is subjected to “tonal” reduction. The point is actually quite simple, but before presenting it, it is necessary to give a background, in language as well as in music. Then two examples, illustrating the analytical consequences of the criticism, will be thoroughly discussed.

Syntax and closure in language and music

It has over and over again been proposed that music is a kind of language, and it is hardly very controversial to use the expression “the language of music” in a metaphorical sense when suggesting that there is a general similarity between language and music, or when drawing attention to some trait in music that you think can be likened to some property in language. But if you want this worn-out phrase to be understood as an analogy, a deeper commitment is involved. There must be a number of substantial similarities between the two domains if the analogy is to produce any new insights – indeed, if it is to be credible as an analogy at all.

The relationship between language and music has often been discussed, and quite a few plausible parallelisms with respect to structure, production, and reception have been advanced, but there are differences as well, and they may be as interesting as the similarities. Fortunately, all these complex issues must not be dealt with here. It is sufficient for the present purpose if there are counterparts in music to such linguistic units as the clause, the sentence, and the paragraph (as well as further, even larger aggregates of sentences). And, granting the differences between language and music, this seems to be a defensible generalization.

In fact, this parallelism in terms of constituent structure has been observed for centuries, and music theory has profited from linguistic thinking, as can be seen from the transfer of metric and rhetoric notions from language to music. The term “period”, and the assumed applicability to

music of the concept that this word refers to, is a case in point. The period is particularly important in the present context since it is the most obvious and generally accepted point of juncture between language and music as far as the parallelism in terms of constituents is concerned. The paradigmatic eight-bar period in music is taken to correspond to the linguistic sentence, whereas the four-bar antecedent and consequent half-periods are regarded as equivalent to clauses. Needless to say, in music (as in language) periods (sentences) must not necessarily be bisected; thoughts are not.

The presence of such units in language and music implies, indeed presupposes, that language and music users have an internalized set of rules enabling them to infer the kind and size of the units they are dealing with, and telling them when the units are finished. To a competent listener, then, the segmentation within a compound sequence of speech or music is part and parcel of its formulation. But if you are unable to keep track of the constituents of a unit, and if you fail to notice and estimate the “weight” of the demarcations between them, you will assemble them incorrectly, and the meaning of the linguistic or musical message is likely to be lost or severely damaged.

Since correct handling of the constituents is a prerequisite for understanding, the intended make-up of written linguistic messages is clarified by punctuation marks. The main demarcation signs are the comma, the semicolon, the colon, and the period (the “full stop”), and learning how to write down what you want to say involves (among other things) developing a keen sense for the distinctions between the various punctuation marks and knowing how to use them accordingly.

Turning to music, there is no systematic use of demarcation signs. Indeed, since slurs and rests are also used for other purposes, it is doubtful whether, properly speaking, there are any punctuation marks in notation – excepting the fermata sign. This becomes apparent if you apply the linguistic punctuation signs, with all their syntactical connotations, to music: a constituent structure that may have seemed obscure will often become quite transparent. In fact, using punctuation marks amounts to a most productive method if you want to understand the relationships between musical units in order to arrive at a convincing interpretation.

In oral language, which is often quite irregular, the lack of punctuation marks is not a problem since we have prosodic and paralinguistic means to

compensate for their absence. Turning to music, the segmentation is also clarified when you play it, although when it comes to composed music there may be stylistic and other considerations regulating what the musicians are allowed to do. But syntactical clarification is not always called for – music, lacking continuous and precise semantic content, can tolerate a certain ambiguity in terms of constituent structure, and sometimes it even seems to ask for it. In what follows, however, the properties of language and music as spoken and performed, respectively, will be disregarded, confining the discussion to the linguistic and musical message as written.

Clauses and sentences in language and music

The rules regulating what counts as a clause, and how clauses can be assembled to form sentences, are laid down in the linguistic syntax. A clause must have a subject and a predicate to be complete, for instance, and if there is a transitive verb, there must also be an object. The status of the clauses within a sentence might be signalled by means of word order, and the correct way of relating the clauses to each other is indicated by means of various conjunctions. These few examples (valid for some, but not for all languages) must suffice as a reminder of the syntactic rules that people can use more or less to perfection when it comes to their own tongue.

Similarly, there are rules in music that determine the (relative) sense of closure inherent in musical “clauses”, and other rules adjusting these clauses to each other so as to form closed formulations, “sentences”. Just as there are many languages, there are many kinds of music, and consequently there should be several, more or less distinct, rule systems. Restricting this inquiry to the classical, in many ways paradigmatic, tonal repertory of Western music, there is a quite influential theory that purports to account for closure, as well as coherence and unity: Schenkerian theory.

An *Ursatz* is a very simple structure that is supposed to underlie all well-formed and tonally closed passages of music, ranging from periods to entire pieces. It is made up of the *Baßbrechung*, essentially describing a harmonic excursion from the tonic to the dominant and back to the tonic, and the *Urfinie*, a treble motion starting from the third, fifth or (on rare occasions) the eighth degree, and falling stepwise down to the first degree. Hence, the *Ursatz* amounts to an “authentic” root-position I–V–I cadence,

as expressed in basic, first-species counterpoint. Extended sections of music or entire works arise when this “fundamental structure” is recursively elaborated by harmonic progressions and voice-leading configurations, “prolonging” either the events of the *Ursatz* or the transitions between them. To begin with this happens in a contrapuntally strict way; when approaching the actual music, the prolongations are less restricted.

In addition to explaining musical closure, this prolongational hierarchy of tonal structures is believed to lend coherence as well as unity to the music under consideration.

Schenkerian theory bears an obvious resemblance to generative linguistics, studying how “deep structures” give rise to the “surface structures” met with in actual language as the former are extended by being subjected to recursive substitutions in certain regulated ways. This parallelism with Chomskyan linguistics, suggesting that Schenkerian theory provides a generative syntax for music, has made some music analysts, and also some cognitive psychologists interested in music, quite enthusiastic.¹

For the present purpose (and setting aside my own doubts about Schenkerian analysis) the idea will be accepted that, when it comes to tonally closed, medium-format musical units like the period, the *Ursatz* works as a kind of syntax, capturing some of the properties that make for closure. For one thing, like a set of syntactic rules, it discriminates between what can and what cannot happen within a well-formed structural unit. According to Schenkerian theory there may, for instance, appear an additional chord of deep structural significance between the initial tonic and the dominant of the *Ursatz*, but never between the dominant and the final tonic – apparently a rule making for late structural dominants.

1 The most widely cited application to music of principles deriving from generative linguistics, that of Lerdahl and Jackendoff, does not take Schenkerian theory as its point of departure – but eventually L&J arrive at results that are partly in consonance with it; cf. Fred Lerdahl and Ray Jackendoff, *A Generative Theory of Tonal Music*, Cambridge, Mass. 1983, MIT Press. Since then, Chomsky’s ideas have been criticized by many linguists. For a comparison between Schenkerian analysis and L&J’s “generative theory of tonal music”, cf. Bengt Edlund, “Is tonal music hierarchic? An impenitent sermon”, ch. 3 in this book.

Schenkerian theory can be, and has been, criticized on various grounds. It might, for example, be argued that alternatives to the few basic *Ursatz* models should be allowed. After all, these paradigmatic structures are normatively prescribed rather than empirically established, and it should be possible to achieve tonal closure in other ways. Schenker's approach to analysis, and indeed his mode of inquiry, was primarily top/down, and even when used as a method of analysis today, it frequently happens that thinking in terms of prolongations questionably replaces piecemeal, bottom/up reduction; clearly a habit that makes for forcing the facts. Furthermore, since music is actually a temporal sequence, the Schenkerian notion of music as a hierarchical structure may not come true when you listen. The recursive prolongations and ever-larger time-spans covered run the risk of becoming fixtures in a scheme that is only valid within a quasi-visual and static representation of the music.

These objections are of little concern in the present context, however. But there is another critical observation of greater pertinence since it actualizes a difference between linguistics and Schenkerian theory. In linguistics, the objects of analysis, and hence the empirical ground for advancing generalized syntactic rules, are specimens of ordinary written or spoken language. The extended, complex, and artful sentences that you may encounter in novels do not serve as the primary material for linguists, and even less would they consider constructing a system of generative rules on the basis of the very idiosyncratic use of language to be found in poetry.

It is for both historical/stylistic and structural reasons quite obvious that music, and not least the works belonging to the "classical" tonal repertory, should be likened to poetry. That music analysis in general is predicated on and predominantly deals with variously constrained and highly artistic "utterances" is defensible – after all, and unlike most uses of language, composing or improvising music is an aesthetic activity. But to the extent that Schenkerian theory is, or aspires to be, a syntax for tonal music, and considering that Schenkerian analysis takes a pride in explaining (German) Masterpieces, it must be kept in mind that the would-be musical counterpart to the linguists' "generative grammar" is based on the "poems" of Bach, Mozart, Beethoven, and Brahms.

Closure, unity, and coherence

Some readers may have noticed that three terms have been used in a somewhat fuzzy way. There is an excuse for this – in music (and no doubt in other domains as well) ‘closure’, ‘unity’, and ‘coherence’ are intimately related and partly intersecting phenomena – but nevertheless an attempt to disentangle these concepts should be made.

“Closure” is arguably the most crucial term in the present context since feeling a sense of closure is what makes us know that we have arrived at a “full stop”. But ‘closure’ is a relative phenomenon: whereas the period/sentence is characterized by full closure, lesser degrees of closure make for the demarcation of smaller units such as half-periods/clauses and phrases. It seems that the idea of the *Ursatz* has much to do with closure, but it is important to acknowledge that several factors beyond the hierarchy of prolongations may contribute to the sense of closure, and that, consequently, a “tonal” reduction made in order to establish the *Ursatz* of a certain musical passage or work does not capture all factors pertinent for closure.

In a tautological sense, “units” are the entities that result from demarcation; somewhat more specifically, a “unit” is a passage having first a beginning and then an end, and being characterized by some degree of closure. ‘Unity’ as a musical phenomenon is often predicated on some kind of constancy, such as iterated pitch configurations or a persisting rhythmic pattern, or on some kind of recurrence, say motifs turning up with some frequency, whether exactly replicated or in disguise. ‘Unity’ must therefore be distinguished from the notion of ‘units’. While closure may be an aspect of unity, the sources of unity are independent of those making for closure, and closure can be achieved in spite of lacking unity. It should be observed that whereas traits making for unity may help to keep a certain unit together, they might just as well give rise to associative networks transgressing the borders between units.

Coherence may contribute to the impression of closure – the coherence is of course weaker at points of demarcation – but most often “coherence” is used to refer to the fact that the music from moment to moment proceeds in a plausible, quasi-predictable way (which does not preclude contrasts) or that it has a perceptible sense of direction, say a sense of growth towards a goal. Another factor making for coherence is a pervading hierarchical

organization of the structure, at least to the extent that this organization is actually perceived. Units must necessarily exhibit some coherence, but coherence may also be a property that connects units across demarcations.

To sum up, ‘closure’ is a (relative) property that by definition is associated with units such as periods, and it seems that important (but not all) aspects of closure can be described in terms of a musical syntax. Keeping in mind the critical remarks advanced in the previous section, Schenkerian theory might amount to a theory of certain syntactic aspects of tonal closure. ‘Unity’ and ‘coherence’, on the other hand, are primarily aesthetic properties permeating the music irrespective of its units and demarcations, and it appears that the traits making for unity and coherence largely operate beyond the syntactic rules regulating tonal closure. They do not in the first place pertain to or serve the syntactic “tonal form” of the music, but belong to its rhetoric “tonal content”.

Tonal structure vs. tonal content

We will now turn to the simple point held out in prospect. When establishing rule systems describing syntactic properties, linguists analyse sentences, but not units beyond that size. Some linguists do take an interest in the structure of paragraphs and even larger aggregates of sentences, but it would not occur to them to apply once again the syntactic theory taken to be valid for sentences, and insist that it can do the job for the larger units as well. Linguists (and literature analysts) dealing with texts certainly pay respect to “full stops” when studying the structure of extended, compound utterances, but they adopt altogether different approaches when describing how large passages of language work. They know that the organization of (say) well-formulated paragraphs obeys other and less restricting, rhetorical rules than the construction of well-formed sentences.

Schenkerian analysts, on the other hand, are less judicious when dealing with their “paragraphs”, i.e. with larger, beyond-the-period specimens of music ranging all the way to entire pieces. They just recursively apply the *Ursatz* concept and its set of syntactic rules, that worked so well (they think) when capturing the closure of periods, to all larger units that seem to exhibit closure, irrespective of their size and the number of more or less subsumed constituents, until the entire musical “poem”, however epic its dimensions, is covered by a huge hierarchic tonal structure.

In practice, this often means that the first event of the ultimate giant *Ursatz* is taken from the local *Ursatz* starting the piece, and that this structural beginning is connected to the two remaining obligatory events of the overarching *Ursatz*, events that are recruited from the work's last *Ursatz*, which is as local as the initial one.² Whatever rhetoric weight the events between the “tonal” start and the “tonal” end may have, everything between the initial “structural” tonic and the final “structural” dominant-to-tonic progression is disposed of as “prolongations”, is suppressed in favour of the syntactically conceived “unity” of the whole.

This unwarranted extension of the musical syntax, this way of resolutely turning important elements of rhetoric content into subordinate matters within an imposed syntactic super-structure, may arguably be quite detrimental to our understanding of what goes on in the music, and it can only be explained (but not excused) by the top/down hierarchical approach that is characteristic of most Schenkerian analyses. If you study a music work from above, “full stops” are all too easily disregarded – and easily neglected or misrepresented in this pursuit (or enforcement) of ultimate closure are also the non-syntactic, rhetorical phenomena making for unity and coherence within and between units, whether small, large or global. And yet, beyond the allegedly privileged access to the source of syntactic closure in music, there is another, even more unwarranted pretension involved in Schenkerian theory: the claim that “tonal” analysis is privileged also when it comes to explaining matters of unity and coherence.

Whether you are interested in aspects of closure or unity/coherence, the remedy is obviously to work bottom/up, i.e. to take nothing for granted because you already “know” it – which easily happens when you work with scores. Instead you should discover and make sense of the events and relationships as they turn up during the musical process – a process that

2 This problem persists even when the composer underscores the closing gestures; indeed, the mismatch between the initiating and closing events of the fundamental structure may actually grow. The finale of Beethoven's Fifth Symphony, for instance, ends with an excess of tonic chords, but however much this overkill strengthens closure in rhetorical terms, it does not add to the overall syntactic closure. Besides, Schenkerian reduction, being a matter of tonal syntax and claiming that structural importance is independent of surface salience, is in principle immune to rhetorical emphasis – or lack of it.

is divided into units separated by unwritten, but perceivable punctuation marks that you should take a pride to respect and understand.

Since linguistic punctuation marks will be applied to music, the criteria for using them ought to be clarified, drawing upon our shared intuitions of what these signs imply and of how they should be used in writing. There may be slightly different conventions in various languages, but the following rules will hopefully not be controversial when it comes to applying these signs to music.

Commas are appropriate after units exhibiting a mixture of closure and non-closure; a further unit completing the thought is required. Full stops are due after units that are closed, complete, and independent; the following unit brings a new thought. The semicolon is typically used between constituents that are closed enough to stand alone, and yet so intimately linked in terms of thought content that a full stop would seem too separating. The colon, finally, is appropriate when a (usually syntactically complete) unit amounts to a more or less emphatic statement that demands a following unit bringing an enumeration or some kind of summary or conclusion.

It appears, then, that punctuation marks are used according both to the relative closure of the units involved and to the relative independence of the constituents in terms of thought content, and it will be assumed that equivalent situations can be found in music.

Two short and quite well-known pieces, exemplifying different syntactic organizations, are chosen to illustrate what happens when you respect “full stops”, work bottom/up, and go for aspects of “rhetorical content”, and what happens if you don’t, i.e. if you keep to top/down “tonal structure”, if you “Schenkerize” the music.

For each piece, four different accounts will be given. First comes a preliminary, treble-plus-bass foreground version of the music. This simplified arrangement is provided with harmonic symbols and punctuation signs; some motifs of relevance for the analysis to be proposed are also marked. Then follows a Schenkerian reduction, showing what the prolongational “tonal form” of the piece might look like. Finally are presented two non-syntactical reductions predicated on the tonal/rhetorical content of the music. In the first of them, the (relative) tonal closure of the constituents is the primary consideration; the second one brings out rhetorical elements

making for unity and coherence. Since we are no doubt aware of both demarcations and continuity when we listen to music, the latter two representations should not be understood as alternatives in either/or terms, but as coexisting options within a meaningful musical experience.

***God Save the King*: two syntactically independent units**

Ex. 1a shows the current form of *God Save the King*. One cannot but congratulate the English and the unknown composer of this tune combining simplicity and grandeur with subtlety; no wonder that it has endured.

Any singer or listener will notice the recurring motifs lending unity to the melody and directing its course. The note-repeating motifs x^1 and x^2 , accompanied by falling or rising triad motions (z_f and z_r) in the bass, start each stage of the melodic process. Rising or falling stepwise thirds (y_r and y_f) are attached to the x motifs, forming sequenced two-bar phrases (X^1 and X^2). One might have expected a rising y_r motif to turn up after $m. 3$, but when the falling y_f motif is a fact, the listener will accept the combination as a modified X^1 phrase.

Whereas the rate of chord change is quite fast in the A-section, it slows down considerably in the B-section, and the emphatically note-repeating X^2 phrases starting in $m. 7$ and 9 conspire with the two-bar blocks of tonic and then dominant harmony to produce an extended culmination. After $m. 10$ a further x^2 motif seems due, but this expectation is thwarted – or so it seems. A variant of z_f can be identified in the florid bass motion in $m. 11$, and when y_r turns up in $m. 12$, a third, varied X^2 phrase, issuing from b^1 in $m. 11$ and perhaps beginning with a variant of motif y_p , will be recognized after the fact; disregarding the lively surface activity, $mm. 11-12$ make up a third two-bar block set in the tonic. The late top note e^2 of the melody brings a second, quick culmination, but it also emerges as a most natural, almost inevitable event: just as happened after the y_r motif in $m. 2$, $m. 13$ starts with the next note in the scale.

The commas entered in Ex. 1a can of course be omitted due to the strong melodic and harmonic continuity, but they are supported by the occurrence of x motifs accompanied by root-position tonic chords. Short “clauses” are also compatible with the slow pace of a national anthem

sung by crowds. The full stop after m. 6 warrants some discussion. The first six-bar section of the melody is a self-contained unit – albeit a short one – and the complete, three-member cadence to the tonic makes for sufficient closure. The following eight-bar section is closed indeed, but the fact that it starts with a culmination seems to presuppose that something (not anything) has preceded it.³ The latter quality – rhetorical, not syntactical, as to its nature – somewhat reduces the independence of the second part of the melody, but it does not appreciably change the fact that the first part of the anthem ends with a full stop.

Notwithstanding their complete cadences to the tonic making for independent units, the two sections of *God Save* do establish a kind of antecedent/consequent relationship. Despite the strong internal demarcation, it is therefore not altogether misdirected to search for a structure explaining the overall closure of the tune.

A Schenkerian reduction

Turning now to the Schenkerian reading, the first two-bar phrase brings the *Anstieg*, the initial ascent, to the third-degree primary note, the *Kopftone*; cf. Ex. 1b.⁴ In m. 2, the melody is understood as temporarily visiting an inner voice, giving rise to a subordinate third progression prolonging the previous a¹, structurally speaking. The following four-bar phrase bringing a full harmonic cadence comes close to a local *Ursatz*, but the top line is not fully indicated as a structural descent. Apart from the fact that the tune is not finished, the reason is probably that the second-degree a¹ in m. 5 belongs to a II⁶ chord and thus fails to be supported by a root-position dominant; the ensuing V chord is topped by the seventh-degree

3 The discomfort of an independent unit starting directly with such an emphatic proclamation of the tonic can be cleared away by adding an initial upbeat: just a quarter-note g¹ will do, or four rising eighth-notes g¹–a¹–b¹–c².

4 Ex. 1b reproduces the middleground graph of the analysis in David Neumeier and Susan Tepping, *A Guide to Schenkerian Analysis*, Englewood Cliffs 1992; p. 65. Since I am not comfortable with proposing Schenkerian readings myself, I prefer to rely on authoritative reductions made by others. Although I am not an adherent of Schenkerian analysis, I appreciate this textbook for its straightforwardness and clarity.

leading-note below the tonic note, and it is therefore theoretically unsuitable as a structural dominant.⁵ [But for a non-theoretical listener this “flaw” does not appreciably affect the sense of dominant-to-tonic closure felt in m. 6.]

Retaining the structural third degree arrived at back in m. 3, the melody leaves its closing and yet subordinate inner-voice g^1 for an outer-voice d^2 , which serves as the starting-point for another semi-structural descending third reaching b^1 in m. 11. After once more prolonging the third degree by third progressions visiting the inner and outer registers, the ultimate structural descent is released, closing the *Ursatz* and the piece.

This reduction brings out the eventual closure of the song – and presumably it is meant to demonstrate its unity and coherence as well – by means of a syntactic scheme. But does it amount to a good description of the music?

No, the climactic outburst in m. 7 is far from just a shift from an inner to an outer voice around a dormant, but still structural, third degree. When arriving at the g^1 in m. 6, you are most likely to remember from where you came (namely from the b^1 three bars ago), but you have no reason to hear or think of the third degree as structurally retained. And when the four d^2 's turn up in mm. 7–8, the third-degree b^1 from m. 3 is most likely to be entirely cleared away from your memory. These d^2 's do not “cover” the third degree; after the “full stop” in m. 6 and after the largest skip in the melody, the fifth-degree d^2 resolutely outdoes the third-degree b^1 , which amounts to a relationship as good as any.

The third-degree b^1 may seem to be resumed in m. 11 since the vague motivic similarity makes a backward association possible, but not since this note has been prolonged all the time. Thus, the only, and quite weak,

5 Had “mm. 5–6” turned up to close the anthem, a virtual second-degree a^1 within parentheses would no doubt have been added over the $f\sharp^1$ of the penultimate dominant chord in order to make for a theoretically impeccable *Ursatz* closing the music. Alternatively, an oblique line from the first-beat a^1 down to the third-beat d in the bass would have been drawn, indicating that, as a matter of hierarchic prolongation but no matter the three-member cadence, the antepenultimate a^1 nevertheless and somehow belongs to the penultimate dominant. But in the actual mm. 5–6 the survival of the *Ursatz* over the “full stop” is the top priority.

reason to assume that the third degree in m. 3 enjoys structural status for virtually the entire tune derives from motivic/rhetoric – not from tonal/syntactic – considerations. The third degree in m. 3 *is* not structural (in Schenkerian sense) in *God Save*: it *was* (perhaps) structural in the first part of the melody, and this retrospective observation implies that it was not heard as structural in the second part of the tune. The benefits of top/down, retrospective musical understanding is quite limited. Musical structures take form as you listen, and listening is basically a beginning-towards-end activity, leaving some scope for associations (necessarily working backwards).

As to the second climax in m. 13, it is unduly slighted when e^2 is explained as a “covering” outer-voice prolongation of the following c^2 , itself a passing-note prolonging the return from the d^2 in m. 12, being the covering goal of a prolonging rising-third progression from b^1 , making up a prolongation of the b^1 in 11, representing the end-point of the extended descending-third prolongation issuing from the climactic “covering” d^2 in m. 7, which in turn is attached to the final, “covered” inner-voice g^1 of the *Urlinie*-like descending third prolonging the b^1 in m. 3. This is a mighty hierarchical explanation, but the idea to account for a climax – i.e. something very important that previous events lead up to – as the ultimate offshoot of a series of ever more structural, but actually increasingly irrelevant and remote, events may strike a sceptic as quite odd.

Whose musical experience does this explanation of the climax in m. 13 describe? Well, we have those happy but very few who take a pride in listening backwards – the decision to select the b^1 in m. 3 as structural, despite the much more prominent tonic-supported d^2 turning up in m. 7, is likely to derive from the b^1 in m. 11. And there are of course some listeners who have heard *God Save* so often that its synoptic properties count for more than its rhetoric design, i.e. listeners to whom the melody’s actual musical growth has ceased to be interesting. In addition there are certain theorists who hold that the closure, unity, and coherence of *God Save* really and ultimately depend on the “fact” that the b^1 in m. 3 stays alive for eleven bars in spite of everything that is stuffed into it. Still other right-minded “listeners” believe in closure in terms of an overall syntactic structure, whose beginning is recruited from the sequenced interior of one “sentence”, and whose end – obliterating the intervening “full stop” – derives from the very last notes of another.

In short, this Schenkerian reading of *God Save* neglects the element of punctuation, and it belittles important rhetoric elements of its tonal content and growth, elements that actually produce unity and coherence, by treating them as subordinate details serving the *Ursatz*.

Alternative readings

Considering matters of melodic content along with the harmonic events, and starting with features making for demarcation of units, the A-section of the tune emerges as a closed, coherent unit in virtue of its arch form; cf. Ex. 1c. As to the rise up to b^1 , the active, first-inversion-dominant a^1 in m. 2 leading to the tonic is preferred to the a^1 of the II^6 chord in m. 1 issuing into the dominant. Since a further y_r motif is expected but fails to turn up in m. 4, the start of the descent might appear to be located to this bar that actually brings the change in direction; only in retrospect will the super-ordinate falling-third progression seem to begin in m. 3 as the start of the second x^1 motif bids. When singing the melody, this ambiguity as to the start of the descent can readily be settled. Emphasizing the x^1 motif will make for a comma before m. 3 and an early turning point; otherwise the descent starts only in m. 4 obscuring the comma potentially dividing the A-section.

After the full cadence in m. 6, the four d^2 's signal a fresh start for the B-section, which is evidently ruled by a descending fifth. Depending on the performance, the last four bars can be set off as a separate "clause", broadening the descent and lending some independence to b^1 . Given the overall falling tendency and considering features relevant for tonal closure, the c^2 in m. 13 might perhaps assert itself against the climactic e^2 as a delaying neighbour-note supported by the antepenultimate subdominant chord.

When studying this piece in order to establish its overall unity and coherence, the motivic make-up of the melody is helpful and so is Leonard B. Meyer's notion of melodic implications; cf. Ex. 1d.⁶

Quite straightforwardly, the falling third from m. 3 in the A-section and the falling fifth spanning the entire the B-section lend implicative coherence to the music, and these progressions are effectively prompted by

⁶ Cf. *Explaining Music*, Chicago University Press 1973.

the y_f motifs. Not far beneath the melodic surface, the association between the two x^1 motifs in m. 1 and m. 3 suggests a rising implicative sequence of ascending seconds starting a third apart at g^1 and b^1 . Had a further y_r motif turned up as expected in m. 4, the next, implied x^1 motif along the scale would have been $d^2-d^2-e^2$ in “m. 5”, but instead the melody is deflected downwards to the tonic note.

But the cancelled d^2 is four-fold and triumphantly exposed in mm. 7–8 by the x^2 motif. A timid $d^2-d^2-e^2$ x^1 motif might very well have started the B-section, but this would have pre-empted the ultimate rise to e^2 , occurring only in m. 13 after an even longer deflection downwards. Indeed, this final realization is so remote that it might have been missed – or could be doubted, analytically speaking – if the y_r motif in m. 12 had not reminded the listener of the unrealized rising obligation inherent in the melody. It should be observed that this account of the second climax explains the e^2 as the delayed final event of an associative, open-ended chain of three linearly rising units, not as the innermost offshoot within a convoluted hierarchic structure. Why do accounts of the latter kind enjoy such a prestige?

Furthermore, the repeated notes beginning the first three phrases (“clauses”), all starting with injections of root-position tonic chords, produce a rising G-major triad, effectively bridging by rhetoric means the syntactic “full-stop” demarcation between the two sections and making for overall coherence and unity. This powerful rising triad – balanced by a less obvious descending one inherent in the B-section – also explains the peculiar 6+8 bar metric organization of the tune: taking account of the quite salient entries of the x^1 and x^2 motifs, we get a 2+4+8 bar configuration of progressively larger units. A truly expansive metric scheme spans the music, and your national pride grows quasi-exponentially as you sing along. This becomes quite apparent if the actual tune is compared to the one in Ex. 1e, displaying the same arch-formed outline in an all too regular and predictable, very pedestrian eight-bar way – hardly a melody suitable for a national anthem.

Conclusions

What are then the main differences between the Schenkerian syntactic reading, designed to account for the “tonal” unity and closure of *God*

Save, on the one hand, and the two co-existing attempts to describe its two self-contained constituents *and* its overall continuity as products of its rhetoric properties, its growing “tonal content” as opposed to its “tonal structure”, on the other?

The *Ursatz*, stretching its primary-note third degree all the way from m. 3 in the A-section to its late release in m. 13 at the end of the B-section, fails to account for the sense of a “full stop” after m. 6 as well as for the impact of the climactic new start in m. 7. The Schenkerian reduction misses the overall closure as well as the unity and coherence of the music since the obvious importance of the fifth degree is incompatible with a retained structural third degree. The four d^2 's in mm. 7–8 do not make sense as part of a subordinate “covering” prolongation; the fifth degree demands to be included in the ultimate structure. For a comparison, consider a variant of the original melody touching d^2 , but keeping to the third degree; cf. Ex. 1f. This shallow melody fits the Schenkerian description. Last but not least, the explanation given in Ex. 1b of the second culmination on e^2 is too top/down, too nested to be credible.

Interestingly enough, there is in Neumeyer & Tepping's text a commentary to Ex. 1b that is at odds with their graph: “The g^1 and b^1 of the first phrase are part of an arpeggiated ascent to d^2 , the fundamental tone 5, which is prolonged by further lines until the descent at the end”. This is both a quite apt description of the music – d^2 is a far better *Kopftone* than b^1 – and a concession to the effect that the third-degree *Ursatz* shown in Ex. 1b is inadequate when it comes to accounting for the unity and coherence of the music. There are obviously crucial properties in the tune that this reduction, predicated on syntactic closure and obliged to stick to the *Kopftone* chosen for the A-section, is not fit to disclose.⁷

7 The fact that the fifth-degree d^2 is acknowledged as the “fundamental tone” in the commentary whereas the analytic graph features the third-degree b^1 as *Kopftone*, may be due to respect for a Schenkerian principle: initial ascents should rise along the scale, and leaving out c^2 on the way up to d^2 was perhaps not considered acceptable.

Turning to the efforts to grasp the melody as a whole by letting its evolving rhetorical properties, its “tonal content”, disclose its coherence, unity, and elements of closure, the rising implicative gesture along the tonic triad readily accounts for how the climax in m. 7 is actually achieved – a mighty gesture balanced by a stepwise and somewhat less conspicuous falling triad inherent in the B-section. The implicative approach also suggests a long-range explanation for the late rise to e^2 , an explanation that does justice to both the long preparation and the dynamic impact of this second climax, overbidding the first one in terms of pitch.

Although exhibiting closure, the A-section bears a kind of antecedent relationship to the B-section, a consequent that on all accounts exceeds its predecessor. In addition, it seems that the design of the tune can be described in terms of inclusion. The A-section brings a stepwise rise-then-fall motion reaching b^1 , whereas the melody as a whole rather proceeds in third strides up to an apex at d^2 and then back again. If drawn on a piece of paper, *God Save* looks like a small tent set up within a larger one. And the tents are carefully pitched – the most important points are secured by root-position tonic poles. The king rules the country as well as the melody that pays unconditional respect to him, excepting perhaps the overenthusiastic subdominant e^2 .

The account of this tune cannot close until a further observation is added. Unlike the King, the arch form with its falling *Urlinie* from the fifth degree is not God-given. Considering the rising implication along the G-major triad shown in Ex. 1d, the tune has another, non-realized destiny taking it all the way up to g^2 ; cf. Ex. 1g. While it may be less suitable for a national anthem to achieve final closure with a high-pitched scream, this re-composition of the tune is quite coherent, and it exhibits tonal unity although its *Urlinie* describes a rising octave passing a penultimate seventh degree.⁸

***Gott erhalte Franz den Kaiser*: three relatively independent units**

Joseph Haydn paid several visits to England, and apparently impressed by the British song to their king he decided to write music for a similar tribute to the Austrian emperor, the text now beginning with the words *Gott*

8 Yes, the forth-degree c^2 is lacking, but is it really a problem?

erhalte Franz den Kaiser; cf. Ex. 2a, mainly showing the treble and bass. It is a bold and sophisticated tune, featuring three four-bar sections, of which the middle one is entirely devoted to the dominant – a quite original layout, combining symmetry with a sense of cumulating, irresistible suspense.

The harmonic analysis entered in Ex. 2a shows that the dominant is first tonicized by a cadence in m. 4, and then turned into more than an auxiliary tonic in m. 8 by means of a quite broad modulating cadence to D major – unmistakable and important harmonic events that bring out the treble note d^2 , ending the first two sections of the melody at rhythmically prominent high notes. The new key is immediately left, however. The top note g^2 of the melody bursts out, but what is the chord beneath it?

This question requires a short digression. There are four main sources of *Gott erhalte*: a sketch of the melody plus text (the melody of the middle section is somewhat different from the one we know today), the original version of the song, written as a piano piece with text, the orchestrated anthem, and an adaptation of the song as a theme for variations in the String Quartet Op. 76, No. 3. Starting with the quartet, the second violin and the viola play the G-major root g under g^2 while the sonorous violoncello brings the expressive motion $b-c^1$. Turning to the versions with piano and orchestra, respectively, the lowest voice features the rising second $B-c$.

It is fair to say, then, that the G-major and C-major chords are linked by a prominent leading-note connection, and that this fact transiently tonicizes the subdominant starting m. 9. And this observation holds true, even if we adopt the root-position reading of the string quartet since C major is strongly emphasized at accented positions in m. 9 – both the appoggiatura core of the first falling motif and the start of the second one are accompanied by C-major chords. Thus, whether the chord in m. 8 is taken to be a root-position or a first-inversion G-major chord, the subdominant (of the main key) temporarily assumes the function of an auxiliary tonic in m. 9. This in turn means that the G-major chord should be parsed as (V^6) or (V) rather than as I^6 or I .

A lesser composer would have supported the top note g^2 with an uncontested root-position tonic chord, thus gaining immediate effect but losing in overall grandeur and (as we will eventually see) tonal coherence. What Haydn does in his song is to provide two tonally diverging culminations:

the melodic peak at the tonic note g^2 arrives before the harmonic release at the tonicized subdominant.

The outer sections of *Gott erhalte* are associated by the restatement of a descending fifth (or fourth), starting from e^2 and harmonized in the same way except for the last note. Making up the core of the second phrase of the A-section, this motif (p) turns up as the second member of a falling sequence in the C-section. Whereas the sudden rise to d^2 in m. 4 is fairly unexpected, the quick motion up to the d^2 beginning m. 11 will appear less so due to the fact that it is preceded by motif (p). It should be added that when contemplating the A-section retrospectively, the final d^2 might after all emerge as a quite fitting, resolving continuation of the peak at e^2 that started the phrase.

Turning to the musical punctuation, the song is held together in one extended “sentence” in terms of tonal syntax – there are no substantial cadences to the tonic until the “full stop” in m. 12. But other prominent harmonic articulations make for relatively independent units introducing new musical ideas. The sudden rise to d^2 over the dominant in m. 4 suggests a semi-colon – had the melody of the first section just ended on a bland a^1 , a comma would have been more appropriate – whereas the more emphatic cadence to the D-major d^2 in m. 8 begs for a colon. After the quick cadence to the tonic, the leap up to the start at a subdominant e^2 in the middle of m. 2 may make for a comma.

Schenker’s reduction in *Der freie Satz*

The following scrutiny of Schenker’s reduction will issue from the analytical sketches published in *Der freie Satz* and before that in *Der Tonwille*; cf. Exs. 3 a/f and Exs. 4 a/e.⁹ We will start by discussing the readings proposed in *Der freie Satz*.

9 The corresponding graphs are to be found in *Der freie Satz* (Wien 1935) as Exs. 39:3, 119:3, and 120:6, and in *Der Tonwille* 4(1924)4, “Oesterreichische Volkshymne” pp. 11–13, respectively. To avoid confusion it must be mentioned that, in contradistinction to Schenker, we will disregard the repeats when referring to the bars. Thus, mm. 4 and 8 in Schenker’s graphs correspond to m. 4, m. 12 equals m. 8, and mm. 16 and 20 are referred to as m. 12.

As appears from Ex. 3a, the tonal structure of Haydn's theme begins with a long *Anstieg* to the fifth degree, preliminarily introduced with the d^2 turning up in m. 8, supported by the dividing D-major chord. This structural ascent does not fit the music: the semi-colon in m. 4 is obliterated – indeed, the important d^2 in m. 4, crucial for the “semicolon” demarcation, does not even show up in Ex. 3a.¹⁰ This omission is very unfortunate, not just because it means that the reader is cheated, but also since the e^2 in m. 2 is deprived of its resolution within the second phrase, and since the following B-section is described as striving for something that the A-section has in fact already achieved – the B-section is reasonably heard as a broadening, quite emphatic confirmation of the d^2 -over-D-major occurring in m. 4.

But this is not the only sacrifice required to enforce the structural ascent. Haydn's horse is led by the halter all the way to m. 11, the locus of the true, non-root d^2 -over- I^6 *Kopfton* of the *Ursatz* in view. The conspicuous, modulating cadence to d^2 -over-D major in m. 8 is resolutely put out of focus, ensuring that the V chord is not promoted beyond its tonally domesticated function as a dividing chord, and that the primary note is not introduced over a non-tonic chord.

The decisive bass motion e -A- d of the modulating cadence is not to be found in Schenker's graphs until it turns up in Ex. 3f, a supplementary sketch concurrently demonstrating that Haydn commits consecutive fifths and disclosing that Schenker withholds evidence speaking against his non-modulation reductions in Exs. 3 a/b. The slighting of this temporary but essential move out of the tonic domain means that a crucial event of the melody is gravely misrepresented.

Schenker's fundamental bass progression begins with the very first event of the music, whereas his structural upper-line descent starts only with the harmonically unstable but tonic-supported d^2 in m. 11 – or, taking account of the solid and dashed analytic slurs, already in m. 8 at the more prominent and heavily tonicized dominant d^2 . (Schenker both refuses to eat the cake and eats it.) Since his idea of a prolonged tonic is most questionable (see below), this means that the starting points of the treble and bass components of

10 Unlike the corpse in Antonioni's film *Blow Up*, this note is absent even when the A-section is “magnified” in Ex. 3b – evidently, there is some funny developer in Schenker's tonal laboratory that does not allow it to precipitate.

the *Ursatz* are quite out of phase. It also discloses that the basis of Schenker's fundamental structure is in fact precariously bi-tonal: the structural ascent to the m. 8 origin of his primary note in m. 11 leads out of the tonic key.

To obscure this, the melodic goal of the ascent, the D-major d^2 in m. 8, is tied over to a further, but certainly not very prominent inner-voice *Kopftoton*-precursor d^2 within in the "I⁶" chord starting the C-section. Apparently in order to boost the importance of this would-be tonic-territory d^2 , it is written as a whole-note in 3a, whereas in 3b it is shown as a half-note, moved so as to seemingly occur after its actual but undesirable dividing-dominant fundament. However, a closer look discloses that this optical illusion hides a shrewd manipulation: to keep the modulation out, the dividing D-major chord in 3b, is not the one in m. 8 establishing a new key – it is exchanged for the merely tonicized dividing D-major chord in m. 4, whose actual top-note d^2 is left out.

In spite of its actual function as an applied dominant to the subdominant, the (root-position or first-inversion) G-major chord starting the C-section is supposed to activate the root-position tonic of the very beginning. Exs. 3a and 3b suggest that there is an extended, and highly implausible, prolongation of the tonic from m. 1 all the way to m. 11 – no matter the cadence and then the modulation to the dominant, no matter the two quite prominent subdominants.

The C-section begins with a skip up to g^2 , but this most important top note of the entire melody is not included in Exs. 3a and 3d, and slighted in Ex. 3b. There is – within a Schenkerian discourse – a reason to disregard this g^2 and to read the (first-inversion) G-major chord beneath it as a prolongation of the initial tonic. If this truly climactic but structurally unwanted note, supported by an applied dominant, were taken into account (instead of being disposed of as a "covering" note), it would rather belong to C-major, to the conspicuous subdominant turning up (again) in m. 9, a harmonic event that so undesirably interferes with the *Ursatz* cadence in view that it must be cleared away altogether. The roots c^1 and then C are absent in Exs. 3 a/b and so is the IV symbol; the corresponding subdominant in m. 2 is also left out of account. Another possible reason from within the theory to disregard the g^2 is that the course of events in mm. 1–8 does not supply a stepwise *Anstieg* up to a structural eighth degree.

Schenker's reading brings further unfortunate consequences. The tie in m. 8 and the idea of a "prospectively retained" fifth-degree *Kopfton* obliterates the musically vital "colon" demarcation felt after the B-section, and makes the merely "covering" first phrase of the C-section emerge as only weakly connected to the structure. Due to the theoretical necessity of suppressing the subdominant in m. 9, the slurred bass line in mm. 8–11 displays a most implausible "b–c¹–b" neighbour-note motion that completely fails to take account of the powerful articulation of the subdominant in m. 9; as already mentioned, C major supports both the accented core of the motif (p) precursor and the emphatic starting-point of the (p) motif. Actually, the b in m. 8 brings the tonicizing half-step up to the c¹ starting m. 9, i.e. up to the C-major root left out in the graphs in favour of a most questionable "neighbour-note" c picked out from m. 10.

Questionable are also various other traits in Schenker's reduction, traits serving to hold the twelve-bar *Ursatz* "sentence" together as a single, full-stop syntactic unit despite the semi-colon and colon involved. Presumably, it was desirable to wipe out, not only the conspicuous d² in m. 4, but also any trace of the demarcation between the two sections; according to Exs. 3a and 3 d/e the initial ascent up to the preliminary *Kopfton* d² in m. 8 is already on its way in the first section. But there is no such ascent, only diverse motions eventually issuing into the undesirable, premature d² in m. 4. The actual ascent gets its momentum, not from the "II" a¹ in m. 3, being part of a cadence, but only from the fresh, dominant-supported a¹ in m. 4. As a consequence of the omission of the d² in m. 4, the slur shown in Ex. 3b from the e² in m. 2 all the way to the d² in m. 8 emerges as completely absurd. It only serves to disclose the fact that the d² in m. 4, a note that with much less delay brings a falling second within the second phrase, has been taken away.

The "hidden repetition" (cf. the brackets in Exs. 3a and 3c) is irrelevant due to the great differences between the two passages. Apparently, the swift rising-fourth motion in mm. 10/11 is supposed to bring about a "correction" of the modulating c^{#2} of the preceding slow ascent in mm. 4–8, but this subtlety carries little weight since a main prerequisite for the reduction is that this modulation is denied structural significance anyhow. Another purpose of this contestable similarity is no doubt to prop up the structural validity of the very weak association between the d²/V in m. 8 and the d²/I⁶ in m. 11. It is unfortunate that this gratuitous and pretentious

parallelism prevents (or is deliberately used to preclude) the important observation that the melodic motions in mm. 2–4 and 9–11, both issuing into d^2 , are in fact quite similar. But in Schenker's analysis the renewed/redefined structural fifth-degree d^2 in m. 11, derived from the d^2 in m. 8, needs to be announced, whereas the d^2 in m. 4 is not even allowed to show up.

Suppressing the inescapable impression that a very important descent has already started from the climactic g^2 in m. 8, the *Urlinie* is eventually released in m. 11. From a harmonic point of view, the reductions offered in Exs. 3 a/b and 3d assures us that everything happening before m. 11 was just a prolongation of the tonic – an exemplification as good as any of the suspicion that Schenkerian *Fernhören* (to the extent that it really takes place) is a barren experience. If you listen to *Gott erhalte* at such a great distance that the modulation to D major has ceased to exist, you should attend more closely to the music. It is very disappointing, musically and why not syntactically, when an analysis makes the harmonic *raison d'être* of a composition disappear.

Schenker's reduction in *Der Tonwille*

We will now turn to Schenker's earlier analysis of *Gott erhalte* in *Der Tonwille*. For two reasons it will be discussed at some length: Schenker makes an effort to mediate between the syntactic *Ursatz* and the rhetoric of the evolving tune, and the analysis is advanced in a most paradigmatic way as a set of prolongations; cf. Ex. 4 a/e.

Ex. 4a presents the tonal background. “*Dem Schein nach*” there are three sections in the song, but “*in Wirklichkeit*” the music features only two sections: mm. 1–8 brings the structural ascent up to the primary note d^2 , and then follows the fundamental structure.¹¹

Since the *Ursatz* is supposed not only to guarantee closure but also tonal unity – a property that does not allow of any modulations – the initial ascent is shown as a G-major affair in 4a. It should be noted that Schenker's *Anstieg* begins already in m. 3, an unwarranted anticipation

11 At last an analyst that knows the essence, and not just sees the shadows on the wall!.

of a rising event to a location actually betraying a falling tendency and belonging to a cadence. Working analytically, i.e. proceeding bottom/up to prevent musically counterintuitive conclusions, one can of course not hear that the a^1 in m. 3, actually occurring over a II^6 chord within a local cadence to the dominant, “in reality” launches an extended rising motion towards the d^2 in m. 8. Only the third-beat a^1 in m. 4, safely within D-major territory, discloses that there *may* be an important ascent ahead.

It should furthermore be observed that m. 8 in 4a features a bass note *g* suggesting that there is *in Wirklichkeit* a prompt, firm, and unproblematic root-position tonic-chord support for the structural fifth degree, derived from the preceding, dominant-supported d^2 by means of an analytic slur. But “according to the appearance”, i.e. according to what there is to be seen in the sources (including the string quartet if one takes notice of the crucial rising second of the violoncello), there is a B, not a *g* in the bass – you have to wait for quite a while before a tonic root turns up; cf. Ex. 4e. And the d^2 is merely an inner-voice note under the culminating g^2 , showing up only in 4e.

Due to the dividing dominant in m. 4, turning the formerly passing note a^1 into a consonance, the *Anstieg* is subdivided in Ex. 4b so as to let a rising-fourth progression emerge in mm. 4–8; only in this ascent expressing the dominant is the sharpening of the fourth degree allowed. But can a listener, no matter the vantage distance from the actual music, fail to hear a $c\sharp^2$? How can the $c\sharp^2$ turn into a c^2 in 4a? It must also be objected that the first a^1 in 4b is not supported by any *d* in the bass, but by the not-yet-dominant note *c*. The root of the dominant is introduced only in Ex. 4c, where it in fact (i.e. *dem Schein nach*) supports the very prominent but absent top note d^2 . This note has to await its entry until Ex. 4e, a foreground in which the *Wirklichkeit* from the top begins to resemble the *Schein* issuing from the bottom.

The net effect of these manipulations is to suppress the basic fact that the first four bars make up a normal antecedent issuing quite emphatically into a tonicized dominant chord supporting d^2 . It is quite possible (but not a good idea) to skip the middle section of *Gott erhalte* and go directly from m. 4 to the C section, the final consequent. The antecedent quality of the A-section is underscored by the fact that it is repeated, just as the

tri-partite form of the entire piece comes to the fore if you take account of the fact that the C-section is also to be sung twice.

In Ex. 4c, it is (as already pointed out) admitted that the a^1 in m. 3 is in fact not supported by the dominant. In terms of prolongation, i.e. arriving at 4c from 4b, this substitution of II^6 for V may appear acceptable. But when working in the other direction, i.e. pursuing bottom/up reduction and behaving analytically, this reading emerges as highly questionable: it is the insignificant inner-voice a^1 in m. 4 that is supported by the bass note d; cf. 4e. While prolongational substitutions may easily emerge as legitimate, the corresponding reductive moves are often unwarranted.

The rising fourth up to d^2 in m. 8 is supplied with a bass progression in 4c, a prolongation that turns the passing notes b^1 and c^\sharp^2 into consonances and showing the modulation to D major. In order to hide away the consecutive fifths ($a^1/d^1-b^1/e^1$) caused by the bass, the E-minor b^1 is transiently supported by g^1 , suggesting that there is a G-major sonority. Consulting the scores (the *Schein*), however, this g^1 is just an accompaniment note in the E-minor chord, and it occurs simultaneously with the chord root in the bass: Schenker's *Wirklichkeit* is a matter of choice. After having done its service, the g^1 is taken away in 4d – a preceding b in the bass has now turned up making the parallelism less flagrant.

The following step of the prolongation, Ex. 4d, features a number of “*Überhöhungen*” in the form of descending thirds. The local descent from b^1 in mm. 1–2 serves as a (sub-surface) model for the next one, starting from c^2 in m. 3. In mm. 5–8, two quite conspicuous falling-third progressions lead to a^1 and b^1 , respectively, whereas (as Schenker points out) the final notes of his *Anstieg*, c^\sharp^2 and d^2 , lack such thirds.

In Ex. 4e are offered *Überhöhungen* of the *Überhöhungen*. After the b^1 – a^1 motion in m. 1 follows c^2 – b^1 , and before c^2 – b^1 in m. 3 comes e^2 – d^2 . The latter motion seems to be taken to suggest that the prominent downbeat d^2 in m. 4 (connected by a dotted slur back to the e^2) also belongs to a subordinate, “covering” layer. Whereas this d^2 may be heard as (weakly) implied in Meyer's sense, Schenker's “low-rank-by-association” conclusion is invalid: even if the e^2 in m. 2 is considered as a less important, “covering” note (which is contestable), this does not necessarily apply to the d^2 in m. 4.

Later on, the d^2 in m. 8 is “covered” by the g^2 unmistakably starting the very real octave descent of the final section. In Ex. 4e the descent is

subdivided into four parts: two falling fourths ending on d^2 and b^1 , respectively, a rising fourth reinstalling d^2 , and finally the *Urlinie* descent from the fifth degree. The two dotted slurs indicate how the *Kopfton* d^2 (now shown as deriving from the dividing dominant in m. 8, not from the inner voice of the following G-major chord) is taken to survive the low-level diminutions.

Another and better way of preserving the structural d^2 might have been to let it visit its upper neighbour-note e^2 in m. 9 before returning in m. 11. After all and taking Schenker's dotted slur in mm. 2–4 at face value, d^2 came from e^2 in the antecedent section, and so it does in the consequent if one cares to take account of the recurrence of motif (p). It is not the present writer's business to amend Schenker's defective fifth-degree *Urlinie*, but it would be more convincing if e^2 were accepted as a semi-structural neighbour-note.

But such a reading would have meant acknowledging the importance of the subdominants in m. 2 and m. 9, which are consistently suppressed in Schenker's analysis, as his reading of the bass in mm. 8–10 shows. In Ex. 4e the harmonic fundament of these bars is supposed to be a falling triad d^1 – b – g , suggesting a bridge between the two sections of Schenker's "real" bi-partite form. But this *Quintzug* is very questionable: d^1 is the root of the fully tonicized dominant, a chord with an obvious dividing function, whereas b is a leading-note, representing a first-inversion G-major chord functioning as an applied dominant to the following root-position subdominant which, in spite of its glaring presence, is omitted even in this foreground graph. (*Was für ein Hören!*)

In his comments, Schenker points out a few elements making for overall unity/coherence.

Referring (presumably) to the third-beat a^1 's in m. 3 and m. 4 in relation to the first-beat a^1 in m. 6, he calls attention to the "*zweimal zurückgedämmte Wucht des Aufstiegs*", but the rising impulse deriving from these precursors is negligible. Arguably, a much more powerful thrust emanates from the fact that the melody twice issues into very prominent d^2 's, first when arriving at the dominant in m. 4 and then when confirming D major as a temporary tonic in m. 8.

More to the point, and in agreement with the reading of Haydn's song to be advanced below, is Schenker's observation that the melody is built

around a rising and then a falling triad: $g^1-b^1-d^2-g^2-d^2-h^1-g^1$. Indeed, when arguing that in the climactic $g^2-f\sharp^2-e^2$ *Überhöhung* of the descent “*drückt sich gleichsam die Summe alles dessen aus, was in T. [7–8] durch den Ausfall der Terzzüge zu cis^2 and d^2 verlorengegangen ist*”, he may (in his convoluted way) be talking about the realization of the implicative gap d^2-g^2 .

Schenker was obviously keen to complement his top/down account of syntactic closure with some facets of “tonal content”. He might have been aware of the inadequacy of his method when it came to matters of overall unity and coherence, and therefore he tried to integrate aspects of tonal growth into his hierarchic account.

The tonal reduction shown in Ex. 2b makes up a synthesis of the two sets of analytic sketches of the *Kaiserhymne* left by Heinrich Schenker. It is supplied to facilitate comparisons with Neumeyer & Tepping’s reading of *God Save the King*; cf. Ex. 1b.

Alternative readings

Leaving Schenker’s attempts at capturing the essence of the music by his ready-made *Ursatz* formula for syntactic closure, we will first consider the (relative) closure of its three sections; cf. Ex. 2c. The first phrase consists of an excursion away from and back to the tonic note – a minimal *Ursatz* (if you like) in which the third-degree b^1 is encircled by its lower and upper neighbour-notes. The antithetic second phrase, issuing into a strongly articulated half-cadence, starts from the high-pitched subdominant-note e^2 and descends (via a long falling detour) to the fifth-degree d^2 , appearing over a tonicized dominant. After the semi-colon, the B-section pursues a different project, yet intimately related to the outcome of the A-section. Starting from the second-degree a^1 , the melody eventually brings a confirming ascent to d^2 , now fully manifesting its harmonic potential as a competing tonal centre; the sense of a modulation is unmistakable. The C-section, preferably understood as an undivided, post-colon unit, displays a stepwise descending octave from the climactic g^2 , a motion that brings out e^2 on its way downwards. First regularly spelled out on accented beats, this descent is delayed by a diversion at the fifth degree;

the remaining somewhat hasty part of the motion coincides with the final cadence to the tonic.

The implication-realization approach again proves to be useful when showing how the “tonal content” makes for overall unity as well as for coherence within units and across unit boundaries; cf. Ex. 2d. A pervading trait in the first section of the melody is the trochaic rhythmic groups forming descending seconds, and particularly prominent are the trochees starting the melodic descents. If these groups are given precedence, an ascending implicative gesture along the scale takes form in the A-section. But the d^2-c^2 trochee of this sequence, due at the downbeat of m. 2, fails to turn up, creating a gap up to the next e^2-d^2 group; delayed by one bar, the expected d^2 then turns up as a firm downbeat finishing the section.

At a higher level, the $e^2-d^2 \dots d^2$ configuration framing the second phrase of the A-section may be heard as the germ of a corresponding pattern embedded into the C-section, where a quite exposed and rhythmically augmented $g^2-f\sharp^2$ and then e^2-d^2 particles start a falling connection along the scale – after an excursion the descent is resumed with d^2-c^2 .

The A-section is finished by a swift leap a fifth upwards to d^2 , a gap that is not closed by a descending motion. But the middle section makes up for it by retroactively filling in this fifth from below: the melody starts from a^1 , launching two rising implicative sequences pointing towards d^2 . The fast one is fairly covert and reaches its goal inconclusively in m. 6, whereas the slower one, cumulatively staying for a while at a^1 , becomes very prominent in m. 7 and arrives at the D-major d^2 , associating back to the previous tonicized-dominant d^2 in m. 4. As Schenker pointed out, the notes b^1 and $c\sharp^2$ of this ascent are not preceded by falling-third motions.

Issuing from g^1 and subsequently featuring two very conspicuous d^2 's, the first two sections suggest a large-scale rising implicative gesture insistently requiring the octave g^2 for fulfilment.¹² Considering the fact that the skip up to g^2 opens up a gap that demands to be filled-in, the continuation is given: issuing from the climactic g^2 , and starting with broad, double-size falling seconds, a chain of events along the scale begins its way downwards

12 The main note in m. 1 might be included in the implicative gesture to complete the triad: $g^1-h^1-d^2-d^2-$.

to the tonic. The falling fourths from the A-section are recognizable, and the passage from the e^2 in m. 9 to the d^2 in m. 11 – effecting a delay after which the trochaic grouping and the original rhythmic pace are restored – is clearly reminiscent of the second phrase of the A-section; an affinity making for coherence within the tune. The delay on the fifth degree also helps to direct the listener’s attention to the falling motion g^2 - d^2 - g^1 inherent in the C-section, lending a sense of balance to the tonal design by corresponding to the rising gesture inherent in the first two sections.

Conclusions

Let’s finally compare the outcome of Schenker’s reduction (Ex. 2b) with the two analyses predicated on rhetoric properties, on “tonal content”, and designed to account for the formation of units and the overall unity and coherence of *Gott erhalte*, respectively.

The climactic eighth degree starting the C-section is not included in Schenker’s *Urlinie* – presumably since his stepwise *Anstieg* makes a halt at the fifth-degree d^2 . Another (and better) reason might have been that the top note g^2 (as well as the d^2 beneath it) is supported by a G-major chord functioning as an applied dominant to the subdominant. As to the *Ursatz*, expending itself swiftly in mm. 11–12, its *Anstieg* starts from a G-major bass note in m. 1 and a D-major treble note in m. 8, questionably prolonged into a I^6 chord in m. 11; in other words, the *Kopftón* lacks tonic support. Another grave defect in Schenker’s reduction is the suppression of the tonicized d^2 in m. 4, a drastic interference with Haydn’s music that severely distorts it, and that seems to be rooted in Schenker’s wish to disregard “outer” formal units in favour of a seamless, “unified” whole as well as in the theoretical necessity of finding a stepwise rising-fifth ascent to the *Kopftón*. Equally questionable are the suppression of the broad, modulating cadence to D major in m. 8 and the complete disregard of the role of the subdominant in the first and third sections.

The remedy for these shortcomings is a bottom/up approach based on the evolving “tonal content” of the music. Evidently, the second “clause” within the A-section has another tonal agenda than the first one that keeps to the tonic note g^1 – namely to produce the d^2 that the B-section will confirm by its

stepwise rise and its manifest modulation to D major. The C-section, getting firm harmonic support only when the subdominant occurs in m. 9, obviously launches a descending octave from the top note g^2 in m. 8. Throughout the tune, implicative patterns fuel the melodic motions, and a superordinate $g^1-d^2-g^2-d^2-g^1$ gesture forges all three sections together via the topmost note.

The most conspicuous trait in the tonal design of *Gott erhalte* is the central four-bar accumulation of and subsequent modulation to the dominant. Another crucial feature is the emphatic subdominants appearing before and after this central dominant. These IV chords are coordinated with the start from e^2 of the (p) motifs, of which the second suggests a formal repeat only after the C-section has started.

Haydn's anthem is complex enough to resist any single explanation, whether formulated in terms of tonal reduction or otherwise. Ex. 2e is offered as a synoptic account of coexisting rather than excluding, structural patterns.

It turns out that the melody is based on a rising motion along the triad from the tonic note via the fifth degree up to the octave from where it descends along the scale back to the tonic. This is a unifying gesture of great power, but Haydn refrains from offering a too unequivocal climax at the apex: the top note g^2 is not introduced at a primary accent, nor is it (except perhaps in the string quartet) supported by a root-position tonic chord, but by a first-inversion G-major chord functioning as an applied dominant. The harmonic release is postponed until the following C-major subdominant; the anthem has two climactic moments.

A complementary account of the melodic process can be construed around the note d^2 . Being the goal of the upward surge from a^1 in the B-section, it is also approached by important motions in the outer sections. After a falling-sixth diversion, e^2 is succeeded by the d^2 in m. 4 as the top notes of the first section, and the concluding section features descending fourths from g^2 and then from e^2 before the decisive d^2 occurs in m. 11.

Harmonically, there is no doubt a central D-major section, but this dominant is flanked by important subdominants – especially the one in m. 9 is quite prominent – which are associated with each other due to the falling motions issuing from the upper neighbour-note e^2 . Indeed, along with the central excursion to the dominant, there is in the outer sections a sense

of competition between the tonic and the subdominant – the latter seems to be engaged in attempts to outdo the former.

The music has a symmetric harmonic design matching the rising-then-falling triadic implication of the melody and balancing the forward thrust of the central four-bar dominant. *Gott erhalte* is neither bi-partite, nor tri-partite in current sense: an antecedent and a consequent frame an extended, cumulating passage in the dominant leading up to an emphatically dividing D-major chord, signalling a change of key. This description must be extended so as to include the two subdominants that strongly contribute to the tonal coherence. The emerging tonal framework – never mind the late Schenkerian “structural” dominant in m. 11 – is chiasmic: I–IV–V—V–IV–I.

Schenker’s questionable *Ursatz* involving the fifth degree may be modified so as to respect obvious and essential features of Haydn’s music, but it emerges as one structural scheme among several others. A very late descent is no doubt present in mm. 11–12, finishing the hovering between the sixth and fifth degrees, but this *Ursatz* cannot claim any exclusive prerogative when it comes to explaining the coherence, unity and closure of the extended musical “sentence” that makes up *Gott erhalte*.

General discussion

Both tunes exhibit satisfactory closure, and so must this essay on (among other things) the importance of full stops in music. Two short songs – *God Save the King* consisting of two independent, closed sections, and *Gott erhalte Franz den Kaiser* featuring three relatively independent sections making up a compound whole – have been studied. And when doing so, top/down Schenkerian syntactic reduction has been contrasted with a bottom/up approach, using “tonal content” as input and paying attention to the musical punctuation as well as to melodic implications. What are the conclusions?

It appears that the one-big-bite *Ursätze* yielded quite poor descriptions of the music and, frankly speaking, this was to be expected. The *Ursatz* is basically a syntactic concept, and it should be insufficient when it comes to accounting for properties like unity and coherence. Closure, on the one hand, and unity and coherence, on the other, should not be confounded. This means that the claims to the effect that Schenkerian theory deals in a

uniquely successful way also with tonal unity and coherence must be rejected – being a syntactic theory predicated on closure, aspects of tonal content largely lie outside its domain. Syntax is about the basic requirements for attaining closure, but in order to describe matters of musical unity and coherence, analyses open to rhetoric traits are needed. To the extent that elements making for unity and coherence are recorded in tonal reductions, they tend to be fragmented and used to serve the hierarchical accounts of tonal prolongation, the very core of the Schenkerian undertaking.

Schenkerian analysis also failed to deal adequately with internal closure, and this may seem to be a paradoxical blindness since closure, including that of constituents, is what a syntactic theory should be able to cope with. But even this shortcoming was to be expected since the two tunes do not make up simple sentences lending themselves to be treated as *Ursätze*, and since the analytic impulse inherent in Schenkerian theory is inimical to surface salience, including traits making for formal demarcations. Ignoring major punctuations means neglecting, or not taking due account of, the existence of more or less independent constituents – i.e. formal units that may have divergent tonal agendas, complementary to or incompatible with the one supposed to govern the whole “sentence”, conceived by definition and faith as a tonal monolith.

Acknowledging the presence of more or less independent units, and taking account of elements making for internal closure, involves accepting features that may disrupt theoretically desirable long-term connections and jeopardize encompassing syntactic units. In Schenkerian analysis, period-like compounds, large musical extracts, and even entire pieces are as a matter of principle taken as *Ursatz* “sentences”, as syntactic entities. This in turn means that more or less closed internal units, corresponding to clauses and sentences in language, tend to be disregarded or misunderstood.

Another notable and most disappointing failure of the two Schenkerian reductions was that the musically vital, climactic events in the two songs were not integrated into the “tonal” structures. The *Urlinie* ceilings were set too low, as it were; like prisoners in torture cells, the melodies could not stand up.

On the positive side, it has been demonstrated that a dual approach, respecting the demarcation of units *and* taking account of the rhetoric content as it evolves during the course of the music, can do justice to the

ways in which unity, coherence, and sectional as well as overall closure are actually achieved.

Going beyond the topic of this investigation, the non-Schenkerian analyses may have unearthed an intertextual relationship between *God Save* and *Gott erhalte*. In addition to the similar message of their texts, these two songs seem to have a general tonal design in common. Prompted by implicative gestures, both tunes eventually arrive at their climactic outbursts at the fifth and eighth degree, respectively, by means of rising motions along the tonic chord, and then both melodies return back along the scale, delaying the process at the third and fifth degree, respectively. A further similarity between the songs involves the use of the subdominant-associated sixth degree to create supplementary points of culmination, and the fact that a motif from the initial section turns up to prepare for the final descending cadence. Needless to say, none of these properties making for kinship between the anthems could be seen in the distorting Schenkerian accounts.

That Haydn actually used *God Save* as a model or even as an inspiration for *Gott erhalte*, is of course not proven by these agreements in terms of tonal lay-out and rhetoric traits. The melody type exemplified in *God Save* was far from rare, and several variants were no doubt in circulation at the time. It therefore remains to determine the credibility and the exact nature of the intertextual affinity.

Be that as it may, it is interesting that Haydn's melody in some respects outdoes the British tune. The very late and (seemingly) additional, sixth-degree top note of *God Save* is reached already in m. 2 of *Gott erhalte*, and the outburst starting the concluding section in Haydn's melody brings the octave, not the fifth, and it is released only after four bars of rejoicing on the dominant. There was maybe a time when patriotism and national competition could be manifested in the rise of melodies.

But the two melodies are certainly different as well. Many years ago, I was to contribute to a series of lectures devoted to the topic Nationalism and the Humanities, and I decided to talk about Schenker's views on the relationship between tonal structure, musical value, and national characters. As is well known, his quite categorical opinion was – crudely speaking – that great music is tantamount to German music since only the Germans really

knew how to compose music as a consistent hierarchy of prolongations based on fundamental structures firm as rocks. My contribution was called “*Deutschland über alles – Knock-out, Win-on-points, or Walk-over?*”, and I used *God Save* and *Gott erhalte* as convenient and symbolic specimens to show what Schenker was talking about and to make a quite unrepresentative and (hopefully) provocative comparison.¹³

The German-speaking countries no doubt had a number of great composers between 1700 and 1900, and it cannot be ruled out that there is some common structural property in their music that may explain its greatness. But it is more plausible that the high quality of this corpus of music depends on a multitude of factors, within as well as beyond the compositional artefacts. It simply appears to be unproductive to search for a structural explanation of national superiority in composition by means of a specific theory, however renowned that theory may be. As to Schenkerian analysis, its use as a criterion of musical value is fraught with problems; with such a tool, the issue of national excellence in music emerges as intractable. Meaningful comparisons require a reliable yardstick.

The difficulty is not just that the validity of Schenkerian theory may be contested from a general point of view; its application may differ considerably, and even the evaluative conclusions are uncertain.¹⁴ To what extent is the top/down derivation of a given foreground from a certain assumed background (*Ursatz*) a product of a true and neutral musical insight, and when is the analytic outcome merely an illusion produced with cunning analytic skill by a prejudiced analyst? And after all, what does a layered fragmentation of tonal content tell us about musical value?

Whereas an overall fifth-degree fundamental structure is not far away from the “two-sentence” *God Save*, it is doubtful whether Haydn’s “three-clause” *Gott erhalte* in fact embodies an *Ursatz*, at least according to

13 This *Deutschland* paper – an irresponsible academic divertissement on a complex and crucial issue – deserves to be put aside.

14 Meyer’s theory of implication-realization emerges as more useful when it comes to evaluation due to its clear-cut dependence on musical perception and to the dual fact that it is less specific in its normative claims and more specific in its actual applications.

orthodox standards.¹⁵ But should the fact that a certain work fails to exhibit an acknowledged fundamental structure, or fails to do so in a reasonably straightforward, analytically convincing way, be considered as an aesthetic defect or as a laudable example of creativity transcending tonal habits (or just imposed tonal constraints)? With respect to both national anthems, then, two contrary aesthetic verdicts are possible, but Schenker would no doubt have advanced all and any arguments in support of the conclusion that the Austrian tribute to absolute monarchy was better than the British one.

15 The fact that *God Save* – a British melody! – lends itself better to Schenkerian treatment than *Gott erhalte* bears a certain ironic potential.

Chapter 8 Tonics and returns.

A modest investigation

Introduction

That pieces of tonal music should begin and close in the same key is a basic tenet in Schenkerian theory and a prerequisite for orthodox Schenkerian analysis.¹ The belief that a single key dominates all progressions in a tonal music work and imparts unity to it, is at the core of the theory, and the presence of a persisting background key in turn lends credibility to the *Ursatz*, the fundamental cadence governing and informing the musical flow, and justifies the analytic endeavours to recover it from the depths of the musical design.

Taken as a descriptive generalization, this tenet seems fair enough. Practically all pieces of tonal music – some very extended late Romantic symphony movements are among the exceptions – do keep to a single key, i.e. they return, after ever so many modulations, to the key in which they started. And as a prerequisite for analysis, it seems to be justified as well. A great number of compositions have been shown to conform to their tonic keys, i.e. when analysed according to Schenkerian principles, their surface events appear to be governed by fundamental tonal structures of the sort prescribed by the theory, a conclusion that not only applies to whole works but to various sections of them as well.²

Felix Salzer states in very clear terms the Schenkerian views on tonality – its relationship to the fundamental structure and its importance for

-
- 1 The original and main concern of Schenkerian theory and analysis is the music of the Bach-to-Brahms era, and we leave out of account various later attempts to extend (Schenkerian) reduction to older and more recent music styles, styles that may feature vagrant tonalities and in which the very concept of ‘key’ is more or less alien.
 - 2 The circularity inherent in this reasoning has been pointed out by Eugene Narmour, cf. *Beyond Schenkerism*, Chicago 1977, chapter 2.

coherence and unity in music – as well as the corollary aversion against harmonic analysis and the concept of modulation.³

In a most general definition, tonality is the expression of tonal unity and coherence based on the principle of structure and prolongation. Thus, structural coherence and tonal coherence are, in their ultimate analysis, the same. [...] Tonality may thus be defined as prolonged motion within the framework of a single key-determining progression, constituting the ultimate structural framework of the whole piece.

The other so-called keys and the “modulations” are prolonged chords and prolonged progressions, all within the framework of that one tonality. [...] The moment a key cannot be labeled and referred to a certain key according to a most narrow harmonic approach [...] conventional theory assumes the existence of a modulation to a new key.

Schenkerian theory is both about how (non-deficient) tonal music is in fact constituted, and about what (competent) listening is or should be like. Listening is of crucial importance because it is assigned two complementary functions, namely that of detecting the deep structures, and that of validating the theory according to which these structures are established. Listeners, at least if they are properly trained, are supposed to be able to hear (or at least have an idea of) the fundamental structures governing the tonal process. And it is taken for granted that listeners with musically exacting ears demand tonal unity, i.e. progressions that are ultimately controlled by these preordained fundamental structures. The emphasis on listening, which essentially is bound to be a bottom/up, beginning-towards-end activity, seems partly to be a defence against the dual suspicion that “tonal” reduction is too much preoccupied with music as read in the score, and that Schenkerian analysis all too often involves a top/down approach failing to do justice to an art that exists in, and develops over time.

It seems, then, that empirical investigations of “structural hearing” have both intrinsic and methodological interest. Listening is a delicate matter, however, very susceptible to experimental interferences. The experiments to be accounted for do not intrude into the running listening process, and they only try to capture one aspect of the total experience, namely the

3 Felix Salzer, *Structural Hearing I—II*, New York 1962 (2nd edition). This collage of quotations concerning tonality and modulation is gathered from the section “Significance and range of tonality”, pp. 226–232 in vol. I.

perception of tonality as an all-pervading, unifying force, governing the local events (including the modulations, if any) and guaranteeing the final return to the tonic.

The crucial question of the investigation is: how do listeners react to pieces in which the tonic does *not* return, to pieces that veer off into more or less alien tonal domains and stay there? Will listeners accept a final cadence in a “wrong” key as a satisfactory close of the music?

Salzer’s readings of a Schubert waltz and a Mozart *Adagio*

According to Salzer, musical forms that in tonal terms feature more than one part arise from the fact that the fundamental structure has been “divided”, “repeated”, or “interrupted” – the latter being a combination of division and repetition.

The III chord at the double bar in Schubert’s Waltz op. 18, no. 10 brings a division; cf. Ex. 1a. Being the goal of a cadence to the relative major, it ends the first half of the waltz, and then a renewed III chord starts the second half. According to Salzer, this is not to be regarded as a modulation: he holds that (if you listen structurally) D major is never established as a new key, from which the music returns to B minor [suddenly when you go back to m. 1, gradually when approaching m. 16]. D major is just [no matter the repeats] the second, prolonged stage of the structural I–III–V–I progression expressing the B-minor tonality of the waltz; cf. Ex. 2a, an amendment of Salzer’s analysis. If a less normative approach to reduction is adopted, there are alternative readings worth consideration.⁴

The second movement of Mozart’s Piano Sonata K. 280 exemplifies interruption: having reached the V chord in m. 36, the fundamental structure starts again with the initial F-minor harmony and the main theme, an event that marks the start of the formal recapitulation; cf. Ex. 4a. Before that, the A \flat -major cadence in m. 24 has separated the exposition from the

4 Salzer’s reduction of Schubert’s waltz is presented on pp. 20–22 in vol. I of *Structural Hearing*; the corresponding graphs are to be found as Ex. V in vol. II. For a further discussion of this waltz, cf. “Schubert, Schumann, and Schenkerism. Tonal vs. focal reduction”, ch. 6 of this volume.

short development, read by Salzer as a prolongation of the III chord by means of a neighbour chord. An unusual feature of this movement is the false C-minor start of the main theme already in m. 33; cf. the synopsis of the music in Ex. 4a.

The tonal reduction shown in Ex. 5a summarizes Salzer's analysis, a reading that may be criticized on several accounts.⁵ His treatment of the second-theme episodes seems unlikely and forced, and this holds also for the idea that the beginning of the development derives from the III-chord. It is furthermore both odd and musically counterintuitive to find that the wrong-key main-theme entry in C minor, evoking an impression that the recapitulation has already started, is disposed of as just an insignificant minor precursor of the C-major V harmony ending the first part of the interrupted fundamental structure. Is the false start really understood in this way, even retrospectively?

Modulating variants of the waltz and the *Adagio*

Schubert's waltz – a very short piece with modest melodic and harmonic complexities and with few intermediate layers between musical surface and fundamental structure – and Mozart's *Adagio* movement – a longer, but not very extended, piece in succinct sonata form featuring some structural complexity and demanding some amount of hierarchical understanding to identify the Schenkerian basis of its tonal unity – were selected to serve as points of departure for the experimental investigation.

The two pieces were modified so as to arrive at musical structures concluding in another key than that in which they started, thus violating the tenet of a single controlling tonality and destroying the fundamental structure prolonging (or supposed to prolong) the ultimate key-determining chord. The modifications were made so as to be as unobtrusive as possible. Where details of the music had to be changed, the original formulations served as models. The primary consideration was to achieve good local continuity so as not to offend the listeners' sense of small-scale musical "logic".

The second repeat of Schubert's waltz was recomposed so as to lead to a conclusion in D major; cf. Ex. 1b.

⁵ *Structural Hearing* p. 242 in vol. I, and Ex. 475 in vol. II.

But since the first half of the waltz also settles on a D-major chord, one is likely to be prepared for a final D-major cadence. Rather than hearing a B-minor piece with an inappropriate D-major conclusion, a listener might therefore – if noticing anything at all – hear a D-major piece with an odd B-minor beginning. In order to test the D-major final cadence in a context giving more emphasis to the initial B-minor tonality, the first repeat was changed so as to lead to a B-minor cadence; cf. Ex. 1c.

Thus, two tonally defect variants of Schubert B-minor waltz were used in the experiments: one having two D-major cadences, and one featuring first a B-minor, then a D-major cadence – the latter variant reasonably presenting a more acute offence to the listeners’ overall sense of tonality. Tonal eductions of the two variants are shown in Exs. 2b and 2c, respectively.

Turning to Mozart’s F-minor *Adagio*, a variant concluding in A \flat -major (III) was created by exchanging the exposition and the recapitulation; cf. Ex. 4b. To do this, the development up to m. 32 was simply transposed down by a fifth so as to lead away from and then back towards F minor. The false-start passage mm. 33–36, being superfluous, was omitted, and the F-minor main-theme section of the exposition-now-as-recapitulation attached immediately after the C-major dominant chord ending the transposed development. In order to avoid that “mm. 54–56” of the “exposition” overshadowed “m. 20” of the “recapitulation”, the former passage was reduced into a one-bar formulation closely resembling that of m. 20; for a similar reason the main theme section of the recapitulation-now-as-exposition was enlarged to comprise eight bars.

The second variant was made as follows; cf. Ex. 4c. After an exposition beginning in F minor and closing in A \flat major just as in Mozart’s *Adagio*, a recapitulation keeping to C minor was achieved by simply treating the deceptive start in m. 33 as a true beginning. The main-theme section of this C-minor recapitulation was expanded to full eight-bar length, and after that the second theme and the conclusion of the original recapitulation were transposed so as to fit in with the C-minor start in m. 33 and so as to close the movement in this key.

Since neither A \flat major, nor C minor are very distant from F minor in tonal terms, a third variant was prepared which featured the original F-minor-to-A \flat -major exposition and a recapitulation in A minor; cf. Ex. 4d. This

was achieved by transposing mm. 25–32 down by a minor third so as to end the development with an E-major applied dominant inviting A minor. The false-start passage, that would have introduced an undesirable complexity in the stimulus was removed, and the transposed recapitulation started at once with an eight-bar A-minor statement of the main theme.

Tonal reductions of the three variants of the *Adagio* movement are shown in Exs. 5b, 5c, and 5d, respectively.

Lerdahl and Jackendoff's prolongational trees

The Schenkerian approach to tonal deep structures will now be complemented by another one, that of Lerdahl & Jackendoff.⁶

The purpose of L&J's system is to assign analyses to pieces of tonal music. Well-formedness rules (laying down permissible structural descriptions) and preference rules (specifying what an experienced listener is likely to hear) are proposed and discussed in a quite rigorous fashion. "Time-span" reduction, presenting the influence of rhythmic grouping and metric structure on the pitch substance and working bottom/up, is combined with "prolongational" reduction, applied top/down and taking account of the sense of tonal tension/relaxation.

Their intentions, outlook and methods are not Schenkerian, and yet L&J arrive at a set of constraints on tonal structures that in some respects is similar to the Schenkerian *Ursatz*. But there is no strong commitment to a single overall key since in addition to acknowledging a "basic form", requiring a final tonic to close the music, they also posit a more general "normative structure", of which the basic form is but a special case. A normative structure only stipulates that "right-branching" passages effecting tension should be followed by "left-branching" ones bringing relaxation, and that listeners prefer left-branching at the highest level.

6 Fred Lerdahl & Ray Jackendoff, *A Generative Theory of Tonal Music*, Cambridge, Mass. 1983. The "basic form" and the "normative structure" are presented on pp. 188–191, 197–201, and 233–241, respectively; the prolongational structure of the binary form and the sonata form is discussed on pp. 214–248.

Next we will see what Schubert's waltz and Mozart's *Adagio*, as well as the variants of these pieces, look like when L&J's tree notation for prolongational reduction is applied to them.

The structure of the original waltz exemplifies L&J's basic form; cf. Ex. 3a. The III chord in m. 9 is a "weak" prolongation, growing out of the cadence to III in m. 8, which in turn forms a "progression" in relation to the initial tonic.⁷ The IV chord (and its applied dominant in m. 13) belongs to the final cadence whereas the tonic chord in m. 5 makes up a "strong" prolongation of the initial chord. The final chord is a weak prolongation of the starting one.

Turning to the first of the tonally manipulated waltzes, the change needed to describe this variant featuring two D-major cadences involves supplanting the overall weak prolongation of the original waltz by a progression (B minor to D major); cf. Ex. 3b. The ultimate left-branching of the tree does not reflect L&J's rule that conclusions (bringing relaxation) outweigh beginnings, but rather the fact that D major has two cadences at its advantage. The B-minor tonic in m. 1 has lost its sense of being the structural beginning eventually leading to m. 16; it rather emerges as heading a left-branching introduction to a D-major piece.

In the variant featuring disparate cadences, the tree turns out to be even more ambiguous; cf. Ex. 3c. When listening for the first time to the D-major continuation after the B-minor cadence before the double bar, it will be referred back as a tensing, right-branching progression from the B-minor beginning, but when repeated, the D-major start of the second half of the waltz will form a weak prolongation with the *seconda volta* D-major chord in m. 16, giving rise to a separate and complete D-major harmonic progression: I–II–V–I. This complete cadence is likely to dominate the less conspicuous B-minor I–V–I cadence of the first half of the waltz, thus yielding a left-branching progression at the highest node. But there might also

7 It might be useful to recall L&J's terminology. A "strong" prolongation means that two chords have the same root and also the same top note; in a "weak" prolongation the root is identical while the top notes are different. The term "progression", finally, refers to relationships between chords having different roots.

be some propensity to understand the D-major part of this variant as a right branch, i.e. to apprehend the entire variant as an incomplete I–III(–I) basic form, demanding a closing B-minor section that never appears. (To restore left-branching at this non-occurring highest node, round off this variant by playing the first part of the waltz, closing in B minor, as a *da capo*.)

In prolongational reduction there are no interruptions to account for – interruption, being a matter of grouping, is a decisive factor in time-span reduction only – and therefore all events up to and including the beginning of the second-theme episode in the recapitulation of sonata forms are ultimately connected to the initial tonic as right branches. Leaving aside the question whether this is really how we as listeners understand the tonal layout in the sonata form, this principle applies also to Mozart's *Adagio*; cf. Ex. 6a. It appears from this tree that the false C-minor start (together with the development before it and the C-major dominant after it) attaches to the initial tonic as a progression, and that most of the recapitulation forms a strong prolongation in relation to the F-minor main-theme episode of the exposition.

In the variant concluding in A \flat major, it seems that the recapitulation's second-theme episode, starting on an organ point on e \flat , is not likely to be heard as stemming from the preceding F-minor main-theme episode, which in turn attaches to the beginning of the movement as a strong prolongation; cf. Ex. 6b. When part of Mozart's exposition, it was attached to the starting F minor tonic via the following A \flat -major cadence, but in this position it must belong to the A \flat -major cadence closing the entire piece. Whether this final cadence dominates the F-minor beginning (and the F-minor bulk of the music), or stands out as a deviation from it, is not altogether clear. The latter alternative may seem more probable since the music up to the repeat sign in fact makes up a tonally closed F-minor basic form, and since there are two F-minor entries of the main theme.

When the recapitulation is transposed to C minor, another ambiguity turns up; cf. Ex. 6c. The first theme (and the second theme together with it) of the recapitulation might perhaps still be heard as a progression from the initial F minor tonic – as was (perhaps) the false C-minor start of the recapitulation in Mozart's *Adagio* – but a weak-prolongation left-branching relationship to the following C-minor cadence seems to be more likely. The C-minor close, or rather the whole C-minor recapitulation, will

probably dominate the F-minor start, i.e. the F-minor-to-A₁-major exposition, giving rise to an overall left-branching structure.

If the movement concludes with a recapitulation transposed to A minor, the first and second themes of the recapitulation cannot reasonably be attached to the beginning of the piece – the progression F minor to A minor will appear too strange; cf. Ex. 6d. For the same reason, it is hard to make out how the exposition as a whole is related to the recapitulation, if indeed there is a high-level connection. This is not to say that this variant is devoid of tonal continuity, but it seems to be mediated locally and not by means of an overall single key. It seems that this variant does not even make up a normative structure.

L&J's tree notation for prolongational reduction turns out to be a very useful tool when describing and visualizing the tonal differences between the variants, and the concept 'normative structure' appears to be open enough to accommodate the variants (perhaps excepting 6d). But all variants will emerge as deficient as soon as they are thought of as "basic forms", i.e. when introducing a constraint demanding closure to be effected by the return of the tonic. Having listened to the Schubert and Mozart variants up to the first repeat sign, a basic form is what people rightly assume that they are hearing. The core issue of the tests is whether or not listeners are in fact just as prone to accept more or less tonally strange normative structures when the variants are heard in their entirety.

Apparently, there is a lack of preference rules coping with more unusual key schemes in L&J's system – ambiguities crop up that cannot always be resolved⁸. When tonally remote harmonic relationships are involved, it is

8 It is perhaps significant that the pieces exemplifying the normative structure in L&J's book (cf. pp. 237–240), Chopin's A-major Prelude op. 28, no. 7 and Brahms's Intermezzo op. 76, no. 4, are ultimately left-branching, tonally relaxing structures – in both pieces, the tonics outweigh the closely related initial dominants, eventually leading (as dominants should) to the final tonics. Besides, the prelude may (according to L&J) also be understood as a basic form beginning with the tonic, and even in the tonally bold intermezzo the starting dominant harmony appears and recurs as unresolved seventh-chords, implying that the tonic, although it never turns up, is present "in the air". For a discussion of the tonal analysis of the prelude, cf. Bengt Edlund, "How could analysis be

difficult to tell whether a progression represents an increase or a decrease in tension, and sometimes it is not clear whether any hierarchical tree can be devised at all. And yet the music might emerge as tonally coherent.

Experimental design

The music to be used as stimuli in the listening tests, i.e. the variants corresponding to Exs. 1 b–c of the waltz and to Exs. 4 b–d of the *Adagio*, was played on the piano by the author and recorded on tape. In the waltz, the two repeats were kept in tests 2–4, but not in tests 5–6 featuring simplified tasks; as to the *Adagio*, presented in tests 1–4, the repeats were always omitted.

The variants were presented to six different groups of listeners according to the following scheme:

Group 1 (27 subjects) listened only to the *Adagio* closing in C minor, and judged it after one presentation.

Group 2 (18 subjects) listened to the *Adagio* closing in A minor and then to the waltz with cadences in B minor and D major, and judged them after one presentation.

Group 3 (9 subjects) listened to the *Adagio* closing in A_♯ major and then to the waltz with two D-major cadences, and judged them after one presentation.

Group 4 (16 subjects) listened several times to both the *Adagio* closing in C minor and the waltz with cadences in B minor and D major – during a period of nine days they listened to each variant five times. On the first four occasions the two variants were just played, asking the subjects to listen attentively; only the fifth day were the listeners requested to report on their reactions.

Group 5 (21 subjects) listened to the waltz with two D-major cadences three times during the same session. The repeats were omitted, and the listeners were gradually given more detailed clues to guide their listening (cf. below). They were to report their observations after each presentation of the music.

Group 6 (19 subjects) listened to the waltz with cadences in B minor and D major three times during the same session. The repeats were omitted, and the procedure was the same as described for Group 5.

The reason for distributing the variants to different groups of subjects was that each group could only assess one variant of each piece – listening to more than one variant would have entailed a substantial risk that the

deconstructed by Chopin's A-major Prelude?", ch. 5 in *Chopin, The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag; the intermezzo is studied in Bengt Edlund, "Interpretation as Continuation".

abnormal key patterns could be detected by means of direct comparisons. Since it might perhaps be considered too difficult a task to react to tonal mismatches between beginning and end after just one hearing, three of the tests involved repeated listening. The subjects of Group 4 were thus given five opportunities to form a mental representation of the tonal properties of the variants before responding, whereas those of Groups 5 and 6, being step by step more informed on what to listen for, heard their Schubert variants three times and reported their reactions after each session.

The instructions given to Groups 1–3 and eventually to Group 4 were very simple: “You will soon hear two short piano pieces (one short piano piece) played in their (its) entirety. Listen very carefully! There is something odd with the tonal/harmonic development of the music – find out what it is!” Groups 5–6 were at first just asked to “listen attentively”, then that there was “something strange or unusual with the piece”, and finally, before the third presentation of the music, that “the odd thing pertains to the tonal/harmonic development”.

The subjects were to report whether they recognized the music, whether they could identify the composer, and whether they had played the piece(s).

After having written down their observations, the subjects were also asked to state whether they considered themselves to have absolute pitch. AP listeners had of course to be identified since they did not need to trace any fundamental progressions (or construct any prolongational trees) in order to find out whether or not the pieces eventually concluded properly by returning to the tonic. That such listeners would actually use their capacity of identifying and memorizing keys in absolute terms in order to check the overall tonality while listening can of course not be taken for granted, but it was nevertheless deemed necessary to keep AP listeners apart from the other subjects when studying the outcome.⁹

The subjects of Groups 1–3 were first-year students at the Malmö College of Music. Their mean age could be estimated to approximately 20 years,

9 Only two subjects (both of them in Group 5) reported to have AP, however. The Mozart movement was recognized by one subject in Group 2, and this pianist* also identified the tonal mismatch in seemingly absolute terms.

and among them were represented most kinds of musicians-to-be: pianists, organists, violinists, oboe players, percussionists, singers, and so on. The subjects of Group 4–6 were first-term musicology students at Lund University, also aged about 20 years and playing various instruments.

All subjects could be assumed to possess a good ear for music as a result of many years of listening and playing, and in many cases they had got various amounts of formal ear training. Some of the subjects had probably also studied music theory, but they were not likely to have had any training in “structural hearing”, or to know anything about Schenkerian theory.

Results

Distinguishing between responses clearly indicating that the subjects had noticed the tonal mismatch between beginning and end in the variants, and responses (cited within parentheses) that might possibly be interpreted as a pertinent critical reaction, the outcome of the six tests was as follows.

In Group 1 (N=27), listening to the *Adagio* concluding in C minor (4c), only (1) listener had any comment on the tonal course of the piece:

(“I suppose there were some changes of key now and then, but nothing odd”)

In Group 2 (N=18), listening first to the *Adagio* concluding in A minor (4d), and then to the waltz with first a B-minor then a D-major cadence (1c), 3+(2) listeners commented on the *Adagio*, while 2 listeners – one of them also complained about the Mozart piece – found something peculiar in the waltz:

“When the parts returned, they were in new keys”

“He exchanges F minor for another deviating key”*

“The key changes”

(“Changes of key, modulations”)

(“Strange exchanges of key”)

and

“Begins in minor, ends in major”¹⁰

“The last chord was in major”

10 Answers of this kind are not possible to interpret with certainty but were nevertheless accepted as correct responses. They seem to the point, but to what “major” was the shift: to the relative major (which is a correct observation of a tonal mismatch) or just to the parallel major (which is a tonally acceptable and fairly frequent phenomenon)?

In Group 3 (N=9), listening first to the *Adagio* ending in A \flat major (4b), and then to the waltz with two D-major cadences (1b), 2 subjects found something odd in the Schubert variant:

“Wrong’ key”

“Doesn’t the last part modulate?”

In the rehearing Group 4 (N=16), listening first to the *Adagio* concluding in C minor (4c), and then to the waltz with first a B-minor then a D-major cadence (1c), 1+(2) of the listeners eventually heard something strange in the *Adagio*, whereas 3 listeners commented upon the waltz (one of them also found the Mozart piece tonally deficient): ¹¹

“A new tonic all the time”

(“Quite many and somewhat unexpected modulations”)

(“The first part [of the recapitulation] didn’t have the original relationship to the second part”)

and

“Doesn’t end in the ‘correct’ key”

“First part in minor, second part in major”

“It doesn’t return to the original key”

Turning finally to the tests featuring simplified, non-repeat versions of the variants and a gradual disclosing of the trait to be listened for, in group 5 (N=21) 5+(1) subjects commented upon the tonal layout of the waltz with two D-major cadences (1b) after having been told that the music was strange in some way. 4 additional listeners (among them one subject having AP) described the key design only when they were also informed that there was something wrong with the tonal development.

“Develops from minor to major”

“Minor in the beginning, major in the end”

“Begins in minor, but ends in major”

“Beginning in minor and then proceeds in major”

11 Since this sub-test was administered in association with regular teaching sessions, and since students are not invariably present at such events, some of the subjects participating in the fifth, response session had not listened to the pieces all five times. Only reports from students having heard the music four times before assessing its tonal course were accepted as valid, and only these students are included in the N=16 figure.

“Ends in quite another key than the first chord”
 (“Ends in a more major mood”)

then

“Begins in minor, ends in major”
 “Changes from minor to major”
 “It starts in minor, but ends in major”
 “Proceeds from minor to major”

In Group 6 (N=19) listening to the waltz with first a B-minor and then a D-major cadence (1c), 2+(2) subjects reported the mismatch after the second presentation, while 4+(3) additional listeners observed the key shift only after having listened once more and when the hint was quite explicit. However, one of the latter listeners also responded in a way indicating that he/she may have noticed something wrong already during the very first presentation when no hint was given as to what to listen for.

“Begins in minor, but ends in major”
 “Sounds like two different pieces; the first part in minor, the second in major”
 (“Unexpected modulation”)
 (“The final chord is not the same”)

then

“Minor-like beginning, in the end rather major”
 “Begins in minor, vacillates in the middle, ends in major”
 “Modulates; ends in a new tonic”
 “The piece begins in minor and proceeds to major”; (initial reaction: “Minor/
 major mixture”)
 (“Changes of key”)
 (“Gloomy in the beginning, then more bright”)
 (“Strange ending; sounds like a mixture of two pieces”)

The emerging general picture is that only a few listeners noticed that there was anything wrong with the tonally manipulated variants. This holds also for the easiest tasks, i.e. the short, no-repeats Schubert waltzes presented with gradually more explicit hints: none of the subjects spontaneously commented on the tonal deviation, and about half of the subjects did not notice the tonal mismatch even after three presentations and after having been given a quite clear instruction as to what to observe. It appears that the tonally most odd variant of the Mozart *Adagio*, the one concluding in A minor, elicited a few more pertinent responses than the ones ending in A_b major and C minor. As to the two variants of the Schubert waltz,

featuring less obvious deviations from the tonic, no such difference turned up. Repeated listening resulted in a slightly improved ability to discover the aberrant tonal course of both variants.

Conclusions and discussion

Out of 110 reasonably good listeners, asked to notify the tonal course of the music, a clear majority turned out not to demand a return to the “home key” when listening to pieces changed so as to deviate more or less from the norm of tonal unity as conceived within Schenkerian theory. The initial tonic did not return in these manipulated variants, and yet most subjects apparently forgot (or did not care about) the tonal point of departure and eventually accepted final cadences that did not close the pieces according to the Schenkerian notion of tonality. This happened although they were instructed to notice the tonal development of the music, and even when they were given the advantage of repeated listening. Considering the fact that the two stimulus pieces were quite short and of moderate length, respectively, and that they did not display any convoluted series of modulations, this result indicates that our capacity to detect mismatches between starting and concluding key is quite poor, that our long-term memory for the initial tonic is very limited.

As the tonal reductions and the tree notations show, the five variants used in the tests are tonally defective in the sense that they do not feature any single governing key. Schenkerian theory assumes that forming a mental representation resembling an *Ursatz* (or for that matter a basic-form prolongational tree) is a pre-requisite for enjoying a sense of tonal unity. But since the variants did not keep to their initial keys, the listeners did not have a chance to form such representations. A final cadence to a chord other than the tonic, which amounts to a severe lack of tonal closure, should not be accepted by listeners who are able to entertain anything like a Schenkerian representation of music, and yet a majority of the listeners taking part in the six tests did not complain about any lack of tonal unity. This result suggests that *Ursatz*-predicated listening is not a necessary condition for enjoying tonal unity.

It seems that the unifying effect of tonality is exaggerated in Schenkerian theory as well as when it comes to musical unity in general. It is true that the vast majority of pieces/movements do conform to a “single key”, i.e.

they feature a certain tonic in which they start and to which they return, but this does not entail that they are primarily heard – or that they must be described or evaluated – with this fact in mind. Tonality is just as much, or more, a local or sectional phenomenon making itself felt in diverse ways, and the sense of unity in a music work is brought about by many other elements of the musical design besides its tonality.

The outcome of the present experiment suggests that unity, coherence, and closure as perceived qualities are much less associated with fundamental structures than Schenkerian theory takes for granted, and that tracing underlying tonal structures is not as important a component of attentive and informed music listening as many Schenkerians postulate.¹² The result rather suggests that listeners do not, or are not able to, follow and continuously re-evaluate the various linear connections and harmonic progressions that according to Schenkerian theory eventually, at the deepest layer of the reductive hierarchy, produce the *Ursatz*.

A possible objection to these conclusions might be that the responses of the subjects were inadequate, that the majority of the students listened in an inferior way. But it seems too easy to dismiss the “no-complaint” responses in this way. The fact that most of the listeners were not offended by any tonal mismatch between beginning and end when attending to the tonally defective variants does not entail that they did not experience any tonal coherence, or that they were generally unable to distinguish between what is structural and ornamental in music.

To claim that true appreciation of music, including its sense of tonal unity, is tantamount to the ability to sort out fundamental structures from the welter of surface events, and to hold that this ability is a precious gift bestowed only on the happy few, or that it takes years of specialized instruction and training to be able to listen in this way, is a problematical defence. It both turns Schenkerian analysis into a very exclusive, esoteric activity – exercises that do not catch what goes on when people listen to music – and exposes Schenkerian theory to the suspicion that its evidence, i.e. the reductive analyses making up its empirical basis, involves a vicious

12 Conversely, the result does not indicate that the few listeners, who did complain about the tonal mismatch, did so in virtue of some *Ursatz*-like mental representation of the music.

circle. The unifying tonal structures can be aurally detected only by those who have accepted the theory and learnt how to apply (or enforce) it.

(In this context it should be recalled that listening has also a complementary role in Schenkerian theory. The reductions are validated by means of the so-called *Satzprobe*: the analytic layers representing ever deeper connections are imagined, listened to, as real music. This validation is illusory because it must be kept in mind that what is heard and assessed are abstractions, and that the deeper-layer connections “validated” in this way virtually always make musical sense since the Schenkerian top/down approach to reduction is predicated on and gives precedence to normal harmonic and voice-leading configurations. But if you bother to pursue reduction as a bottom/up exercise, the justification for your selections of notes is not to be found in what remains, but in the notes that actually produce the ever-more sparse deeper-layer connections, in the notes that you are about to reduce out of consideration. Instead of enjoying abstract musical relationships, you must always ask yourself whether your analytic decisions are plausible or musically counter-intuitive.)

To make the discussion complete, it should be mentioned that there is a further explanation for the outcome of the tests. Perhaps the art of listening has deteriorated, perhaps the music lovers of Mozart’s and Schubert’s (or even Schenker’s) times were able to, and actually did, construe *Ursatz*-like mental representations when listening to music? Schenker, conservative as he was, would probably have endorsed such a dystopian defence against the present results, but it remains a hypothesis that is not very likely and seems impossible to substantiate.

Not since, but before the present investigation was undertaken, another similar experiment was reported by Nicholas Cook.¹³ He used six different

13 Cf. Nicholas Cook, “The Perception of Large-Scale Tonal Closure”, *Music Perception* 5(1987), 197–206; the theoretical consequences of this experiment are discussed in Cook’s article “Music Theory and ‘Good Comparison’: A Viennese Perspective”, *Journal of Music Theory* 33(1989), 117–141. The investigation is also succinctly presented in his book *Music, Imagination, and Culture* (Oxford 1990), cf. pp. 50–59; in this most interesting contribution to musical thinking, Cook presents Schenkerian analysis as an important theoretical tradition, but he is not uncritical of it. Being inspired by personal curiosity spurred

piano pieces of varying length and complexity, and modified them with respect to tonal closure by transposing their concluding parts. Juxtaposing original compositions with variants, he collected listening responses in terms of preference for either the tonally closed, original piece or the modified, tonally lost variant with regard to four aesthetic dimensions (pleasure, expressiveness, coherence, and sense of completion). Tonal non-closure affected the evaluation negatively only in the case of a very short piece – the first ten-bar part of the *Chorale St. Antoni* was rated higher than the variant of it.¹⁴

In contrast to Cook's investigation, the present study did not involve any comparisons, and before listening to the music the subjects were straightforwardly requested to pay attention to and evaluate the tonal/harmonic course of two pieces of different but moderate length and complexity, imperceptibly changed so as to deviate more or less radically from their original and proper tonal paths. In some respects, then, the conditions of the present investigation make for a more crucial test of the claims of Schenkerian theory than those of Cook's study. It should be recalled that in the present experiment only a small minority of the subjects were able to find out what was wrong with the music, an outcome that was little affected by the length of the two pieces and by the tonal remoteness of the final keys.

Some ten years after its publication, Cook's study was severely criticized.¹⁵ First of all, it must be stressed that Gjerdingen does not reject the result as such. In his opinion, Cook's conclusion that "the effect of large-scale tonal closure is perceptually weak if perceptible at all" is "persuasive".

by a remark made by Wayne Slawson in a conference discussion in Stockholm, my own study would never have been carried out, had I known Cook's just published experiment. However, considering the importance of these matters and the differences between the two investigations as to experimental procedure and evaluation, the present study (the present re-study) may nevertheless be of interest.

14 Another, fairly short piece featured in Cook's study, Liszt's late *Kleines Klavierstück No. 3*, was not a very good choice since, even in its original state, it is arguably a fairly strange composition, tonally speaking.

15 Robert Gjerdingen, "An Experimental Music Theory?" in Nicholas Cook & Mark Everist (eds.), *Rethinking Music* (Oxford 1999), pp. 161–170 and especially pp. 164–165.

What Gjerdingen contests is that this conclusion follows from Cook's experiment, which suffers "from problems both of conception and of execution". Gjerdingen's objections deserve to be taken seriously, and it is necessary to find out to what extent they apply also to the present investigation.

Turning first to matters of "conception", Gjerdingen quite correctly observes that it "is never easy" to prove "the non-existence of a mental state or process". Even if the null-hypothesis (i.e. that listeners do not form any mental representation of the overall tonal structure) is supported by the data, it has not been strictly proven that it is true – according to the logic of statistical inference, it lies in the nature of null-hypotheses that they can only be disproved. This objection is valid for the present study as well. While very little evidence for a faculty of forming normative representations of overall tonal structures, or for a propensity to do so, emerged in the six tests, the existence of such an element in music listening cannot be excluded.

As to Gjerdingen's complaints about the "execution" of Cook's experiment – he points out various flaws pertaining to details of the design – it seems that the present investigation was primitive enough to avoid these pitfalls. No scales featuring more or less irrelevant "descriptors" were used to assess the reactions, instead the subjects were told what to listen for; no comparisons between original and modified pieces were involved, and thus there were no effects of order of presentation; fresh subjects were used for each of the six tests; and the "surgeries required to alter" the waltz and the *Adagio* were closely comparable and also quite hard to notice. But the experimentalist – of all persons and admittedly a human performer, not a machine as in Cook's study – played the piano. And it must of course also be admitted that in order to arrive at a full and representative picture of the phenomenon, more excerpts and more subjects should have been involved in the tests, making up just a modest pilot study.

At this point, another experimental investigation, another re-study, dealing with tonal closure should be discussed.¹⁶ Marvin & Brinkman studied

16 Elizabeth Marvin West & Alexander Brinkman, "The Effect of Modulation and Formal Manipulation on Perception of Tonic Closure by Expert Listeners", *Music Perception* 16(1999)4, 389–407.

the responses to excerpts of orchestral and piano works, interrupted at the tonic, at the dominant, or at some other key, as well as to fairly short keyboard compositions by Handel, in which the sections were re-ordered so as to make the pieces end in the tonic, in the dominant, or in some other key. The listeners were musically trained, and in the first “interruption” test they could generally tell whether the excerpts ended in the initial key or not. But the results obtained in the second “re-ordering” test were less clear-cut: on the one hand, the listeners performed no better than chance when asked to decide whether the beginning and ending keys were the same, but on the other hand, they tended to be able to tell whether the pieces ended in the tonic or not. It might be argued that some transitions in the re-ordered Handel pieces were likely to arouse suspicions, but the concluding discussion in M&B’s paper raises two topics of pertinence for the present study.

The authors call attention to the fact that an inability to detect a mismatch (if any) between the initial and final key is not just a matter of long-term memory for the tonic. In order to cope with such a task, a listener must also, and in the first place, be able to discern the initial tonic.¹⁷ Furthermore, when discussing the outcome of the two experiments with their subjects, M&B learnt that cues other than the perception of keys were sometimes used as an aid when solving tasks defined in terms of tonal closure. Thus, the responses may to some extent have reflected whether or not the final passages turned out as closing passages are supposed to turn out within the style in question: if they did, the participants concluded that the excerpts probably ended in the tonic, even when they were not actually able to perceive that this was the case.

As regards the present study, the B-minor and F-minor tonics of the Schubert waltz and the Mozart *Adagio* are quite clearly exposed from the very start. The listeners, knowing that they were to notice tonal matters, were therefore likely to have identified the initial tonics. Since excerpts from pieces or (crude) re-orderings of parts within pieces, were not used as stimuli, there were no irrelevant formal cues in the Schubert and Mozart

17 A follow-up experiment was undertaken, indicating that experienced listeners are generally, but not infallibly, able to identify the tonic even after hearing quite short passages. [Whether it is possible to find the tonic, and how long a time it takes, of course depends on the composition.]

variants that could have helped the listeners when evaluating the final keys; all variants ended in stylistically plausible ways. This means that the tonal issue at the core of the present investigation was brought into focus, but also that the absence of additional, facilitating musical information made the tasks more difficult than those in M&B's study.

Cook's result, as well as the outcome of the present study, shows that listeners are largely indifferent to whether pieces of music return to the initial key and that they are easily lead astray by modulations, but his final conclusions differ somewhat from the ones to be advanced here. Facing the crucial question whether "there is not something radically wrong with a theory that ascribes fundamental aesthetic importance" to a principle of tonal closure that "has little or no perceptual validity at the larger time scales found in most tonal compositions", Cook argues that "there is no intrinsic need for the theorist to conceive of musical structures in the same manner that the listener perceives them", and denies that "a theory of musical structure has also to be a theory of perception".¹⁸

In a later paper, forming part of a discussion on the "scientific" character of music theory, Cook completes his defence of Schenkerian analysis – a defence that also implies a retreat from some of its most important claims – by equating it with a "*Darstellung*", i.e. with a systematic, pedagogical account of a work's comprehensive tonal and voice-leading properties as conceived by the analyst. This means that "a Schenkerian analysis is validated when its reader accepts it as a satisfying account of the music in question", and that "the significance of an analysis lies not so much in the *product* [...] as in the actual *process* of writing or reading it".¹⁹

Cook's reformulation of the scope of Schenkerian analysis, his way of shrinking its pretensions and seeking recourse to confirmation within the individual reader, is attractive. Indeed, even Schenkerian analysts sometimes seem to feel a need for corroboration – hence the insistence on (theoretically correct) "structural hearing". However, if understood as just an appeal to the individual reader's consent or disapproval in terms of

18 Cook, "The Perception", p. 203.

19 Cook, "Music Theory", p. 128, 129; cf. also "Schenkerian theory and better comparison: An out-of-the-way perspective", ch. 1 in this volume.

whether the analysis turns out to be a “satisfying account”, Cook’s way out of the dilemma emerges as too evasive. Taking the corroboration issue seriously means that each and every Schenkerian analysis should be critically reconsidered, questioning not only its outcome, but also its premises.

Dealing first with the outcome, no immediate threat of analytical triviality impends if we were to require that there should be a fair amount of shared, reasonably attentive listening in support of the various reductive moves proposed by the analyst, and ultimately in support of the entire reading. “Verification” by referring to inbred principles of reduction, some of which badly need empirical and other validation in the first place, is certainly not sufficient. For if “Schenkerian theory consists of a number of transformations which may be invoked in order to account for the discrepancies between a particular piece of music and the rigid note-to-note specifications of Fuxian counterpoint” – a very apt description capturing both the quasi-logical, hierarchical nature of the theory and the goal to be attained in the analysis – how can “the comparison between the note-to-note structure of Fuxian counterpoint and the freely elaborated surface of real music” really be convincing, i.e. credible as well as illuminating, without recourse to what there is actually to be heard?²⁰ Testability implies that each and any reductive interpretation must run the risk of being challenged and possibly falsified by other ways of listening, theoretically non-committed ways of listening that cannot without further ado be discarded as uninformed or inferior.

Turning to the premises, it seems that the very methodology of Schenkerian analysis must attain validity by being submitted to verification/falsification in ways that meet, or at least come close to, scientific standards. After all, Schenkerian theory is not presented by its adherents as just any method of *Darstellung*: they tend to claim that it embodies a number of principles, unshakably inherent in the nature of tonal music and enabling you to make correct analytical choices and eventually to establish tonal unity as a property of the music under consideration.

Returning finally to Cook’s crucial question, the present author is bent to maintain that there is after all “something radically wrong with a theory

20 Quotations from Cook, “Music Theory”, p. 125.

that ascribes fundamental aesthetic importance” to a principle of tonal closure that “has little or no perceptual validity at the larger time scales found in most tonal compositions”. And while “there is no intrinsic need for the theorist to conceive of musical structures in the same manner that the listener perceives them”, theories of musical structure, that are founded on and reasonably true to what we perceive, are likely to be more interesting and more worthwhile to pursue than theories renouncing such contamination.²¹

21 I have had a productive and encouraging interchange of ideas with Jan Nordmark, with whom I share both an interest to learn more about how listeners perceive modulations and a sceptical attitude towards Schenkerian analysis.

Chapter 9 Shaving Schenker

Introduction

In a recent conference, Poundie Burstein read a paper whose title and main example stirred my interest.¹ His contribution was called “Schenker and Occam’s Razor”, and its main illustration was the main theme of the third movement of Beethoven’s Piano Sonata Op. 31, No. 2 as analysed by Heinrich Schenker and as read Burstein himself in order to show an alternative to Schenker’s account; cf. Exs. 1, 2, and 3.

The idea to bring up the notion of Occam’s razor with regard to Schenkerian analysis struck me as quite important, but Burstein’s reflections – I could concur with many of his views – turned into other directions than I had expected, and to my disappointment he did not use the cutting edge of the razor. In what follows, I will first deal with the just-mentioned analyses, and then turn to what I missed in Burstein’s presentation: the shaving of the barber.

If we accept the definition in *Wikipedia*, well-informed in most mundane matters, “a razor is a bladed tool primarily used in the removal of unwanted body hair through the act of shaving”. It is also a fact that razors might cut deep, and that they can be used – by accident or on purpose (like the stiletto in Roman Polanski’s *Chinatown*) – to remove the tip of people’s noses.

“Occam’s razor” is a more sophisticated tool since in philosophy and in scientific/scholarly practice a razor is, figuratively speaking, a device that allows you to “shave away” unlikely explanations for a phenomenon. As commonly (and somewhat too squarely) understood, Occam’s razor is a principle of parsimony: one should not increase, beyond what is necessary, the number of theoretic “entities” (concepts, postulates, constructs, variables, etc.) required to explain a phenomenon. Or put in yet another, and quite succinct way: if otherwise equal, choose the simplest of two theories.

1 *Sixth International Conference on Music Theory*, Estonian Academy of Music and Theatre, Tallinn 14–17 October 2010.

Since it turned up, Occam's razor has of course been subjected to critical reflection. This is not the place to even superficially account for the complexities involved and for the many qualifications that Occam's razor might need when applied in specific situations in various fields of study. Suffice it to say that theories should be flexible in the sense that further "entities" are to be admitted when this is called for by substantial empirical evidence, and that "rich" theories may sometimes be preferable to simpler ones.

Schenker's and Burstein's readings: a comparison

As pointed out by Burstein, Schenker's reading (Ex. 2) means that a tonic is inserted between the subdominant and the dominant of the overall cadence underlying mm. 1–16.² Burstein's alternative analysis (Ex. 3) has another graphic style, but the crucial deviation from Schenker's reading is that the initial, large prolongation of the tonic contains a smaller one issuing from the subdominant as well as a prolonging lower neighbour-note motion in the bass, a reading that obviates the Schenker's inserted tonic by relegating the subdominant to an inferior level, by letting the initial tonic survive until mm. 13–14.

It could, however, be called in question whether this difference is very radical since it seems merely to be a matter of which stage of the reduction that is shown. If we were to pursue Schenker's analysis one step further, the penultimate dominant would no doubt be retained at the expense of the excursion to the subdominant supporting the fourth-degree upper neighbour-note in the treble, and we would arrive at an analysis similar to Burstein's.

There are some further, minor deviations as well. Related to the crucial difference is the fact that the D-minor chord in m. 12 is read as the end-point of a large tonic prolongation in Ex. 3 and as introducing a six-four dominant complex in Ex. 2. According to Burstein's analysis the b^2 above the g^2 in m. 9 emanates from an inner voice, whereas it is understood as a matter of the melodic surface in Schenker's reading; but in any case it

2 Schenker's reading appears as Fig. 104, 1 in *Der freie Satz*, Wien 1935; the very short commentary is to be found on p. 133 of vol. 1.

is a “covering” note.³ The notes f^2 and g^2 appearing above the d^2 - e^2 - f^2 *Anstieg* in mm. 1–8 are shown as melodic upbeat phenomena in Ex. 2 and as outgrowths from this initial ascent in Ex. 3.

Considering the main difference, one might ask (as did Burstein) which of the two readings that is the best one, why one of them is preferable to the other, and whether it is at all necessary to choose between them. Burstein reported that he had asked a number of theoretically informed persons, and that their opinions were mixed.

No matter the fact that it allows a local tonic to interfere with the IV–V progression, I prefer Schenker’s full-cadence reading since it (still) assigns top-level structural importance to the subdominant in m. 9. In Burstein’s alternative analysis, this prominent event, coinciding with the moment of release in the theme, is shown as encapsulated within a prolongation of the initial tonic, a description that seems less true and that is therefore less productive when it comes to playing the music. Furthermore, the prolongation of the tonic shown in Ex. 3 is not convincing since syntactically – i.e. considering what the right-hand is going to bring about in m. 9 – the tonics in m. 8 and m. 12 emerge as too different to really form a circuit. Or differently put: does the initial tonic really survive all the way to the structural dominant in mm. 13–14?

As may be apparent from what has just been said, I think that the decisive criterion for whether an analysis is valuable is not its compliance with some theory or other, but the music itself – how it in fact reads, of course, but also how it sounds, and how it feels when you play. A further important criterion is whether the analysis turns out to be useful when it comes to explaining or fostering interpretational ideas. In the discussion to follow, Ex. 1 will therefore serve as the primary yardstick when assessing Schenker’s analysis. By finding out how the music fares when subjected to the Schenkerian gaze, and by focussing on why it fares as it does, our object of study will shift from the music to the analytic method brought to bear on it.

3 The note e^2 occurring in the G-minor chord in m. 9 of Burstein’s analysis is obviously a misprint; it should be d^2 .

Criticism of Schenker's analysis

The theme begins with a three-note upbeat figure which Schenker understands as an example of “unfolding”, i.e. the actual motion is taken to connect two sub-surface voices. This is neither what you actually see in the score, nor what you are likely to immediately hear, but it makes some sense when you play and listen ahead: the right-hand thumb stays on a^1 while a rising line starting from f^2 gradually emerges, a line that complements the main ascending motion of the accented notes, marked with stems and starting from d^2 .

But this idea of a bifurcation within the upbeat figure, this selection of its second sixteenth-note to form an uppermost strand, is not consistently applied in Schenker's reading since in m. 8 the unfolding symbol picks out d^3 , the third sixteenth-note. (It is hard to discover this inconsistency in the graph because all unfolding figures look the same.) This d^3 is no doubt important – it will be followed by similar quick upbeats, giving additional perceptual (and why not structural?) precedence to the accented falling-third line $b_1^2-g^2-e_4^2$. But it is most regrettable that the second sixteenth-note a^2 in m. 8 is absent in Schenker's representation since it brings the expected third member of the complementary connection $f^2-g^2-a^2$; in other words, Ex. 2 falls short as an account of Beethoven's voice-leading.

Indeed, had this a^2 been preserved in the reduction, it would have lent more, perhaps decisive, structural emphasis to the note that appears to be the next one in the complementary rising motion, the accented b_1^2 in m. 9. Conversely and hypothetically, had Beethoven used the by now established signal for a forthcoming new note in the accented main line, had he composed a right-hand figure running $a^1-a^2-f^2$ in m. 8, there would almost by necessity have been a g^2 starting m. 9, and hence a theme (so far) matching the analysis given in Ex. 2.

The suspicion cannot but arise that the inconsistency, i.e. the suppression of the second sixteenth-note a^2 , is induced by Schenker's wish to see the “neighbour-note” g^2 as the “true” structural top note of the passage although this note does not appear in m. 9. Being the implied continuation of the lower, accented line $d^2-e^2-f^2$, the note g^2 is certainly expected, but Beethoven chose not give in to this tendency: g^2 is strongly implied, and that is why one cannot add it in order to make up for its absence.

Beethoven evidently decided to create an obvious gap in the accented line opening up the prospect of a forthcoming descent, and this is a decision that should be unconditionally respected in analysis. And an accented E_b-major g² turns up in m. 10 as a provisional realization, although not (as Schenker shows) as a note tied over from m. 9 where it is absent and yet structural, but as a note that is unmistakably arrived at from above by the second falling-third upbeat skip. Schenker makes it clear that, like the b_b² before it, this g² is to be understood as belonging to a “covering” line.

To sum up, Beethoven fails to prevent Schenker from establishing the non-existent g² in m. 9 as the structural upper neighbour-note of the theme, as the turning-note crowning one of his cherished *Urlinie* archetypes: initial ascent to the third degree followed by a structural descent back to the tonic. According to his theory, there simply must be a g² in m. 9, and the parentheses in Ex. 2, duly signifying that this note is not actually present, work as a fig-leaf – everyone thinks that there is something behind it. This fig-leaf is transparent, and the dummy behind it is endowed with a huge stem that certainly looks more impressive than the dwarfed one granted the actual top note b_b².

In bars 12–13 there are two unfolding symbols acting in shrewd concert. But the listener is certainly not aware of any of these alleged voice transactions: what you hear is first a root-position tonic chord, satisfying the preceding first-inversion dominant and bringing the (provisional) end of the falling-third stage of the theme, and then the initial, six-four (i.e. tonic-triad) part of the dominant suspension cliché. Instead of these unmistakable observations Schenker offers his readers a tonic compound that satisfies his own analytic agenda. The f² in m. 12 is taken to be preserved also in m. 13 while the actual accented melodic motion d²–c^{#2} is shown as dipping down into inner-voice oblivion; concurrently, the D-minor root in m. 12 is disposed of as an insignificant member of the second-inversion chord to come in m. 13.

As a result, the tonic chord in m. 12, that so awkwardly intervenes between the structural subdominant and dominant, is wiped away by being taken as belonging to the forthcoming, dominantic six-four chord, and the upper “voices” in the mm. 12–13 compound make up what looks like a quasi-simultaneous f²/d² dyad that cannot but lead to the e²/c^{#2} dyad to

be shown as the right-hand essence of m. 14. But as the parentheses admit, there is actually no e^2 in m. 14; concurrently, it is postulated that this note is structurally present. For the absence of a penultimate second degree would be a serious obstacle to the structural descent from the third-degree f^2 re-established in m. 12 – a note having the dual but questionable privilege of being supported by the root of a tonic chord as well as acting as the dissonant top-voice component of a not-yet-present dominant six-four suspension.

Fortunately there is a principle in Schenkerian analysis that takes care of such situations. Indeed, there has to be such a principle since according to Schenkerian theory fundamental upper lines must be descending and must proceed stepwise via the penultimate second degree, and since classical music exhibits numerous pieces and passages in which seventh-degree notes in fact occupy this structurally decisive, dominant-supported penultimate position. This Beethoven theme is evidently a specimen of this unwanted phenomenon, and therefore it must be transformed so as to conform to the rule.

This unprincipled principle allows the analyst to simply add second-degree notes, and then to hold that they “represent” seventh-degree notes. (Or perhaps it is the other way around, who knows?) The point of the trick is that actually occurring, penultimate seventh-degree notes, however “structural” they may sound, and however much they make up counter-evidence to the rule of stepwise descents to the tonic, can be treated as subordinate leading-notes covered by nothing and be forced to serve as further evidence for the law of penultimate second degrees. As the parentheses show, the e^2 in m. 14 is not actually present, and yet it is there as a virtual note, a fact that allows Schenker to register it as a fully valid, and vitally important, second-degree member of his *Urlinie*. Whether Beethoven comes up with an e^2 or not is immaterial – the principle prevails.

While the actual $d^2-c\sharp^2$ motion in mm. 13–14 is understood as being subordinate to the would-be structural connection $f^2-(e^2)$, the would-be structural neighbour-note (g^2) in m. 9 is considered to be superordinate to the b^2 that actually occurs above it. And by the same token the initial ascent from d^2 to f^2 in mm. 1–8 is accompanied by a subordinate motion from f^2 to a^2 , although the latter note is left out in both Exs. 2 and 3. Evidently, the

Schenkerian principle of “covering” (or being “covered”) allows the analyst to suppress and eventually disregard prominent connections appearing below or above lines that are assigned structural significance. Occasionally such readings may be warranted, but as all principles the analytic notion of “covering” can be used improperly.

Since the rise from f^2 to a^2 proceeds on upbeats, it might be understood as complementary. On the other hand, it seems absurd to hold that the incomplete would-be structural line $f^2-(e^2)$ is able to “cover” the actually present melodic motion $d^2-c\sharp^2$ beneath it. And the $b\flat^2$ in m. 9 can of course not be a “covering” note since the g^2 to be “covered” is not there.

Turning for a while to Burstein’s reading, his arrow from $b\flat^1$ to $b\flat^2$ is not convincing as an explanation to the effect that the accented $b\flat^2$ topping m. 9 emanates from an inner voice. The $b\flat^1$ actually belongs to the following three-note group bringing the short melodic upbeat from $b\flat^2$ that leads to the g^2 in m. 10, just as the accented $b\flat^2$ in m. 9 came from the d^3 in m. 8. In other words, there is no backward (from-effect-to-cause) relation between $b\flat^1$ and $b\flat^2$ in m. 9 – the arrow (if any at all) in this bar should go down from $b\flat^2$ to $b\flat^1$, from the established, accented note of the top line to the accompaniment note that is expected to appear an octave below and that brings the right hand to the first-beat g^2 in the next bar.

Why, one might further ask, was it necessary for Schenker to suppress the actual $b\flat^2$ in m. 9 in favour of the merely virtual fourth-degree upper neighbour-note g^2 , and later on to insist on the far-fetched descent $f^2-(e^2)-d^2$ at the expense of the actual motion $f^2-d^2-c\sharp^2-d^2$ involving the seventh degree as a structural lower neighbour-note? The answer is that these choices derive from a strong preference and a fundamental postulate, respectively, in Schenkerian theory: deep-layer connections should, and *Urfolien* must, exhibit smooth, stepwise motions.

It must finally be objected that Schenker does not account for the entire theme since the first-theme section continues up to m. 31. His choice to disregard the elaborate way in which the expository period is extended is no doubt a strategic one – the disregarded bars do not support his reading of the theme up to m. 15. Just as in any other intellectual discourse, omitting what does not fit in with one’s conclusion is reprehensible. (We will in due time return to the rest of theme, and to the entire exposition.)

Starting from scratch

One might say, then, that Schenker has laid out a smooth highway through (the first part of) Beethoven's theme by removing its central $b\flat^2$ summit and filling up its final $c\sharp^2$ valley. This is certainly not a trivial achievement. But it might be worthwhile to try to say something that is true, and yet not necessarily trivial, of the music – the music that is actually present. The next two sections will be devoted to finding a way through the theme, a way that pays respect to the landscape and that in Occam's spirit stays away of unnecessary theoretical "entities".

Bars 1–15 may appear as a unified whole, but in spite of all continuity three sections can be distinguished. Up to the first part of m. 8 the music is predominantly static, then there is an active stage featuring a melodic excursion and rapid shifts of harmony; mm. 13–15 bring final closure by means of a conventional cadence. (The period is over, but not the theme.) The shift occurring in mm. 8–9 is crucial. You can see it and you can hear it, and to the pianist the change is even more obvious: the arpeggio figuration turns different, and both hands are moved to other positions on the keyboard. Grasping the mixture of continuity and change involved in this shift seems imperative for an enlightening description of the initial period of the theme.

In order not to miss anything of importance the analysis will start with a comprehensive study of the voice leading. Whereas the theme is primarily heard as a series of broken chords producing a treble melody and supplying a harmonically conceived bass, it may also be understood as an ensemble of more or less virtual voices, whose notes stay in their pigeon-holes within the arpeggios except for the fact that the pattern undergoes changes in mm. 8–9. Ex. 4 shows the first period, arranged so as to separate the various strands clearly.

Beethoven's left-hand notation (cf. Ex. 1) draws attention to an interesting peculiarity: the root of the chords in mm. 1–8 is marked as a separate sixteenth-note whereas the next note is to be held throughout the entire bar. Pianists may do justice to this notation in various (and sometimes overly imperceptible) ways, but if you do not wrap up the arpeggios in a

haze of pedal, the first notes get a *pizzicato* quality while the second notes, being slightly emphasized, suggest a sense of syncopation.

Another peculiarity, also a bit awkward for the pianist, is the fact that in mm. 1–8 two keys are struck simultaneously in the middle of the bars. Perhaps partly in order to prevent the inevitable increment of loudness in the arpeggio figurations from blurring the triple time, pianists are likely to boost the fifth sixteenth-note in each bar by giving it some additional stress. Together with the *pizzicato*/syncopation effect, the emphases bringing out the third beats lend a sense of unrest to the music, balancing the harmonic stasis.

A further detail to be noticed is the fact that the right-hand upbeat figures leading to m. 4 and m. 8 are different from the other ones: as a result of this, the e^2 and f^2 starting these bars are approached both from above and below, a fact that marks the accented rising line for consciousness.

In m. 8 the right-hand entry is suddenly raised by a fourth, and the so far curved upbeat figure is stretched so as to comprise a rising octave; concurrently, the root progression in the left hand also features a rising fourth. From m. 9 on the number of notes in the left-hand arpeggios is reduced from four to three.

The first stage of the reduction, shown in Ex. 5, discloses the mechanism effecting the rise of the right-hand part in mm. 1–9. Schenker's analysis apparently fails to account for the voice leading of this passage, involving a close interaction between the two treble strands. The lower, main-beat line $d^2-e^2-f^2$ is pushed upwards by the short upbeats in m. 3 and m. 7. The upper third-beat strand, starting from f^2 , reacts to the virtual dissonances in mm. 4 and 8; due to the ascent of the accented lower line, the complementary upper strand has to rise to g^2 and then to a^2 . In m. 9 the changed upbeat figure upsets the prevailing pattern: b_b^2 , the implied next note of the third-beat upper line, is prematurely urged from below by the eighth-note a^2 while a fresh and decisive initiative comes from above with the sixteenth-note upbeat d^3 making for a quick falling third. The shift of the right-hand figuration in m. 9 means that the accented lower line seems to be discontinued after f^2 , and that the upper line apparently takes over the accented positions. Alternatively, the lower strand survives these changes and proceeds from the first-beat b_b^2 , a reading that involves a rising-fourth gap from f^2 .

Starting a tenth below from g/g^1 in m. 9, the left-hand accompaniment shadows the falling sequence of accented treble notes at the distance of a tenth. From m. 8 on, the music is replete with parallel voices, giving rise to legitimate as well as forbidden consecutive intervals. Thus, in mm. 8–9 there is a set of consecutive fifths and octaves that comes clearly to the fore only in mm. 9–10 when the music turns downwards. But if precedence is given to proximity, the a (as well as the d) in m. 8 lead to the root g in m. 9 while d^1 is retained, and allowing of a change of pigeon-hole within the figuration, f^1 proceeds to g^1 . Hence, there is a virtual connection between f^1 and g^1 in the accompaniment, which is as near as you will get to an upper neighbour-note relationship involving the pitch-class G .

Three deep-layer structures

When pursuing the reduction process beyond Ex. 5, three background readings will be presented, readings that correspond to various, arguably coexisting tonal structures inherent in the music. While certainly not a feature of Schenkerian analysis, the presence of several deep-layer structures in the same passage is of course possible. Structural ambiguity seems to be a better criterion of artistic quality and analytic sensitivity than the fact that you can mobilize devices to squeeze out one and only one *Ursatz*.⁴

The most straightforward reading is shown in Ex. 6a, featuring accented notes throughout the theme. A conspicuous rise from the first to the third degree comes to the fore, but after this promising “initial descent” the *Urfinie* candidate fails to meet Schenkerian standards: when approaching the cadence there is no second degree. But just as pianists refrain from correcting Beethoven by playing an e^2 in m. 14, this note is not added in Ex. 6a. And much to the dissatisfaction of people addicted to linear smoothness, it is accepted that Beethoven decided to supply a midway f^2 – b^2 skip in mm. 8–9, a rising fourth that the inferior-level upbeat a^2 cannot bridge, and that brings a melodic and structural peak that we do not want to eclipse by imagining even a virtual g^2 in m. 9.

4 Cf. Bengt Edlund, “In Defence of Musical Ambiguity”.

Are these theoretical shortcomings really a problem? And if so, is there anything wrong with Beethoven's music, or a flaw in Schenkerian theory?

As to the skip, the accompaniment is also raised by a fourth in mm. 8–9, and this massive deviation from proximity amounts to a sudden overall shift to a higher register. This midway sense of liberation and clearer light emerges as an irreducible property of the theme, and this quality is exactly what the reduction 6a does not shave away.

In addition, the rising gap f^2-b^2 makes perfect sense since it opens up an implication that the following descent satisfies *en passant*, and since it delays the goal of another obvious implication. The gap itself prevents the $d^2-e^2-f^2$ line from reaching g^2 while its realization in m. 10 brings the very note that was withheld in m. 9. Thus, there is an important g^2 in the theme, but it is not a non-existent, glass-of-water, smooth-line neighbour-note over G-minor but a postponed realization over E, major.

However, apart from the theoretically disastrous lack of a penultimate second degree, the worst drawback with 6a is perhaps the fact that it is so straightforward that any dilettante can find it and play it; it is too trivial to be of any interest for an expert analyst. Yet, no more (and no less) than a thematic period, suddenly introducing a midway peak bringing a conspicuous change in the music (a shift to a brighter register, to a smoother, non-syncopated rhythm, and to parallel tenths), might very well have been what Beethoven hit upon and also managed to compose – although he happened to, or couldn't but, transgress the rules of Schenkerian theory on the way.

The reading next to be presented is perhaps less obvious, but it exhibits top-voice continuity up to the peak in m. 9. It also depends more on the pianist's interpretation. Analysts with a bent for "objectivity" might dislike any artistic interference in their job, but it is arguably neither possible, nor desirable to keep interpretation out of analysis.

Whereas the reading shown in 6a suggests and presupposes that the entire theme is rendered in a way that evokes a sense of serene calm, many pianists prefer to play the first eight bars of the theme in more "stormy" manner. Thus, one can often hear that the upbeat figures in mm. 1-8 are given an agitated, angular quality by stressing the top notes in the right hand; some pianists play as if these notes had an extra sixteenth-note stem.

Such “off-beat” interpretations might easily give the impression that the stressed uppermost line, hitherto called complementary, is the main rising connection in mm. 1–8; the lower line, made up of notes that merely turn up as the accented results of the insistent upbeat gestures, is put into the shade; cf. Ex. 6b. There is now an “initial ascent” from f^2 to a^2 , followed by a smooth, stepwise transition to b_b^2 , emerging as the sixth-degree structural upper neighbour-note of the melody. In m. 9 the principal uppermost line shifts from unaccented, stressed notes to accented positions, which (in addition to the fact that the right-hand upbeat figures are simplified so as to just rise along the triads) accounts for the sense of relief in the second part of the theme. The crucial significance of the rise from a^2 to b_b^2 is supported by the simultaneous, releasing contrary-motion fall from the insistent quasi-syncopated a 's to the accented g in the left hand.

In 6b the cadence the period is notated so as to suggest an alternative way of listening – the upward motion to f^2/d in m. 12 may be understood as a diversion on the implied parallel-tenth route down to the structural dominant $c\sharp^2/A$ in m. 14. The expected goal $c\sharp^2/A$ is then further delayed by the d^2/A suspension in m. 13.

To prepare the ground for the third reading, an excursion extending the study to the entire theme, exposition, and movement is necessary.

Evidence to the effect that Schenker's analysis, featuring a non-existent fourth-degree upper neighbour-note and a penultimate non-existent second degree, is mistaken can be gleaned from Beethoven's score if one takes care to study it beyond m. 15; cf. Ex. 1. Already in mm. 16–17 the very shaky evidence for a structural f^2 – g^2 motion virtually disappears. The note b_b^2 begins the iteration of the second part of the thematic period, and it is very hard to even imagine a neighbour-note g^2 introduced from below since the f^2 in m. 16 is quite insignificant. The two following, very condensed versions of the second part of the thematic period issue from the beyond- g^2 notes a^2 and d^3 , respectively, and these fragments close abruptly with lower neighbour-note motions d^2 – $c\sharp^2$ – d^2 , contradicting the presence of any virtual, second-degree-representing e^2 in m. 14. Throughout the theme, then, Beethoven's avoidance of a fourth-degree neighbour-note and preference for a penultimate seventh degree seem quite deliberate.

Turning to the movement's second theme, occurring four times in mm. 43–67 if the two appended four-bar condensed variants are counted, it is hard to think of a melody that more insistently brings home the fact that it starts with a motion from the sixth, upper-neighbour-note degree to the fifth; cf. Ex. 1. The cadences again give precedence to the seventh degree, and the second-theme episode brings no less than four obvious diminished-seventh motions from f_4^2 to g_4^\sharp , comparable to the b_4^2 – c_4^\sharp motions in mm. 9–14.

There is an unmistakable family resemblance between these themes, and this is a fact that you should take account of when studying the main theme. Conversely, if you have accepted Schenker's misleading fourth-degree neighbour-note account of the first theme, you may perhaps not discover (or accept) its similarity with the second theme, obviously featuring a sixth-degree neighbour-note. It is amazing that Schenkerian analysis has been hailed as an indispensable and infallible guide to subsurface recurrences ("hidden repetitions").⁵

As to the third theme, mm. 67–87, its first part rises to the fifth degree, and on its way down it touches the root-supported seventh degree rather than the second; cf. Ex. 1. Only in its two appended four-bar cadences does this theme let the fourth degree emerge as a top neighbour-note, and only now is there a patent stepwise descent down to the tonic note, a descent including the second degree.

If you hit upon the idea to bring out this late turn of events as a crucial tonal property of the exposition at large, if you want to bring out that Beethoven's withholding of the fourth and second degrees in the first theme is highly significant from a tonal point of view, you must issue from a defensible description of the main theme, a description involving a structural sixth-degree upper neighbour-note and a penultimate seventh degree. Whether dealing with works or styles, you cannot make meaningful comparisons unless your basic observations are correct.

Additional and quite unmistakable support for the idea that the first theme features an a^2 – b_4^2 peak that should be respected when trying to establish its tonal structure, is to be found in the very last statement of this theme; cf. Ex. 7. In mm. 350–357 no less than eight *sforzato* a^2 's are

5 Cf. Bengt Edlund, "Hidden Repetitions and Uncovered Parallelisms".

added above the upbeat figures before the $b\flat^2$ is released – i.e. right-hand syncopations are added to those in the left hand, giving just as persistent emphases to the fifth-degree a^2 . Can a composer be more explicit when it comes to tonal upper-structure?

As to the penultimate note, Beethoven demonstratively avoids the second degree in m. 384 (the very last chance in the theme) in favour of the fifth degree; cf. Ex. 7. You can play e^2/e^1 at the first beat, if you like and dare, but the fact of the matter (the null-hypothesis, as it were) is that Beethoven – or Mozart, or whoever – relied on the local context when choosing the actual top notes to go with their penultimate dominants. In the two-bar circuits of the following coda, Beethoven complements the accented primary motion $d^2-c\sharp^2-d^2$ with weak-beat f^2-e^2 descents to d^2 .

The third reading issues from the dominant ninth/seventh-chord (with raised fifth in the bass) that is inherent in the second part of the thematic period, an observation that might be promoted from “*fernsehen*” to “*fern-hören*” by evoking L. B. Meyer’s idea of implications; cf. Ex. 6c. Perceived as a “generative event”, the accented series of tenths $g/b\flat^2-e\flat/g^2-c\sharp^2/e\sharp^2$ gives rise to two expectations. One “realization”, precipitated by the diminished $e\flat-c\sharp$ third in the bass and putting a temporary end to the joint downwards motion, occurs immediately, indeed prematurely, as d/f^2 in m. 12. The other one, pertinent in the present context, involves a delay and completes the descent along the ninth-chord ladder by eventually arriving at a point of stability, A-then- $c\sharp^2$ in mm. 13–14. Recall that the idea of a falling $b\flat^2-g^2-e^2-c\sharp^2$ diminished-seventh motion in the treble is corroborated by the second theme of the movement, featuring stepwise motions from $f\sharp^2$ to $g\sharp^1$.

Considering the upper line in Ex. 6c, a^2 in m. 8 does not, properly speaking, lead to its upper neighbour-note $b\flat^2$, but rather to its main note $b\flat^2$, the crucial note of the entire theme. Similarly, in m. 14 $c\sharp^2$ is less the treble note of the penultimate dominant than a leading-note. Indeed, from a bird’s-eye perspective the two halves of the theme can be thought of as a quasi-two-voice complementary pattern of expansion and contraction: d^2-a^2 becomes $b\flat^2-c\sharp^2$ becomes $d^2(-a^2)$. Alternatively, the culminating shift from a^2 to $b\flat^2$ might seem to correspond to, to be balanced by, the final returning step from $c\sharp^2$ to d^2 . The symmetry might also be construed in terms

of quasi-implicative events: the summit gap $f^2-b)^2$ contains a^2 and later on the veiled gap $f^2-(d^2)-c\#^2$ is followed by the closing d^2 .

One might even ask oneself whether the theme embodies a rising fifth-to-eighth-degree *Urlinie*. This seems to be an unwarranted conclusion, however – not because Schenkerian theory does not allow of rising fundamental lines with augmented seconds, of course, but because the chain of falling thirds makes the register distance from $b)^2$ down to $c\#^2$ irreducible.

Turning to the bass, the Schenkerian “structural” dominant on A shrinks to a local affair; it is the subdominant on g in m. 9 – the focus of the theme – that assumes the role of the decisive harmony in virtue of the fact that it acts as the pillar between the initial and closing tonics. The dominant in m. 14 occurs too late and weighs too little to have such a function. This observation is valid also for the readings 6a and 6b, as well as for innumerable other pieces and passages where the would-be structural dominants have lost control of the actual tonal process. Such late and insignificant dominants sound little more than the clicks heard when old ladies close their handbags. Structurally, they amount to little more than the mat in front of your street door: you use it habitually after having been outside the house, but when telling people about your walk, you are not likely to announce that you have paid a visit to the door-mat.

It may be objected that the reading just presented (as well as 6a and 6b) has used the concept of implication as an unnecessary prop, and hence that this argument should be shaved away with Occam’s razor, just as should be done with a number of analytic concepts within Schenkerian practice. But there is a fundamental difference between the theories of Meyer and Schenker.⁶

Meyer’s theory of implications has a very low, optional profile and a mildly persuasive quality. Its aim is to explain how and why we are sometimes able to predict what the music will probably come up with next. If you don’t perceive that a certain event is generative in Meyer’s sense, or if you don’t accept a certain event as a realization of a previous event heard (or misunderstood) as generative, the implication isn’t there. Turning to this specific case, if you cannot hear that the sequence of falling-thirds from $g/b)^2$ all the

6 Cf. “Prolongation vs. implication”, ch. 4 in this volume.

way down to the delayed $A/c\sharp^2$ lends a certain continuity to the second half of the theme, the analysis shown in Ex. 6c is not for you. And if you do hear this connection, this analysis can be proposed without any implication *ad*o.

On the other hand, if there is a theory that is coercive and lays strong claims of validity, it is certainly Schenker's. All tonal music (excepting music written by bad composers or composers belonging to musically underprivileged nationalities) is subjected to a system of harmonic and voice-leading laws lending unity to the works. The discipline of "tonal" reduction is carefully regulated by top-down considerations, and the adepts carefully teach their pupils the auxiliary tools that sometimes have to be used to transform the musical surface so as to arrive at theoretically proper results.⁷

The non-existent " g^2 " in m. 9 may serve to illustrate the difference between Meyer's and Schenker's way of thinking. To the former, this non-occurring but implied note is important since it gives a specific musical meaning to the $b\flat^2$ that actually turns up; to the latter, the failing g^2 , in virtue of being theoretically required as a structural upper neighbour-note, cannot but reduce the importance of the $b\flat^2$.

It is significant that *Der freie Satz*, the third and last volume of *Neue Musikalische Theorien und Phantasien*, is a treatise organized in 324 paragraphs like a statute book; hence, perhaps, some of the allure of Schenker's ideas – at least to some minds.

Summary and discussion

Three alternative readings of Beethoven's theme have been proposed. They correspond to three distinctly different ways of conceiving the passage, and at least 6a and 6b may give rise to distinctly different interpretations. The reading shown in Ex. 6c is likely to shine through no matter how you play. But it seems impossible to render the theme in a way that corresponds to Schenker's analysis in Ex. 2. How, for instance can you make it clear that the upper turning-point in m. 9 is g^2 , not $b\flat^2$?

None of the three alternative reductions encapsulates the subdominant opening up the theme; quite to the contrary, this harmony is brought out. Nor is the actual top note disposed of as some kind of "covering" event

7 Cf. "Disciplining reduction and tonalizing interpretation", ch. 2 of this volume.

merely belonging to the musical surface, and the seventh degree is accepted as the treble representative of the penultimate dominant. No notes are posited, and no additional concepts, assumptions, postulates, or principles have been drawn upon to derive the underlying structure – as pointed out above, the idea of implication (or expectation) is an optional resource of explanation, not a tool of transformation.

Taking a quick glance first at Beethoven's theme, then at Schenker's analysis of it, one is bent to think that the latter has given the former a badly needed shaving – there is evidently some “unwanted body hair” in this theme, but it has been resolutely “removed” by the analysis. On the other hand, if one pays loyalty to the composer rather than to the analyst, however influential, it rather turns out that this rough rationalization of the musical process by far exceeds a shave – for one thing, the top-note nose of the theme has fallen victim to Schenker's razor. The theme has in fact been subjected to radical plastic surgery so as to comply with a timeless “smooth” look appropriate for old organists with fingers stiffened from exercises in species counterpoint.

On the other hand, if Beethoven is entrusted with the razor, as has been staged in this critical scrutiny of Schenker's reduction, a number of analytical devices have emerged as ready to be shaved away. In as far as the reductive decisions in Ex. 2 were dictated by concepts, assumptions, procedures, or preferences like “unfolding”, “covering”, representation-warranting-substitution, and compulsory stepwise smoothness, it appears that “entities” that are unnecessary in Occam's sense have been used to explain what goes on in the theme. And in as far as these analytic tools have been employed despite the fact that they do not apply, or have been used although other, more straightforward interpretations without auxiliary theoretical commitments are possible, Schenker's reading emerges as mistaken or severely biased.

Indeed, considering the fact that the various analytical decisions in Ex. 2 combine to produce a certain, theoretically preordained *Ursatz*, another razor is actualized. According to *Wikipedia* “Hanlon's razor” amounts to the maxim that one should “never attribute to malice that which can be adequately explained by stupidity”. But Schenker was obviously not stupid – he uses his tricks most cunningly – and whatever you think of his opinions in other matters, you cannot very well argue that his analytical intentions were evil. So we have to be Solomonic: convinced that he was

right and being eager to convince, Schenker was just, and presumably with good conscience, deeply manipulative, and he managed to dupe not only himself but many others up to the present day.

But wait a minute. Allowing for some idiosyncrasies like the necessity of stepwise descending fundamental lines, isn't Schenker's theory admirably simple? Doesn't it manage to reduce all music (that he considered worthy of attention) to a few smoothly connected chords that define the key in a nutshell? Yes, the top-note tip of Beethoven's theme is shaved off – but so what? Isn't this, after all, just one of those minor discrepancies that is bound to turn up when a grand generalization is applied?

On the other hand, if a theory leads to a badly-fitting explanatory description of a piece or passage of music, it is a most serious drawback, and if this analytic shortcoming emerges as an obvious and necessary result of some of the theory's basic presuppositions and procedures, the failure is aggravated. Still worse, however, is the fact that Schenker's analysis of this Beethoven theme – and there are many readings just as miserable in the annals of “tonal” reduction – is not only an application; it makes up a part of a vicious circle.

But before dealing with the circle, we have to wait one more minute to consider another objection. It may have been noticed that Schenker's reduction was just called an “explanatory description”, which seems to be a fair designation. Wouldn't it possible, then, to approve of Ex. 2 as an explanation of Beethoven's theme – the “entities” being added for explanatory purposes – while steering clear of taking it seriously as a description? The answer must be in the negative, however. An explanation cannot very well be a good one if it misrepresents its object.

Nicholas Cook would not agree, since he holds that it is the very discrepancies between the reductive graph and the music that make Schenkerian analyses interesting.⁸ Excepting m. 9 and mm. 13–14, Schenker's structural upper line follows the accented notes of the inherent melody of

8 Cf. “Music Theory and ‘Good Comparison’, A Viennese Perspective”, *Journal of Music Theory* 33(1989)1, 117–141, and “Schenkerian theory and better comparison: An out-of-the-way perspective”, ch. 1 of this volume.

Beethoven's *arpeggio* theme, and one might say that he explains this melody by "comparing" it with the stepwise structural connection supposed to underlie it, or indeed with the structure that according to Schenkerian theory must underlie it.

But apart from the elements of wishful thinking upon which Schenker's *Urlinie* is constructed, is it really enlightening to compare Beethoven's theme with the smooth dummy shown in Ex. 2? Is it really a good idea, does it really promote understanding, to cut off the sudden upwards expansion of the actual top line and to plug up its descent to the seventh degree? No, these features are part-and-parcel properties of the much bolder upper-line structure that Beethoven composed. Furthermore, and as already pointed out, Schenker's smooth normalization blocks our insight into what happens in the exposition beyond the initial period. The kinship between the three themes is largely a matter of the upper sixth-degree and lower seventh-degree turning-points, notes that are denied structural importance in Ex. 2, and that are bound to disappear entirely when pursuing the reduction. No matter his pretensions, Schenker weighs too little to sit on Beethoven's seesaw.⁹

The readings presented in Exs. 6 a/c also deserve to be called explanatory descriptions since they disclose underlying structures that, although they do not qualify as *Ursätze*, emerge as orderly and meaningful. And while each of them explain some aspects of Beethoven's theme, the graphs do not fail as descriptions of it. Exs. 6 a/b account non-trivially for the mixture of discontinuity and smoothness in the transition between m. 8 and m. 9, and Ex. 6c suggests an underlying, non-standard harmonic framework as well as makes clear why there is a penultimate seventh degree. And yet none of these readings introduces theoretical assumptions that need to be shaved away.

9 How comes the disrepute of Riemann's normalization efforts in the name of periodic regularity as opposed to the enthusiastic acceptance of Schenker's *Ursatz* thinking? Riemann sometimes went to far, but it seems that by and large the period is a better generalization than the *Ursatz*, and that (say) a "left-out" bar tends to upset the listener's expectations more than a "missing" tonal degree.

Let's finally turn to the vicious circle. Ex. 2 is taken from *Der freie Satz*, where it serves both as an illustration of a specific issue (*Vertretung*) and, miserable as it is, as a further piece of evidence for the grand generalization of the theory – the theme turns out to be another specimen of the *Ursatz*. Resort to this or that device, the implicit methodological rule runs, and you will arrive at theoretically acknowledged descriptions; use this or that apparently successful and hence obviously warranted device in your analytic work, and you will find ample evidence for the theory. The tricks are necessary for the trade, and the trade warrants the tricks.

Consider the g^2 in m. 9, a non-existent note that is acknowledged as a full member of the fundamental structure. The reason for accepting this “representation”, for taking the actual top note b^2 as merely a “covering” note, is warranted by the fact that you arrive at a stepwise background connection, a most desirable, indeed obligatory, element in Schenker's theory of well-formed structures. Concurrently, this Beethoven theme – thus treated, and impeccably well-formed as it has been shown to be – serves as a specimen that confirms the validity of the theory, including its apparently successful transformation resources.

By the same token the “representing” second-degree e^2 added in m. 14 gives substance to the theoretical premise that structural descents always pass the second degree. The primary message of the parentheses is not to inform us that this note is absent, but to tell everybody that it must be there. Schenker's intention was certainly not to call attention to what the parentheses really signify, namely a piece of contrary evidence.

Schenker's “simple” theory is largely based on readings that by force of various transformation tools resolutely iron out, shave away, overthrowing evidence. The simplicity of the theory is only apparent: the tonal backgrounds arrived at are simple, to be sure, but the theory itself lugs around with quite a few assumptions and postulates. Due to these additional “entities” the theory in effect becomes too simplistic to do justice to the actual and often complex musical processes within the masterworks that are subjected to study.

To the extent that Schenkerian theory is at all an inductive affair, and not just based on repeated deductions from given truths, there is, needless to say, an air of bad empiricism in the whole business. And yet Schenker is hailed as a great empiricist by some of his followers. He was certainly

assiduous, but it would never have occurred to an equal of Darwin to adduce rectified specimens, i.e. contrary evidence, in support of his own cherished ideas. To a true empiricist, “anomalies” call for reconsideration of theories that are always kept open for amendments or radical change. True empiricists do not at any cost defend axioms, but use counterevidence to find out what was wrong with their hypotheses.

Darwin no doubt had a razor. He seldom used it on his own chin, apparently, but he would never have shaved away two legs from a spider in order to present it as an insect.

Music Examples

Chapter 1

Exs. 1 *ale* Reduction of Schubert's *Das Wandern* according to Cook.

a. *m.* 13

b.

VI (V — I) V (V — I)

c.

d.

e.

Ex. 1f *Alternative reduction* according to Cook.

VI (V — I) V (V — I) I

Ex. 1g Middleground

Musical score for Ex. 1g Middleground. The score is in G major (one sharp) and 3/4 time. It consists of three measures. The first measure starts at measure 13 and contains a triplet of eighth notes (G4, A4, B4) with an accent (^) and a '3' above it. The second measure starts at measure 15 and contains a pair of eighth notes (B4, A4) with an accent (^) and a '2' above it. The third measure contains a single eighth note (G4) with an accent (^) and a '1' above it. The bass line consists of quarter notes: G3, F#3, E3, D3, C3, B2, A2, G2. Chord symbols below the bass line are I, VI, V⁶, V, and I.

Ex. 1h Background

Musical score for Ex. 1h Background. The score is in G major (one sharp) and 3/4 time. It consists of three measures. The first measure starts at measure 13 and contains a triplet of eighth notes (G4, A4, B4) with an accent (^) and a '3' above it. The second measure contains a pair of eighth notes (B4, A4) with an accent (^) and a '2' above it. The third measure contains a single eighth note (G4) with an accent (^) and a '1' above it. The bass line consists of quarter notes: G3, F#3, E3, D3, C3, B2, A2, G2. Chord symbols below the bass line are I, VI, V⁶, V, and I. There are also chord symbols above the treble staff: ^3, ^2, and ^1.

Ex. 2a Beethoven, Piano Sonata Op. 90, 1st mov.

Mit Lebhaftigkeit und durchaus mit Empfindung und Ausdruck

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39

p
f
p
pp
dim.
rit.
in tempo
f
pp
f
pp
p
pp

Ex. 2b Reduction according to Schenker.

Exs. 2 cle Reduction according to Salzer.

Ex. 2f Foreground.

Ex. 2f Foreground. This system consists of three systems of piano music. The first system (measures 1-8) features chords labeled Xf, Xp, and V₂. The second system (measures 9-16) features chords labeled Xpi, V, VI, and I⁶. The third system (measures 17-24) features chords labeled II^b, V, VI, I⁶, II^b, V, and I. The notation includes treble and bass staves with various articulations and fingerings.

Ex. 2g Middleground.

Ex. 2g Middleground. This system consists of two systems of piano music. The first system (measures 1-10) features chords labeled I, III, III, and V₂. The second system (measures 11-21) features chords labeled VI, V, I⁶, V, VI, I⁶, V, and I. The notation includes treble and bass staves with various articulations and fingerings.

Ex. 2h Background.

Ex. 2h Background. This system consists of one system of piano music. The chords are labeled I, III, V₂, V₂, I⁶, VI, I⁶, and V I. The notation includes treble and bass staves with various articulations and fingerings.

Ex. 2i *Alternative middleground.*

Musical score for Ex. 2i, *Alternative middleground*. The score is written for piano and consists of two systems. The first system contains three measures with fingerings 3, 5, and 9. The second system contains five measures with fingerings 7, 17, 21, and 8. Chord symbols are placed below the bass staff: I, III, III⁶, III, I, VI, V, I⁶, VI, I⁶, V, I.

Ex. 2j *Alternative background 1.*

Musical score for Ex. 2j, *Alternative background 1*. The score is written for piano and consists of two systems. The first system contains three measures with fingerings 3, 9, and 7. The second system contains five measures with fingerings 17, 5, 7, and 8. Chord symbols are placed below the bass staff: I, VI, V, I⁶, VI, V, I.

Ex. 2k *Alternative background 2.*

Musical score for Ex. 2k, *Alternative background 2*. The score is written for piano and consists of two systems. The first system contains three measures with fingerings 3, 7, and 8/1. The second system contains two measures with fingering 17. Chord symbols are placed below the bass staff: I, III⁶, V, I⁶, V, I.

Ex. 3a Schumann, Aus meinen Thränen sprießen.

Nicht schnell

p

p

pp

p

6

pp

p

12

pp

ritard.

ritard.

pp

Ex. 3 b/d Reduction according to Schenker.

Schumann, Dichterliebe, Op. 48¹¹

T

Vclg I — IV (Nbn) V-I V-(B A-)

Ex. 3e 1/3 *Alternative harmonic developments.*

(Nicht schnell)

Musical score for the first alternative harmonic development. It consists of a grand staff with a treble clef and a bass clef. The key signature is two sharps (F# and C#), and the time signature is 2/4. The tempo marking is '(Nicht schnell)'. The score is divided into three measures. The first measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The second measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The third measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass.

(Nicht schnell)

Musical score for the second alternative harmonic development. It consists of a grand staff with a treble clef and a bass clef. The key signature is two sharps (F# and C#), and the time signature is 2/4. The tempo marking is '(Nicht schnell)'. The score is divided into three measures. The first measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The second measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The third measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass.

(Nicht schnell)

Musical score for the third alternative harmonic development. It consists of a grand staff with a treble clef and a bass clef. The key signature is two sharps (F# and C#), and the time signature is 2/4. The tempo marking is '(Nicht schnell)'. The score is divided into three measures. The first measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The second measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass. The third measure contains a half note chord (F#4, C#5) in the treble and a half note chord (F#2, C#3) in the bass.

Ex. 3f Foreground with deep structure.

Ex. 3f consists of two systems of music, each with a vocal line and a piano accompaniment. The key signature is two sharps (F# and C#).

System 1:

- Vocal line:** Starts with a melodic phrase marked with $\hat{3}$ and $\hat{(5)}$. A double bar line is followed by a phrase marked with $\hat{2}$ and $\hat{9}$, ending with a downward breath mark $N\downarrow$.
- Piano accompaniment:** Features a bass line with a $\sharp:(I)$ marking. A double bar line is followed by a phrase marked with $\hat{1}$ and $\hat{5}$.
- Chordal structure (A):** I VI IV V^7 I | V (V^6)

System 2:

- Vocal line:** Starts with a melodic phrase marked with $\hat{(7)}$ and $\hat{13}$. A double bar line is followed by a phrase marked with $N\uparrow$ and $\hat{2}$.
- Piano accompaniment:** Features a bass line with a $\hat{1}$ marking.
- Chordal structure (A):** II (V^7) III \sharp (V^7) IV V^7 I

Ex. 3g The first three Dichterliebe songs: tonal synopsis.

Ex. 3g shows a tonal synopsis for three systems of music, each with a vocal line and a piano accompaniment. The key signature is two sharps (F# and C#).

System 1:

- Vocal line:** Starts with a melodic phrase marked with \hat{I} , $\hat{5}$, $\hat{4}$, and $\hat{7\sharp}$. A double bar line is followed by a phrase marked with $\hat{2}$ and $\hat{1}$. Another double bar line is followed by a phrase marked with $\hat{4}$ and $\hat{7\sharp}$.
- Piano accompaniment:** Features a bass line with a $\sharp: IV^6$ marking. A double bar line is followed by a phrase marked with $A: II^6$ and V^7 . Another double bar line is followed by a phrase marked with $\sharp: IV^6$ and V .

System 2:

- Vocal line:** Starts with a melodic phrase marked with \hat{II} , $\hat{3}$, $\hat{(5)}$, and $N\uparrow$. A double bar line is followed by a phrase marked with $\hat{2}$. Another double bar line is followed by a phrase marked with $\hat{(7)}$, $\hat{(1)4}$, and $\hat{2}$. A final double bar line is followed by a phrase marked with \hat{III} , $\hat{1}$, and $N\downarrow$.
- Piano accompaniment:** Features a bass line with a (VI) marking. A double bar line is followed by a phrase marked with $III\sharp$ and (V^7) . Another double bar line is followed by a phrase marked with IV and V . A final double bar line is followed by a phrase marked with $D: I$.

Chapter 2

Ex. 1 Beethoven, Piano Sonata Op. 26, 1st mov; Theme.

Andante con Variazioni

p *cresc.* *sf* *p* *cresc.*

6 *p cresc.* *p* *cresc.* *sf* *p*

13 *cresc.* *p* *sf* *sf*

21 *cresc.* *p* *cresc. sf* *p* *cresc.*

28 *cresc.* *sf* *p* *cresc.* *p*

Ex. 3a Reduction according to von Cube.

Aussatz:

Mittelgrund:

Beckwerk:

Küstengrund:

Mittelgrund:

Pos. grund:

in a: $\bar{1}-\bar{2}-\bar{3}$
in es: $\bar{1}\bar{1}-\bar{1} \quad \bar{1}(\bar{1})\bar{1}-\bar{1}-\bar{1} \quad \bar{1}$

Ex. 3b Beethoven, Piano Sonata Op. 26, 1st mov; Variation III.

Var. III

The musical score for Variation III is presented in three systems. The first system (measures 1-5) begins with a piano (*p*) dynamic and a crescendo (*cresc.*) marking. The second system (measures 6-21) features a forte (*sf*) dynamic. The third system (measures 22-27) also features a forte (*sf*) dynamic. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is 3/8.

Ex. 4 Reduction according to Beach; A-sections.

(a)

(b)

(c)

Ab: I V_3^4 I_6^6 V_6^6 I V_7^7 IV_6^6 [V_3^3] V_2^4 I_6^6 IV_6^6 07 I V_7^7 ;

Repeat bars 1-4

13

IV_6^6 $[V_3^3]$ V_2^4 I_6^6 V_4^4 I_7^7 ;

Ex. 5 Reduction according to Beach; B-section.

(a) See Schenker, *Free Composition* Figure 95

(b) M expansion further expansion

(c) [17] [27]

$A^b: [V] \quad ii^6 \quad V \quad i^6 \quad I^b(V): IV \quad [0^6] \quad I \quad ii^6 \quad V^b(V): IV \quad [0^6] \quad V \quad vi \quad IV \quad [0^6] \quad V \quad I \quad V^b - b^7 \quad I$

Ex. 6 Two readings of mm. 21–26.

Solution A

Solution B

[21]

Ex. 7 Ladder of fourths.

The first system of the musical score for Ex. 7 consists of two staves. The upper staff contains a melodic line with three phrases: a two-measure phrase labeled '1', a two-measure phrase labeled '2', and a four-measure phrase labeled '3'. The lower staff provides a harmonic accompaniment with chords and moving lines. The second system continues the piece, with the upper staff featuring a phrase labeled '3' and a phrase labeled '4 (=1)'. The lower staff includes markings 'cf. m. 12' and 'cf. m. 15' and a circled number '(5)' indicating a fingering.

Ex. 8 Melodic implications.

The musical score for Ex. 8, 'Melodic implications', is presented in three systems on a single staff. The first system shows a melodic line with various phrasing slurs and accents. The second system begins at measure 9 and includes double bar lines with repeat signs. The third system begins at measure 17 and continues the melodic development with similar phrasing and articulation markings.

Ex. 9 Expanded replication.

First system of Ex. 9. The score is in 3/8 time and three flats. The right hand features a melodic line with slurs and ties, while the left hand provides harmonic support with chords and moving lines. Brackets labeled 'a' and 'b' indicate specific melodic segments. A Roman numeral 'V' is placed below the final measure.

Second system of Ex. 9. The score continues the piano arrangement. The right hand has a melodic line with slurs and ties, and the left hand provides harmonic support. Brackets labeled '(a)' and 'b' indicate specific melodic segments. A Roman numeral '5' is placed above the final measure.

Ex. 10 Drones.

First system of Ex. 10. The score is in 3/8 time and three flats. The right hand has a melodic line with slurs and ties, and the left hand provides harmonic support. Roman numerals 'VI' and 'V' are placed below the final two measures.

Second system of Ex. 10. The score continues the piano arrangement. The right hand has a melodic line with slurs and ties, and the left hand provides harmonic support. Roman numerals 'I', 'VI', 'III', and 'V' are placed below the final four measures.

Ex. 11 Inversions.

A musical score for piano in 3/8 time, featuring a key signature of three flats (B-flat, E-flat, A-flat). The score consists of two staves, treble and bass. The melody in the treble clef is characterized by a series of eighth-note chords, with some notes beamed together. The bass line provides a harmonic accompaniment with chords and moving lines. Brackets are used to group specific chords and melodic phrases across both staves.

Ex. 12 Reduction in terms of falling seconds.

A musical score for piano in 3/8 time, featuring a key signature of three flats (B-flat, E-flat, A-flat). The score is divided into three systems, each starting with a measure number: 1, 9, and 17. The first system shows a melodic line in the treble clef with a series of eighth-note chords, and a bass line with a similar rhythmic pattern. The second system continues the melodic and harmonic development. The third system includes a reduction of the melodic line, indicated by dashed lines and arrows, showing the relationship between notes. Roman numerals I, III, and V are placed below the bass line in the third system, indicating chord positions.

Ex. 13 Reduction in terms of rising fourths.

8

17

I VI (V⁷) V (V⁷) I
Eb: I

Detailed description: This musical score consists of three systems of piano reduction. The first system starts at measure 1, the second at measure 8, and the third at measure 17. The key signature is three flats (B-flat major or D-flat minor). The melody in the right hand features prominent rising fourth intervals, which are highlighted by dashed lines. The bass line provides harmonic support with chords and moving lines. Below the third system, a harmonic analysis is provided: 'I VI (V⁷) V (V⁷) I' and 'Eb: I'.

Ex. 14 Focal reduction.

VI VI

17

I VI III V VI
Eb: I

Detailed description: This musical score consists of two systems of piano reduction. The first system starts at measure 1, and the second at measure 17. The key signature is three flats. The melody in the right hand has focal points marked with '^4' and '^5/1'. The bass line features chords and moving lines. Below the first system, the analysis 'VI VI' is shown. Below the second system, the analysis 'I VI III V VI' and 'Eb: I' is shown.

Chapter 3

Ex. 1 Bach, chorale *Ich bin's, ich sollte büßen* from *St. Matthew passion*.

Fig. 14 J. S. Bach, chorale *Ich bin's, ich sollte büßen*

Chor I II

Ob.
Vi. Vla.
Cont. Org.

Ich bin's, ich soll-te bü - ssen, an Hän-den und an Fü - ssen ge-

bun - den in der Höll. Die Gel-sseln und die Ban - den, und

was du aus - ge - stan - den, das hat ver-die-net mei-ne Seel.

Ex. 2 Reduction according to Schenker.

Fundamental Structure

Structural level 1

Structural level 2 (Dividing V)

Structural level 3 (Unfolding)

Comprehensive foreground graph

Bare: 1 2 3 4 5 6

Annotations in the score include: (3 prg), (5 prg), (coupling), (Dividing V), (10-6-10), subordinate 3 prg, and (5 - 6).

Musical score for a string quartet, measures 7-12. The score is written for four staves (Violin I, Violin II, Viola, and Cello/Double Bass). It features complex phrasing with annotations such as "(3 prg)", "(4 prg)", and "(coupling)". Fingering numbers (1-4) and bowing marks (accents) are present. Chord symbols (I, IV, V) and a "(Passing motion)" label are also included. The notation includes slurs, ties, and various articulation marks.

7 8 9 10 11 12

Musical score for measures 7-10, labeled "Tenth above bass 10". It shows two staves: the upper staff in treble clef and the lower staff in bass clef. The notation includes slurs, ties, and phrasing annotations like "(3 prg)" and "(4 prg)". Fingering numbers (10, 16) are indicated.

Musical score for measures 10-12, showing two staves in treble and bass clefs. It includes phrasing annotations like "(3 prg)" and "(4 prg)", and fingering numbers (10).

Ex. 3 Reduction according to Cook.

Fig. 17 Alternative analysis of *Ich bin's, ich sollte büßen*

The musical score is presented in four staves. The top staff is the vocal line, with measures 1 through 12 numbered in boxes above it. The second staff is the piano accompaniment. The third and fourth staves are for guitar. The guitar parts include fret numbers (I, II, 10, 10, 10) and chord diagrams (I, II, 5-prg, IV⁷, V, I). The analysis includes annotations such as 'A 5', 'A 4', 'A 3', 'A 2', 'A 1' and '5-prg'.

Ex. 4a First phrase: Accentual structure.

The musical score for Ex. 4a consists of a piano accompaniment and a vocal line. The piano part is in the key of B-flat major (two flats) and 4/4 time. It features a steady accompaniment of chords and eighth notes. The vocal line is in the treble clef and consists of a single melodic line. Below the vocal line, there are two rows of rhythmic notation: the first row shows a quarter note followed by a dotted quarter note, and the second row shows a quarter note followed by a dotted quarter note. These rhythmic patterns are aligned with the notes in the vocal line to indicate their accentual structure.

Ex. 4b First phrase: Grouping structure.

The musical score for Ex. 4b is identical to Ex. 4a. However, instead of a vocal line, it features a complex grouping structure below the piano accompaniment. This structure is represented by three horizontal lines with vertical stems and brackets. The top line has a bracket spanning the first two measures and another bracket spanning the last two measures. The middle line has a bracket spanning the first two measures and another bracket spanning the last two measures. The bottom line has a single long bracket spanning all four measures. These brackets indicate the grouping of notes and chords across the four measures of the phrase.

Ex. 4c First phrase: Time-span reduction.

The image displays a musical score for a piano piece, labeled "Ex. 4c First phrase: Time-span reduction." The score is presented in five systems, labeled 'a' through 'd' from top to bottom, illustrating a hierarchical reduction of the original phrase.

System 'a' (top) shows the original musical notation in a grand staff (treble and bass clefs). Above the notation is a tree diagram with nodes 'a', 'b', 'c', and 'd'. Node 'a' is the root, branching into 'b' and 'c'. Node 'b' branches into 'c' and 'd', and node 'c' branches into 'd'. Below the notation, there are three lines of bracketed labels: 'd', 'c', and 'b', corresponding to the nodes in the tree diagram.

System 'b' is a reduction of system 'c', showing a simplified piano accompaniment with treble and bass clefs. A dotted line connects system 'b' to system 'c'.

System 'c' is a reduction of system 'd', showing a further simplified piano accompaniment with treble and bass clefs. A dotted line connects system 'c' to system 'd'.

System 'd' is a reduction of system 'a', showing a highly simplified piano accompaniment with treble and bass clefs. A dotted line connects system 'd' to system 'a'.

System 'a' (bottom) is a further reduction of system 'd', showing a single note in the bass clef and a single note in the treble clef.

Ex. 4d First phrase: Prolongational reduction.

The image displays a musical score for piano, consisting of two systems of staves. The top system shows a piano score with a treble and bass clef, a key signature of two flats (B-flat and E-flat), and a 4/4 time signature. The music is written in a style that suggests a first phrase. Above the staves, a complex diagram of lines and circles represents a prolongational reduction, showing the hierarchical structure of the music. The bottom system shows a simplified version of the same music, where the notes are connected by curved lines (arcs) and dashed lines, indicating the overall pitch contour and the reduction of the musical structure to its essential elements.

Ex. 4e Time-span reduction of entire chorale.

The image displays a musical score for a chorale, illustrating a time-span reduction. The score is organized into five systems, labeled 'a' through 'e' at the top. System 'a' is the most complex, showing a dense network of lines connecting notes across measures 1 through 12. The subsequent systems, 'b' through 'e', show a progressive reduction of the music, with fewer notes and simpler structures. The notation includes treble and bass clefs, a key signature of one flat, and a common time signature. The first system includes measure numbers 1 through 12 and various annotations like '(etc.)' and 'c'. The score is presented in a clear, professional layout, with the reduction lines clearly visible above the musical notation.

Ex. 4f Prolongational reduction of entire chorale.

The image displays a musical score for a chorale, labeled 'Ex. 4f Prolongational reduction of entire chorale'. The score is organized into three distinct sections:

- Section 1 (Piano Reduction):** Labeled 'b' on the left, it shows a piano reduction of the chorale. The upper staff is in treble clef and the lower in bass clef. Above the staves, a large triangular structure is formed by lines connecting various notes, with a dashed line indicating a specific interval. The measure numbers 1 through 12 are written below the piano part.
- Section 2 (Vocal Line):** Labeled 'a' on the left, it shows a vocal line with a similar triangular structure above it. Below the staves, a series of Roman numerals indicates the harmonic progression: $\hat{3} \text{ I} \rightarrow \hat{2} \text{ V} \hat{1} \text{ vi} \rightarrow \hat{7} \text{ V/vi} \hat{3} \text{ I} \rightarrow \hat{2} \text{ IV} \hat{1} \text{ V} \hat{1} \text{ I}$.
- Section 3 (Detailed Reduction):** Labeled 'a' and 'b' at the top, it shows a highly detailed rhythmic reduction of the piano part. The notes are connected by lines, forming a complex web of intervals. The measure numbers 1 through 12 are written below the staff.

Ex. 5 A non-hierarchical reading.

Musical score for the first system of Ex. 5. The score is in 3/4 time with a key signature of three flats. The bass line contains harmonic labels: (v)IV, I, V, (IV), V, and (v⁶). A dashed line indicates a non-hierarchical reading path starting from the first measure and jumping to the fifth measure.

Musical score for the second system of Ex. 5. The score is in 3/4 time with a key signature of three flats. The bass line contains harmonic labels: VI, (iv), VI_b, (iv), (V), VI, I, IV⁷, V⁷, and I. A dashed line indicates a non-hierarchical reading path starting from the first measure and jumping to the fifth measure.

Exs. A/D Recompositions.

A

Musical score for Example A, consisting of a grand staff with treble and bass clefs. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The melody in the treble clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4) with a fermata over the final note. The bass line in the bass clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4). The Roman numeral V^6_3 is written below the third measure.

V^6_3

B

Musical score for Example B, consisting of a grand staff with treble and bass clefs. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The melody in the treble clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4) with a fermata over the final note. The bass line in the bass clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4). The Roman numeral $IV^6 V^7$ is written below the third measure.

$IV^6 V^7$

C

Musical score for Example C, consisting of a grand staff with treble and bass clefs. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The melody in the treble clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4) with a fermata over the final note. The bass line in the bass clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4). The Roman numeral IV^6 is written below the third measure.

IV^6

D

Musical score for Example D, consisting of a grand staff with treble and bass clefs. The key signature has three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The melody in the treble clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4) with a fermata over the final note. The bass line in the bass clef consists of three measures: the first measure has a half note chord (F3, A-flat3, C4); the second measure has a half note chord (F3, A-flat3, C4) followed by a quarter note chord (F3, A-flat3, C4); the third measure has a half note chord (F3, A-flat3, C4). The Roman numeral I is written below the third measure.

I

Ex. E/G(b) Recompositions.

E 5

V I

Detailed description: This musical score is for an E major triad. The key signature has three flats (B-flat, E-flat, A-flat), and the time signature is common time (C). The piece consists of three measures. The first measure has a treble clef with a half note E4 and a bass clef with a half note G3. The second measure has a treble clef with quarter notes E4, G4, and B4, and a bass clef with quarter notes G3, B3, and E4. The third measure has a treble clef with a half note E4 and a bass clef with a half note G3. A fermata is placed over the final E4. Fingerings are indicated as '5' in the treble and 'V' and 'I' in the bass.

F 7

Detailed description: This musical score is for an F major triad. The key signature has three flats (B-flat, E-flat, A-flat), and the time signature is common time (C). The piece consists of three measures. The first measure has a treble clef with a half note F4 and a bass clef with a half note A3. The second measure has a treble clef with quarter notes F4, A4, and C5, and a bass clef with quarter notes A3, C4, and F4. The third measure has a treble clef with a half note F4 and a bass clef with a half note A3. A fermata is placed over the final F4. Fingerings are indicated as '7' in the treble.

G(a) 3 [^]7

V⁷

Detailed description: This musical score is for a G(a) major triad. The key signature has three flats (B-flat, E-flat, A-flat), and the time signature is common time (C). The piece consists of three measures. The first measure has a treble clef with a half note G4 and a bass clef with a half note B3. The second measure has a treble clef with quarter notes G4, B4, and D5, and a bass clef with quarter notes B3, D4, and G4. The third measure has a treble clef with a half note G4 and a bass clef with a half note B3. A fermata is placed over the final G4. Fingerings are indicated as '3' in the treble and '^7' in the bass. A 'V⁷' is written below the bass line.

G(b) 3 [^]2

V⁷

Detailed description: This musical score is for a G(b) major triad. The key signature has three flats (B-flat, E-flat, A-flat), and the time signature is common time (C). The piece consists of three measures. The first measure has a treble clef with a half note G4 and a bass clef with a half note B3. The second measure has a treble clef with quarter notes G4, B4, and D5, and a bass clef with quarter notes B3, D4, and G4. The third measure has a treble clef with a half note G4 and a bass clef with a half note B3. A fermata is placed over the final G4. Fingerings are indicated as '3' in the treble and '^2' in the bass. A 'V⁷' is written below the bass line.

Ex. H Recomposition.

H

7

10

The image shows a musical score for a piano piece, labeled 'Ex. H Recomposition'. It consists of two systems of music, each with a treble and bass clef. The first system starts at measure 7 and ends at measure 10. The second system starts at measure 10 and ends at measure 13. The key signature is three flats (B-flat, E-flat, A-flat) and the time signature is common time (C). The music features a mix of chords and melodic lines in both hands. Measure 7 has a '7' above the treble clef. Measure 10 has a '10' above the treble clef. The score ends with a double bar line at the end of measure 13.

Chapter 4

Ex. 1 Beethoven, *Les Adieux: Connections* (Cook) and implications (Meyer).

Adagio

The image displays a musical score for the first movement of Beethoven's 'Les Adieux' (Op. 91), marked 'Adagio'. The score is arranged in a vertical format with eight staves. The top staff is for the Cello (Cc), followed by the Contrabass (Cb), the Cello (Ca), the Piano (1 and 3), the Viola (Ma), the Violin (Mb), the Violin (Mc), and the Double Bass (Md). The piano part includes the lyrics 'Le - be - wohl' and 'erue.' with dynamic markings like *p* and *erue.*. The score includes various musical notations such as notes, rests, and articulation marks. Above the Cello and Contrabass staves, there are boxes containing numbers (1, 2, 3, 4) and letters (x, N, P, III, IV, V, VI) which likely represent specific connections or implications discussed in the text. The piano part has fingerings (1, 2, 3, 4) and dynamic markings (*p*, *erue.*, *f*) indicated. The Viola, Violin, and Double Bass parts also have fingerings and dynamics (e.g., *m*) marked.

Allegro

5

Allegro

ppp *acc.* *ten.* *cres.*

10 11

12 13 14 15 16 17 18 19

20 21

22 23

24 25

26 27

Ex. 2 A selection of structural observations.

The image displays a musical score for Ex. 2, divided into two systems. The first system is marked **Adagio** and includes the text *Le-be-wohl*. It consists of four staves: **Ea** (top), **Eb**, **Ec**, and **Ed** (bottom). The **Ed** staff is a grand staff with treble and bass clefs. The second system is marked **Allegro** and consists of four staves: **V1**, **V2**, **V3**, and **V4** (bottom). The **V4** staff is a grand staff. The score includes various musical notations such as dynamics (*p*, *cresc.*, *pp*), articulation (accents), and performance instructions (*N*, *x*). The first system ends with a double bar line and a repeat sign. The second system begins with a double bar line and a repeat sign.

Chapter 5

Ex. 1 Schubert, Piano Sonata D. 960, Scherzo with Trio.

SCHERZO

Allegro vivace con delicatezza

The image displays a musical score for the Scherzo with Trio of Schubert's Piano Sonata D. 960. The score is written for piano and is in 3/4 time with a key signature of two flats (B-flat and E-flat). The tempo and performance instruction are *Allegro vivace con delicatezza*. The score is divided into six systems, each with a measure number at the beginning: 1, 7, 13, 19, 25, and 31. The first system (measures 1-6) begins with a *pp* dynamic marking. The second system (measures 7-12) includes a fermata over measure 10. The third system (measures 13-18) features a *p* dynamic marking at measure 16. The fourth system (measures 19-24) continues the melodic and harmonic development. The fifth system (measures 25-30) shows a *p* dynamic marking at measure 25. The sixth system (measures 31-36) concludes with a *pp* dynamic marking at measure 31. The score includes various musical notations such as slurs, ties, and dynamic markings.

37

pp *decresc.* pp

Musical score for measures 37-42. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. Dynamic markings include *pp* and *decresc.*. There are also accents over the notes in measures 40 and 42.

43

Musical score for measures 43-48. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. There are accents over the notes in measures 43 and 48.

49

fp *decresc.* *pp*

Musical score for measures 49-54. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. Dynamic markings include *fp*, *decresc.*, and *pp*. There are accents over the notes in measures 51 and 54.

55

sempre *pp*

Musical score for measures 55-60. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. Dynamic markings include *sempre* and *pp*. There are accents over the notes in measures 55 and 60.

61

Musical score for measures 61-67. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. There are accents over the notes in measures 61 and 67.

68

cresc. un poco

Musical score for measures 68-73. The system consists of two staves. The right staff has a treble clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G4, a quarter note A4, and a quarter note B4. The left staff has a bass clef and a key signature of two flats. It begins with a half rest, followed by a quarter note G3, a quarter note F3, and a quarter note E3. A dynamic marking of *cresc. un poco* is present. There are accents over the notes in measures 68 and 73.

74 *mf*

80 *decesc.*

86 *Fine*

91 **TRIO**

p *sfp* *sfp* *sfp* *pp*

101 *cresc.* *sfp* *fz* *p* *sfp* *sfp*

113 *sfp* *fz* *dim.* *pp* *dim.* *p* **CODA**

• Scherzo D.C. sin'al Fine e poi la Coda

Ex. 2 Middleground according to Schachter.

Handwritten musical score for Ex. 2, showing two systems of staves. The notation includes notes, accidentals, and various annotations. The first system features a treble clef staff with notes circled and a bass clef staff with notes and accidentals. The second system includes a treble clef staff with notes circled and a bass clef staff with notes and accidentals. Annotations include "(=Eb I4 I I)", "Loda", and "I - IV - (II) - IV - (VI) - I".

Ex. 3alb Structural bass and treble motion.

Handwritten musical score for Ex. 3alb, showing three systems of staves. The notation includes notes, accidentals, and various annotations. The first system is labeled "a) Original notation" and features a treble clef staff with notes circled and a bass clef staff with notes and accidentals. The second system is labeled "b) Enharmonics resolved" and features a treble clef staff with notes and accidentals and a bass clef staff with notes and accidentals. The third system is labeled "a) Original notation" and features a treble clef staff with notes circled and a bass clef staff with notes and accidentals. Annotations include "I - IV", "I - II", "b + bb = ba", "bb = bb + b", and "b) Mn 38 = 6B, showing systemic enharmonic".

Ex. 4 Schubert's sketch for the Scherzo.

A handwritten musical sketch for Schubert's Scherzo, consisting of approximately 12 staves. The notation is dense and includes many corrections, such as crossed-out notes and lines. The word "Chorus" is written at the top left. The sketch shows a complex rhythmic and melodic structure with various accidentals and dynamic markings. The handwriting is in dark ink on aged paper.

Ex. 7 Rhythmic analysis of mm. 33–75.

The image displays a musical score for piano, consisting of five systems of music. Each system includes a treble and bass clef staff with a grand staff bracket. Above the treble staff, rhythmic analysis markings are present, including horizontal lines with 'U' (upbeat) and 'ú' (downbeat) labels, and arrows indicating phrasing. The score includes various dynamic markings: *pp* (pianissimo), *fp* (fortissimo), *decresc.* (decrescendo), *sempre pp* (always pianissimo), and *cresc. un poco* (crescendo a little). The key signature is B-flat major, and the time signature is 3/4. The systems are numbered 32, 41, 49, 58, and 68. The final system ends with a *dim.* (diminuendo) marking.

Ex. 8a Reduction 1 of the Trio.

The image displays three systems of musical notation for a piano reduction, likely for a violin and cello trio. The key signature is three flats (B-flat, E-flat, A-flat), and the time signature is 3/4. The systems are numbered 91, 101, and 109.

- System 91:** Features a melodic line in the right hand with a fingering of 5 and a slur. The left hand provides a bass line with a fingering of 1. The system concludes with a double bar line and repeat dots.
- System 101:** Shows a melodic line in the right hand with a fingering of 5 and a slur. The left hand has a fingering of 1. Above the staff, there are markings for breath or articulation: $N \uparrow$, $N \downarrow$, and III. The system ends with a double bar line and repeat dots.
- System 109:** Contains a melodic line in the right hand with a fingering of 3 and a slur. The left hand has a fingering of 5. Above the staff, there are markings for breath or articulation: $N \uparrow$, $N \downarrow$, and III. The system ends with a double bar line and repeat dots.

Ex. 8b Reduction 2 of the Trio.

The image displays a musical score for a piano reduction, consisting of three systems of staves. Each system includes a treble clef staff and a bass clef staff, both in a key signature of three flats (B-flat, E-flat, A-flat) and a 3/4 time signature. The first system, starting at measure 91, features a melodic line in the treble with a triplet of eighth notes and a descending line in the bass. The second system, starting at measure 101, continues the melodic development with a triplet of eighth notes and a descending line in the bass. The third system, starting at measure 109, concludes the passage with a triplet of eighth notes and a descending line in the bass. The score includes various musical notations such as slurs, ties, and dynamic markings.

91

101

109

I

III

V

I

Ex. 9a Foreground of Scherzo.

Musical score for measures 1-8. The key signature is B-flat major (B \flat). The time signature is 3/4. The score is written for piano with treble and bass staves. Fingerings and articulations are indicated above the notes: n \downarrow , s \uparrow , s \downarrow , r, r \uparrow , r \downarrow , r/n \downarrow , and r/n \downarrow . A dashed line indicates a continuation of the melodic line from measure 8 to measure 9.

Musical score for measures 9-16. The key signature is B-flat major (B \flat). The time signature is 3/4. The score is written for piano with treble and bass staves. A fingering of n \downarrow is indicated above the first note of measure 9. A dashed line indicates a continuation of the melodic line from measure 16 to measure 17.

Musical score for measures 17-24. The key signature changes to E-flat major (E \flat) in measure 17 and then to A-flat major (A \flat) in measure 21. The time signature is 3/4. The score is written for piano with treble and bass staves. Fingerings and articulations are indicated above the notes: n \downarrow , s \downarrow , r \downarrow , and n \uparrow . A dashed line indicates a continuation of the melodic line from measure 24 to measure 25.

Musical score for measures 25-32. The key signature changes to A-flat major (A \flat) in measure 25 and then to D-flat major (D \flat) in measure 29. The time signature is 3/4. The score is written for piano with treble and bass staves. A dashed line indicates a continuation of the melodic line from measure 32 to measure 33.

Musical score for measures 33-40. The key signature is D-flat major (D \flat). The time signature is 3/4. The score is written for piano with treble and bass staves. Fingerings and articulations are indicated above the notes: s \downarrow and r. A dashed line indicates a continuation of the melodic line from measure 40 to measure 41.

41

n↑ s↑ r r

10 12

51

n↑ r r

12 10

F# A

63

r/n↓ r/n↓ n↓

10 8

B_b

77

n↓ n↓

E_b B_b

Ex. 9b Middleground 1.

Musical score for Ex. 9b Middleground 1, showing two systems of piano accompaniment. The first system consists of two staves (treble and bass clef) with a key signature of two flats. The first staff has measure numbers 8, 17, 35, and 41. The second staff has measure numbers 8, 12, 12, and 12. Chord labels below the first staff are B \flat , E \flat , A \flat , and D \flat . The second system also consists of two staves. The first staff has measure numbers 53 and 12. The second staff has measure numbers 10 and 8. Chord labels below the second system are F \sharp , A, E7, G7?, and B \flat .

Ex. 9c Middleground 2.

Musical score for Ex. 9c Middleground 2, showing two systems of piano accompaniment. The first system consists of two staves (treble and bass clef) with a key signature of two flats. The first staff has a measure number 1. The second staff has measure numbers 13, 10, and 1. Chord labels below the first system are B \flat , E \flat , A \flat , and D \flat . The second system also consists of two staves. The first staff has measure numbers 13, 10, and 1. The second staff has measure numbers 13, 10, and 1. Chord labels below the second system are F \sharp , A, and B \flat .

Chapter 6

Exs. 1 *alc* Schubert, *Waltz Op. 18, No. 10, reduction according to Salzer.*

The image displays a piano reduction of Schubert's Waltz Op. 18, No. 10, with harmonic analysis. The score is in 3/4 time and G major. It is divided into three sections: a, b, and c.

- Section a:** Shows the first system of the piano reduction. The right hand has a melody with a *pp* dynamic. The left hand provides harmonic accompaniment. Harmonic analysis below includes Roman numerals: I, V, I, III⁵, 7, V⁷, and I. The term "applied Dominant" is used to describe the III⁵ chord.
- Section b:** Shows the second system. Harmonic analysis includes Roman numerals: I, III, passing chord, V, and I. The term "passing chord" is used to describe the III chord.
- Section c:** Shows the third system. Harmonic analysis includes Roman numerals: I, III, V, and I.

Ex. 2 *Recomposition of the waltz.*

The image displays a recomposition of the waltz. It consists of two systems of piano reduction. The first system shows the right hand with a melody and the left hand with harmonic accompaniment. The second system, starting at measure 9, shows a more active right hand with eighth-note patterns and a left hand with harmonic accompaniment.

Exs. 3 *ald* Reduction of the waltz.

The first system of the musical score consists of two staves. The upper staff is in treble clef and contains a melodic line with eighth and sixteenth notes, some beamed together, and slurs. The lower staff is in bass clef and contains a bass line with quarter and eighth notes, also featuring slurs. The key signature has two sharps (F# and C#).

The second system begins at measure 9, indicated by a '9' above the first measure. It continues with the same melodic and bass lines as the first system, showing further development of the waltz's theme.

The third system continues the piece, showing the continuation of the melodic and bass lines. The notation includes various slurs and articulation marks to guide the performer.

The fourth system concludes the main body of the waltz. It features a final melodic flourish in the upper staff and a corresponding bass line, ending with a double bar line.

The fifth system is a simplified version of the first system, focusing on fingerings and chord symbols. The upper staff shows fingerings: a '3' with a hat symbol (^) above the first note, and '2' and '1' with hat symbols (^) above the last two notes. The lower staff shows chord symbols: 'I' below the first note, '(1)' below the second note, 'V' below the third note, and 'I' below the fourth note.

Ex. 4 Schumann, Albumblatt Op. 99, No. 4.

Ziemlich langsam

The musical score is written for piano in G major and 2/4 time, marked "Ziemlich langsam". It consists of three systems of staves. The first system (measures 1-8) features a treble clef with a melody and a bass clef with accompaniment. The melody has a dynamic marking of *p* and includes slurs labeled 'c', 'b', and 'a'. The bass line has a dynamic marking of *p* and includes slurs labeled 'a' and 'b'. Measure numbers 'X' and 'Y' are placed below the bass staff. The second system (measures 9-16) begins with a repeat sign. The melody has a dynamic marking of *sf* and includes slurs labeled 'b' and 'a'. The bass line has a dynamic marking of *sf* and includes slurs labeled 'z', 'z'', and 'Z''. A *dim.* marking is present in measure 16. Measure numbers 'z', 'z'', and 'Z'' are placed below the bass staff. The third system (measures 17-18) starts with a treble clef. The melody has a dynamic marking of *p* and includes slurs labeled 'c' and '(A)'. The bass line has a dynamic marking of *pp* and includes slurs labeled 'U' and '-'. Measure numbers 'Y'' and 'X'' are placed below the bass staff.

Ex. 5a Foreground.

The first system of musical notation consists of two staves, a treble clef on top and a bass clef on the bottom. The key signature has three sharps (F#, C#, G#). The melody in the treble clef starts with a half note G4, followed by quarter notes A4, B4, and C5, then a half note B4. The bass line starts with a half note G3, followed by quarter notes A3, B3, and C4, then a half note B3. A bar line is placed after the second measure.

9

The second system of musical notation starts at measure 9. The treble clef melody continues with a half note C5, followed by quarter notes B4, A4, and G4, then a half note F#4. The bass line continues with a half note C4, followed by quarter notes B3, A3, and G3, then a half note F#3. A repeat sign is at the beginning of the system, and a double bar line is at the end.

17

The third system of musical notation starts at measure 17. The treble clef melody continues with a half note G4, followed by quarter notes A4, B4, and C5, then a half note B4. The bass line continues with a half note G3, followed by quarter notes A3, B3, and C4, then a half note B3. A double bar line is at the end of the system.

Ex. 5b Local fundamental structures.

Musical score for Ex. 5b, showing local fundamental structures. The score is in G major (one sharp) and consists of three systems of piano accompaniment. The first system (measures 1-8) features a descending melodic line in the right hand with fingerings 5, 1, 1, 3, 1 and a bass line with fingerings I, I, I, III. The second system (measures 9-16) features a more complex melodic line with fingerings 3, 1, 5, 1, III, V and a bass line with fingerings III, V. The third system (measures 17-24) features a descending melodic line with fingerings 1, 1, 5, 1 and a bass line with fingerings IV, III, I, I.

Ex. 5c Melodic implications.

Musical score for Ex. 5c, showing melodic implications. The score is in G major (one sharp) and consists of three systems of piano accompaniment. The first system (measures 1-8) shows a melodic line in the right hand with slurs and accents, and a bass line with slurs. The second system (measures 9-16) shows a melodic line in the right hand with slurs and accents, and a bass line with slurs. The third system (measures 17-24) shows a melodic line in the right hand with slurs and accents, and a bass line with slurs.

Ex. 6a Middleground.

Ex. 6a Middleground. This system consists of three systems of piano accompaniment. The first system (measures 5-8) features a treble clef with a 5th finger articulation (^5) and a bass clef with a 1st finger (I). The second system (measures 9-16) features a treble clef with a 3rd finger articulation (^3) and a bass clef with a 5th finger (V). The third system (measures 17-20) features a treble clef with a 5th finger articulation (^5) and a bass clef with fingers IV, III, and I.

Ex. 6b Background.

Ex. 6b Background. This system shows a single system of piano accompaniment. The treble clef has articulations (^5), (^3), (^1), and (^5). The bass clef has fingerings I, III, III, V, III, I, and I.

Ex. 6c Schenkerian Ursatz I.

Ex. 6c Schenkerian Ursatz I. This system shows a single system of piano accompaniment. The treble clef has a 5th finger articulation (^5) and a sequence of articulations (^4, ^3, ^2, ^1) at the end. The bass clef has fingerings I, III, IV, V, and I.

Ex. 6d Ursatz II.

Ex. 6d Ursatz II. This system shows a single system of piano accompaniment. The treble clef has a 5th finger articulation (^5), a 4th finger articulation (^4), and a sequence of articulations (^3, ^2, ^1) at the end. The bass clef has fingerings I, III, V, IV, V, and I.

Ex. 7a *Alternative middleground.*

Musical score for Ex. 7a, Alternative middleground. The score is in G major (one sharp) and 4/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The treble staff contains a melodic line with four measures. Above the first measure is a circled '5' with a caret (^), above the second is a circled '3' with a caret (^), above the third is a circled '1' with a caret (^), and above the fourth is a circled '5' with a caret (^). The bass staff contains a bass line with four measures. Below the first measure is a circled 'I', below the second is a circled 'III', below the third are circled 'V' and 'IV', and below the fourth is a circled 'III'. The piece ends with a double bar line.

Ex. 7b *Alternative background structure.*

Musical score for Ex. 7b, Alternative background structure. The score is in G major (one sharp) and 4/4 time. It consists of two staves: a treble clef staff and a bass clef staff. The treble staff contains a melodic line with four measures. Above the first measure is a circled '5' with a caret (^), above the second is a circled '3' with a caret (^), above the third is a circled '1' with a caret (^), and above the fourth is a circled '5' with a caret (^). The bass staff contains a bass line with four measures. Below the first measure is a circled 'I', below the second is a circled 'III', below the third is a circled 'IV', and below the fourth is a circled 'III'. The piece ends with a double bar line.

Ex. 8a Tripartite reading of the waltz.

Musical score for Ex. 8a, showing a tripartite reading of a waltz. The score is written for piano in G major (one sharp). The treble clef staff contains a melody with three phrases: the first phrase is marked with a '3' and an accent (^), the second with a '2' and an accent (^), and the third with a '1' and an accent (^). The bass clef staff contains a bass line with five chords labeled I, V, I, III, and III. A fermata is placed over the final chord in the bass line.

Ex. 8b Bipartite reading.

Musical score for Ex. 8b, showing a bipartite reading of the waltz. The score is written for piano in G major. The treble clef staff contains a melody with five phrases: the first is marked with a '3' and an accent (^), the second with a '2' and an accent (^), the third with a '3' and an accent (^), the fourth with a '2' and an accent (^), and the fifth with a '1' and an accent (^). The bass clef staff contains a bass line with six chords labeled I, V, I, III, V, and I. A fermata is placed over the final chord in the bass line.

Ex. 9a Fundamental structure featuring the parallel major.

Musical score for Ex. 9a, showing a fundamental structure featuring the parallel major. The score is written for piano in G major. The treble clef staff contains a melody with three phrases: the first is marked with a '3' and an accent (^), and the third with a '1' and an accent (^). The bass clef staff contains a bass line with three chords labeled I, III, and I. A fermata is placed over the final chord in the bass line.

Ex. 9b Reading bringing out the harmonic deception.

Musical score for Ex. 9b, showing a reading bringing out the harmonic deception. The score is written for piano in G major. The treble clef staff contains a melody with five phrases: the first is marked with a '3' and an accent (^), the fourth with a '2' and an accent (^), and the fifth with a '1' and an accent (^). The bass clef staff contains a bass line with six chords labeled I, III, IV, V, and I. A fermata is placed over the final chord in the bass line.

Chapter 7

Ex. 1a *God Save the King*.

The image displays two systems of piano accompaniment for the hymn "God Save the King" in G major, 2/4 time. The first system, labeled 'A (Ant.)', covers measures 1 through 6. The second system, labeled 'B (Cons.)', covers measures 7 through 12. Both systems include a treble clef with a key signature of one sharp (F#) and a 2/4 time signature. The bass clef part features figured bass notation. System A includes dynamic markings 'zf' and 'yf' and is marked with 'X1' and 'x1'. System B includes a dynamic marking 'zr' and is marked with 'X2' and 'x2'. The figured bass notation for System A is: I VI II⁶ V I VI IV I₁⁶ VI II⁶ I₄⁶ V I. The figured bass notation for System B is: I V⁷ I IV I₁⁶ V I.

Ex. 1b Reduction according to Neumeyer and Tepping.

Musical notation for Ex. 1b, showing a melodic line in G major. The notation includes a triplet of eighth notes at the beginning and a final cadence. Roman numerals I, V, and I are placed below the notes. A large slur covers the entire phrase, with a '3' above the triplet and '2 1' above the final notes.

Ex. 1c Syntactic reading.

Musical notation for Ex. 1c, showing a melodic line in G major with various phrasing slurs and accents. Roman numerals I, V, I, I, IV, and VI are placed below the notes.

Ex. 1d Rhetoric reading.

Musical notation for Ex. 1d, showing a melodic line in G major with phrasing slurs and arrows indicating rhythmic or dynamic changes. Roman numerals I, I, I, IV, and I are placed below the notes.

Ex. 1e Recomposition with initial ascent to the fifth degree.

Musical notation for Ex. 1e, showing a melodic line in G major with a 3/4 time signature and various phrasing slurs.

Ex. 1f Recomposition with Uralinie from the third degree.

Musical notation for Ex. 1f, showing a melodic line in G major with a triplet of eighth notes at the beginning and a final cadence. Roman numerals I, V, and I are placed below the notes. A large slur covers the entire phrase, with a '3' above the triplet and '2 1' above the final notes.

Ex. 1g Recomposition with final structural ascent to the eighth degree.

Musical notation for Ex. 1g, showing a melodic line in G major with a 3/4 time signature and various phrasing slurs. Roman numerals IV, V, and I are placed below the notes. A large slur covers the entire phrase, with '5', '6', '7', and '8' above the final notes.

Ex. 2a Gott erhalte Franz den Kaiser.

The image displays a piano accompaniment for the hymn "Gott erhalte Franz den Kaiser". It consists of three systems of music, each with a treble and bass clef staff. The key signature is one sharp (F#) and the time signature is common time (C). The score is divided into three sections: A, B, and C.

- System 1 (Measures 1-5):** Section A. Chord symbols: I, I IV, II⁶, V, V-----. A dynamic marking of *p* is placed above the first measure of section B.
- System 2 (Measures 6-9):** Section B. Chord symbols: (II), V, V, (V⁶). Section C begins at measure 9 with a dynamic marking of *p*.
- System 3 (Measures 10-13):** Section C. Chord symbols: IV, IV, II⁶, II⁶, I⁶, V, I.

Ex. 2b Reduction according to Schenker; main observations.

Ex. 2b shows a piano reduction with Schenkerian analysis. The score is in G major. The analysis includes Roman numerals: I, II⁶, V, V I⁶, II⁶, V, I. Fingerings are indicated with numbers 1-5 and accents (^) above notes. A dashed line connects the first and last notes of the piece.

Ex. 2c Syntactic reading.

Ex. 2c shows a syntactic reading of the piece. The score is in G major. The analysis includes Roman numerals: I, IV, V, D:I (V⁶) IV, V I. A dashed line connects the first and last notes of the piece.

Ex. 2d Rhetoric reading.

Ex. 2d shows a rhetoric reading of the piece. The score is in G major. The analysis includes Roman numerals: I, V, V I⁶, I. Arrows indicate the flow of the music, and a dashed line connects the first and last notes of the piece.

Ex. 2e Synthesis.

Ex. 2e shows a synthesis of the piece. The score is in G major. The analysis includes Roman numerals: I, IV, V, (V⁶) V, (V⁶) IV, I. A dashed line connects the first and last notes of the piece.

Ex. 3 *alff* Schenker's reductive sketches in *Der freie Satz*.

Haydn, Kaiserhymne (vgl. Fig. 30, 3; 120, 6)

Haydn, Kaiserhymne (vgl. Fig. 30, 3; 119, 3)

Haydn, Kaiserhymne (vgl. Fig. 120, 6)

Ex. 4 a/e Reduction according to Schenker in *Der Tonwille*.

Fig. 1.

T. 1 2 3 4 9 10 11 12 13 14 15 16
 5 6 7 8 17 18 19 20

a) *Original melody with phrasing slurs.*

b) *First reduction level.*

c) *Second reduction level.*

d) *Third reduction level.*

e) *Fourth reduction level (Ursatz).*

G dur. | I — II#3 V V — VI II#3 V (Quintzug) — I V. I II V#3 I

Chapter 8

Ex. 1a Schubert, Waltz Op. 18, No. 10 (Original).

Musical score for Ex. 1a, showing the original composition. It consists of two systems of piano accompaniment. The first system contains measures 1 through 8, and the second system contains measures 9 through 16. The key signature is D major (two sharps) and the time signature is 3/4. The notation includes treble and bass staves with various chords and melodic lines.

Ex. 1b Recomposition closing in D major.

Musical score for Ex. 1b, showing a recomposition of the original piece. It consists of two systems of piano accompaniment. The first system contains measures 1 through 8, and the second system contains measures 9 through 16. The key signature is D major (two sharps) and the time signature is 3/4. The notation includes treble and bass staves with various chords and melodic lines, ending in a final cadence in D major.

Ex. 1c Recomposition closing in B minor, then in D major.

Musical score for Ex. 1c, showing a recomposition of the original piece. It consists of two systems of piano accompaniment. The first system contains measures 1 through 8, and the second system contains measures 9 through 16. The key signature is D major (two sharps) and the time signature is 3/4. The notation includes treble and bass staves with various chords and melodic lines, ending in a final cadence in D major.

Ex. 2a Reduction of 1a.

Musical score for Ex. 2a Reduction of 1a. The score is in treble and bass clefs with a key signature of two sharps (F# and C#). The bass line consists of a sequence of chords: b: I, III, V, and I. The treble line features a melodic line with a triplet of eighth notes on the first measure, followed by a series of eighth notes. A thick black line with a dashed line underneath indicates a slur over the first two measures of the treble line. Above the first measure of the treble line is a '3' with a hat (^) above it. Above the second measure is a '2' with a hat (^) above it. Above the third measure is a '1' with a hat (^) above it.

Ex. 2b Reduction of 1b.

Musical score for Ex. 2b Reduction of 1b. The score is in treble and bass clefs with a key signature of two sharps (F# and C#). The bass line consists of a sequence of chords: b: I, III, D: IV, V, and I. The treble line features a melodic line with a triplet of eighth notes on the first measure, followed by a series of eighth notes. A thick black line with a dashed line underneath indicates a slur over the first two measures of the treble line. Above the first measure of the treble line is a '3' with a hat (^) above it. Above the second measure is a '(3)' with a hat (^) above it. Above the third measure is a '2' with a hat (^) above it. Above the fourth measure is a '1' with a hat (^) above it.

Ex. 2c Reduction of 1c.

Musical score for Ex. 2c Reduction of 1c. The score is in treble and bass clefs with a key signature of two sharps (F# and C#). The bass line consists of a sequence of chords: b: I, V, I, D: I, II, V, and I. The treble line features a melodic line with a triplet of eighth notes on the first measure, followed by a series of eighth notes. A thick black line with a dashed line underneath indicates a slur over the first two measures of the treble line. Above the first measure of the treble line is a '3' with a hat (^) above it. Above the second measure is a '2' with a hat (^) above it. Above the third measure is a '1' with a hat (^) above it. Above the fourth measure is a '3' with a hat (^) above it. Above the fifth measure is a '2' with a hat (^) above it. Above the sixth measure is a '1' with a hat (^) above it.

Ex. 4a Mozart, Piano Sonata K. 280, 2nd mov. Adagio (original).

Adagio

9 23

25 32 37 43 59

tr (f) p f f f f

Ex. 4b Recomposition closing in A \flat major.

Adagio

tr (f) p f f f f

Ex. 4c Recomposition closing in C minor.

Adagio

tr
f
p
f
f

Ex. 4d Recomposition closing in A minor.

Adagio

tr
f
p
f
f

Ex. 5a Reduction of 4a.

$\hat{5}$ $\hat{4}$ $\hat{3}$ $\hat{2}$ $\hat{5}$ $\hat{4}$ $\hat{3}$ $\hat{2}$ $\hat{1}$
 f: I III V^b then V I II^b V I

Ex. 5b Reduction of 4b.

$\hat{5}$ $\hat{4}$ $\hat{3}$ $\hat{2}$ $\hat{1}$ $\hat{3}$ $\hat{2}$ $\hat{1}$
 f: I II^b V I I A^b : V I

Ex. 5c Reduction of 4c.

$\hat{3}$ $\hat{2}$ $\hat{1}$ $\hat{5}$ $\hat{4}$ $\hat{3}$ $\hat{2}$ $\hat{1}$
 f: I III c: I II^b V I

Ex. 5d Reduction of 4d.

$\hat{3}$ $\hat{2}$ $\hat{1}$ $\hat{5}$ $\hat{4}$ $\hat{3}$ $\hat{2}$ $\hat{1}$
 f: I III a: I II^b V I

Ex. 6a Prolongational tree of 4a.

Musical score for Ex. 6a showing a prolongational tree diagram above the notes. The tree structure is as follows:

- Root node (black dot) branches to two white circles.
- The left white circle branches to a black dot, which then branches to two white circles.
- The right white circle branches to a black dot, which then branches to two white circles.

 The musical score below the tree shows a piano piece in G-flat major. Fingerings are indicated by numbers 1-5 above notes. Chord symbols are f: I, III, V_b then V_b, II: V, and I.

Ex. 6b Prolongational tree of 4b.

Musical score for Ex. 6b showing a prolongational tree diagram above the notes. The tree structure is as follows:

- Root node (black dot) branches to two white circles.
- The left white circle branches to a black dot, which then branches to two white circles.
- The right white circle branches to a black dot, which then branches to two white circles.

 The musical score below the tree shows a piano piece in G-flat major. Fingerings are indicated by numbers 1-5 above notes. Chord symbols are f: I, II: V, I, I, A:, V, and I.

Ex. 6c Prolongational tree of 4c.

Musical score for Ex. 6c. The score is in F major, 4/4 time, and consists of two measures. The first measure contains a half note F4, a quarter note G4, a quarter note A4, and a half note B4. The second measure contains a half note C5, a quarter note B4, a quarter note A4, and a half note G4. Fingerings are indicated by numbers 1-5 above notes. Chord symbols *f*: I, III, *c*: I, III^b V, and I are placed below the bass staff. A prolongational tree diagram is shown above the score, illustrating the hierarchical grouping of notes with solid and dashed lines.

Ex. 6d Prolongational tree of 4d.

Musical score for Ex. 6d. The score is in A major, 4/4 time, and consists of two measures. The first measure contains a half note A4, a quarter note B4, a quarter note C5, and a half note D5. The second measure contains a half note E5, a quarter note D5, a quarter note C5, and a half note B4. Fingerings are indicated by numbers 1-5 above notes. Chord symbols *f*: I, III, *a*: I, II^b V, and I are placed below the bass staff. A prolongational tree diagram is shown above the score, illustrating the hierarchical grouping of notes with solid and dashed lines.

Chapter 9

Ex. 1 Beethoven, Piano Sonata Op. 31, No. 2, 3rd mov. Exposition.

Allegretto

The musical score is written for piano and bass. It begins with the tempo marking **Allegretto** and a dynamic marking of *p*. The score is divided into seven systems, each containing a piano staff and a bass staff. Measure numbers 6, 12, 18, 24, 30, and 36 are indicated at the start of their respective systems. Dynamic markings include *p*, *cresc.*, *f*, and *dim.*. The key signature has one flat (B-flat). The score concludes with a measure number of 143.

Musical score for piano, measures 46-59. The score is written in treble and bass clefs. The key signature has one sharp (F#). The piece features a variety of dynamics and articulations.

Measures 46-59 include the following dynamics and markings:

- Measures 46-47: *sf*, *dim.*, *p*, *f*
- Measures 48-49: *sf*, *dim.*, *p*, *cresc.*
- Measures 50-51: *f*
- Measures 52-53: *p*, *cresc.*, *p*
- Measures 54-55: *cresc.*
- Measures 56-57: *f*
- Measures 58-59: *f*, *p*, *cresc.*

The score includes various musical notations such as slurs, ties, and fingerings (e.g., 1, 2, 3, 4, 5). The piece concludes with a double bar line and repeat dots.

Ex. 2 Reduction according to Schenker.

Beethoven, Sonate Op. 31^{II}, Allegretto

T. 1 5

8 (3) 9 (Nln) 12 13 14 15/16

1 (Anstieg)

d moll: I (10 - 10 - 10 - 10 - 10) $\frac{6}{4}$ - $\frac{5}{3}$ I

Ex. 3 Reduction according to Burstein.

bar 1 4 8 9 12 15

i V i iv bII V⁶ i

$\frac{V^6}{4}$ $\frac{5}{3}$ i

Ex. 4 Preliminary representation.

Musical score for Ex. 4, Preliminary representation. The score is in 3/8 time and consists of two systems of three staves each (treble, middle, and bass clefs). The first system shows a dense texture with many notes and slurs. The second system, starting at measure 8, shows a reduction of the texture, with fewer notes and slurs, indicating a simplification of the original material.

Ex. 5 First stage of reduction.

Musical score for Ex. 5, First stage of reduction. The score is in 3/8 time and consists of two systems of three staves each (treble, middle, and bass clefs). The first system shows a significant reduction of the texture, with many notes removed. The second system, starting at measure 8, shows a further reduction, with even fewer notes and slurs, indicating a more advanced stage of simplification.

Ex. 6a Background 1.

Musical score for Ex. 6a Background 1. The score is written for piano in a single system with a grand staff (treble and bass clefs). The key signature has one flat (B-flat). The melody in the treble clef consists of eighth notes with fingerings indicated by numbers 1 through 7 above the notes. The bass clef accompaniment features a steady eighth-note bass line. Chord symbols I, IV, V, and I are placed below the bass line. Arrows indicate the movement of the right hand from the treble clef to the bass clef.

Ex. 6b Background 2.

Musical score for Ex. 6b Background 2. The score is written for piano in a single system with a grand staff (treble and bass clefs). The key signature has one flat (B-flat). The melody in the treble clef consists of eighth notes with fingerings indicated by numbers 3 through 7 above the notes. The bass clef accompaniment features a steady eighth-note bass line. Chord symbols I, IV, V, and I are placed below the bass line. Arrows indicate the movement of the right hand from the treble clef to the bass clef.

Ex. 6c Background 3.

Musical score for Ex. 6c Background 3. The score is written for piano in a single system with a grand staff (treble and bass clefs). The key signature has one flat (B-flat). The melody in the treble clef consists of eighth notes with fingerings indicated by numbers 1 through 6 above the notes. The bass clef accompaniment features a steady eighth-note bass line. Chord symbols I, IV, and I are placed below the bass line. Arrows indicate the movement of the right hand from the treble clef to the bass clef.

Ex. 7 Beethoven, Piano Sonata Op. 31, No. 2, 3rd mov. mm. 350–387.

This musical score consists of seven systems of piano and bass staves. The key signature is one flat (B-flat major or D minor), and the time signature is 3/4. The score includes various dynamic markings and performance instructions:

- Measure 350: *pp* (pianissimo) in the bass staff, *sf* (sforzando) in the treble staff.
- Measure 355: *p* (piano) in the bass staff, *cresc.* (crescendo) and *dim.* (diminuendo) in the treble staff.
- Measure 360: *p* (piano) in the bass staff, *cresc.* (crescendo) and *f* (forte) in the treble staff.
- Measure 365: *dim.* (diminuendo) in the bass staff, *p* (piano) and *cresc.* (crescendo) in the treble staff.
- Measure 370: *p* (piano) and *cresc.* (crescendo) in both staves.
- Measure 375: *ff* (fortissimo) in the bass staff, *p* (piano) in the treble staff.
- Measure 380: *ff* (fortissimo) in the bass staff, *p* (piano) in the treble staff.

References

- Agawu, Kofi, "Ambiguity in Tonal Music: A Preliminary Study", pp. 86–107 in Anthony Pople (ed.) *Theory, Analysis, and Meaning in Music*, Cambridge University Press 1994
- Ayrey, Craig, "Universe of Particulars: Subotnick, Deconstruction, and Chopin", *Music Analysis* 17(1998), 339–381
- Beach, David, "The Analytic Process: A Practical Demonstration", *Journal of Music Theory Pedagogy* 3(1989), 25–46
- Burkhart, Charles, "Schenker's 'Motivic Parallelisms'", *Journal of Music Theory* 22(1978), 145–175
- Cohn, Richard & Douglas Dempster, "Hierarchical Unity, Plural Unities: Toward a Reconciliation", pp. 156–181 in Bergeron & Bohlman (eds.), *Disciplining Music. Music and its Canons*, Chicago 1992
- Cook, Nicholas, *Guidelines to Music Analysis*, London 1987, Dent
- Cook, Nicholas, *Music, Imagination, and Culture*, Oxford University Press 1990
- Cook, Nicholas, "Music Theory and 'Good Comparison': A Viennese Perspective", *Journal of Music Theory* 33(1989), 117–141
- Cook, Nicholas, "The Perception of Large-Scale Tonal Closure", *Music Perception* 5(1987), 197–206
- Cooper, Grosvenor & Leonard B. Meyer, *The Rhythmic Structure of Music*, Chicago University Press 1960
- Drabkin, William, "Schenker, the Consonant Passing Note, and the First-Movement Theme of Beethoven's Sonata Op. 26", *Music Analysis* 15(1996), 149–189
- Edlund, Bengt, "Interpretation as Continuation"
- Edlund, Bengt, "Analytical Variations"
- Edlund, Bengt, "Chopin's A-major Prelude. *Une pièce résistante*", pp. 167–183 in Arthur Szklener (ed.) *Analytical Perspectives on the Music of Chopin*, Warszawa 2005

- Edlund, Bengt, *Chopin. The Preludes and Beyond*, Frankfurt 2013, Peter Lang Verlag
- Edlund, Bengt, “Hidden Repetitions and Uncovered Parallelisms”
- Edlund, Bengt, “In Defence of Musical Ambiguity”
- Edlund, Bengt, “Interpreting Bagatelles”
- Edlund, Bengt, “Reduction and Interpretation”
- Edlund, Bengt, “Tonal Closure – Fact and/or Fiction”, pp. 140–144 in *Proceedings of the Third Triennial ESCOM Conference*, Uppsala 1997
- Edlund, Bengt, “Tonal Structure and Modes of Continuation”
- Forte, Allen, “Schenker’s Conception of Musical Structure”, *Journal of Music Theory* 4(1959) 1–30; reprinted in Maury Yeston (ed.), *Readings in Schenker Analysis and Other Approaches*, New Haven 1977, pp. 3–37
- Forte, Allen & Steven E. Gilbert, *Introduction to Schenkerian Analysis*, New York 1982
- Gjerdingen, Robert, “An Experimental Music Theory?”, pp. 161–170 in Nicholas Cook & Mark Everist (eds.), *Rethinking Music*, Oxford University Press 1999
- Jackendoff, Ray, “Musical Parsing and Musical Affect”, *Music Perception* 8(1991)2, 199–229
- Kerman, Joseph, “How We Got into Analysis, and How to Get Out”, *Critical Inquiry* 7(1980), 311–331
- Komar, Arthur, Norton Critical Edition of *Dichterliebe*, 1971
- Larson, Steve, “Questions about the *Ursatz*, A Response to Neymeyer”, *In Theory Only* 10(1987)4, 11–31
- Lerdahl, Fred & Ray Jackendoff, *A Generative Theory of Tonal Music*, Cambridge, Mass. 1983, MIT Press
- Lerdahl, Fred & Ray Jackendoff, “An Overview of Hierarchical Structure in Music”, *Music Perception* 1(1983/84), 229–252
- Levinson, Jerrold, “Performative vs. Critical Interpretations in Music”, pp. 33–60 in Michael Krausz, (ed.), *The Interpretation of Music. Philosophical Essays*, Oxford 1993, Clarendon Press

- Marvin West, Elizabeth & Alexander Brinkman, “The Effect of Modulation and Formal Manipulation on Perception of Tonic Closure by Expert Listeners”, *Music Perception* 16(1999), 389–407
- Meyer, Leonard B., *Emotion and Meaning in Music*, Chicago University Press 1956
- Meyer, Leonard B., *Explaining Music*, Chicago University Press 1973
- Meyer, Leonard B., *Style and Music*, Philadelphia 1989
- Narmour, Eugene, “*Beyond Schenkerism. The need for Alternatives in Music Analysis*”, Chicago University Press 1977
- Narmour, Eugene, *The Analysis and Cognition of Basic Melodic Structures*, University of Chicago Press 1990
- Narmour, Eugene, *The Analysis and Cognition of Melodic Complexity*, University of Chicago Press 1992
- Neumeier, David, “Organic Structure and the Song Cycle: Another Look at Schumann’s *Dichterliebe*”, *Music Theory Spectrum* 4(1982), 92–105
- Neumeier, David, “Reply to Larson”, *In Theory Only* 10(1987)4, 33–37
- Neumeier, David, “The three-Part *Ursatz*”, *In Theory Only* 10(1987)1/2, 3–29
- Neumeier, David & Susan Tepping, *A Guide to Schenkerian Analysis*, Englewood Cliffs 1992
- Russell, Bertrand, *Western Philosophical Thought*, London 1946
- Rothgeb, John, “Thematic Content: A Schenkerian View”, pp. 39–60 in Beach (ed.), *Aspects of Schenkerian Theory*, New Haven 1983
- Salzer, Felix, *Structural Hearing I-II*, 2nd ed. New York 1962, Dover Publications
- Schenker, Heinrich, *Der freie Satz I-II*, Wien 1935, Universal
- Schenker, Heinrich, *Fünf Urfurien-Tafeln*, Wien 1932 Universal Edition; reprint New York 1969, Dover Publications
- Schenker, Heinrich, “Oesterreichische Volkshymne”, *Der Tonwille* 4(1924)4, 11–13
- Subotnick, Rose Rosengard, “How Could Chopin’s A-Major Prelude Be Deconstructed?”, pp. 39–147 in *Deconstructive Variations*, Minneapolis 1966

