Topics, Form, and Expression in the Music of György Ligeti and Thomas Adès

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ABSTRACT

This dissertation combines traditional music-theoretical approaches with theories of reading in literature to develop a method for an understanding of the significance of topics in music of the late twentieth century. One of the most widely applied aspects of musical semiotics, topics are defined as conventionalised musical objects with easily recognizable musical features, such as the Chorale, Lament, and Hunt. So far, this theory has primarily been applied to music of the eighteenth century. I develop its observations to detail the role of these standardized musical objects in the works of György Ligeti and Thomas Adès from the 1990s and 2000s. Building on the semiotic and literary theories of Hjelmslev (1943), Greimas (1966), and Eco (1984), I show how the interactions of topical characteristics can constitute the foundation of a work's form, defining a hierarchy of topical presence (the Elementary, Intermediate, and Actant levels). Adopting the concept of isotopy from literature, I temporalise this hierarchy, demonstrating how a topic's lower-level characteristics appearing earlier in a work can project a later realisation of the full topic.

Chapter 1 outlines previous theories and applications of topic theory and details how they can be adapted to later twentieth-century music. Drawing upon theories developed by Hjelmslev and Greimas, Chapter 2 outlines a hierarchy of topical specificity which, through adapting the term isotopy from literary theories of Greimas and Eco, Chapter 3 temporalises. Through applying these principles, I show how a Lament appears with increasing strength in Ligeti's *Musica Ricercata*, only appearing in full in the final bars, and how the overlapping characteristics of the Chorale and Sound Mass topics point to two different topical paths in Ligeti's *Hamburg Concerto*. Chapter 4 expands from a single topic to model the interaction of multiple topics in Topical Networks. Through analyses of Adès's *Still Sorrowing* and Ligeti's Horn Trio I show how the identification of different topics can create diverging conceptions of formal relationships through the listeners' prioritising of different musical

relations. For example, a listener may identify inherited topics (e.g. Lament and Hunt) based upon their familiarity with canonical works, or may focusing on newer signs (such as a Sound Mass topic, with its associated imagery developed in Ligeti's writings, for example (see Wilson 2004)).

Chapters 5-6 apply these principles to long-form analyses of Ligeti's Violin Concerto (1992) and Adès's *Living Toys* (1993). The latter applies mathematical group theory to show how the harmony of five topics can relate. Depending on the topics identified, I demonstrate how two different understandings of the harmony can be constructed. Chapter 7 returns to the historical concerns of Chapter 1. A more speculative chapter drawing upon contemporary theories of the function of signs in architecture, film, and literature, I show how this approach models an aesthetic that is part of broader trends in the later twentieth century.

This study is the first to explore the ramifications of the flourishing sub-discipline of topic theory to late twentieth-century music, adapting traditional post-tonal music-theoretical techniques in detailed musical analysis. Given topic theory's social, cultural, and political concerns—indeed, William Caplin calls it 'one of the success stories of modern musicology' (Caplin 2005)—this approach has the potential to widen discussion on the role of signification and meaning in late twentieth-century music.

RÉSUMÉ

Cette thèse combine des approches théoriques musicales traditionnelles avec des théories de la lecture en littérature afin de développer une méthode visant à comprendre la signification des « topiques » dans la musique de la fin du XXe siècle. L'un des aspects les plus utilisés de la sémiotique musicale, les topiques sont définis comme des objets musicaux conventionnels avec des caractéristiques musicales facilement reconnaissables, comme le choral, la complainte et la chasse. Jusqu'à présent, cette théorie a été principalement appliquée à la musique du XVIIIe siècle. Je développe ces observations pour analyser le rôle de ces objets musicaux standardisés dans la musique de György Ligeti et Thomas Adès des années 1990 et 2000. Utilisant les théories sémiotiques et littéraires de Hjemslev (1943), Greimas (1966) et Eco (1984), je montre comment les interactions des caractéristiques des topiques peuvent constituer le fondement de la forme d'une œuvre et définir une hiérarchie de « présence topique » (les niveaux élémentaire, intermédiaire et actant). Adoptant le concept d'isotopie de la littérature, je temporise cette hiérarchie afin de démontrer comment, par exemple, les caractéristiques de niveau inférieur d'un topique apparaissant plus tôt dans une œuvre peuvent projeter une réalisation du topique plus tard.

Le chapitre 1 présente les principes et les applications de la théorie des topiques et explore comment elles peuvent être adaptées à la musique du XXe siècle. S'appuyant sur les théories de Hjemslev et Greimas, le chapitre 2 présente une hiérarchie de spécificité topique qui adapte concept d'isotopie des théories littéraires de Greimas et Eco. Le chapitre 3 temporalise cette hiérarchie. En appliquant ces principes, je montre comment une complainte apparaît avec une puissance accrue dans la *Musica Ricercata* de Ligeti, qui apparaît en totalité seulement dans les dernières mesures, et comment les caractéristiques qui se chevauchent des topiques du choral et de la masse sonore indiquent deux chemins d'actualité différents dans le *Hamburger Konzert* de Ligeti. Le chapitre 4 élargit un seul topique afin de

modéliser l'interaction des caractéristiques des plusieurs topiques dans les réseaux topiques (un « topical network »). Puisque les topiques sont dépendants de l'expérience de l'auditeur, j'adapte les principes des théories littéraires qui privilégient le lecteur. Par mes analyses de *Still Sorrowing* d'Adès et du Trio pour violon, cor, et piano de Ligeti, je montre comment l'identification des topiques différents peuvent créer des conceptions divergentes des relations formelles selon les topiques que l'auditeur priorise. Par exemple, un auditeur peut identifier des sujets hérités (par exemple, la complainte et la chasse) à cause d'une familiarité avec les œuvres canoniques, ou peut se concentrer sur des signes plus récents (comme le topique de la masse sonore, avec ses images associées développées dans les écrits de Ligeti, par exemple [Wilson 2004]).

Les chapitres 5 et 6 appliquent ces principes à des analyses du Concerto pour violon de Ligeti et des *Living Toys* d'Adès. Cette dernière analyse applique la théorie mathématique des groupes pour montrer comment l'harmonie de cinq topiques peut être liée. Le chapitre 7 revient aux préoccupations du chapitre 1. S'appuyant sur les théories contemporaines de la fonction des signes dans l'architecture, le cinéma et la littérature, je montre comment cette approche modélise une esthétique qui fait partie des tendances de la fin du XXe siècle.

Cette étude est la première à explorer les ramifications de la sous-discipline florissante de la théorie des topiques à la musique de la fin du XXe siècle, en adaptant les techniques traditionnelles de la musique post-tonale dans une analyse musicale détaillée. Comme la théorie des topiques s'intéresse aux questions sociales, culturelles et politiques – William Caplin appelle la théorie « une des réussites dans musicologie moderne » (Caplin 2005) – cette approche a le potentiel d'élargir la discussion sur le rôle de la signification et du sens de la musique de la fin du XXe siècle.

ACKNOWLEDGEMENTS

[M]odernism made some of us think that musical meaning,
in any ordinary sense, was finished. But all that is past.

Raymond Monelle (2006b, 273)

INTRODUCTION

This dissertation develops a method for analysing topics in post-tonal music in the context of the music of György Ligeti (1923-2006) and Thomas Adès (1971-). Topics in eighteenth-century music are often considered subservient to tonal syntax; I propose that the less codified syntax in post-tonal music liberates topics, enabling their characteristics to interact in novel ways. From this liberation, I take topics as my perceptual starting point. I build a theoretical approach which situates a listener who identifies topics first and then, through focusing on the characteristics associated with these topics, interprets relations between parameters. This "signs-first" approach is familiar in the analysis of literature, leading me to adapt principles from the theories of A.J. Greimas, Umberto Eco, and Roland Barthes.

This dissertation has two central threads. The first is theoretical, developing a new approach to understanding the role of topics in post-tonal music. The second is historical. The wide-ranging insights into communicative potential of topic theory—one of the most widely used applications of semiotic ideas to music—have so far focused primarily on music of the eighteenth century with minimal explorations of its potential when adapted to analyse music from the seventeenth, nineteenth, and twentieth centuries. My focus is on a 'post-collage' style of the 1990s and 2000s: music that is liberal in its inclusion of imported objects (not just topics, but quotations and intertextual allusions) whilst carefully incorporating these elements into the fabric of the work. Through threading music, semiotic, and literary theories through detailed analyses of two composers' works, I aim to situate this repertoire within broader historical and aesthetic trends across arts of recent decades.

0.1 Contexts and motivations

This research is motivated by the continually rich developments in topic theory, its thus-far limited engagement of topics with form, and its limited application to recent avant-garde music. Much topic theory traces its lineage to Leonard Ratner's initial application of the term "topic" to music in his 1980 treatise *Classic Music*.[1] Ratner's understanding of topics as standardised objects within the historical vernacular is more recently summed up poetically by Danuta Mirka, who writes that Ratner's 'insight that classical masterpieces were full of references to the eighteenth-century soundscape transformed their reception by modern listeners [just] as the discovery that the Parthenon was painted transformed the reception of monumental ruins of classical antiquity'.[2] This allying of critical and historical insights into the music's communication of conventionalised meaning led William Caplin to call topic theory 'one of the success stories of modern musicology'.[3]

Whilst topic theory research in the music-historical realm has developed detailed understanding of the history of individual topics—popular candidates are the Hunt, the Pastoral, and the Lament[4]—the mechanics of topics in form has proven less inviting to analysts. For example, in surveying the topic-theory ground in 2007, Kofi Agawu noted that 'a recurring criticism is that topical analysis tends to break the music into too many small

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[1] Ratner 1980.

[2] Mirka 2014, 1.

[3] Caplin 2005, 114.

[4] Representative studies include Monelle 2006b (on the Hunt, Military, and Pastoral), Bauer 2006 (on the Lament), and various chapters in the *Oxford Handbook*, including Haringer 2014 (also on the Hunt, Military, and Pastoral).

units, units that moreover are not necessarily isomorphic with conventional phraseology'.[5] More specifically, Caplin frames topics in the eighteenth century as subservient to tonal syntax, writing that any link to formal function is, at best, 'rather tenuous'.[6] That is, although all topics contain rich expressive information and a complex range of associated musical characteristics, they cannot sustain their own self-regulating account of a piece. Occasionally a topic may demonstrate some form-functional correlation—such as the beginning function of the Mannheim Rocket—but these are the exception rather than the norm. Topic theory risks a belatedness, as an optional extra either isolated from or subservient to other modes of musical analysis.

Nevertheless, analytical work from a topical perspective continues to provide fascinating insights. Yet the gap in topic-theoretical research on semantically rich twentieth-century music is prominent. For example, all except one of the contributions to the *Oxford Handbook of Topic Theory* focus on eighteenth-century repertoire. Yet musical topics and topic-like objects continue to appear in music throughout the twentieth century. Adapting topic theory to recently composed music is complex, though, summed up by Mirka's remark that for music of the twentieth century 'the spectrum of such references and complexity of their sociocultural meanings exponentially increases'.[7] After the layering of signification in the experiments with collage and an increasingly large body of music to import and refer, one might question the analytical payoff of identifying topics in later twentieth-century music. Combining this compounding of meanings with the oft-diverging understandings of what

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[5] Agawu 2008, 55.

[6] Caplin 2005, 114.

[7] Mirka 2014, 47.

actually constitutes a topic might lead one to conclude that applying topic theory to this repertoire risks promiscuity, that labelling a moment a March or Hunt is of limited consequence. In this dissertation I aim to show how the insights of topic theory not only remain pertinent, but through elucidating the semantic effect of identifiable decontextualized imported musical material can uncover new semantic and formal perspectives and fresh meanings.

This limited focus of twentieth-century music is curious when we pause to assess the original semiotic justification for topic theory. Early writers (particularly Agawu and Hatten)[8] drew primarily on twentieth-century semiotics to develop methods of topic theory applied to eighteenth-century music. For some, this was lacking in historical grounding, so others (notably Raymond Monelle)[9] out-historicised the historicists, excavating in detail the eighteenth-century literary origin of topics of the Hunt, Military, and Pastoral. Still deemed insufficient, Mirka's introduction to the recent *Handbook* out-historicised the out-historicisers, detailing now how *eighteenth-century* semiotics supports the idea of topics.[10] But if we return to Agawu's and Hatten's original adaption of twentieth-century semiotics, there is a blind spot: if eighteenth-century semiotics can be drawn upon to justify how we hear eighteenth-century music, what should we do with twentieth-century semiotics and twentieth-century music? Is the contemporaneity of the semiotically influenced topic theories with Ligeti and Adès sufficient to justify an equivalent association? Probably not, but such a dialogue between semioticians and composers in the twentieth century is encapsulated by the

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[8] Agawu 1991, Hatten 1994.

[9] Monelle 2006b.

[10] Mirka 2014.

friendship between Luciano Berio and Eco, who worked at Radiotelevisione Italiana (RAI)

together. Berio's place in twentieth-century music, notably his experiments with collage,

mirror Eco's influence in twentieth-century semiotics [11] and, although Ligeti and Adès do not

have a semiotician colleague in this manner, the broader ideas and influences became

increasingly influential over the century.

      Key writings on topic theory are often rooted in foundational semiotic theories of the

twentieth century such as those by Charles Sanders Peirce,[12] Roman Jakobson,[13] and Louis

Hjelmslev.[14] The wide-ranging influence of these heavyweight early-twentieth-century

theorists across disciplines encouraged me to explore developments in the later twentieth

century. Central to my approach is placing music-theoretical observations in the context of

theories of reading in literature. These reader-orientated "signs-first" approaches to analysing

literature engage with similar principles implicit in many topic-theoretical analyses.

Specifically, I draw upon their theories to systematically show how, depending on the topics

recognised, different harmonic and formal readings of a piece can be formed by variations in

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[11] A notable published interaction is Eco's interviewing of Berio (Berio 1989 [1986]). For example,
Berio alludes to a semantics of narrative: 'As you can see, it's the musical processes that are primarily
responsible for the narration. My concern was not to create a "system of expectations", but (and
maybe you'll tell me it's the same thing) to control developments and relationships between the
various musical characters, their conflicts, and the polyphonic density of the whole…the spectator,
your "theatrical consumer", can select his "system of expectations" for himself from the expressive
range that I offer him. So I would say that *Un re in ascolto* elaborates various levels of reading'
(Berio 1989 [1986], 4). Replacing Berio's 'musical characters' with 'topics' arrives at a similar
approach to mine. For a broader overview, see Mussgnug 2008.

[12] Hatten 1994, Monelle 2000.

[13] Agawu 1991.

[14] Rumph 2014.

listeners' experiences. I explore these theories' resonance with applications of foundational semiotics and structuralism in other disciplines. Using topic theory as a stimulus to explore wider interdisciplinary dialogues expands both the music-theoretical scope and the scope of these interdisciplinary theories which often overlook music and especially music theory.

Broadening this dialogue with twentieth-century semiotics opens a world of interpretive possibilities. This dissertation does not aim to be comprehensive in applying such approaches to music. Rather, I choose certain evocative ideas that are applicable, with my theoretical model adapting principles from later twentieth-century theories of literature such as those by Algirdas Julien Greimas, Barthes, and Eco. Central to these is the receiver-situated framing, highlighting the role of the reader such as Eco's writings (or, more morbidly, Barthes 'death of the author').[15] I expand topic theory's rooting in listener experience to explore how focusing on different topics can create multiple complementary understandings of a work. That is, one listener identifying topics *a* and *b* may focus on their characteristics in their respective parameters functioning in dialogue. A second listener, instead recognising two different topics *c* and *d* may focus on different characteristics and *their* dialogue. Accordingly, two listeners with different experience and generic expectations may form not only different extra-musical associations, but also different understandings of the musical relations within the same work. These plural readings have limitations, though, as a topic is necessarily rooted in a conventionalisation across a group of listeners. That is, these interpretations are unlikely to be individual, but remain rooted in a socio-cultural group. Although my primary focus is on topic theory, both Ligeti's and Adès's music contain quotations and intertextual allusions which further the possible interpretations and analyses,

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[15] Eco 1979.

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though remain rooted in identifiable references.

Although Ligeti and Adès may appear a disparate pairing for developing this analytical approach—born fifty years apart on opposite sides of Europe—their music concerns similar expressive outlooks. Ligeti's later music (my focus) is near-contemporaneous to Adès's earlier works (indeed, as many younger composers Adès was likely influenced by Ligeti's work),[16] and both outputs contain extensive and varied topics and topic-like objects alongside quotations and intertextual allusions. Furthermore, in their published writings and interviews both allude to such thinking, with their descriptions of expressive effects overlapping with fundamental elements of topic theory (see introductions to Chapters 5 and 6). And, although I focus on their instrumental music, both composers have written significant dramatic works (including operas: Ligeti's *Le Grand Macabre* and Adès's *Powder Her Face*, *The Tempest*, and *The Exterminating Angel*), which explicitly engage with narrative, allusion, topics, and large-scale structure.

0.2 Overview of semiotic contexts

Though possible to trace back centuries, semiotics, or the study of signs, flourished as a modern discipline throughout the twentieth century. Major figures in early modern Semiotics include Charles Sanders Peirce, Charles Morris, Ferdinand de Saussure, Louis Hjemslev, Roman Jakobson, and Claude Lévi-Strauss.[17] They developed a sophisticated approach

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[16] During the writing of this dissertation, Adès has had a flourish of creativity, including his Piano Concerto (2018), *Purgatorio* (2019), *Paradiso* (2019), *Inferno* (2019), *Dante* (2019), *Dawn* (2020), *Gyökér (Root)* (2020), and *Marchentanze* (2020). The sound worlds of Ligeti's and Adès's Violin and Piano Concertos are, at times, remarkably similar.

[17] For a substantial introduction and bibliography of each of these figures, see Nöth 1990.

which became a wide-ranging and dominant intellectual paradigm in the 1960s, frequently grouped under the umbrella of 'structuralism'. Moving beyond the identity of the sign, structuralist approaches study signs as a part of a system of network relations, based on the assumption that only through pertinent relations between signs can meaning be produced. Near the beginning of his influential 1975 text *Structuralist Poetics*, a text which popularised many European writers on this subject in North America, Jonathan Culler characterises structuralism as based upon the 'realization that if human actions or productions have a meaning there must be an underlying system of distinctions and conventions which makes this meaning possible'.[18] Structuralism has its roots in Saussure's semiology and has been applied to a range of fields, including linguistics, anthropology, psychoanalysis, and philosophy. Jean-Baptiste Fages's 1968 'manifesto' of structuralism provides seven rules which are useful in framing the general approach of structuralism: (1) *Immanence*, or analysing the structure of a system from a synchronic perspective, (2) *Pertinence*, or the features that have visceral oppositions, (3) *Commutation*, or identifying the smallest possible pairs, (4) *Compatibility*, or analysing how elements relate besides oppositions, (5) *Integration*, or how these elementary structures are integrated into the whole system, (6) *Diachronic change*, or analysing how such systems change historically, and (7) *Function*, or the communicative role of the system.[19] This list provides a concise summary of the influence of Saussure's methodology.

Fages's list above renders explicit what later critics of structuralism focused on, particularly *Immanence*, or the idea that the text is a closed system without historical or

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[18] Culler 1975, 4.

[19] Fages 1968, cited in Nöth 1990, 295-96.

individual perspectives. Although the so-called 'post-structuralists' are often characterised as pursuing an independent approach, in practice they continued many of the principles of Fages' list, but with two notable differences. First, they shifted focus onto the reader, embodied in texts such as those by Eco and Barthes.[20] Influenced by writings such as those of Edmund Husserl, they emphasised the ontological instability of the sign, such that any "structure" was not an objective reality, but dependent on the experience of the receiver. Barthes introduces the terms *readerly* (*lisible*) and *writerly* (*scriptible*) to distinguish between texts which are constituted of conventionalised patterns of narrative and those which demand an active role from the reader as a form of co-writer. *Some* structure is always possible to establish, but any claims of universality are wildly misrepresentative. Second, post-structuralists challenge what could constitute a binary. Notably Jacques Derrida's nebulous conception of deconstruction promoted the idea that oppositions at the foundation of the structuralist approach (that is, Fages's second rule) are not so simple: a sign is not simply marked by a static presence or absence but contains a trace of all other signs. This dynamic network of inter-related signs actively constructed by the perceiver pushes back against any universalism of structuralism and will prove evocative in the following analyses. In particular, transformational networks of harmony developed in Chapter 6 provide a nuanced vocabulary of relationships far beyond oppositions, with each object containing a trace of elements of other objects.

In general, the method outlined in this dissertation draws upon elements of the

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[20] The first major work of Eco's to attack the beliefs of structuralism was Eco 1968. Later works, including Eco 1979, Eco 1989 [1962] developed this attitude. Barthes' major critiques include Barthes 1974, Barthes 1977 [1967], and Barthes 1977.

structuralist approach, including building a system to understand how relations of objects (topics) might form pertinent relations such as oppositions and similarities. But in embracing the focus on the listener's experience as constructing these networks of relationships I echo Barthes's and Eco's critiques. The rich relation between conventionalised and individual construction provokes a wide range of responses, depending on levels of experience. Topics in music are a particularly rich case study to apply such principles.

0.3 Outline of chapters

The first four chapters cumulatively build an approach from the above principles to model topics in post-tonal music, followed by three chapters which each focus on a single work to explore in detail aspects and implications of the theory. Chapter 1 outlines previous theories and applications of topic theory and details my understanding of a topic in later twentieth-century music. As eighteenth-century music is the focus of much topic theory, I suggest that composers' use in more recent music of past topics (such as the Chorale, Lament, and Hunt) evidences a concern for situating their work in the lineage of this canon. In contrast, the embrace of more recent conventionalised musical signs (e.g. Electronic Dance Music in Adès's *Asyla*) demonstrates a more embracing, progressive outlook.

Chapter 2 outlines my three-level hierarchy of topical specificity. Drawing upon theories from semioticians Hjelmslev (1953) and Greimas (1984 [1966]), and the music-theoretical approaches of Tagg (1979), Rumph (2014), and Frymoyer (2017), I outline the requirements to satisfy the Elementary, Intermediate, and Actant levels. Specifically, Elementary-level characteristics are the most rudimentary and broad characteristics upon which a topic's identity relies; Intermediate-level characteristics result in the listener

suspecting possible topics, although they are insufficient to cement a topic; and Actant-level characteristics result in the listener establishing a topic. Analysing the characteristics which point towards a topic expands from the more familiar binary of a topic's presence or absence, a critique of topic theory Agawu describes as the 'poverty of mere identification'.[21] Expanding the scope to incorporate topical characteristics beyond an unambiguous identification reflects developments in theories of signs to broaden the potential reach of a topic's expressive and formal role. I also explore how theories of parody and the grotesque function within this theory.

Chapter 3 temporalises this hierarchy, adapting the term isotopy from literary theories of Greimas and Eco. Identifying appearances of characteristics of the levels in a work models a dynamism of a topic's presence in the music, either as a gradual realisation, a dissolution, or more complex interactions. Initial theories of literary isotopies (Greimas 1984 [1966]) had a more connecting-the-dots approach to identifying literary topics. Eco's adaption of Greimas's early work is much more dynamic. Applying this to topic theory via the rhythmic projection theories of Hasty (1997), I argue that lower-level characteristics can *project* the topic's later realisation. The reverse is also possible: lower-level characteristics can be reminiscent of earlier topics. Within the frame of a single topic, the recurrence of that topic's material creates a dynamic chain. Accordingly, although the result of analysing a chain of related material may loosely resemble familiar motivic analyses—albeit with a hermeneutical bent—applying the lens of a topic has a broader poetic scope. As a topic contains characteristics from *multiple* parameters, the combination or precision of which constitutes a topic, the application of the concept of isotopy can relate material that has no motivic

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[21] Agawu 2008, 53.

association to be subsumed under the same topical banner. For example, under the umbrella of Chorale, we might semantically associate some tertian voicings (likely marked in this repertoire) and a medium dynamic and homophony. Following an analysis of the emergent Lament in Ligeti's *Musica Ricercata* (1953), I demonstrate how, depending on the listener's familiarity with topics, different isotopic paths—with their concomitant characteristics—are present. Using Ligeti's *Hamburg Concerto* I show how the overlapping characteristics of the Chorale and Sound Mass topics point to two different topical paths in the *Concerto*. Which isotopic path is followed or prioritised depends on the listener's expectations of an appearance of a Chorale or Sound Mass.

Chapter 4 expands from a single topic and shifting isotopy to model the interaction of multiple topics in Topical Networks. If each topic is constituted of characteristics in multiple parameters, these characteristics can be related through commonalities and oppositions. A Topical Network identifies and highlights certain similarities or oppositions between a group of topics, revealing formally important interactions. That is, a characteristic common to two topics may gain significance through such topical interactions whilst an opposition may form the basis of a dialogue between musical characteristics. These relationships can be expanded to analyse the interactions of multiple topics. Inspired by Lewin's transformational networks, my continued focus on the pluralist role of the reader/listener reflects Steven Rings's characterisation of networks as 'prismatic' understanding, where transformational theory is 'at its most powerful in the pluralistic exploration of phenomenologically rich local passages'.[22] Applied to topical networks, this models a pluralist, kaleidoscopic hearing of

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[22] Rings 2001, 38.

topics.

Chapters 5 is a long-form analysis of Ligeti's Violin Concerto (1992), focusing on the emergence of the Fiddle, Chorale, Fanfare, and Lament topics across the individual movements and the wider work. Chapter 6 develops the observations in a different network direction, applying principles of transformational theory to model the harmonic relationships of five topics in Adès's early chamber orchestra work *Living Toys* (1993). Depending on the topics identified, I systematically demonstrate how two different perspectives of one and the same harmony can be constructed, one leaning towards tonal relations and the other towards more abstract connections.

The more speculative Chapter 7 returns to the historical and critical concerns of Chapter 1. Aligning topics with Eco's influential concept of conventionalised 'cultural units' (as Monelle) provides a gateway to analyses of late twentieth-century arts whose approaches resonate in this music. I adapt the principles of influential theories of architecture by Aldo Rossi (1982 [1966]), Robert Venturi (1972), Charles Jencks (1998 [1977]) whilst comparing my topic-focused analyses with those of Fredric Jameson (1991) and Linda Hutcheon (1988) to analyse the layers of codes in the opening of Adès's Piano Quintet (2000). I draw upon the approach of post-war architecture's (or post-International Style) response to direct requirements of the post-war cityscape, grappling with, on the one hand, a continued modernising impulse and, on the other, an increasing concern for historical situating. Although architecture may appear an arcane entry point, the aesthetic approach embodied in these writings have proved influential in other disciplines. Adapting Rossi's concept of 'collective memory', which describes familiar signs to situate buildings within their historical surroundings, I propose that composers' return to topic-like objects allowed them to refer to

an anonymous—that is, vaguely canonical—past, situating themselves within it, whilst retaining a progressive outlook, or what Jencks describes as 'current technologies'.

Through expanding the analytical reach of topic theory into recent avant-garde music, the method developed in this dissertation relates musical texts directly to social, cultural, and political concerns. In addition to being the first study to extensively explore the hermeneutic ramifications of topic theory's observations in later twentieth-century music, this dissertation engages topic theory with a wide range of literary theory and traditional music-theoretical techniques, including adaptions of mathematical set theory, to demonstrate the semantic richness of this music.

PART I: Theory and Methodology

1. MUSICAL TOPICS INTO THE LATE TWENTIETH CENTURY

1.1 Defining topics

In a broad sense, a musical topic is a form of a musical sign. Umberto Eco defines a sign in culture as '*everything* that, on the grounds of a previously established social convention, can be taken as *something standing for something else'*.[1] Echoing this general conception, the topic has had various formulations focusing primarily on eighteenth-century music. Leonard Ratner's early definition was simply 'subjects for musical discourse', implying a conventionalisation as Eco, but also a recurrence.[2] Robert Hatten mirrors this standardising of a musical object, defining a topic as 'a familiar style type with easily recognizable musical features'.[3] More recently Mirka defines a topic as 'musical styles and genres taken out of their proper context and used in another one',[4] maintaining the requirement to identify certain styles and genres as signs, but highlighting their appearance within another context, echoing an element of Hatten's application of 'markedness' to music.[5] My understanding strongly echoes Mirka's and Hatten's: I define a topic as a familiar musical style or genre with distinct characteristics imported into another context.

'Convention' recurs across these formulations. Studies of music of the eighteenth century

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[1] Eco 1976, 16.

[2] Ratner 1980, 9.

[3] Hatten 2014, 514.

[4] Mirka ibid., 2. Mirka's use of the word style is taken from Ratner, who includes Turkish, military, and hunting music as examples of styles (Ratner 1980, 9).

[5] Hatten 1994, 36-7.

uncovered a range of references which the contemporary audience would identify. As Monelle describes, 'Ratner's mission [in *Classic Music*] was to show that certain portrayals are conventional, and that musical figures can therefore suggest objects that are not merely contingent but are part of a semantic universe within which the music is composed. Thus, no text or title is necessary for musical topics to carry signification'.[6] Whilst twenty-first-century audiences are likely to identify such references, Ratner is primarily concerned with a type of eighteenth-century audience. As Eco's definition, rather than topics existing as universal signification, they are conventionalised *within a limited group*—a group, that is, with its own established social conventions and set of what are considered familiar musical styles. I shall return to this friction between group and individual signification in 1.3.

Hatten's adaption of Peirce's distinction between *type* and *token* is important in understanding the anonymous origin of the topic. A *type* is 'an ideal or conceptual category defined by features or a range of qualities that are essential to its identity' whilst a *token* is 'the perceptible entity that embodies or manifests the features or qualities of the type'.[7] Types are abstractions of a musical sign, a conventionalised ideal which does not exist in the musical score, in other words, a topic. In contrast, tokens are the actualised version of a type or topic in the music. This liberates the analyst from requiring to identifying a reference to a specific other work, although it does not preclude that specific intertextual references may exist, a central issue for twentieth-century music.

Whilst the ontology of a topic is foundational, the primary focus of this dissertation is the structural relations of the topics rather than a close engagement with the cultural contexts and

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[6] Monelle 2000, 14.

[7] Hatten 1994, 456.

histories of individual topics. Focusing on relations results in primarily analysing topics

relative to other topics, echoing the structuralist mantra that signification (and therefore any

meaning) only occurs once a difference has been established. Although a topic can exist

autonomously—indeed, the existence of a topic as an autonomous style or genre is a defining

aspect of a topic—relating a topic to either another topic or non-topical material is more

analytically rewarding.

I do not consider topics existing independently against a prevailing non-topical music.

Rather, I echo Agawu's conception that 'topics retain a contextually defined fluidity, which

puts their virtual identity on a different level from functional identities, such as keys and

chord relations'.[8] As the hierarchy introduced in Chapter 2 will begin to systematise, topics

can come in and out of focus, but there remains a sense of import of material from an

external source once the topic is identified by the listener.

1.2 Defining topics for the twentieth century

My understanding of a topic for music of the twentieth century retains Mirka's conception of

moments of commonly understood reference, freestanding without recourse to titles or

programmes. But rather than rely solely on topics inherited from eighteenth-century music, I

embrace the more variegated possibility of topics in the later twentieth century. This adapts

Ratner's major insight that eighteenth-century music contains numerous references to its

contemporary soundworld to recent music, now referencing twentieth- and twenty-first-

century soundscapes. This dual origin of topics—from the past (*inherited*) and the

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[8] Agawu 1991, 36.

contemporary world (*fresh*)—reflects previous approaches to topics in music of the twentieth century. Agawu notes that 'Twentieth-century topical practice became, in part, a repository of eighteenth- and nineteenth-century usages even as the universe was expanded to include the products of various strategic denials',[9] focusing on inherited topics, whilst Mirka, in concluding her survey of topic theory in the *Oxford Handbook of Topic Theory*, writes that for twentieth-century music 'the spectrum of such references and complexity of their sociocultural meanings exponentially increases', as the baggage of previous centuries' topics are carried over alongside fresh material rich for importing and new expression.[10]

Focusing on the inherited topics in his study of Romantic Music, Agawu suggests that little shifted in the topical universe across the eighteenth and nineteenth centuries: 'the transition into the Romantic period may be understood not as a replacement but as the incorporation of classic protocol into a still more variegated set of Romantic discourses'.[11] That the twentieth-century composer did not grow up dancing waltzes does not deny that they can continue to function as signifiers. Rather than reference the dance, they might reference the historical associations. Johanna Frymoyer continues this line, suggesting that a Waltz in Schoenberg's music can reference a 'functional waltz, salon genre, or the topic in its chamber, orchestral, and operatic manifestations in art music'.[12] For many contemporary listeners it would have all these connotations, differently weighted amongst them. In this sense, depending on the listener's respective familiarities and priorities, the prior 'universe of

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[9] Agawu 2009, 48.

[10] Mirka 2014, 47.

[11] Agawu 2009, 43. Julian Horton similarly writes that inherited topics tended to be radicalised and treated less objectively (see Horton 2014).

[12] Frymoyer 2017, 84.

topics' persists both as imported genres (e.g. military marches remain common in contemporary society) and as a reference to canonical music from the past (e.g. military marches are a common topic through the eighteenth and nineteenth centuries).

Agawu's cites Mirka's unpublished manuscript of 41 twentieth-century topics divided into (A) eighteenth-century dances, (B) topics associated with various ethnicities, and (C) a diverse collection of styles. Category A are inherited topics whilst categories B and C introduces topics which may be more identifiable primarily in the twentieth century, or fresh topics:[13]

A
1. menuet
2. gavotte
3. bourrée
4. sarabande
5. gigue
6. pavane
7. passepied
8. tarantella
9. tango
10. waltz

B
11. Jewish music
12. Czech music
13. Polish music
14. Hungarian music
15. Gypsy music
16. Russian music
17. Spanish music
18. Latin-American music (Brazilian, Argentinean, Mexican)
19. "Oriental" music (Chinese, Japanese, Indian)
20. North American country music

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[13] Agawu 2009, 48-9.

C
21. Gregorian chant
22. chorale
23. Russian orthodox church style
24. learned style
25. chaconne
26. recitativo
27. singing style
28. barcarole
29. Negro spirituals
30. jazz
31. cafe music
32. circus music
33. barrel organ
34. lullaby
35. children's song
36. fanfare
37. military march
38. funeral march
39. pastoral style
40. elegy
41. machine music

Although some of the taxonomy depends on the listener's context (from my perspective the distinction between Czech, Polish, and Hungarian music seems over-precise relative to the combining of Chinese, Japanese, and Indian under 'Oriental') and some are problematic to pin down as containing distinct characteristics (e.g. jazz, cafe music),[14] the broad strokes of incorporating new styles alongside inherited idioms reflects my conception of topics in the twentieth century. As Agawu is at pains to emphasise—and Mirka's list reflects—

[14] In his study of Frederick Tillis's *Freedom*, Horace J. Maxile Jr. identifies the topics of jazz, blues, call and response, spiritual/supernatural, and, following literary theorist Henry Louis Gates's work, signifyin(g). Whilst an enticing angle, in Maxile's analysis the topics tend to lack distinct defining characteristics to satisfy my definition. See Maxile 2008.

establishing a fool-proof list of topics belies the continually shifting meaning for an individual or group within and across cultures; a topical universe is an open system[15] and a list of topics provides the basis for an interpretation rather than a watertight world.

And stepping back into the vast array of aesthetic contexts and motivations across the twentieth century further complicates any neat list. In general, even the supposition that a musical type can be identified behind individual tokens conventionalises musical meaning in a manner anathema to the rhetoric of many twentieth-century composers. Such standardising is especially in conflict with composers echoing Ezra Pound's modernist attitude of 'Make it new!'. Of course, as with the limits of topic theory applied to eighteenth- and nineteenth-century music, twentieth-century music elicits a range of potentially useful topical applications. At the distant end, the music of composers who tended towards abstract numerising (Babbitt and Boulez, for example) or those exploring the implications of sound (from John Cage to Gérard Grisey) are not obvious candidates for a rewarding topical analysis.[16] In contrast, other composers continued to reference the past in a multitude of ways (Schoenberg's waltzes or Stravinsky's marches), which engage in such conventionalised

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[15] This understanding of a universe of topics mirrors Eco's conception of an encyclopaedia. Whereas a dictionary contains narrow definitions of each concept, some more prominent than others, an encyclopaedia consitutes rich entries and cross-references, which is more like a network than a strict, logical hierarchy (Eco 1976, 125-29).

[16] This does not preclude such repertoire's possibility to signify beyond the score. For example, the use of found objects (e.g. Cage's radios or Varèse's sirens) are a literal embodiment of a topic in the music. They are less so imported from another genre of music, as the familiar definition of a topic, but are literal found objects taken from the modern sound world itself. Of course, this also does not preclude the emergence of fresh topics within this repertoire.

gestures and have provoked topical analysis.[17] Whilst such an approach is a thread across the

century, later composers began to react to the perceived over-abstraction by engaging in

methods that consciously reference other materials, notably collage. At the extreme, the third

movement of Berio's *Sinfonia* is built solely of quotations of other works, themselves

possibly containing topics (in the case of *Sinfonia*, referencing the waltz topic in Mahler,

Ravel (*La Valse*) and Strauss (*Der Rosenkavalier*)).[18] Distinctly less conspicuous embedding

of other works into the musical fabric are common in, for example, the music of George

Rochberg (*Contra Mortem et Tempus*) and Bernd Alois Zimmerman (*Photoptosis*).

The anonymous distinction between the heritage of the topic and specific quotations from

another musical work is slippery. Whether an 'island of signification' is a quotation or a topic

is not always clear in this repertoire, especially in works demonstrating influence from

collage experiments. One approach to parsing the two categories is to echo Michael Klein's

application of the type-token distinction. Considering a topic as an ideal conceptual category,

a cognitive construction with a seemingly anonymous heritage 'instanced by tokens' is

effectively a type, as it 'brings together the scattered signs in diverse musical texts and forms

of them a conceptual category'.[19] In contrast, a token—that is, a specific instance of a topic—

can represent its type but cannot be *the* representation. A quotation does not fit into these

categories as a specific imported source does not necessarily represent a broader type in the

manner of a topic.

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[17] On Schoenberg, see Frymoyer 2017, Narum 2013. On Stravinsky, see Schumann 2015 and
Schumann 2021.

[18] To further complicate matters, it also references literature, notably Samuel Beckett's *The
Unnamable*. See Osmond-Smith 2016.

[19] Klein 2005, 62.

Nevertheless, there are fringe cases. For example, a quotation may recur, such as Metzer points out with the repeated use of the Chorale 'Es ist genug' in Berg's Violin Concerto, Bernd Alois Zimmermann's *"Ich wandte mich und sah an alles Unrecht, das geschah unter der Sonne": Ekklesiastische Aktion* (1970), David Del Tredici's *Pop-Pourri* (1968), and Christopher Rouse's *Iscariot* (1989).[20] Through repeated use 'Es ist genug' drifts towards becoming stylised, a conceptual category with certain characteristics highlighted through diverse musical texts. And as a 'musical imitation of other music' (albeit literally), the reference satisfies Mirka's definitions of a topic for eighteenth-century music. But the specific token of Bach's original chorale harmonisation can still be identified. This example is further complicated by being both a distinct quotation and a Chorale *topic*, such that one listener may primarily understand the reference as a Chorale, another as a reference to Berg, and a further listener as an intertextual web of Bach-Berg-Zimmermann-Del Tredici-Rouse.

The unclear origin of the nursery rhyme Three Blind Mice, which appears prominently in Thomas Adès's *Living Toys* analysed in Chapter 6, complicates this distinction in a different direction.[21] The song was first published in England by Thomas Ravenscroft in a collection of songs in 1609, although Ravenscroft's authorship of the tune is unclear; it is also unknown whether he wrote or adapted the words, or neither.[22] This anonymous origin might point towards a topical identity, as the nursery rhyme may have evolved through the interaction of texts, whether vernacular or canonical. Likewise, the melody's recurring appearance, such as

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[20] Metzer 2018.

[21] At least the English-language version. The folk song is pervasive across Europe with differing texts, supporting a more 'anonymous' folk-song heritage.

[22] See Ravenscroft 1609.

in the last movement of Haydn's Symphony no.83 and the first movement of Mahler's

Symphony no.7, begins to standardise the reference's characteristics—central to my

understanding of a topic—and evoke specific imported imagery of simplicity, innocence, and

childhood.[23] And the possibility of identifying the reference through three descending tones

are characteristics of a similar generality that are necessary to identify many topics, in

contrast to the specific harmonic progression required for a quotation as specific as 'Es ist

genug'. Although this enables Three Blind Mice to resemble a topic, in a manner of 'Es ist

genug' embodying a Chorale, Three Blind Mice can also embody a quotation of the

'Children's Song' topic identified in Mirka's list above.

   As such, both these examples occupy a liminal category of *both* topic and quotation,

similar to what Monelle describes as a 'proto-topic'. In his 'Mahler's Military Gesture:

Quotation as Proto-Topic' Monelle notes that, whilst the distinction is not always precise,

topics are more semantically powerful through their reference to the 'mythic world of

cultural signification' and far from the contemporary world, the topical quotation is 'the

weakest form of reference'.[24] Monelle's example is horn calls which may initially appear

generic turning out to be specific quotations, possibly from the composer's own experience.

The nature of the topic in this context again relies on upon the listener's own experience; in

Monelle's framework, the reference can slip between a mythic topic for one listener and a

precise quotation for another (though within the context of the mythic topic). I would soften

Monelle's assertion of quotation as weaker than topic because, although the 'mythic world'

may tap into a deeper recurrence within the cultural history, in the context of the twentieth

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[23] On the discourse constructing Three Blind Mice as a paragon of simplicity, see Goehr 2008, 23-25.

[24] Monelle 2006a, 94.

century a quotation of *another work* (rather than a specific horn call) has the potential to immediately conjure a precise association with place, time, etc., associated with that work.

A further issue is intertextuality, or the shaping of meaning in one text through its connections to other texts. Engaging intertextuality to understand musical meaning further complicates semantic relations beyond topics and direct quotation. Although Monelle introduces intertextuality relative to topics in *The Sense of Music*, Michael Klein's detailed exploration in *Intertextuality in Western Art Music* explores such issues with a focus on later twentieth-century music.[25] Echoing Julia Kristeva's formulation for literature, he argues that musical texts speak amongst themselves, beyond specific quotations and topics. Klein's foregrounding of reconfiguring a work's contexts to provoke new meanings is valuable but, whilst the openness of such an approach is admirable and reflects the diversity of inflections in later twentieth-century works, there are limitations in the theoretical payoff relative to a focus on the conventionalisation of topics. Klein acknowledges this, offering 'no new methodology for uncovering authoritative readings of works', instead suggesting 'initiatives for opening up texts'.[26] One wonders about the possibility of (or even need for) a practical theory whose primary impetus is rooted in openness. Indeed, such an approach can easily

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[25] Hatten applies principles of intertextuality to music at length in a 1985 article in the *American Journal of Semiotics*. Following a discussion of Berio's *Sinfonia* he writes that 'by factoring out the work's "proper" style features (which would otherwise result in a trivial intertextuality with endless other works in the same style), and by linking the intertextual relationships to the focal strategies of the work, I have attempted to constrain the radical notion of intertextuality into a workable and important methodological tool for the semiotics understanding of many musical works' (Hatten 1985, 75).

[26] Klein 2005, 21.

collapse a text analysis into discourse.[27] Nevertheless, Klein's analysis of works through one

another in the context of the twentieth century complements my approach.

1.2.1 Topics Old and New

The distortion of past material is common music of the twentieth century. I will focus on this

expressive angle in Chapters 5 and 7. Generally, inherited topics are treated more critically.

Fresh topics yet to be established in a canon vying for expressive relevance are less likely to

warrant a parodistic or similar treatment. Indeed, the critical treatment of a topic signals its

firm establishment as a topic in that canon. For example, the distorted rhythm of the Tango

topic in Adès's *Powder Her Face* as described by John Roeder[28] is more distorted than

Stravinsky's use in *L'histoire du soldat*. This understanding ties into Naomi Waltham-

Smith's questioning of a topic's life cycle. Conceiving topics as primarily an eighteenth-

century phenomenon, she proposes an inventory of topics divided into living topics,

historical (lapsed, in a state of 'deactivation') topics, and incipient (proto, in a state of

potential) topics.[29] In this framework, the Waltz might already tend towards the end of its life

cycle in Schoenberg's use whilst Adès's use of Electronic Dance Music in *Asyla* might be the

initiating of a new dance topic.[30] Waltham-Smith proposes that some expressive genres are

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[27] A similar criticism could be levelled against Thomas Johnson's proposal of tonality as topic in the twentieth century. Whilst tonality is used in twentieth-century music as a referential device, the "tonality" analysed by Johnson is often a lower-level characteristic of another topic. His 'network of signifieds' suggests this, linking a plethora of topics under the topic of tonality. In practice, the tonality is the basis of these more familiar topics. See Johnson 2017.

[28] Roeder 2006, 134.

[29] Waltham-Smith 2012.

[30] For a detailed analysis of EDM's specific manifestation in *Asyla*, see Venn 2014.

pervasive across centuries (such as mourning, the pastoral), although their specific topical

manifestation may shift (e.g. Messiaen's use of birdsong is a renewal of the pastoral

expressive genre). In my approach, topics at the end of Waltham-Smith's life cycle are more

prone to distortion than those 'living' or 'incipient'. This distancing mirrors Frymoyer's

model of formation of new types from a subset of specific instances of a topic (tokens) which

contain their own associated characteristics. For example, as Frymoyer notes, a group of

Viennese Waltzes contain characteristics of large ascending melodic leaps between beats one

and two and a slight anticipation of the second beat.[31] A group of specific instances (tokens)

of the Waltz which share these new, more precise characteristics can begin to create the new

topic of the Viennese Waltz, emerging from a general waltz. A new, fresh topic emerging

from under a previous one such as this tends to encourage a distancing of the older one,

through parodic, satirical, or grotesque treatment.

The twentieth-century topic is further complicated through composer-influenced

commentary. Although a detailed discussion of such socio-economic factors are beyond the

current focus, Charles Wilson's discussion of Ligeti's 'rhetoric of autonomy' has

implications for the application of topic theory to music of the later twentieth century.[32] As

many composers in a crowded environment of contemporary music composers, in his prose

writing and interviews Ligeti claimed a degree of autonomy and independence, 'appearing

simply to elude those mundane designations which oppress the hapless majority of other

composers'.[33] Using the phrase 'Ligeti style', the composer introduced terms such as

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[31] Frymoyer 2017, 92.

[32] Wilson 2004.

[33] Wilson 2004, 7.

'micropolyphony' and 'meccanico-type music', often linking them to personal literary

inspirations such as a short story by the Hungarian writer Gyula Krúdy and through images

such as clocks and spiders webs.[34] As Wilson describes, Ligeti was describing familiar

processes with new poetic lenses. But this had implications, as writers on Ligeti's music

began to adopt the terms less critically, dropping the quotation marks when describing these

moments in the music. The images—at least in the Ligeti's music—became associated with

such passages, 'lending them an air of permanence and canonicity'.[35] Through marrying his

own literary-inspired images to recurring moments with clear characteristics, which are later

adopted by the critical press, Ligeti appears to be striving to conjure his own topics. The

topics' adoption by other composers elevates these moments to familiar musical styles,

simultaneously opposing Ligeti's initial rhetoric of autonomy whilst legitimising the

conventionalised imported object as an expressive device, moving from Waltham-Smith's

categories of incipient topics to a living topic.

Indeed, more broadly there arises a tension between Ligeti's individualisation through

personal self-contextualising and the implicit understanding that, through the use of external

references, this very contextualising renders the music less autonomous, thereby pushing

back against any modernist impulses which underlie Ligeti's rhetoric. Quoting Honi Fern

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[34] More specifically, Wilson writes that the story is 'about a widow living alone in a house full of
clocks, barometers, and other intricate mechanisms. The dense micropolyphonic textures, on the other
hand, he associates with a childhood dream, often quoted by Ligeti commentators, in which the path
to his bed was blocked by a huge, dense web of filament in which beetles, moths, and various pieces
of rotting detritus were trapped. His fear of spiders is something else he suggests may have influenced
the notion of 'the impenetrable web of sound' – as he puts it, 'an original Ligeti invention'.' (Wilson
2004, 13).

[35] Wilson 2004, 16.

Haber, Wilson writes later twentieth century artworks are seen as arising 'from a private exchange between the idiosyncratic artist and her or his muse' rather than out of vocabularies that 'are always already social, cultural, and historical products'.[36] This description echoes Eco's term 'cultural unit', which he defines as 'simply anything that is culturally defined and distinguished as an entity', a concept referenced in topic theory.[37] In tying his conventionalised compositional techniques to images and importing them into new works, Ligeti is walking a line between aiming to create an original marketable voice—the 'autonomy' of Wilson's title—whilst the increasing standardising of these rhetorical devices switches their expressive effect to that of a topic, a conventionalised musical object.

Wilson goes further, providing a capitalist critique on the market forces which drive such conventionalisation within the supposed claiming of autonomy: 'Just as the brand identities of multinationals invade cities the world over, making them look ever more dispiritingly alike, so the increasing dominance of market forces within the cultural sphere often results in blandness and homogeneity'.[38] Whilst I am not claiming that applying topic theory can demonstrate a blandness across this repertoire—far from it—Wilson's analysis is suggestive of a persistent impulse to adopt conventionalised cultural units that are used as stock expressive devices, far from the modernist impulse of artistic autonomy. As topic theory applied to eighteenth-century music so successfully uncovered the reference to the contemporary sound world and conventionalised gestures, following Wilson, even if artists

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[36] Haber 1994, 2, see Wilson 2004, 19.

[37] Schneider 1968, 2, quoted in Eco 1976, 67. For example, 'Musical topics mean by virtue of their correlation to cultural units', Monelle 2006b, 23.

[38] Wilson 2004, 19.

'feel they have an interest in proclaiming their autonomy, it is the critic's duty to demystify rather than collude in this essentially strategic position'.[39] That is, applying topic theory to twentieth-century music can have a similar critical effect to applying topic theory to music of the eighteenth century, that of uncovering the use of familiar and standardised expressive objects to communicate with an audience. As the theory I outline below demonstrates, though, conceiving topics far beyond mere expressive immediacy enriches the expressive experience whilst simultaneously providing a familiar entry point to a work.

1.2.2 A Local Topical Universe

The following analyses will focus on a small list of topics. As outlined above, attempting to account for all topics is not productive; rather, focusing on a small number of topics allows for a clearer dialogue across the works analysed. Whilst my context is the whole twentieth century, the focus on a limited group provides a tighter style analysis for the music of Ligeti and Adès.

Chorale	March
Fanfare	Sound Mass
Fiddle	Three Blind Mice
Folk	Toreador
Hero	Waltz
Hunt	
Lament	

This approach of focusing on a subset of a wider topical universe by analysing closely related works is described by Eco:

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[39] Wilson 2004, 19.

> The universe of the encyclopedia is so vast (if the hypothesis of infinite interpretation from sign to sign
>
> and thus of unlimited semiosis is valid) that, in the instance (and under the pressure) of a certain co-
>
> text, *a given proportion of the encyclopedia is activated* and proposed to explain the metonymical
>
> substitutions and their metaphorical results.[40]

In other words, the contextual pressure (and concomitant intertextuality) of my chosen

repertoire isolates a section of this encyclopedia of possible twentieth-century topics. Within

this set of topics recurring relationships and networks of association can be identified and

analysed, an example of one system amongst many.

1.3 The role of listener experience

Flourishing alongside the New Musicology of the 1990s, early topic theory's focus on the

plurality of cultural context and experience is unsurprising. These writings reflect trends in

the broader humanities which emphasised the essentially unstable nature of signification.[41]

Specifically, one cannot establish a sign (or topic) without (1) considering the role of the

subject and their cultural context or (2) references to other topics (relationality). A brief

consideration of the first issue relative to understanding and structuring topics will provide

the foundation for the later theoretical outline of Topical Networks, which will address the

second issue in more detail in Chapter 4.

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[40] Eco 1984, 117. Italics mine.

[41] For a thorough review of the development of reader-orientated criticism, see Culler 1983, 31-42
and, more recently, Selden, Widdowson and Brooker 2016, 45-61, 144-196. Peirce's concept of the
'interpretant', though not as extensively developed, similarly reflects the role of an interpretor or
other signs in understanding a sign.

A familiar issue in applications of semiotics to music is negotiating a personal vantage point and the historical roots or general cultural contexts. More specifically, although the centrality of experience is a thread through literature on topic theory, a tension exists between the primacy of individual experience and larger social or cultural group within which the topic becomes conventionalised. If a topic is to be established according to the definitions above, it requires a *degree* of uniform recognisability, as Agawu notes: 'In order to be able to locate a given piece within the class of contemporary eighteenth-century discourses, the listener needs to be schooled in the idiom of the eighteenth century'.[42] In excavating the origins of certain topics, Monelle echoes Agawu, writing that 'the topic is essentially a symbol, its iconic or indexical features *governed by convention and thus by rule*'.[43] More broadly, Hatten situates competency within his conception of style: 'the reconstruction of style as a *competency* (not merely a code or collection of traits) involves the constant check and balance of interpretation of works in that style'.[44] The listener needs to be familiar through exposure to the objects of discourse in a manner analogous to understanding a language, without which communication is difficult. In the later twentieth century, with easy access to a plethora of musical genres, the range of listener experience is multiplied. Aesthetic issues associated with modern and postmodern aesthetics further complicate such

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[42] Agawu 1991, 49. Furthermore, Agawu writes that 'competence is assumed on the part of the listener, enabling the composer to enter into a contract with his audience. If something is commonplace, then it is meant to be understood by all competent listeners. There is nothing natural about this ability; it is acquired by learning.' (Agawu 1991, 33). For a consideration of how different structures can be formed depending on cultural context in West African music, see Agawu 2006. See also Lowe 2014.

[43] Monelle 2000, 17. Italics mine.

[44] Hatten 1992, 95.

matters, explored in more detail in Chapter 7. Such boundaries of experience are worth exploring as this balance between convention and individual mitigates a hyper-plurality of topical identification. That is, tangible limits are required for an analysis to be meaningful.

As competency in the twentieth century is increasingly complex, a brief excursion back to the literary theories which inform both this dissertation and other writings on topic theory will be beneficial. First—foundationally—topical signification does not exist in a vacuum, as multiple subjects are engaged. As Eco writes, a sign needs communication between at least two subjects: 'if we could imagine that signs might be conceived 'intuitively' by handling them with direct contact between two spiritual beings, without resorting to social convention, then semiotics would not have any meaning'.[45] Barthes' distinction between *lisible/scriptible* (readerly/writerly) texts is relevant here: in *lisible* (readerly) texts, the reader is passive and relies on established knowledge; *scriptible* (writerly) texts require a more active role with the work, requiring a form of "rewriting" to be understood.[46] In music, "open works" such as Boulez's *Third Sonata for Piano* are explicitly *scriptible*, requiring the performer to "create" the work. More subtly, as Culler writes, to read *Finnegan's Wake* 'is not so much to recognize or work out for oneself the connections inscribed in the text as to produce a text (in this case often literally, writing a meta-text to explain any narrative or references): through the associations followed up and the connections established, each reader constructs a different text.'[47] Barthes implicates modernist works generally as functioning as *scriptible* as they can elicit a more active interpretation, and this is apt when analysing this repertoire

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[45] Eco 1968, quoted in Tarasti 2002, 65,

[46] Barthes 1974.

[47] Culler 1983, 37.

through topics. This mirrors a broader characterisation of music analysis as a creative venture of interpretations through rewriting, within which the cultural situatedness of topic theory is a nexus.[48]

Generally, as outlined in the introduction, a friction between so-called structuralist and post-structuralist thought is identifying the elements which tend towards a more objective property against those which are less tangible. Most fundamentally, for example, the pitches C-E-G cannot be described as a 'D minor triad' as they are undoubtedly a C major triad. Whilst not an objective property of the sound, this label is deemed incorrect within a certain culture and notational system. This principle can expand more generally: for example, a Waltz cannot be in 4/4, as the 3/4 metre is a fundamental identifying element. Whilst foundational to a Waltz's identification and difficult to dispute, this distinction is rooted in cultural experience. Within a cultural group, different degrees of precision may be traceable. For example, a group more familiar with the nuances of Waltzes could list further more specific attributes of the topic, such as oom-pah-pah, melody and accompaniment, familiar motives, etc.

This may seem evident enough, but a political dimension emerges in striving for an "ideal reader". Approaching a work with the vocabulary of topical universe populated by inherited topics interprets the work within this lineage. Teaching this mode to students could implicitly prioritise a soft-power "topical grammar" of eighteenth- and nineteenth-century music. For example, J. Peter Burkholder notes that he asks undergraduate students to identify

[48] Marion Guck's discussion of 'analytical fictions' reveals the cultural conventions required to communicate an analysis, reversing the analytical focus from the 'structural' to the 'fictional' (see Guck 1994). Guck's concerns overlap with Culler's description of a meta-text to understand a work of art, itself rife with reliance on cultural conventions.

style or character changes in the first movement of Mozart's K. 332, leading them to the concept of "topics" which they discover for themselves.[49] This installs a canonical list of topics—perhaps not dissimilar to Agawu's topical universe list—which, through their use by more recent composers tend to signify an association to this canonical repertoire. This can frame works as a legitimate continuation of one or other tradition.

This understanding shifts with the introduction of fresh topics, absorbed from the modern sound world (such as the Sound Mass topic), requiring a different experience from the listener. This issue is highlighted by Byron Almén, writing that 'there is a political and rhetorical component to interpretation [of a sign] that is vulnerable both to exploitation by those invested in the culture and to criticism by those who are not'.[50]

In terms of listener experience, the inherited topic category outlined above relies more upon knowledge of the classical canon to interpret than a fresh topic, which requires knowledge of the culture referenced. For example, one is arguably more likely to hear a Waltz in modern life in a concert hall rather than in a dance studio. (This distinction between past topics and those in the modern sound world has parallels to the *Kenner* and *Liebhaber* of eighteenth and nineteenth century.) Likewise, a distinction between topic and quotation is affected by this thinking: due to their specificity, quotations require more experience of a certain repertoire than topics.

In sum, there are two central tensions: between whether a listener identifies a topic or not (thereby situating themselves) and whether a composer uses an inherited or fresh topic (thereby situating the work). Returning to practical matters, the following analyses may be

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[49] Burkholder 2019.

[50] Almén 2008, 42.

considered somewhat personal understandings of topics within form, governed by—and

perhaps revealing—my own place in a system. In Chapters 5-7 I will provide critical

commentary on the topics in their historical contexts. And as the degree to which one may

comprehend a topic is varied within an individual subject, in the following analyses I do not

claim that all topics are experienced with equal clarity. Whilst topic theory focusing on music

from earlier centuries strives to understand the perception of a contemporary listener—quite

a challenge—I echo Michael Klein's aim of focusing on our own competencies.[51] Even

though the repertoire studied primarily refers to works written in the past thirty years, we

should not assume a divine relation to their interpretation, a point also emphasised by Klein:

> Our Derridean visions of the unfixed sign pointing everywhere at once become the measure of how fragile
>
> musical meaning can be, even to those listeners born within the time and place of the historical work.[52]

Worth emphasising in this discussion, though, is that the implications of different

interpretations are not simply happy alternatives but have significant ideological

consequences. Perhaps more so than more traditional music analyses that may focus on

harmony, form, etc., different interpretations of topics can implicate wildly divergent subject

positions. Put simply, works of the later twentieth century populated by familiar topics may

support subject positions rooted in established institutional and ideological foundations; those

which introduce new, radical references within these settings challenge this.

   I shall return to some of these issues in Chapter 7 which explores more fully ideological

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[51] Klein 2005, 55.

[52] Klein 2005, 55.

implications raised here. In particular I adapt the architectural concept of multi-coding, which

describes how the same moment can simultaneously point to both radical and conservative

subject positions. Before this, the following chapters outline the core theoretical model of the

dissertation, introducing the hierarchy of characteristics, isotopy, and topical networks.

2. A HIERARCHY OF TOPICAL CHARACTERISTICS

This chapter will introduce a three-level hierarchy of increasingly specific topical characteristics: the Elementary, Intermediate, and Actant levels. Analysing the characteristics which point towards a topic, yet are insufficient to establish a topic, expands from the more familiar binary of a topic's presence or absence. Expanding the scope to incorporate topical characteristics beyond a clear identification reflects explorations in theories of signs to broaden the potential reach of a topic's expressive and formal role. The principles outlined in this chapter will provide the foundation for the following chapter's temporalising of the hierarchy in analysis (isotopy) and the development of networks relations between multiple topics' characteristics in Chapter 4.

2.1 Hierarchies of the sign

Studies in linguistics and semiotics across the twentieth century unwrapped some assumptions of Saussure's foundational understanding of the sign. Conceiving of a sign as constituted of smaller parts was developed by Hjelmslev, who distinguishes between a complete sign and *figurae*. Figurae are smaller constituents of a sign but, as they are incomplete, by definition they cannot signify. Rather they contribute to the formation of the sign in a manner analogous to the contemporaneous early twentieth-century concept of linguistic phonemes developed by Roman Jakobson and the Prague school of linguistics. These are the smallest perceptually distinct sounds that form a word of which there are 44 in English. In Hjelmslev's conception, combining a group of figurae creates a sign, a blending which creates something more than the sum of its parts. Unlike combining phonemes in

sequence to create a word, figurae are less restricted to certain orders or sequences to create a sign.[1]

Greimas adapted Hjemslev's figurae concept to a more general structural semantics of the sentence and larger narrative forms.[2] He reinterpreted figurae as the term *seme*, the minimal unit that can be differentiated from another element. These elementary parts of a sentence can be opposed on a *semantic axis*, a form of deep structure which forms the basis of a higher realisation of meaning, structuring the oppositions on his influential Semiotic Square. The seme, he writes, 'has no existence on its own and can be imagined and described only in relation to something that it is not, inasmuch as it is only part of a structure of signification'.[3] As phonemes—we can also add the more recent emic[4] terms grapheme (for writing), chereme (for sign language), and meme (for cultural ideas)—Greimas's semes combine to create meaning. Greimas invoked the medieval tradition of *ars combinatoria* to describe this 'discipline, or rather a mathematical calculation, which enables a large number

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[1] In modern linguistics the concept of phoneme is significantly more complex than my outline here. Notably, the central understanding of a phoneme as the foundational material —as I am adapting it— has been challenged through the further dissection into curiously musical concepts of *toneme* (pitch) and *chroneme* (durations).

[2] The main exposition of Greimas's ideas is in Greimas 1984 [1966]. The overview in Culler 1975, 87-111 exposed English-language audiences to his work. For more general surveys, see Schleifer 1987, Nöth 1990, 317-18.

[3] Greimas 1984 [1966], 118.

[4] The term emic is recently more commonly associated with cultural anthropology. It describes an insiders perspective of a culture, in contrast to etic, which is from the observers perspective. The word emic originates from linguistics, however, such as Kenneth Pike's adoption of the distinction between phonemics (the study of meaning within a linguistics system) and phonetics (the study of sounds outside the system).

of combinations of elements to be formed from a small number of simple elements…a procedure whereby complex units are generated from simple units'.[5] Unlike the Russian Formalists' understanding of narrative form through archetypes, for Greimas—as Hjelmslev—narrative form is generative. That is, the lower levels exist on the pre-signifying (that is, the deep structural) *immanent* level, which can then through combination reach the *manifest* level.[6] In the complex analysis of large narratives, Greimas introduces further intermediary levels, including lexemes, classemes, sememes, and nuclear semes.

Greimas's distinction between pre-signifying and signifying elements in literature has an appealing application to music. Tarasti's application of Greimas's generative trajectory tends towards broader strokes, applying Greimas's concepts of isotopy, actorality, modality, and semes to analysis of primarily to the analysis of thematic material in tonal music.[7] His primary aim is to uncover how Greimas's literary analytical approach might suitably apply to a broad range of musical repertoire. Another close echo of Greimas's work is Philip Tagg. In 1979 Tagg defined Charles Seeger's term *museme* as the minimal unit of meaning in music, continuing the emic terminology. He describes the museme as:

> The basic unit of musical expression which in the framework of one given musical system is not further divisible without destruction of meaning…[it can] be broken down into component parts which are not in themselves meaningful within the framework of the musical language...but are nevertheless basic elements (not units) of musical expression which, when altered, may be compared to the

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[5] Greimas and Courtés 1982, 36.

[6] In music theory these two approaches of essentially "top down" and "bottom up" are common, notably in the oft-opposed analytical approaches to tonal form by James Hepokoski and Warren Darcy (2006) and William Caplin (1998).

[7] Tarasti 1994. For a summary, see 47-54.

phonemes of speech in that they alter the museme (morpheme) of which they are part and may thereby

also alter its meaning.[8]

Exactly at what point a 'destruction of meaning' occurs is left open. Nevertheless, Tagg

expands this to a 'hierarchy of minimal items of musical expression' constituting of the

museme as well as the independent concept of the *musical phoneme*, a lower-level basic

element of musical expression when 'meaning'—the term is used somewhat loosely—

occurs. In practice, Tagg diverts somewhat from other emic terms as, in a manner similar to

Tarasti, his aim is to develop a hermeneutically rich motivic analysis that maintains a focus

on the constituting formal units. Unclear, however, is how elements at these foundational

levels are opposed in a manner similar to phonemes, Hjemslev's figurae, or Greimas's semes.

Tagg's nebulously defined concept of 'musical meaning' might benefit from some of the

more recent developments in Topic Theory. Indeed, whereas Tagg's explicit hierarchy is

suggestive in showing how meaning in music might be related to degrees of presence, from

the other direction topic theorists often employ an implied hierarchy in their analyses without

detailing specific motivations for each level.[9] In his detailed description of the identification

of a March in Mozart's Piano Concerto K. 467, Agawu outlines an implied three-level

hierarchy. I have italicised his implied parsing into three levels:

> The march embodies, *fundamentally*, a basic meter (duple). Although this meter can assume a variety
> of notational forms, it forms the conceptual point of departure for identifying that particular topic.

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[8] Tagg 1979, 71.

[9] For a more detailed discussion of other implied hierarchies in early topic theory, see Frymoyer
(2017), who cites Allanbrook 1983, 33-36 and Lowe 2002, 172-174.

There are secondary features that enhance this basic metric gesture, such as the presence of dotted or

double-dotted rhythms, and the predominant use of primary harmonies—tonic, dominant, and

subdominant. But these are, properly speaking, secondary features whose interaction with the primary

feature creates the particular topic. There are *other associative factors* that enhance the sense of march.

One such factor is key, here C major, whose paradigmatic or associative properties are entirely

compatible with [a] march. Timbral qualities are not irrelevant, but they are not fundamental,

either…To identify a march topic is therefore to invoke a complex interaction of parameters informed

by contextual hierarchies.[10]

Akin to figurae or semes, Agawu notes the fundamental duple meter, which can be opposed

to a triple, quintuple etc. metre, and is essential to recognising a March (or Agawu's

'conceptual point of departure'). But as figurae or semes, a duple metre alone is insufficient

to signify a March; other musical elements must be employed whose 'interaction with the

primary features' create the particular topic. The precise nature and degree of these other

elements depends heavily on musical and expressive contexts and expectations. Essentially,

though, the analysis begins to identify the combination of elements and identify new

characteristics to cement the identification beyond the duple metre. Agawu's 'other

associative factors' are more specific elements which may further confirm this association.

Agawu only lists the key of C major and alludes to timbre, a somewhat limited list given the

previous level's detail. Agawu's 'associative factors' appear to go beyond this, 'enhancing

the sense of march'. That is, although the topic is established at the 'secondary features'

level, this final level is essentially optional, containing traits that affirm the March but are not

required for its identification.

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[10] Agawu 1991, 38. Italics mine.

More recently, topic theorists have begun to more systematically develop hierarchies of topical identification. For example, Stephen Rumph explores the possible application of Hjemslev's figurae to topics in the music of Mozart and Beethoven, suggesting that 'topics do function as conventional signs with stable referential meanings; and, like many other nonlinguistic signs, they are articulated by a smaller number of nonsignifying features'.[11] Isolating musical elements in this manner is difficult in this repertoire and the varying degree of information necessary to define each topic resists systematisation. Rumph suggests that Hatten's application of markedness theory to music can aid this process of distinguishing between elements on this foundational level: if an element is marked (e.g. minor against major, 3/4 against 4/4), this can provide the foundation for a topic's identification and thus meaning. This creates a semantic axis, albeit imbalanced. This causes problems in practice, however, as the 'unmarked' major and duple metre can equally form the foundation of a topic, exactly the characteristics Agawu uses to identify a March. Applying this to post-tonal music, the problems are compounded by the increasing difficulties of identifying a marked element in such variegated musical vocabularies. Although this markedness-based approach is more applicable to Rumph's repertoire focus, where such an established syntax can be discussed in these terms, his application of Hjelmslev's non-signifying features to musical topics identifies the role of levels of signifying units.

Robert Hatten takes a different approach to degrees of topical identification, applying Peirce's type-token distinction to music, discussed in Chapter 1. Despite not involving a direct hierarchy, the application has ramifications for topical analysis.[12] For Hatten a type is

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[11] Rumph 2014, 496.

[12] See Hatten 1994, 30-31.

an 'ideal or conceptual category defined by features or a range of qualities that are essential to its identity', whereas a token is the 'perceptible entity that embodies or manifests the features or qualifies of the type'.[13] He primarily refers to highly expressive moments in Beethoven, though he does not discuss the concepts directly in terms of topics. But for topics, the type/token distinction frees the topic theorist from relying on specific quotations; for music of the later twentieth-century—where the distinction between topic and quotation is not always clear—deciding whether an ideal type of the reference exists aids in distinguishing between the two.

A significant music-theoretical influence on my systematising of a topical hierarchy in post-tonal music which develops the application to music of the type/token distinction is the work of Johanna Frymoyer. In her 2017 article 'The Musical Topic in the Twentieth Century: A Case Study of Schoenberg's Ironic Waltzes' she develops Hatten's type-token application and Rumph's figurae to build a three-level hierarchy of characteristics applied to the music of Schoenberg and Stravinsky. Acknowledging the increased complexity of engagement with topical material in music of the early twentieth century, she applies this hierarchy to demonstrate conceptions of irony through the rhythmically rooted inherited topics of the Minuet, March, and Waltz. Her aim is to understand 'how certain topics enjoy longevity and adaptability in a variety of styles',[14] a historical analysis of topics strongly echoing Hatten's interest in style growth.

She systematises a weighted hierarchy of three levels of characteristics: Essential, Frequent, and Idiomatic (or stylistically particular). Frymoyer defines each as follows:

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[13] Hatten 1994, 44-45.

[14] Frymoyer 2017, 86.

Essential: 'must all be present to identify a token of the topic. They are broad enough to encapsulate many manifestations of the topic, yet remain sufficiently narrow so as to distinguish from other dances and topics'.

Frequent: 'are not essential to topical identification; nor can they form a token of the type on their own, but when present they contribute to the topic's markedness and help nuance its expressive content'.

Idiomatic or stylistically particular: 'appear in works of a particular style, composer, or compositional circle. These features are marked within the broader referential sphere of the topic, for they do not appear in all manifestations of the topic'.[15]

Frymoyer goes beyond Rumph's adaption of figurae to clearly distinguish between foundational and embellishing characteristics, the latter inviting a more nuanced interpretation. She focuses on the specific stylistic features of different versions of the topic at the Idiomatic level, which can be opposed amongst themselves enough to lead to the formation of new types, such as the Viennese and Chopin waltzes. These may form their own topics, thus creating a new hierarchy where the Idiomatic characteristics occur at the Essential level. This demonstrates how tokens of topics may lead to a renewal of meaning and her hierarchy is valuable in showing how a topic may evolve under the auspices of early modernism and in a post-tonal language (see discussion above, section 1.2.1). And for her, this continued potential for renewal allows topics common in eighteenth- and nineteenth-century music to remain recognisable in certain twentieth-century works.

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[15] Frymoyer 2017, 85.

2.2 A hierarchy of topical characteristics

My own three-level hierarchy of topical specificity is primarily concerned with the broad analytical application within a single work rather than Frymoyer's focus on style growth. As the levels progress, the importance of listener experience becomes increasingly important. Note that the hierarchies of characteristics of all the topics referred to in this text are listed in the Appendix.

Elementary (E) Level

Definition

Elementary-level characteristics are the most rudimentary and broad characteristics upon which a topic's identity relies.

More Detail

Characteristics of a topic can be watered down to these elements. Characteristics at this level can be readily opposed to one or more characteristics, usually on the same level. These relationships are on a *semantic axis*.

Semiotic Context

This level is equivalent to Rumph's adaption of Hjemslev's figurae, which describe the 'nonsignifying features within the expression plane from which lexical items take shape'.[16] Accordingly, it is also loosely analogous to a linguistic phoneme: /b/ has no meaning alone,

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[16] Rumph 2011, 95.

though limits possible directions for meaning (i.e. to all words beginning with /b/). Unlike the 44 phonemes, there is no strict dictionary of Elementary characteristics in music, although some characteristics will recur. In this sense, the Elementary level in music is more analogous to Greimas's seme. As Greimas writes, the decision whether to isolate a phoneme or seme 'is generally left to other criteria outside the procedure being followed such as the simplicity or the efficacy of the description'.[17] That is, only in relation to later manifestations at higher levels does an Elementary-level characteristic become relevant.

Musical Example

The E-level characteristic of the Chorale is homophony. This is supported by a historical context and previous use. Though Ratner does not mention the Chorale explicitly, he understands the Chorale as part of the learned style associated with the church, as opposed to *galant* or free style, characterised by few elaborations of a clear melody, closely bound progressions. This association with stricture is reflected in modern students' familiarity with the Chorale through pedagogy. The primary association of the Chorale, though, is with communal singing in a religious setting. Olga Sanchez-Kisielewska dissects the closely related Hymn topic in the eighteenth century, emphasising its importing from a primarily liturgical function. A foundational characteristic of both the Hymn's and Chorale's liturgical existence is communal singing; in the former the congregation sings the single line over a homophonic accompaniment, whereas the Chorale is more associated with equal parts and stricter writing. From this, we can understand homophony as a foundational attribute of the Chorale topic, an observation support by Sanchez-Kisielewska, Hatten, McKee, and Eileen

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[17] Greimas 1970, 255.

Watabe.[18] This characteristic opposes the complex textures and figuration, instead focusing on a solemnity, unity, and dignity. Watabe and Jessica Narum trace these expressive associations through music of the nineteenth and twentieth centuries, suggestive of the Chorale as relatively static in both its characteristics and expressive associations.[19] While topics in later twentieth-century music are equally likely to point to intertextual associations as much as the topic's original contexts,[20] these studies provide a hermeneutic foundation.

Fig. 2.1 demonstrates a moment containing the E-level Chorale characteristic of homophony without any I-level characteristics. Through their co-ordination of primary attacks, they are homophonic, but no I-level characteristics are satisfied (see below and Appendix): the voicing is not tertian (an 11th followed by two fifths) and it remains in only two parts. While the A-level characteristics (see below) of the medium/low dynamic and singable range *are* satisfied, the lack of I-level characteristics restricts it to the E-level and no topic is established.

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[18] See Sanchez-Kisielewska 2018, 97, Hatten 2014, 514, McKee 2007, 27,

[19] Watabe traces the increasingly common appearance of the Chorale in secular music across the nineteenth century, due to its association with certain Romantic ideals, while Narum identifies several Chorales in the music of Schoenberg. See Watabe 2015, , Narum 2013. More specifically, McKee 2007 traces the Sacred Hymn topic in Beethoven's instrumental music, similarly providing an orbit of the topic's characteristics.

[20] For examples of more intertextual-oriented topic analyses of recent music, see Klein 2005 and Donaldson 2021b.
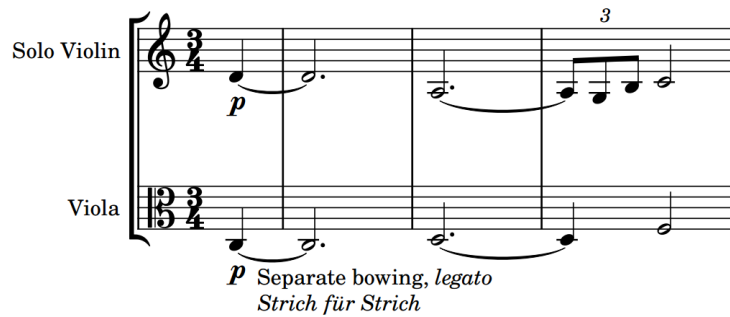
Fig. 2.1: E-level Chorale, Ligeti, Violin Concerto, II/28-31. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

Similarly, an Elementary-level characteristic of the Lament is a descent. A Lament cannot ascend. Although another characteristic of the Lament is the semitone, this is not an E-level characteristic because a Lament can still be understood through intervals of a tone or larger. This characteristic is reserved for a later level.

Intermediate (I) Level

Definition

Intermediate-level characteristics result in the listener suspecting possible topics, although they are insufficient to cement a topic. Characteristics of this level may introduce new parameters or nuance the parameters of the Elementary-level characteristics. The Intermediate level can also be reached through the *combination* of multiple Elementary-level characteristics.

More Details

Characteristics of the broad Intermediate level point more solidly towards a topic, but lack the semantic precision for a single, clear appearance of a topic. The characteristics move beyond the focus on the content plane of the Elementary level to *suggestions* of expression, such that a small range of topics are pointed towards, but there remains a range of potential topics. This level more overtly engages the active listener than at previous levels: the listener suspects a topic though is not committed to it as multiple different topics could be suggested. The appearance of a topic's I-level characteristics does not necessarily assume full manifestation later in the work; it can remain, for example, a quasi-Lament or quasi-Chorale.

Semiotic Context

This level mirrors the linguistic and semiotic approach of combining elements to form increasingly specific meaning. The Intermediate level is loosely analogous to Greimas's *sememe*, which itself is analogous to the *morpheme* in linguistics. These are the minimal functioning signifying unit, usually words, but also suffixes, inflections, etc.[21] That is, combinations of fundamental elements which contain a degree of semantic value, but not yet enough to signify meaningfully. For example, the morpheme -s contains the semantic feature of pluralising. In my conception the increased suggestion of a specific topic is through combination of E-level characteristics and/or introduction of new characteristics in different parameters.

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[21] For a detailed discussion, see Schleifer 1987, 69.

Musical Examples

The Chorale's Intermediate level characteristics are tertian harmony, regular rhythm, and homogeneous timbre, and three or more parts. An I-level Chorale must also contain the E-level characteristic of homophony. Although these characteristics added to homophony individually strongly point towards the Chorale—even more so in combination—they do not yet cement the topic. Fig. 2.2 extracts the ocarina Chorale in the second movement of Ligeti's Violin Concerto, analysed in Chapter 5: it contains all the E- and I-level characteristics, but through the loud dynamic, high tessitura, and parallel voice leading, is not an archetypal Chorale idiom. Nevertheless, enough elements point towards a Chorale rendering the topical label—at least, at the Intermediate level—a useful description.

Fig. 2.2: Intermediate-level Chorale, Ligeti, Violin Concerto, II/75.

Fig. 2.3 excerpts another Chorale from Adès's Piano Quintet (analysed in detail in Chapter 7), but embody the I level from a different perspective. As Ligeti's I-level Chorale, this excerpt contains tertian harmonies, regular rhythm, and a homogeneous timbre (piano). Although these point towards a Chorale (especially as a more overt Chorale has appeared previously in the movement), the low tessitura, slow tempo, and slightly disrupted regular rhythm render it lacking in enough semantic precision for a listener to react with 'yes, that's a Chorale'.
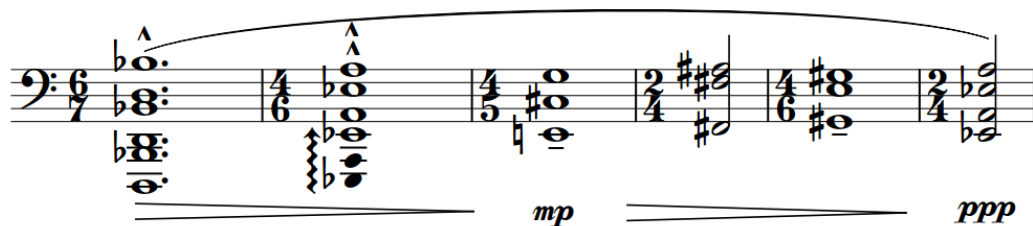
Fig. 2.3: Intermediate-level Chorale, Adès, Piano Quintet, Fig.17.[22] © Faber Music Ltd.,

London.

Actant (A) Level

Definition

Actant-level characteristics result in the listener establishing a topic. As for the Intermediate

level, these characteristics are either more specific variants within the same parameter or

characteristics in new parameters. Mirroring the Intermediate level's relationship to the

Elementary level, in analysis the Actant level can also be reached through the combination of

multiple Intermediate characteristics. Not all characteristics of the Intermediate level need to

be carried over to reach the Actant-level realisation.

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[22] These irrational time signatures, common in Adès's music, are based upon beats expressed as
fractions of full (i.e. dyadic) beats. The device is common in the music of Henry Cowell, Brian
Ferneyhough, and Dieter Schnebel. In effect, they function as local metric modulations.

More Details

At the Actant level a single topic is cemented in the expressive discourse. Although an 'aha' moment of clear recognition is a significant semantic shift, the distinction between the Intermediate and Actant levels is less clear than the distinction between the Elementary and Intermediate levels: the first two levels are distinguished by non-meaning and then suggestions of meaning, whereas the Intermediate and Actant levels are distinguished by the *degree* of meaning. At this level I substantially diverge from Frymoyer's hierarchy: rather than understand the third level as an idiomatic version of the topic, my level is based upon the semiotically different function of a topic's realisation. Indeed, all the complexities of Frymoyer's complete hierarchy could be nestled into the Actant level, modelling listeners familiar with the broader type to stylistically particular tokens. Although this level emphasises the listening subject in identifying the topic, a close analysis of the history of a topic in the manner of Monelle should inform the detailed elements of this level. For an inherited topic, the listener may draw upon a mixture of the specific historical elements (for example, the Dampierre horn call) alongside the more intertextual aspects of how composers previously used these topics (for example, Mozart's and Brahms' adaptions of the Dampierre horn call).

Semiotic Context

The term and concept are adapted from Greimas. Specifically, the term Actant 'designates a type of syntactic unit, properly formal in character, which precedes any semantic and/or ideological investment'.[23] That is, Greimas emphasises that the unit is autonomous, though

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[23] Greimas and Courtés 1982, 5.

treating it as such is not yet probing its treatment relative to other units. In topical terms, this thinking expands the function of the topic from an autonomous unit on an expressive level to building relations across the work. Terence Hawkes summarises this foundation of Greimas's concept of Actant:

> these actants…operate on the level of function, rather than content…The deep structure of the narrative generates and defines its actants at a level beyond that of the story's surface content.[24]

In other words, the Actant level is the 'aha' moment of topical identification (i.e. the content) that is significant due to its relationship with the other levels. And analysis of these other levels relative to the Actant level can demonstrate the *function* of the characteristics from these different levels, in music as in literature.

The term 'actant' has previously been used in music-theoretical adaptions of semiotic concepts. Eero Tarasti adopts the term from Greimas directly to describe the role of themes in narratological analyses.[25] More recently, Hatten adopts the term to describe the non-human actors in musical agency, adapting both Tarasti's use and an adoption of the term in Actor-Network Theory.[26] Byron Almén adapts the term for his theory of narrative in music, as a part of his three levels of narrative analysis adapted from James Liszka. The agential level is the identification and ranking of marked cultural units; the actantial level temporalises these

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[24] Hawkes 2003, 71. Or, more bluntly, the term has the 'advantage of replacing, especially in literary semiotics, the term of character as well as that of "dramatis persona" (V. Propp), since it applies not only to human beings but also to animals, objects, or concepts'. Greimas and Courtés 1982, 5.

[25] Tarasti 1994.

[26] Hatten 2018.

changes of markedness, and finally the narrative level co-ordinates these into a finite number

of archetypal plots.[27]

Musical Example

Building on the previous levels' examples, the Chorale's Actant-level characteristics are

primarily stepwise voice-leading, medium/low dynamic, distinct phrases at a medium tempo.

Fig. 2.4 excerpts an A-level Chorale from the second movement of Ligeti's *Hamburg*

Concerto, II, bb.16-17. Here, all the previous levels' characteristics are satisfied along with

the A-level characteristics to create an unambiguous reference to the Chorale.

Fig. 2.4: Actant-level Chorale in Ligeti, *Hamburg Concerto,* II/16-17. Copyright © 2003

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In sum, these levels map a spectrum of emergent meaning. Even if the distinctions between

the three levels are fuzzy (especially between the I and A levels), there are three essential

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[27] Almén 2008, 55-67.

stages of perception: at the E level, a key characteristic present, but no topic; a topic is suggested at the I-level, but ambiguity remains; and only at the A-level is the topic confirmed.

2.3 Parody and the hierarchy of topical characteristics

A substantial amount of literature on twentieth-century arts, including music, adopts the concepts of parody, satire, irony, and the grotesque as central expressive frameworks.[28] Given the often-powerful expressive effect of strikingly manipulated musical topics, in this study of topics in music of the late twentieth century I would be remiss to overlook conceptions of their role in this music. In this short interlude I will draw upon elements of the writings of Linda Hutcheon, Yayoi Uno Everett, and Esti Sheinberg to demonstrate how their conceptions of parody align with this hierarchy of characteristics. Both Everett and Sheinberg detail a range of parody and satirical effects, from evocation/nostalgic parody to existential irony. I will focus here on what Everett describes as the surface (rather than

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[28] Hutcheon 1985, Sheinberg 2000, Everett 2004, Everett 2009, Frymoyer 2017. Everett suggests that 'In dramatic works like Bernd A. Zimmermann's *Die Soldaten* (1965), Harrison Birtwistle's *Punch and Judy* (1967), Maxwell Davies's *Resurrection* (1963), or *Eight Songs for a Mad King* (1969), composers used parodic strategies in part to supplant the purity of a modernist aesthetics, while channelling the avant-garde's power of provocation in formulating a social commentary or critique.' (Everett 2009, 27fn1). Everett (2004) details a spectrum of aesthetic motivations for parody in twentieth-century art music, from playful, to contesting, to contradictory (see Everett, 6 and Fig.1b). Beyond parody, satire and irony provide important expressive effects in recent art music. I focus on parody as this is the most straightforward to model relative to my hierarchy. Another significant expressive lens is the grotesque, which is often characterised as a *distortion* of significant characteristics (on Ligeti see Willson 2007, 182-186; more generally see Sheinberg 2000 and Johnston 2014). Parsing these is beyond the current scope.

global) level and on what she describes as a satirical ethos of parody, as these are more suited to the current approach. Other sub-categories of parody are more suited to analysis through a relationship with a text, which is beyond the current study.

Generally, parody is associated with negative trivialising of references, as a sort of ridiculing imitation.[29] As Everett writes, musical parody is 'a *marked* form of intertextual reference',[30] one that 'involves the composer's deliberate reworking of a borrowed material or style and elicits a concrete identification by educated listeners'.[31] That is, a parody clearly resembles something, but an element is wrong. This creates a degree of negation within replication, as Sheinberg demonstrates through quoting Bakhtin: 'When we reproduce in our own speech a portion of our partner's utterance, then by virtue of the very change in speakers a change in tone inevitably occurs: the words of 'the other person' always sound on our lips something alien to us, and often have an intonation of ridicule, exaggeration, or mockery'.[32] This creates a new meaning, strikingly opposed to the initial meaning. As the words lose their initial meaning, the exaggeration introduces a parodistic intent.

Central to this effect is a double-voiced utterance. That is, the reader or listener actively decodes the underlying intention behind the overt meaning; in music they identify something as a topic or quotation, then may understand a parodistic intent through relating it to the conventional version, i.e. the idealised type. To achieve this, a line must be walked between establishing the original object which is to be parodied whilst simultaneously reworking it

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[29] See, for example, Hutcheon 1988, 34.

[30] Everett 2009, 27.

[31] Everett 2009, 30.

[32] Bakhtin 1984 [1963], 194, cited in Sheinberg 2000, 190.

enough to create a degree of negation through a new intonation. This thinking leads to Hutcheon emphasising repetition as a central role in conceiving parody: rather than 'the ridiculing imitation of the standard theories and definitions that are rooted in eighteenth-century theories of wit', she defines parody as 'repetition with critical distance that allows ironic signalling of difference at the very heart of similarity'.[33] The repetition of a sign both frames the sign as imported from elsewhere and incorporates the associated imagery, parodoxically incorporating both change and continuity. In my terms, understanding a topic through its different levels of appearance in an isotopy as a form of repetition within a work allows the topic to become established enough for a recognisable reworking to occur. The repetition of characteristics through isotopy (primarily at the Intermediate and Actant levels) simultaneously installs and destablises convention, in the process both referring to the past and critical of it.

Within this framework, topics and quotation require separate approaches to understanding parody. With the generally clearer characteristics of quoted material, as long as the listener identifies the precise reference (through pitch and rhythm), a limited amount of subversion can point towards a parody. No change in the original equates to no effect of parody. This renders quotations more apt for immediate parody, as the double identification of reference and manipulation of reference are apparent. The looser pitch and rhythmic material necessary to identify topics, in contrast, are less immediately identifiable. Consequently, the listener may not as easily identify the reference. For example, a manipulated March topic requires the establishment of enough characteristics of the March to allow for a parody. The gradual cementing of a topic through isotopy, though, can aid in

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[33] Hutcheon 1988, 26.

establishing a topic in the discourse, enabling a stronger parodistic effect. The flipside of the more flexible characteristics necessary to establish a topic allows for more extreme manipulation, whilst maintaining the reference to the topic. In other words, whereas a quotation of another work is relatively restricted to the pitch and rhythm material, topics can occur in a work without the necessary direct pitch and rhythmic material.

From these principles, in my theory parody occurs when a limited number of Intermediate- or Actant-level topical characteristics are reversed. This isolation of a limited number of characteristics whilst maintaining others retains Hutcheon's conception of simultaneously installing and destabilising convention, both marked and incongruous within the isotopy. Likewise, it reflects Everett's satirical ethos through a distorting of syntactical attributes. The characteristic(s) cannot be fundamental, such that the topic is no longer recognisable as that topic; that is, an Elementary characteristic cannot be reversed, it must be one or more Intermediate or Actant level characteristics. Other less complete reversals of characteristics are likely better understood through troping, although the reversal of a characteristic may be through a particularly incompatible (or *creative*) trope. Naturally, some topical characteristics are more straightforwardly reversed than others. For example, the 'rustic timbre' and 'alternative tunings' which occupy the Intermediate and Actant levels of the Fiddle outlined above are difficult to viscerally reverse. If such difficult-to-oppose characteristics constitute the bulk of the topic's identifying features, the topic in question may be difficult to parody. Indeed, these limiting requirements suggest that parody is not particularly common. Nevertheless—or perhaps as a consequence of this rarity—the effect of parody can be striking.

This understanding of parody applies well to the ocarina Chorale of Ligeti's Violin

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Concerto. Fig.2.2 above excerpts the sudden *ff* appearance of four ocarinas screaming out in parallel sonorities. This moment technically fulfils the Intermediate level within the Chorale isotopy, but the striking effect is so much more than that: the *ff* dynamic reverses the expected quiet-medium dynamic of a Chorale and, although the ocarinas embody a pseudo-voice-like timbre, the unsteady tuning of an ocarina quartet reverses the expected precise tuning of a four-part chorale. And more generally, the unfamiliarity of ocarinas in such a context, twists the expected choir-like sonorities to something uncanny. This moment simultaneously cements the Chorale characteristics whilst marking the moment out—perhaps even provoking laughter, as this excerpt did when Boulez heard it[34]—resulting in a parody of a Chorale.

A parodistic treatment is more commonly applied to inherited topics rather than fresh topics as a means to refresh its novelty and expressive effect (without recourse to troping). This binding to individual topics' life cycles suggests that the focus on ironic or parodistic treatment of topics in music of the twentieth century is restrictive. Whilst some composer may primarily treat topics in an ironic or parodistic manner, such an aesthetic is better understood through the *selection* of certain topics at the end of their life cycle, rather than inherent to all treatment of topics. (Indeed, a parodistic treatment is indicative of a topic's aging.) Fresh topics such as Adès's use of EDM or Ligeti's treatment of the Sound Mass topic (see Ch.3) tend away from such critical treatments. Furthermore, different topical labels may engender divergent expressive interpretations. For example, Ligeti's ocarina Chorale could be heard through the lens of the flutes of the Soloman Islands and Papua New Guinea,

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[34] Steinitz 2003, 336. Indeed, I imagine that the difficulty in tuning an ocarina quartet likely contributed to Boulez's response.

the recordings of which Ligeti listened to during the Concerto's gestation.[35] Given that the volume and imprecise tuning are central to their soundworlds, a lens of parody would be unsuitable. Instead, armed with an expectation of this reference the ocarina Chorale may be reconfigured to a shifting isotopy, moving from the stricture of a Lutheran-type Chorale to the importing of exotic material which shares similar characteristics. Continuing the emphasis on pluralist readings of topical relations, divergent experience, knowledge, and expectations can lead to different understandings of a single moment as parody or otherwise.

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This three-level hierarchy of topical characteristics can form the foundation for expanding the role of topics in analysis. The characteristics still accommodate a range of possible manifestations of each topic: in the example of the Chorale, the harmony and timbre are unrestrictive enough to allow a wide range of possible creative interpretations which still satisfy the Actant level. Indeed, this flexibility is a major benefit of thinking through topics rather than the specificity necessary for a quotation. And the hierarchy's relative openness pushes back against suggestions of topics simply present or absent in the music; as developments in understanding the nature of the sign, a hierarchised conception does not model binary planes, rather a more gradated spectrum from no meaning to clear meaning, and one where the fundamental level (my Elementary) can retrospectively be reinterpreted to have a degree of meaning. And, echoing Hjelmslev's figurae, the combination of the characteristics gradually signifies more than the sum of the parts. As the following chapters develop, the interactions of these characteristics can form the foundations of formal interactions.

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[35] Steinitz 2003, 332.

Although rooted in similar fundamentals, my hierarchy's differences to Rumph's and Frymoyer's models are due to divergent aims rather than a fundamental difference in the ontology of the topic. This is primarily due to the repertoire studied. Specifically, extremes of musical material that mirror the atomic level of signification (embodied particularly in Ligeti's self-conscious approach in *Musica Ricercata* analysed in the following chapter) are less common in music of the eighteenth and nineteenth centuries. As with any theory—but particularly listener-centred topic theory—applying a hierarchy of degrees of signifying elements engages a subjective element. Despite such potential plurality, adopting such systematising can temper any over-reaching topical analyses.[36]

Using this hierarchy encourages more nuanced language when analysing topics' contribution to the form, the ramifications of which are the focus of following chapters. Furthermore, watering down a topic to its pre-signifying Elementary-level characteristics can reveal the arbitrariness of certain topical relationships; the acknowledgment of such arbitrariness of the constituents of sign relations is reflected in certain aesthetic trends of the later twentieth century (such as surrealism). These issues are addressed in Chapters 5-7, which also discuss the aesthetic effect of distorting topics beyond this hierarchy. The following chapter begins to apply these principles in analysis, adapting the literary concept of isotopy to identify and interpret the presence of each of these levels in the music.

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[36] An example of an over-reach of a topic's characteristics is Amy Bauer's all-encompassing Lament, as critiqued by Jennifer Iverson: 'This is an awful lot of weight to put on the notion of lament, as if it is being called upon to be all things to all people' (Iverson 2012, 229) and 'It strikes this reader as forced to interpret every instance of repetitive form or chromatic descent as an 'ahistorical kernel of lament' ([Bauer 2006,] 90), a problematic abstraction not least because twentieth-century invocations of lament topoi and passacaglia forms ought always to be treated as historical references.' (ibid., 231).

3. ISOTOPY

This chapter applies my hierarchy of topical characteristics temporally, adapting A.J. Greimas's and Umberto Eco's concept of isotopy. Identifying appearances of characteristics of the levels of the previous chapter models a topic's presence in the music dynamically, primarily as either as a gradual realisation of an Actant-level topic from Elementary- or Intermediate-level precursors or the dissolution of a fully formed Actant-level topic into less clearly defined E- or I-level elements. This chapter focuses on isolated topics, providing the foundation for the analysis of more complex interactions in the following chapter.

3.1 General overview of the concept of isotopy

The temporalising of specific meaning in music has analogies to the perception of spoken language. The isolated phoneme /p/ may not have any inherent meaning, but if placed in a context of a word, it limits what can follow. That is, a word beginning with 'p' must follow. Given the large quantity of words beginning with 'p' and the range of objects to which they can refer, this is not hugely limiting. A more specific example may be apt for the more limited universe of topics. Isolating the colour red may gain new significance when placed next to white and within a limited encyclopedia of country flags this may represent a limited number of countries. Both of these examples rely on gradually homing in on meaning as more information appears, with reference to experience of a complex system of shared knowledge.

We can temporalise this example. If we were to collect flags of all the countries in the

world (that is, a limited encyclopedia), pick one, and zoom in on a section. If we saw orange, we could project nine possibly countries. If we began to slowly zoom out to reach more detail and saw that orange was next to white, we would limit this number to five.[1] The configuration of these two colours could quicken the identification, in the process adding another dimension of information. Depending on the colour combination, this may already identify the country, or require further information in either domain. In this process, a previously meaningless isolated characteristic of a colour or colours can, when placed in the context of an encyclopedia of country flags, gain meaning, connoting the wide range of associations of that country. In the case of flags, the characteristic is independent (i.e. a symbol): the use of a certain colour is not necessarily indicative of a wider common characteristic between the countries. This example is relatively straightforward, as the repertoire is limited and static (though still requires a degree of competence or familiarity with the flags involved). A set of flags has a limited repertoire, making the projection through an initially meaningless colour relatively straightforward to systematise.

This chapter analogises this process to music: appearances of Elementary- and Intermediate-level characteristics can, in the context of an encyclopedia of topics, project a topic. The potential for a topical projection is different for each level. For example, a triple metre could project a Waltz or a Sarabande—and not exclude less metrically rooted topics such as a Lament or Chorale—but the metre excludes a March due to its duple metre.

Unlike the directed example of the flag identification, which contains an irreversible 'aha' moment of specific identification, my application to music fluidly moves between the three levels outlined in the previous chapter. From this a topic can move in and out of the

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[1] Specifically, the Ivory Coast, India, the Republic of Ireland, the Marshall Islands and Niger.

Actant level. Indeed, many excerpts of music could be read through the Elementary and

Intermediate characteristics of many topics, without an Actant level appearing. Eco's term

'unlimited semiosis' echoes this potential for reading any musical moment as representing

characteristics of multiple topics, some of which might never be fully realised.[2] Whilst this

reveals rich intertextuality, applying an isotopic lens restricts this promiscuity. Focusing on a

topic realised at Actant level magnifies its characteristics across the work at Elementary and

Intermediate levels. Characteristics of other topics may appear but, unless the topic is

realised at Actant level, its characteristics are relegated to less semantic importance.

    A further difference between music and the examples above is the double articulation of

topics.[3] That is, after Hjemslev, a sign in music is constituted of the *combination* of smaller

elements in different musical parameters. As discussed above, some parameters can move

towards more precision, others are more limited (e.g. dynamics). Placing these three levels of

topical specificity in dialogue elides elements of Agawu's adaption of Jakobson's distinction

between extroversive rather than introversive semiosis. Extroversive refers to elements which

point beyond the music (topics) whilst introversive refers to the internal "autonomous"

syntax of the music (e.g. beginning, middle, end).[4] Through the lens of isotopy introversive

elements can retrospectively become extroversive. Indeed, the liberation of post-tonal

repertoire from well-codified syntactical expectations allows for such malleable shifts.

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[2] For a detailed modelling of this, see Eco's *Model Q* in Eco 1976, 121-125.

[3] For an extended discussion, see Rumph 2014.

[4] Agawu 1991, 23.

3.2 Isotopy in literary theory

Greimas's initial introduction of the term 'isotopy' concentrated on the simple identification

of repeated elements. He borrowed the term from nuclear physicists, the etymology—quite

apt for applying to topic theory—is iso- (equal) + topos (place). Greimas defines isotopy as

the recurrence of material that ensures the cohesion of the text: 'a complex of manifold

semantic categories making possible the uniform reading of a story',[5] creating a frame

through which to organise the semantic universe.[6] In other words, isotopy accounts for a

sense of wholeness of a text. Indeed, Elizabeth Sewell defined 'nonsense' simply as a

discourse without an isotopy.[7] More specifically, for Greimas the iterativity of related semes

form a cohesive discourse that makes 'a uniform reading of the narrative possible'.[8] As

Greimas wrote:

> discourse conceived as a hierarchy of units of communication fitting into one another, contains in itself
> the negation of that hierarchy by the fact that the units of communication with different dimensions can
> be at the same time recognized as equivalent.[9]

That is, despite apparently contrasting manifestations of surface expression, more

fundamental characteristics overlap, thus cohering the discourse. At root, therefore, the

concept of isotopy accounts for the coherence at and across various levels of signification.

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[5] Greimas 1970, 188.

[6] Greimas 1984 [1966], 89.

[7] See Schleifer 1987, 76.

[8] Greimas 1971, 84.

[9] Greimas 1984 [1966], 82.

(Note that Greimas strives to understand cohesion across elements without accounting for every single aspect. That is, not an organicism where *everything* is related. I mirror this non-comprehensive approach in my adaption to music.)

Although Greimas's concept was widely adopted, Jonathan Culler and Eco criticised Greimas's limitation of this "conducting wire" to only the linguistic frame.[10] At root, Greimas's definition was basically repetition—hardly a profound observation when applied to music. Similarly, referencing the latent phenomenological issues in the concept, Göran Sonesson criticised Greimas's concept for (1) suggesting an only a singular reading and (2) not accounting for the phenomenological effect of the repetition of a classeme (or contextual seme, similar to my Elementary level) in creating further expectation, even if the classeme remains constant.[11]

In theorising different degrees and levels of isotopy, Eco nuances the concept of isotopy to make it more dynamic, defining it as:

> a direction that a text exhibits when submitted to rules of interpretative coherence…to disambiguate definite descriptions or sentences and produce co-references, to decide what things certain individuals do, or to establish how many different stories the same deed by the same individual can generate.[12]

Sonesson expresses a similar nuance: 'It could be argued, then, that the central concept here should not be redundancy, but rather expectancy, considered in relation to its possible

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[10] Culler 1975, 75-95, Eco 1984, 189-201.

[11] Sonesson 2017. A *classeme* is a contextual seme.

[12] Eco 1984, 201.

fulfillment in time'.[13] Building upon this, Eco writes that isotopy is only one interpretation of a text and multiple isotopies exist:

> Interpretive cooperation is an act in the course of which the reader of a text, through successive abductive inferences, proposes topics, ways of reading, and hypotheses of coherence, on the basis of suitable encyclopedic competence; but this interpretive initiative of his is, in a way, determined by the nature of the text.[14]

Of course, the choice of text analysed affects the nature of the isotopy. 'Frequently', Eco writes in *The Role of the Reader*, 'a text establishes its topic by reiterating blatantly', but in other cases 'the sensitive reader, feeling something unusual in the *disposition*, tries to make abductions (that is, to single out a hidden rule or regularity) and to test them in the course of his further reading'.[15] Isotopy is thus not merely identification of repetitions, but a systematic way to account for an interpretation, of which multiple simultaneous paths can exist. Such plural interpretations of texts are a major part of the development of foundational semiotic theories, of which isotopy is one approach that begins to systematise multiple interpretations. As literary critic Maria Corti summarises:

> Every text can support and incalculable number of decodifications or destructuralizations; in effect, every text is many texts in that the very nature of its polysemic complexity prevents identically repetitive readings even in the same cultural context. This explains […] why in our era there has arisen

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[13] Sonesson 2017, 100.

[14] Eco 1980, 154.

[15] Eco 1979, 26.

the conception of readings as *variations of a basic invariant*, that is, the text.[16]

In other words, every literary text has multiple semantic paths, and this plurality of interpretation demonstrates the work's richness, despite existing as a single work. Applying an isotopic lens is central to this.

Reflecting this conception of multiple simultaneous paths, Eco distinguishes between *open* and *closed* narrative structures. Fig. 3.1 reproduces Eco's mapping of a possible path for each. The nodes s_n represent 'states of the *fabula* at which a forecast is in some way elicited'; that is, the reader re-orientates themselves at each s.[17] Path (a) is an example of the sender (i.e. author-figure) leading the addressee along a familiarly-coded path until the end, where 'the reader is invited to make his own free choices and re-evaluate the entire text from the point of view of his final decision'.[18] In contrast, path (b) the reader has more agency in forming their own narrative at each point. These two diagrams are not a binary, rather exemplify possible instances which tend towards *open* and *closed* readings respectively. Indeed, in practice the distinction between *open* and *closed* is fuzzy. In music, the interaction of multiple isotopic paths is a sign of extra-musical richness and, more broadly, hermeneutical richness. I shall return to this issue in more detail in the following chapters. Currently, I shall focus on the technical specifics of Greimas's and Eco's conceptions and

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[16] Corti 1978, 42. Nöth notes that these adaptions of isotopy 'are only one step away from the literary theory of deconstruction' (352).

[17] Eco 1979, 34. The *fabula* is the chronological sequences of events in a narrative, as opposed to their representation, or *syuzhet*. The two terms initially appeared in the formalist theories of Vladimir Propp.

[18] Eco 1979, 34.

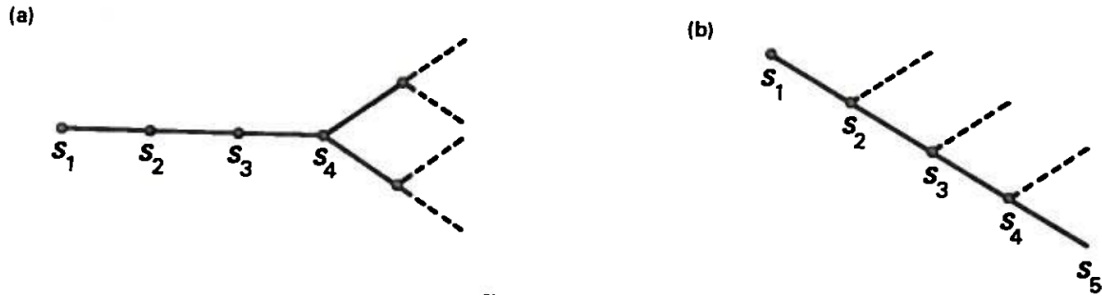their application to music and topic theory.[19]

Fig.3.1: Examples of (a) more *closed* and (b) more *open* narrative structures, from Eco, *The Role of the Reader*.[20]

3.3 Isotopy in music-theoretical literature

Greimas's early concept of isotopy as the repetition of an element echoes familiar theoretical tropes of motivic unity and organicism common across music-theoretical literature. As Eco writes, this conception of isotopy 'has become an umbrella term covering diverse semiotic

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[19] Developments of Greimas's initial concept have formed an extended typology of isotopy. For example, François Rastier's application of isotopy to rhyme and assonance moves more into the aural realm, suggestive of musical applications (Rastier 1972, see also Rastier's comprehensive typology in Rastier 1987, 87-141). Beyond literature, Eco's representations loosely mirror and are in part inspired by Markov chains, which model the probability of an event occurring depending on the identity of previous events. In a paper widely considered to have initiated the discipline of information theory, Claude Shannon developed Markov's model to show how predictions of future events of communication might be mathematically modelled (see Shannon 1948). Through combining otherwise discrete elements in a statistical model, such as letters and words, he demonstrated how to predict further events, even generating "English-looking" text. This model is enticing in the context of topics in temporal succession, themselves constituted of identities in several simultaneous parameters, but less reliant on the grammatical syntax of language.

[20] Eco 1979, 34.

phenomena generically definable as coherence at the various textual levels'.[21] But whereas motivic unity and organicist models strive to associate all parts of a work, isotopy focuses on associations between signifying units. Although this results in uniting elements across a work, unity across *all* elements is not the aim. The following outline will focus on music-theoretical literature which (1) mention the term and (2) describe a repeated *signifying* unit within a form.

3.3.1 Discussions of the term 'isotopy'

The first extensive application of the term isotopy to music is in Eero Tarasti's ambitious 1994 *A Theory of Musical Semiotics*. A student of Greimas—although his treatise also draws extensively on Peirce—his aims are broad, suggesting that all music is signification: 'we live quite literally surrounded by various signs and signification, at the intersection of messages coming from everywhere. This universe of signs includes musical signs and messages'.[22] From this, he asks whether 'Is it possible to construct a theory, a musicological metalanguage, to deal with and describe these universals?'[23] His text covers a wide range of repertoire, from Bach to Steve Reich, and he aims to uncover how they might reflect the narrative theories of Greimas. His universalist assumption that all music can signify alongside a "top-down" application of Greimas's theory results in large analytical brush strokes.

   Within this wide ambition, Tarasti's application of isotopy to tonal music adopts his

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[21] Eco 1980, 147.

[22] Tarasti 1994, 3.

[23] Tarasti 1994, 3.

teacher's early definition. In contrast to my approach which aims to build an isotopy from elementary foundations, Tarasti nests isotopy under Greimas's more general modal theory. Consequently, his definition of isotopy in practice is broad. He has five categories of isotopy in music, primarily with reference to tonal syntax:[24] (1) as an achronic and abstract deep structure (similar to Schenkerian thinking), (2) Themes (or what Tarasti describes as 'Thematicity'), (3) Genre (e.g. sonata form as an isotopic path),[25] (4) Texture (i.e. the recurrence of a texture, in a thematic manner similar to (2)), and (5) 'Text strategy' (or the success or failure of a certain trajectory relative to Greimas's modal categories). These categories focus on the recurrence and transformation of material, with roots in familiar modes of musical analysis, such as thematic recurrence, alongside an embrace of less familiar approaches such as textural associations.

The broad umbrella of repetition of elements is controlled by Tarasti's mapping of these five categories to Greimas's spatial, temporal, and actorial categories of isotopy.[26] The Spatial is the first category, the deepest level. Temporal is 'when music starts to get "narrativized"',[27] and finally the Actorial is an identifiable complex of theme-actants, where 'music is experienced like human speech'.[28] The Actorial level is loosely analogous to my Actant level, mirroring my own adaption of Greimas's ideas; the Spatial and Temporal levels do not map onto my theory, except that my use of isotopy is loosely a form of narratising.

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[24] Tarasti 1994, 7-10.

[25] Curiously, Tarasti appears to limit generic frameworks to tonal syntax: 'only when listening to avant-garde music and music of exotic cultures [sic] are we no longer able to use the genre features stored in our memory as an isotopy for music' Tarasti 1994, 9.

[26] Tarasti 1994, 33-34.

[27] Tarasti 1994, 34.

[28] Tarasti 1994, 34.

Tarasti is concerned with mapping his analyses of tonal music onto wider theories of myth or the 'text strategy', of which Greimas's work focuses. In a similar manner to Hatten's 'expressive genres' (see below), this applies fruitfully to nineteenth-century music— especially the music of Beethoven, on which both Tarasti and Hatten focus—though is of limited use for my focus on later twentieth-century repertoire.

Tarasti refers to topics as a kind of isotopy. Echoing Agawu, he makes a distinction between interoceptive and exteroceptive icons, writing that 'if the same topic is repeated frequently, it no longer influences the listener through its exteroceptive quality. Instead it assumes an interoceptive function in the global structure of the work'.[29] Rather than understand a topic as functioning either as an extraopus reference or as an intraopus function as Tarasti, I believe that the richness of the works I analyse comes from a dual function of intero- and exteroceptive. Indeed, the ambiguity of the degree of reference can motivate the works' structures.

Márta Grabócz's work on isotopy is the most thorough application of the concept to music.[30] Like Tarasti, she adopts Greimas's primarily unifying conception, applying his terms semes and classemes as groups of references. Her application begins with the expressive concepts, again creating a more top-down approach than my topical focus. She maintains Greimas's understanding of semes clustering into larger realms of significance such as the heroic, pastoral, or religious. Such a broad expressive stroke can govern the

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[29] Tarasti 1994, 57-58.

[30] Grabócz's first text primarily explores the music of Liszt (Grabócz 1996). Many of her later published essays are collected in Grabócz 2009, ranging from Mozart to Bartók to contemporary French composer Pascal Dusapin.

interpretation of a musical utterance. David Lidov notes that, although Grabócz's labels are not significantly different to topics, they are better understood as semantic 'components' rather than mirroring the later more complex understandings of topics.[31] She expands Tarasti's application, applying bi-isotopy to Liszt. This wider definition views isotopies on the more nebulous plane of expression rather than, as my definition, functioning solely on the plane of topics. As I discuss in Chapter 7, though Grabócz's and my understandings are distinctive at this level, her conception ties into Hatten's conception of troping.

Hatten's concept of *expressive genre* introduced through analysis of the music of Beethoven, echoes isotopy and mirrors elements of Tarasti's and Grabócz's adaptions. Hatten defines the former as a 'category of musical works based upon their implementation of a change-of-state schema (tragic-to-triumphant, tragic-to-transcendence) or their organisation of expressive states in terms of an overarching topical field (pastoral, tragic).[32] The second part of this definition implies a recurrence of topical information within a broader expressive field. Indeed, his definition of isotopy is similar to this aspect of his *expressive genre*: 'a higher-level expressive topic that dominates the interpretation of topics and entities in its domain'.[33] Both emphasise a broader category which guides topical interpretation; in accounting for a 'change-of-state', the concept of *expressive genre* suggests a dynamism within the topical category. Although my conception strongly echoes Hatten's, the current

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[31] Lidov 1996, 134.

[32] Hatten 1994, 290.

[33] Hatten 1994, 291. Indeed, Hatten acknowledges the overlap: 'There must be evidence from a higher level (for example, Grabócz's isotopies) to support a tropological interpretation, as opposed to interpretations of contrast, or dramatic oppositions of characters.' Hatten 1994, 170. See also 314 (n.7): 'Grabócz's isotopies are close to my expressively correlated topical fields presented in the matrixes in chapter 3. Their sequence could constitute an expressive genre'.

repertoire is less suitable for the tragedy/transcendence narratives more closely associated with nineteenth-century aesthetics. Given the predilection for substantially differing topics co-existing in manner akin to collage, an archetypal directed narrative or broad topical field might misleadingly cohere the current repertoire. Furthermore, Hatten opposes *expressive genres* to formal genres; across the twentieth century formal genres exercise less relevance than in the early nineteenth century, so a distinction is less relevant.

Such narrative archetypes are proposed by Byron Almén in his *Theory of Musical Narrative.* Despite the broader narrative framework, Almén has similar concerns over temporalising cultural objects. In the process he adopts elements of Tarasti's conception of isotopy. Allying isotopy to semiotician James Liszka's *agential* level (opposed to the *actantial* level), Almén defines this level in music as a pre-narrative establishing of musical agents. By musical agents, he is referring to Hatten's concept of markedness, thereby relying on generic norms within cultural expectations. In other words, 'the agential level uncovers relative asymmetries between the various semantic units in a musical work and reveals what the culture of which it is a part considers valuable'.[34] Whilst the concept of markedness and rank as establishing a narrative are convincing, markedness—here conceived as a statistically rare musical event—moves away from the fundamental concept of isotopy as repetition of an element in order to cohere a narrative. A repeated marked musical element gradually becomes less marked as the listener begins to expect it relative to their expectations within the work. Almén's focus on dynamic isotopy accounts for such variety, but the concept becomes increasingly difficult to pin down systematically. Indeed, his analysis of Schubert's

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[34] Almén 2008, 56.

Piano Sonata D960 appears to use the term isotopy as synonymous with dramatic episode.[35]

3.3.2. Concepts similar to isotopy

The recurrence of elements that signify beyond the music is a common concern throughout music-theoretical writings. Echoing baroque *Affektenlehren,* Forkel's 1788 description of the structural role of 'sentiment' describes how musical form may be built upon such a principle:

> No sentiment, which should last for some time—not just be aroused but also sustained—remains the same from the beginning until the end. It increases and decreases through infinite and indiscernible degrees of intensity. This growth and decline of sentiment is called "modification" but it could equally well or even better be called "modulation," which word is taken from the technical vocabulary of music.[36]

After establishing a 'sentiment' (suggestive of a conventionalised pattern loosely analogous to a topic), the piece must be driven by its 'modification' (curiously also referring to 'modulation'). Modification, or the 'growth and decline of sentiment' across a work, might mirror Eco's dynamic understanding of isotopy, modified or 'modulated' across a work.

More recently, in *Playing with Signs* Agawu adopts the term 'structural rhythm' to refer to a diachronic development of a topic.[37] Analysing Mozart's Piano Concerto K. 467, he

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[35] This critique merely refers to terminology use, not the rich analysis of the Sonata and other works Almén offers.

[36] Forkel, 1788, quoted in Mirka 2014, 23. Mirka discusses in detail precedents of topic theory in baroque aesthetics. In tracing the concept of topic back to early discussions of style, she ultimately roots modern topic theory in Monteverdi's *prima* and *seconda* praticas.

[37] The term 'structural rhythm' is adopted from Lawrence Kramer: 'the constituents of that rhythm cannot be determined in advance; they may be images, tropes, levels of style—any rhetorical construct whatever.' Kramer 1984, 9-11. The rhythm is not the conventional musical parameter,

writes that a March 'moves in and out of focus, persisting, so to speak, on a fluid background-foreground continuum'.[38] For example, as quoted above, he describes the perception of a March: 'Although this [duple] meter can assume a variety of notational forms, it forms the conceptual point of departure for identifying that particular topic.'[39] The 'conceptual point of departure' for a signifying object is my Elementary Level; the recurrence of this characteristic echoes Greimas's iterativity of related semes. Agawu's concept is close to mine, yet his focus on tonal music does not realise its potential. He acknowledges that melody, rhythm, and harmony are the primary parameters of tonal music whilst texture, timbre, and register function as subsidiary.[40] The shift in much twentieth-century music to emancipating the melody, rhythm, and harmony from familiar syntax alongside an increased prominence for texture, timbre, and register as structuring devices allows for a reassessment of Agawu's structural rhythm as isotopy.

And for the twentieth-century topic, Johanna Frymoyer writes that her hierarchy is 'not meant to be applied literally, measure by measure, for this would be more akin to imitation or

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rather a temporal sequence.

[38] Agawu 1991, 37. He continues: 'we are, in effect, proceeding from a manifest foreground to a latent background, from a referential foreground to a structural background, thereby challenging the conceptual and perceptual distinction between structure and expression.' (ibid., 39). Elsewhere Agawu dismisses the role of topics' repetition: 'There is no need to discuss further the succession of topics in the rest of the movement since no new topics are introduced; the development section "develops" both minuet and Sturm und Drang, while the recapitulation restates the topics of the exposition in the same order and with the appropriate tonal adjustments' (ibid., 48). Again, this approach is more apt for the repertoire studied, particularly the exact restatement of topics in a sonata form's recapitulation.

[39] Agawu 1991, 38.

[40] Agawu 1991, 39.

quotation of an exemplar. Rather, the hierarchy illustrates the broad, generic characteristics that aid in the identification of the waltz token'.[41] Whilst a bar-by-bar analysis may misleadingly focus on minute details, temporalising her hierarchy could elucidate larger-scale form. Frymoyer focuses on smaller-scale single-topic works rather than large-scale topical interactions, so her distinction may represent her differing repertoire focus.

More generally, analysing the role of musical objects temporally echoes theories of musical narrative. Possible narrative readings of music are a continued concern—including Almén's text—primarily focusing on nineteenth-century music.[42] In 1997, McClary declared that the music of Vivaldi through Mahler can be a narratised due to their tonality, which embodies the 'teleological model of time': 'the tonal framework–our knowledge in advance that pieces are supposed to conclude in the opening key, regardless of what happens in the interim–enables these feints and dodges while always assuring the acculturated listener that reason will prevail in the end'.[43] More recently, such approaches have been applied to post-tonal repertoire.[44] Whilst such approaches are insightful—and my approach could be nestled in these (particularly Almén's)—my focus on these two composers demands a different aesthetic standpoint to which a teleological narrative is perhaps not suited. Nevertheless, the concept of isotopy remains relevant in understanding how the topics relate within the fabric

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[41] Frymoyer 2017, 91.

[42] See, for example, Maus 1988, Abbate 1989, Maus 1991, Micznik 2001, Klein 2004, Almén 2008, Klein 2009.

[43] McClary 1997, 168. She continues: 'the most austere, apparently self-contained of the pieces produced within this repertory attain their coherence and effectiveness as cultural artifacts through processes aligned with narrative.' (ibid.)

[44] See in particular the extensive collection of essays in Klein and Reyland 2013. See also Reyland 2008.

of the musical language. The following theoretical outline builds upon elements of these applications of isotopy to systematise a topic-orientated understanding of isotopy, referring primarily to Eco's conception though necessarily also to Greimas'.

3.4 Defining musical isotopy

An isotopy is the recurrence of Elementary-, Intermediate-, or Actant-level material of a topic, such that the topic constitutes a significant part of the work's expressive discourse. Elementary-level material does not contain enough information to signify, and thus is insufficient to form an analytically rewarding isotopy by itself. Elementary-level material, though, can gain retrospective significance and be understood as part of a topic's wider isotopy. Echoing Grabócz, this process is loosely analogous to Greimas's contextual semes (*classemes*), which 'are recurrent in the discourse and which guarantee its isotopy'.[45] More specifically, 'as an operational concept, isotopy at first designated iterativity along a syntagmatic chain of classemes which assure the homogeneity of the utterance-discourse'.[46] That is, within the frame of a single topic, the recurrence of that topic's material creates a dynamic chain, which can elucidate otherwise apparently unrelated material. Accordingly, although a chain of related material may resemble familiar motivic analyses—albeit with a hermeneutical bent—the topical lens has a broader scope. As a topic contains characteristics from multiple parameters, the combination or precision of which constitutes a topic, my conception of isotopy can relate material that has no motivic association under the same

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[45] Greimas and Courtés 1982, 29.

[46] Greimas and Courtés 1982, 163. Note that this syntagmatic approach directly contrasts with Nattiez's *paradigmatic* analysis.

topical banner.

Fig.3.4.1 maps two fundamental basic isotopies across three musical events (e1, e2, e3). A musical event is conceived broadly, as anything from a single pitch to a phrase or larger section. These abstract examples are both closed, i.e. only one path is possible. In practice, such a closed interpretation is rare, as other topics often come into play. In Fig.3.4.1a, the topic is increasingly realised up to Actant level by the third event, retrospectively recognising the signifying elements of the E- and I-levels. In Fig.3.4.1b the topic is immediately established initially and then disintegrates.
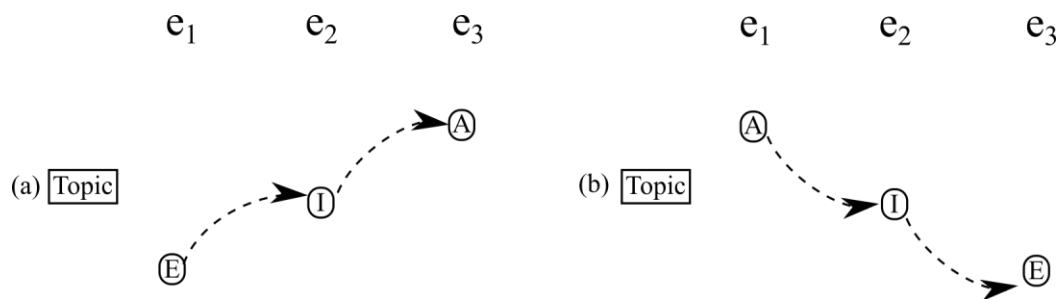
Fig.3.4.1: Two basic closed isotopies. (a) towards a realisation (b) disintegration.

Although the Actant-level is defined as the point when the topic becomes active in the discourse, reaching the Actant level is not necessarily required for a topic to constitute a significant part of a work's expressive discourse. Indeed, suggestions of a certain topic without its full explicit realisation can form an isotopic path that, due to such persistence, may result in a similar topical effect to that of the Actant level but leave the listener unsure as to whether a topic is fully established. This fluid perception pushes back against topic theories which contain a more distinct binary. As outlined in the previous chapter, the dynamic movement to and from the Actant level is either through increased precision or

characteristics or the combination of characteristics.

3.4.1 Topical Projection

At its most fundamental definition isotopy applies a dynamic temporal dimension to topics. Thus, Elementary or Intermediary characteristics can *project* an Actant-Level realisation. Conceiving of a dynamic topical hierarchy within an isotopy reflects Eco's concept of *direction*.

      Echoing Christopher Hasty's concept of rhythmic projection alongside Agawu's structural rhythm, the minimum requirement to project further topical characteristics is the appearance of two Intermediate characteristics to project a third, as one does not contain sufficient 'projective potential'.[47] Specifically, Hasty writes that 'the potential of a past and completed durational quantity being taken as especially relevant for the becoming of a present event…[that] points to the possibility for a future relevancy'.[48] If we substitute 'durational quantity' with 'topical characteristics' we reach a definition of topical projection: the potential of a past and completed topical characteristics are taken as especially relevant for the becoming of future events. Of course, unlike metrical projection the significance of the subsequent events relies upon a precise temporal placement. In topics the temporal placement is less significant; rather the *identity* of the event is central (although the proximity

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[47] Hasty 1997. Two events do not inevitably result in the third, rather the realisation of the third results in the previous two becoming relevant. As Hasty writes: 'Projective potential is not the potential that there will be a successor, but rather the potential of a past and completed durational quantity being taken as especially relevant for the becoming of a present event.' (ibid., 84) Although an analogy to tonal syntax might be apt, as Eco uses in discussing inferences of narrative *fabula* (Eco 1979, 33), the flexibility and common re-alignment of processes in Hasty's rhythmic projection is more suitable for topical projection.

[48] Hasty 1997, 84.

to the initial event, the stronger the association). Similarly, in topics, a single high-level appearance of Intermediate-level characteristics *may* be able to project a topic, but not as strongly as two or more. This level of ambiguity of realisation allows an isotopical analysis to systematically demonstrate the anticipation and resolution of one or more topical paths.

Such a concept is often latent in topical analyses of eighteenth-century music. For example, in relation to Mozart's Piano Concerto, K. 467, Agawu describes how the introduction of stronger characteristics of the March in the opening bars establishes the topic within the discourse:

> these measures [bb.1-4] assume clear topical identity only after one has heard the more explicit march in measures 7-8. That is, by a process of retrospective deduction, the identity of measures 7-8 is *projected* [retrospectively] onto that of measures 1-4, since the former lack an explicit topical characterization when they are first heard. Their apparent neutrality is undermined as they are shown to be compatible with the march topic.[49]

In referring to a 'more explicit' March in bb. 7-8 than in bb.1-4, Agawu is suggesting a cohesion of topics through repetition with stronger topical characteristics. In bb.1-4, the topic of the March is unclear; only by bb.7-8 is its identity retrospectively clarified. The ambiguous March projects a fuller, Actant-level March, almost immediately realised.

John Irving describes a similar process in the Andante of Mozart's duet sonata in C major, K. 521 (1787). He lists the characteristics which result in the 'coda's sudden flowering of Sarabande-like gestures', whereas the opening 'appears to behave a bit like a

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[49] Agawu 1991, 35-36. Italics mine.

Sarabande, though it does not look like one'.[50] Within an isotopic understanding, the Actant-level Sarabande in the coda retrospectively reframes characteristics appearing at the opening—merely 3/4 and a premature V7—as related to a Sarabande as on the low Intermediate, even Elementary level. Drawing upon performance research, Irving notes that the performance practice of elaborating the reprise of the ternary form can, depending on the individual performer's desire, heighten the process of projecting a Sarabande. As Irving puts it, 'subtle hints of Mozart's notation can be translated into a topically inspired reprise, turning this repeat section into something resembling a Sarabande and adding an expressive layer in the process'.[51] A performer ornamenting with further Sarabande characteristics can more confidently cement the Sarabande at Intermediate level and, as modelled in Fig.3.3.1a, more strongly project the Actant-realisation in the coda. These two examples of a retrospective change of status of topical material is the core of topical projection and the establishment of an isotopy.

Within this framework, the realisation of a topical projection is far from inevitable. As Agawu notes, 'topics, by themselves, have no pronounced teleological obligation'.[52] For Agawu, this contrasts with the teleological tendencies in tonal music of his repertoire, as conceived through Schenkerian analysis and Agawu's beginning-middle-end paradigm. In post-tonal music, the freer syntax has less of a teleological drive. Although some of the following examples contain quasi-teleological topics, the concept of isotopy refers to the shifting of a topic's clarity and a way of comprehending the topical relationships in a post-

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[50] Irving 2014, 547, 546.

[51] Irving 2014, 547.

[52] Agawu 1991, 37.

tonal context.

The following two models identify nuances when analysing a piece through isotopy. Fig.3.4.2 shows a basic closed projecting isotopy, with the first three events projecting the later realisation of the topic at Actant level. The first event contains Elementary material, introducing Intermediate material in events two and three. (Given the broad scope of the Intermediate level, the appearance of more specific Intermediate characteristics may limit the topical potential of the material, narrowing the scope significantly though not to a single topic; at this point, the listener may begin to either confirm or deny their previous projection of material.) From the standpoint of event 3, the listener may predict a full realisation of the topic later in the work, which may or may not be realised. Fig.3.4.3 maps a more open path of topical anticipation also from the perspective of event 3. This representation perhaps representing a new listener with different experience and generic expectations. At event 3, another topic at Intermediate is engaged. This projects its own topic (b) at Actant level, but the introduction of this topic in the discourse engages characteristics from topic (a). These characteristics are reinterpreted to project topic (b) *in addition to* topic (a), opening up the topical field (compare with Eco's path in Fig.3.4.1a). Topics (a) and (b) in Fig.3.4.3 must contain compatible characteristics.
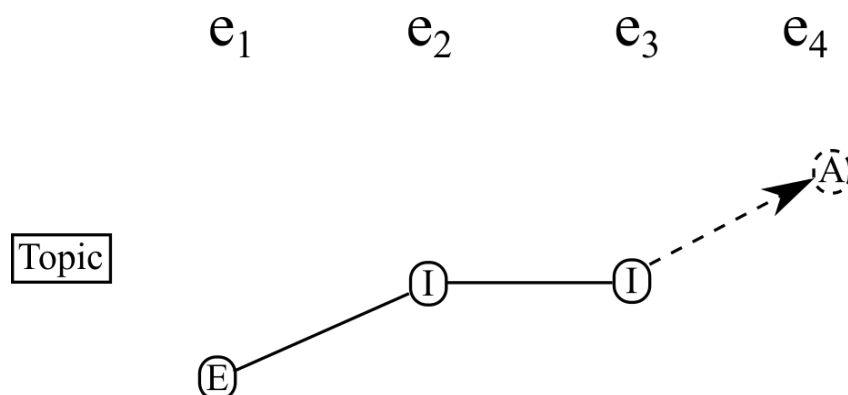
Fig.3.4.2: A basic closed single isotopy projecting an Actant realisation at e3.

$$e_1 \qquad e_2 \qquad e_3 \qquad e_4$$
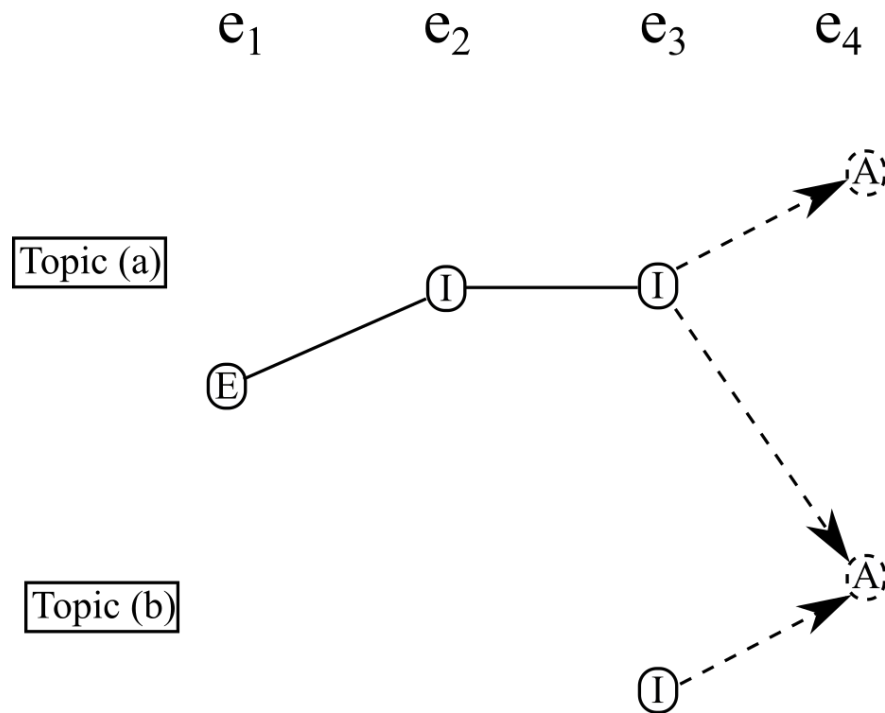
Topic (a)

Topic (b)

Fig.3.4.3: A more open path for a listener engaging a second topic. Event 3 projects two possible topical realisations at Actant level.

3.5 Ligeti, *Musica Ricercata* as a single isotopy

The eleven movements of Ligeti's *Musica Ricercata* (1951-53) build from a single pitch A to a chromatic fugue, each movement adding to the repertoire of pitches. In discussing the work, Ligeti mentions this *ab initio* conception:

In 1951 I began to experiment with very simple structures of sonorities and rhythms as if to build up a new kind of music starting from nothing. My approach was frankly Cartesian, in that I regarded all the

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music I knew and loved as being, for my purpose, irrelevant and even invalid.[53]

In 'starting from nothing', Ligeti is likely primarily referring to pitch and rhythmic material rather than suggesting cleaning some sort of expressive slate. Nevertheless, a repercussion of restricting the musical material results in a limited suggestion of topics beyond their Elementary materials. This restricted material gradually expands across movements II, V, and XI to gestate into a Lament,[54] thus suiting an analysis as an isotopy. Indeed, the conception of a *ricercar* is similar to isotopy: the term means 'to search out'. In music it was originally used to describe a prelude, usually one that explored some technical aspect that would later become fully manifest in the following suite. Although this primarily refers to the technical issues, in *Musica Ricercata* the Lament is gradually realised at Actant level in the final bars. Thus, the work is not merely an exploration of technical possibilities—to which Ligeti's comments above would point—but a topical trajectory, with the Lament isotopy paralleling the expansion of pitch and rhythmic materials. As will become evident, though, one topical lens can be restrictive and truly single isotopic works are rare, as characteristics of a March topic appear throughout.

Lament and March characteristics can be hierarchalised as follows:

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[53] Quoted in Steinitz 2003, 54. From Ligeti, 'Anlässlich *Lontano*', in *Die Begegnung*, the brochure for the Donaueschingen festival, 1967. English translation in LP notes for the Wergo recording, 2549 001 (1967).

[54] I focus on these movements due to space and they are the most relevant to the Lament isotopy. For a more technical discussion of the structure of *Musica Ricercata*, see Bauer 2006, 64-7.

LAMENT[55]

Actant: Isolated descending tone- or semitone-based scale (often spanning tetrachord) in

bass, traversing a fourth, slow tempo

Intermediate: (Hyper-)metrically regular, chromaticism, *piano*

Elementary: Descent

MARCH

Actant: Triad-resembling harmonies, marching tempo, simple melody, extended textural

regularity

Intermediate: Simple (often static) harmonies, dotted rhythms

Elementary: Duple metre

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[55] Yayoi Uno Everett distinguishes between three types of Lament: the descending bass over a fourth (Type A), engaged with a compound metre and troping with the Siciliano/pastoral topic (Type B), and the isolated descending semitone *pianto* figure (Type C). My hierarchy refers to Type A as this is common in Ligeti's and Adès's music as mapped out in Everett's preliminary corpus of *pianto* style types in late-modernist works (her Table 29.1), even writing that 'Some composers, such as Adès and Ligeti, consistently adopt Type A pianto and expand the range of expression and schematic contexts with a self-conscious nod to convention' (343). The limited characteristics of Type C's *pianto* occupy the Elementary/Intermediate levels of my Lament's hierarchy, demonstrating how a more specific topic might emerge in a manner akin to Johanna Frymoyer's model (see Everett 2020). Metzer 2009, 144-174 provides a broad context for the Lament at the turn of the twenty-first century. Bauer 2006 concentrates on Ligeti's use and Cross 2016, 142-144 on Birtwistle. Venn 2012 focuses on Adès's adoption of the *pianto* formula in *Asyla* (1997) and opera *The Tempest* (2004).

The opening of movement II appears simple, but contains much topical information (Fig.3.5.1): two notes, a semitone apart, regular rhythm (which pauses on the sixth note, itself the higher of the two pitches), middle register, *forte*, and designated *Mesto, rigido e cerimoniale*. These are primarily Elementary-level observations, as they contain distinct oppositions (for example: three notes, tone apart, irregular rhythm, high register, *piano*). Two elements are not. First, the pause on the sixth note contains more information and alludes to a phrasal grouping that does not clearly have an "opposition", prioritising the higher note. The following bar's focus on the lower note somewhat neutralises this effect. Second, the expressive marking *rigido e cerimoniale* gives much more information towards an interpretation. Whilst a listener does not "hear" these exact expressive terms, they will inform the performer's interpretation. The regular rhythm, *forte, rigido e cerimoniale* are characteristics of a March. A listener can extract minimal characteristics of the Lament: possibly a regular rhythm and descending semitone, but the two rising semitones undermine this selection (having *both* oppositions cannot be semantically important). How does the Lament isotopy emerge? And what happens to the March?[56]

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[56] If I considered all the movements of *Musica Ricercata*, a realisation of the March isotopy might be more forthcoming, but this is beyond the current focus.

Fig.3.5.1: Opening of Ligeti *Musica Ricercata*, II. Copyright © 1995 Schott Music

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Two more bars of this pattern create a four-bar phrase. The next phrase repeats the

opening four bar's pitches and rhythm creating a sentence, but two semantically important

characteristics change: it is *pp* and doubled across a six-octave range. These shifts begin to

project a Lament trajectory rather than a March. The *pp* is not an Elementary-level

characteristic of a traditional March, thereby undermining the March isotopy, but *piano* is an

I-level characteristic of the Lament. Similarly, though the wide range somewhat neutralises

any identifiable opposition, the appearance of the semitone pattern in the bass could be heard

as the beginnings of a Lament bass. These whole eight bars are repeated, though with two

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notable alterations: three octave displacements of F♯s, marked *sf*, in bb.9-12 and bb.13-16 *rigido e ceremoniale*, despite the *pp*. Both fit within the sphere of militancy rather than Lament; the slight increase in March characteristics subtly projects the March isotopy again.

Following a pause, a new pitch of G and expressive idea is introduced (Fig.3.5.2). Taken in isolation, the central characteristics are *ff*, soprano range, regular rhythm (*accel.*). These, combined with the accents and expressive marking *pesante*, further suggest a military-associated topic, perhaps a Fanfare. Within the context of the previous material, the dynamic and rhythm support the burgeoning March isotopy, though the suggestion of Fanfare may necessitate a broader assessment of the nature of this isotopy. Despite this increasingly strong direction towards a military-related topic, Elementary characteristics of the Lament remain: the addition of G creates a semitone cluster E♯-F♯-G, suggestive of the I-level characteristic of chromaticism of the Lament (although not covering a fourth) and the regular rhythm is an Elementary characteristic of both the March and the Lament. So although the high register, dynamic, and static pitch do not immediately suggest a Lament, the increased chromaticism actually forwards the Lament isotopy, an example of relating material that has no motivic association under the same topical banner. Hearing Fig.3.5.2 in isolation as projecting a Lament is fanciful, but is supported by the broader isotopic context, existing simultaneously alongside a March. Of course, this analysis is based upon the knowledge that the Lament *is* later materialised at Actant level, but the act of retrospectively reinterpreting previous material is fundamental to the perception of isotopy.

Fig.3.5.2 Ligeti, *Musica Ricercata*, II, introduction of G. Copyright © 1995 Schott Music
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Fig.3.5.3: Ligeit, *Musica Ricercata*, II, counterpointing of opening motive and G and the
first appearance of G-F♯-E♯ descent. Copyright © 1995 Schott Music GmbH & Co. KG,
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Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG,
Mainz, Germany.

Whilst the introduction of the G is initially isolated, the idea is soon directly counterpointed with the opening E♯-F♯ (Fig.3.5.3). The alternating E♯-F♯ is now in the bass—satisfying an element of the Lament—but *ff* and *intenso, agitato* suggest something more ominous than mournful. The regular rhythm of G is now *rapido*, *senza tempo*, with irregular outbursts of *sffpp*, counterpointing the regular rhythm of the lower voice. Despite again the penetrating Gs pointing elsewhere, viewed from the perspective of the Lament isotopy this is the first appearance of a relatively clear descending chromatic line (G-F♯-E♯). Following a reprisal of material from bb.13-16, the final bar (Fig.3.5.4) most clearly projects a Lament: for the first time, only the descending semitone appears, *ppp*, and in the bass. Though appearing across a large tessitura, the G *sffpp* and only containing three out of the required four notes of the chromatic tetrachord, this combination of Lament characteristics more firmly establishes the Intermediate level, now substantially projecting a Lament. The Actant-level realisation is far from inevitable, but by the end of this movement these materials begin to function with increasing prominence in the discourse.

Movement V is labelled 'Rubato. Lamentoso.' This title already explicitly suggests a Lament, but a full Lament pattern fails to materialise.[57] The opening (bb.1-11, see Fig.3.5.5) and final bars (bb.29-42) of the movement further the Lament isotopy, although a middle section (bb.12-28) using the same material shifts the path. The opening bar contains similar Elementary and Intermediate level characteristics to the opening bar of II: two notes, a semitone apart, regular rhythm (which pauses on the sixth note, but now always the lower of the two pitches), middle register, *forte*, and designated *pesante*. Reflecting II, b.2

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[57] Such a disjuncture between a title's promise and a topic's realisation can be considered ironic. See Frymoyer 2017, 103 for a discussion of this issue in relation to Schoenberg's music.

complements the first bar, but two elements further establish the Lament: a three-note

descent, reminiscent of the end of II, and the final two notes are descending in *both* bars.
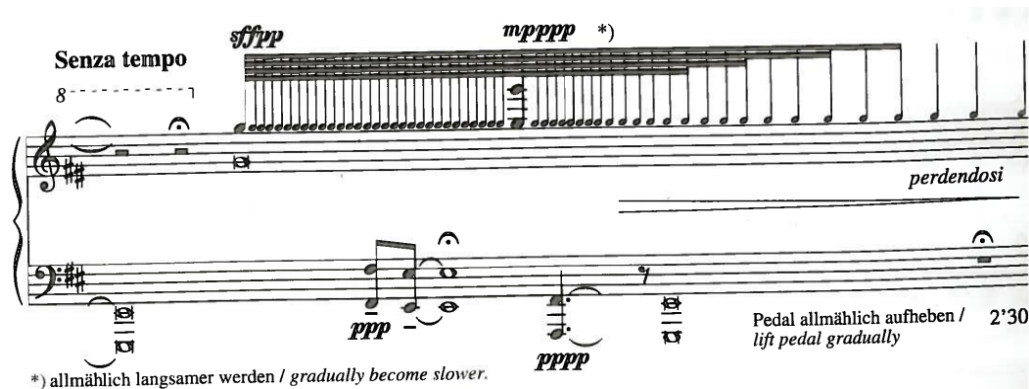
Fig.3.5.4: Ligeti, *Musica Ricercata,* II, final bar. Descending G-F♯-E♯ *pianto* pattern, *ppp-*

pppp into bass cements the Intermediate level and a projection of the Lament. Copyright ©

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Bar 4 contains a deceptively significant moment: the first time a four-note descent

appears, traditionally the four-note ground bass over an (augmented) fourth. Too much

weight should not be placed on this moment, as although it is a regular rhythm of four notes,

the alto register and dynamic result in remaining at the Intermediate level. In b.6 the

appearance of the same pitches corrects the register. Altogether, the moment is close to the

Actant level. Indeed, this could be described as Actant level through a generous definition of

the Lament, but it is a little too fast and *forte, pesante* to satisfy the central associations with
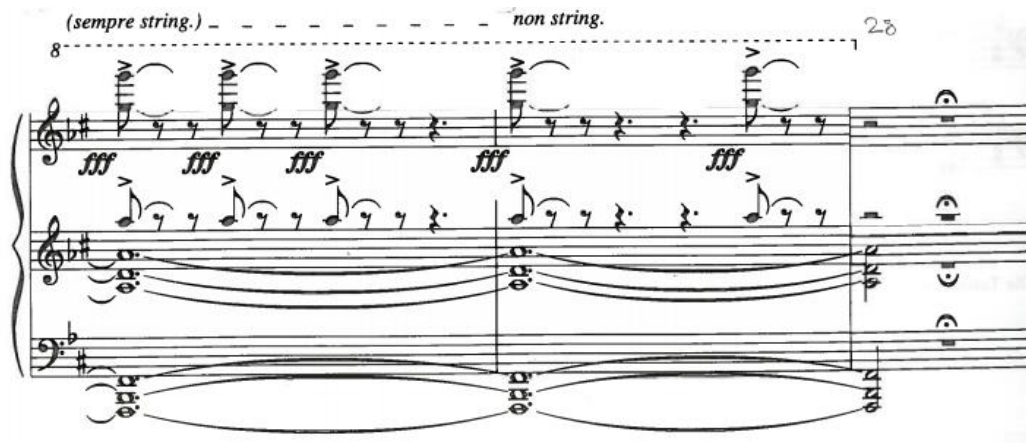
mourning.

Fig.3.4.5: Ligeti, *Musica Ricercata*, opening of Movement V. Copyright © 1995 Schott

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The central section (bb.12-28, not shown) takes a different direction, negating

characteristics of the Lament. Although it commences *p* in contrast to the opening, the

passage is notable faster, *crescendo*, and contains predominantly rising motion. Although the

semitone idea persists, it occurs alongside a version a tone apart in the bass (bb.18ff). The

introduction of a static repeated accented tritone *ff* bass sonority in b.21 is far away from E-

Level Lament characteristics. By bb.26-7 it is overlayed with isolated G-A♭ *fff* (see

Fig.3.5.6). At this point almost every Elementary-level Lament characteristic is opposed:

static contour, high register, *fff*, irregular rhythm (compounded by the *stringendo*), limited

chromaticism (interval classes [1] and [6] are only tenuously in the sonority). As all the

fundamental characteristics are opposed, the Lament isotopy briefly disappears. Rather, these

elements suggest a continuation of the March, Fanfare, or generally militaristic genre, though even for those topics, fundamental characteristics such as regular rhythm are somewhat undermined. This section is therefore limited in its immediate topical relevance, a reminder that pertinent topical elements are not always present, even if two topics such as the Lament and March appear to cover a wide range of contrasting characteristics.

Fig.3.5.6: Ligeti, *Musica Ricercata*, V, bb.26-28. Copyright © 1995 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

Following this path away from the central isotopies, the final section returns more explicitly to the Lament isotopy. In b.29, a literal return to *calmo*, *pp*, low register and—in b.30—a five-note descent. This gentle pattern is interrupted by the sharp G-A♭ *ff* sonority from the previous section, perhaps dislodging the foundations of a lament, such as it remains at the Intermediate level. As the central section, the Lament disintegrates, reaching a sustained *cresc.* to *fff* G across three octaves in the final seven bars. This relatively neutral

material is closer to the Lament than the disintegration at the end of the previous section, as it is regular rhythm, lower register, and a slower pulse more akin to a Lament.

The chromatic fugue of the final movement shifts increasingly close to an establishment of the Lament at Actant level. The subject contains a descending chromatic line interrupted by a rising chromatic line. As Fig.3.5.7 shows, the subject can be understood as a compound of rising and descending chromatic lines. The rising line in the subject quickly reaches A but the descending line only reaches A through continuing through the countersubject. A is the first note introduced in the first movement, thus can perhaps be considered a form of large-scale tonic. In terms of the Lament, the subject and countersubject embody several key aspects of the Intermediate level: regular rhythm, descending, fully chromatic line, and in the bass. Distinctly missing is a clear division, ideally a tetrachord across a fourth. Indeed, the characteristic element is denied through the constant descent echoing a descending Shepard-Risset glissando. The closest appearance is the final four notes of the subject but, as these are not independent of the continued chromatic descent of the counter subject, they are not immediately visceral. Across the piece, however, the four notes are isolated as an independent element. Particularly notable is the climax (Fig.3.5.8). The subject is augmented to half notes, but as the final tetrachord enters, it is further augmented to whole notes. And whereas the previous material had been continuous quarter notes, this statement is the first time the tetrachord stops on this final tetrachord of the subject. The drama of the arrival is heightened by the *ff* dynamic, *pesante e grandioso* and widest tessitura of the work with all the chromatic notes freely used in the gesture (and all but F in this bar). The semitone also pervades much of the melodic movement. Crucially, though, the Actant level is not quite reached, as *ff* is not generally associated with the Lament. After all, a sigh is usually quite

quiet.

Only in the final five bars of the whole of *Musica Ricercata* is the Actant-level Lament securely reached. As Fig.3.5.9 excerpts, the descending chromatic tetrachord *pp* in the bass finally appears. Unlike the majority of the movement where the descending chromatic is obscured by counterpoint, here it is isolated as the only sustained single line—in fact, quite an extreme bass—and framed by a preceding whole-bar hiatus. The right hand states the fugue's subject in a written-out *rall.* and the descending pitches C-B-B♭-A are similar isolated rhythmically. The gesture reaches A, the overarching "tonic" of the work; the trajectory of the harmony is resolved through chromatic voice-leading alongside the isotopic trajectory finally realising the projection of the Lament. As such, in confirming this isotopy, this brief final gesture retrospectively coheres the harmonic *and* expressive trajectories of the work.

Fig.3.5.7: Ligeti, *Musica Ricercata*, XI, opening subject and counter subject, showing wedging of chromatic lines.

Fig.3.5.8: Ligeti, *Musica Ricercata*, climax of movement XI, with tetrachord in bass through further augmentation towards the Actant-level of the Lament, though still within the subject, not yet isolated. Copyright © 1995 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

Fig.3.5.10 maps the path of the Lament across *Musica Ricercata*, closely mirroring the abstract isotopy modelled in Fig.3.4.2. This final movement is subtitled 'Omaggio a Girolamo Frescobaldi'. The specific reference is to the composer's 1635 'Ricercar

cromatico' from his *Messa degli Apostoli*.[58] Only here, in reference to a seventeenth-century

composer in the title is the Lament fully realised. Although the fifth movement is titled

'Lamentoso', it is only in the final bars of the final movement that such an appellation is

reflected. And although the characteristics of the March are projected throughout, the topic

did not reach the Actant level. Nevertheless, the topic remains in the background and the

allusions to the militaristic imagery has an important expressive effect.

Fig.3.5.9: Ligeti, *Musica Ricercata*, Actant-level appearance of the Lament in the final

bars. Copyright © 1995 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights

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[58] Steinitz 2003, 57.
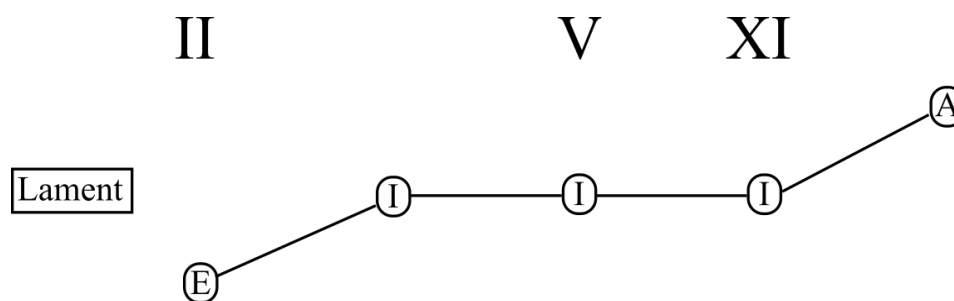
Fig.3.5.10: Trajectory of the Lament isotopy across movements II, V, and XI of *Musica Ricercata.*

3.6 Ligeti, *Hamburg Concerto* as a shifting isotopy

The preceding analysis has a problem: it assumes a traditional and relatively discrete conception of the topics. But, as alluded to through the slippage between the March and the Fanfare above, many topics can be closely associated with another topic and, given the flux of topical perception in this isotopy model, a set of characteristics may require only a small change to its characteristics to gently move to another trajectory, introducing a new isotopic path out of the previous one. I call this fluctuating between two closely associated topics a *shifting isotopy.*[59] This swing between closely related topics is distinct from the following chapter's focus on more direct oppositions between more distinct topics. That is, I focus on topics with close technical musical relations, even if the expressive relations diverge significantly. Such gentle shifting of topics is distinct from Hatten's *expressive genres* as Hatten focuses on the expressive overlap. Instead I am focusing on the *technical* overlap. As

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[59] Jackendoff's adaption of *parallel multiple-analysis* is a similar approach (see Jackendoff 1987); the foundation in Markov chains in a manner similar to Eco's isotopy models demonstrates a broader orbit of this approach. Danuta Mirka's adaption of *parallel multiple-analysis* develops Jackendoff's initial conception, modelling a listener's shifting perception of meter, fluctuating beyond competing concerns as each moment projects (see Mirka 2009).

a common musical characteristic does not necessarily determine expressive overlap, the topical association can juxtapose quite dramatically.

Fig.3.5.1 demonstrates a shifting isotopy in Ligeti's *Hamburg Concerto*. Although the Sound Mass and Chorale topics share characteristics, their poetic associations differ distinctly, creating a unique expressive effect: for example, Ligeti associated the Sound Mass with clouds (see Chapter 5.4), Xenakis with clouds and galaxies, Barry Truax with swarms and water. [60] In contrast, the Chorale is more conventionally associated with religious imagery. These have no immediate poetic overlap, yet many musical characteristics in common.[61] The characteristics of the Chorale can be parsed as follows:

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[60] For a substantial discussion of the characteristics, associative metaphors, and consequent perception of Sound Mass, see Douglas, Noble and McAdams 2016, Noble 2018, and Noble, Thoret, Henry and McAdams 2020, 215. Noble's comprehensive dissection of the poetic metaphors for Sound Mass used by various composers reflects Wilson's analysis of a 'rhetoric of autonomy'. That is, composers would strive to create their own associations and images despite overlapping technical realisations (see Noble (2018, 102-120) and Wilson 2004).

[61] Kozak 2016's transformational analysis of Penderecki's *Threnody* is suggestive of a fuzzy distinction between these two topics. Echoing Lewin's ear-training exercise with Stockhausen's *Klavierstück III* (Lewin 1993), he builds his own ear-training exercise to aid hearing transformational relationships of primarily (012) sonorities. As a result, the otherwise dense sonorities of *Threnody* are rewritten to resemble a chorale of (012)s (see his Ex.11). In reflecting on this, Kozak notes how this might reflect a dialogue between sound mass and transformational objects: 'if we acknowledge that the piece's "tangible" musical materials—sound *masses* and sound *objects*—exist in a dichotomous relationship, then all the different sonorities…[are] always in danger of spilling over from one category into another' (213). He later posits a liminal category between pointillism and sound masses proper (215).

CHORALE

Actant: Appropriate voice-leading, medium/low dynamic, clear phrases at a medium

tempo, singable range and articulation

Intermediate: Tertian voicings, homogeneous timbre, regular rhythm, three or more

distinct parts

Elementary: Homophonic

Fig. 3.5.1 (following page): The interaction between the Sound Mass and Chorale topics

as a shifting isotopy in Ligeti, *Hamburg Concerto*. Copyright © 2003 Schott Music GmbH &

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Understanding the Sound Mass as a topic in Ligeti's music has been suggested by Yayoi Uno Everett with reference to *Le Grand Macabre*: 'Ligeti's signature style of "sound mass" texture, used repeatedly in the context of LGM as an iconic or onomatopoeic representation of the approaching comet, can be interpreted as an iconic topic that emerges through contextual reinforcement'.[62] Combining perceptual research and acoustic analysis, Jason Noble et al. have explored mappings between the perceptual and semantic domains, identifying a consistency of musical characteristics and semantic associations across a range of listeners, often related to associations of the Sound Mass in film and television music.[63]

The Sound Mass utilised as a conventionalised imported topic surrounded by other material is distinct from its use as a central compositional device in Ligeti's works of the 1960s and 70s. This earlier approach is rooted in the electronic experiments to which the composer was exposed, particularly at the Cologne electronic music studio in works such as *Atmosphères* (1961), *Ramifications* (1968-69), and the Requiem (1963-65). Ligeti has framed this texture as embodying a childhood dream where the path to his bed was blocked by a web of filament containing beetles, moths, and rotting detritus. More broadly, he linked this image to his fear of spiders and clouds (particularly his work *Clocks and Clouds* (1973)).[64]

Other composers used the Sound Mass as a topic (e.g. Penderecki's *Die Teufel von Loudon* (1969) and Schnittke's Concerto Grossi).[65] Regardless of the specific composer-

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[62] Everett 2009, 29.

[63] Noble, Thoret, Henry and McAdams 2020.

[64] Ligeti 1993.

[65] For an extensive list of examples of possible Sound Mass-as-topic, see Jason Noble et al.'s list of stimuli for their exploration of mapping the acoustic and semantic domains Noble, Thoret, Henry and McAdams 2020, 231-38.

curated image each composer might promote the Sound Mass can be conceived as a 'fresh'

topic, as it fulfils my definition as a familiar musical style or genre with distinct

characteristics imported into another context. Using material from a previously "single-topic"

work echoes the importing of previously autonomous dances that occupied early topic

theorists. In the context of what Jonathan Bernard describes as Ligeti's increasing

'restoration of interval' over the 1980s—what Bernard characterises as a gradual process of

restoration from non-intervals to intervals—gains a fresh perspective when the 'non-interval'

Sound Mass is considered an autonomous topic that can interact with other interval-based

topics.[66] Specifically, the topic rejects the role of pitch and rhythm completely, which are

central characteristic to more traditional topics. Within this Sound Mass umbrella, Ligeti's

and others' use of micropolyphony and individual clusters could be considered as more

specific versions in a manner akin to Frymoyer's discussion of the Viennese Waltz relative to

the Waltz.

My understanding of Sound Mass reflects Douglas et al.'s definition:

Sound mass exists when the individual identities of multiple sound events or components are

attenuated and subsumed into a perceptual whole, which nevertheless retains an impression of

multiplicity. Typically this involves one or more parameters of sound—for example, rhythmic activity,

pitch organization, or spectral content—attaining a degree of density, complexity, and/or homogeneity

that is perceived as saturation.[67]

With respect to the Chorale topic, the pitches of the Sound Mass are not perceived as

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[66] Bernard 1999.

[67] Douglas, Noble and McAdams 2016, 287. See also Noble 2018, 7.

individuals, rather saturated. Similarly, the Chorale is associated with regular homophonic rhythm, similarly often obscured in a Sound Mass. Noble later nuances this definition, focusing on perceptual issues:

> A perceptually dense and homogeneous auditory unit integrating multiple sound events or components while retaining an impression of multiplicity. Although their acoustical correlates may be highly complex, sound masses are perceptually simple because they resist perceptual segmentation in one or more parameters (e.g., pitch, rhythm, timbre).[68]

That a Sound Mass is 'perceptually simple' is significant in relation to other topics, as it subsumes other parameters—and consequently other topics' characteristics—into one perceptual element.[69] The Sound Mass could be hierarchised as follows:

SOUND MASS

Actant: Subsuming of sound events into a perceptual whole, through the layering of many layers of pitch, rhythm, or timbre.[70]

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[68] Noble 2018, 8.

[69] Noble further details the difference with respect to David Huron's voice-leading principles, noting that 'whereas tonal counterpoint seeks to preserve the independence of musical lines, sound mass seeks to attenuate their perceptual independence and assimilate them into a perceptual totality' Noble 2018, 9-10.

[70] This reflects Douglas, Noble and McAdams 2016, 288: 'the difficulty listeners experience tracking more than three simultaneous streams explains polyphonic composers' tendency to have no more than three voices active at any given time (''principle of limited density''). We believe that these very same principles are at work in sound mass music, but with opposite aesthetic goals: whereas tonal counterpoint preserves the individual identities of each musical line in a complex texture, sound mass music obliterates them. Thus, rather than widening intervals in the low register to minimize masking,

Intermediate: Several distinct layering of pitches (more than a simple chord), rhythms, or

timbres, often closely spaced (metrically or in register) or multiple simultaneous (yet

separate) groups.[71]

Elementary: slow-moving/near-static harmony, unclear metre

Returning to Fig.3.5.1, event 1 (e1) (I/4) fulfils the Sound Mass at Actant level, but the

homophony is also an Elementary-level characteristic of the Chorale. The harmonies open

out in e2 (the solo horn line is missing from this excerpt), from an E-G♯-B-C sonority which

satisfies the tertian voicing of the Chorale *and* is voiced in a cluster, overlapping the two

topics. The next chord is more clearly tertian, but the six different pitches result in a similarly

dense sonority. And although the sonorities are regularly spaced, the slow tempo restricts the

perception of regularity, further eliding the two topics. Event 3 (e3) is an Actant-level

Chorale, with minimal suggestions of the Sound Mass topic; e4 (the opening of the fifth

movement, entitled 'Spectra') elides the two topics in a different manner. The rhythm is

established as regular, but the tertian harmonies of the obbligato horns are undermined by the

solo horn's pitches, which suggest elements of the Sound Mass.[72]

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sound mass composers use dense pitch constructions in all registers; rather than restricting the
number of simultaneous voices to three or less, sound mass composers often use many more; rather
than minimizing the overlapping of voices, sound mass composers overlap voices routinely; and so
forth.'

[71] This also reflects Douglas, Noble and McAdams 2016, 295: 'an intermediate rating would represent
situations in which some but not all of the sounds were integrated into a sound mass, or in which
multiple simultaneous masses were perceived, or in which sounds were partially integrated but still
retained distinct individual identities.'

[72] On the tonally leaning elements of this passage, Searby writes: 'The nature of the deformed

Approaching this slight shifting between musical material within a more autonomous analytical perspective might conclude the expressive effect as minimal. Applying a topical lens, however, creates a kaleidoscopic effect between the diverging expressive associations of the Chorale and the Sound Mass. The primacying of each topic depends on the different levels of experience of a listener with Chorales and Sound Mass music, also affected by the generic framing of the work. For example, placing the *Hamburg Concerto* in a concert alongside works of Penderecki and Xenakis would likely motivate listeners to prioritise the Sound Mass elements, whereas framing the concerto in a concert alongside works with significant chorales, even themed as such (perhaps Berg's Violin Concerto or Stravinsky's *Symphonies of Wind Instruments*) would encourage listeners to primarily home in on the Chorale characteristics. Applying the concept of shifting isotopy can begin to model these multiple perspectives, in addition to identifying expressive trajectories which, again, relates material that has no motivic association.

3.7 Aims and limitations of isotopy

The analyses above demonstrate how the concept of isotopy can temporalise topics, not only relating material that has no immediate association, but raising the expressive status of certain material. This temporalising requires constant retrospective reflection on the function of previous material. The listener must have experience with the ideal type; naturally, the different listening experiences can form divergent isotopies. These may interact, as shifting

harmonies used is that they relate to traditional tonal chords but are not 'tonal' in terms of the progressions used, and also make extensive use of the harmonic partials which do not fit the equal tempered scale…He distorts the nature of the chords in both examples by juxtaposing tonally distant harmonies, and avoiding any traditional harmonic progressions.' Searby 2012, 242.

isotopy, but may be completely independent, such that two listeners understand an expressive trajectory of work completely differently.

As defined in the previous chapter, only at the Actant level of the hierarchy does the listener establish a topic. One perceptual issue arises when the concept of isotopy is introduced: what is the status of the pre-signifying Intermediate level? Given the listener projects a topic, to what extent is a topic already present and established? Semiotician Göran Sonesson has explored the latent phenomenological implications of Greimas's concept of isotopy, exploring dialogues with Husserl and Merleau-Ponty.[73] He emphasises the continuity of experience when perceiving separate elements, as a stream of consciousness, rather than episodic or atomistic. The conception of projection is central, as the listener has an active role in deciphering the current material through their (topical) experience to build an expectation of what is to come, beyond the local topical interpretation. The 'aha' moment of the Actant level is dynamic. My models above necessarily retain a degree of freezing the topic's levels, but the Actant fulfilment of a topic does not preclude the expectation of a more precise versions of that topic. For example, a Waltz may be realised at Actant level, but expectations (whether through the introduction of certain characteristics in the music or external through the generic framing) might lead the listener to expect a Viennese Waltz. If the new topic itself is realised at Actant level it supersedes the previous generic Waltz. Retrospectively this may lower the previous Waltz's characteristics to the Intermediate level. With this example the pre-Actant level material itself forms a self-sufficient topic. Hatten describes this derivation of more specific topics over a historical period; this models a similar

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[73] See Sonesson 2017.

process across a single work.[74]

As with any theory which relies upon familiarity with codes, the plurality of interpretations murmurs under any attempt to cement an analysis. Rather than a critique, such plurality should reflect the concept's richness. I have focused primarily on inherited topics as they are more codified, especially important when a limited set of characteristics project a realisation. Indeed, a fresh topic is difficult to project unless the listener has clear generic framework. Nevertheless, the shifting isotopy applied to Ligeti's *Hamburg Concerto* demonstrates the possible perception of an interaction of a fresh topic with an inherited topic. Temporalising topics' rise and fall has wider hermeneutic implications: if the inherited topic is a reified cultural object, a trajectory such as my analysis of *Musica Ricercata* gradually builds to climax at the full statement of this continuity with the Western tradition. The 'Omaggio a Girolamo Frescobaldi' subtitle cements this, though a work in which a topic's characteristics are slowly unpacked has the reverse effect of dismantling—and undermining—a cultural object, beginning to deconstruct its identity as a cultural unit. The following chapter continues this mantle, introducing Topical Networks as a method of analysing topics' characteristics as a map of commonalities and oppositions which can form the foundation of a work.

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[74] See Hatten 1994, 264.

4. TOPICAL NETWORKS

If each topic is constituted of characteristics in multiple parameters, as established in Chapter 2, these characteristics can be related through similarities and oppositions. A Topical Network maps significant similarities or oppositions across two or more topics. For example, a characteristic common to two topics may gain significance through its association with these topics. Likewise, an opposition between two topics may be traceable beyond the topics' appearance at Actant level—as conceived through isotopy—and form the basis of a dialogue across the work. This analytical method develops Lewin's transformational networks (through its mapping of similar, aurally salient materials) and Greimas's Semiotic Square (through its mapping of similarities and oppositions across a sign's characteristics).[1]

Foundational to topical networks is the listener prioritising of topics, continuing the "signs-first" analytical approach which centralises topics' constituting characteristics. Developing isotopy's principle that recurring characteristics of a topic more strongly project that topic, a characteristic common to multiple topics cements that characteristic, and therefore associated topics, as significant. That is, prominent oppositions and similarities across topics' characteristics semantically anchor them at the forefront of a work's expressive trajectory. As before, the listener's experience and expectations guide the identification of topics and consequent prioritising of relationships, resulting in multiple possible networks. Accordingly, different topics will prioritise different musical elements in experiencing the

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[1] A further analogy of this networking approach is Bruno Latour's Actor-Network Theory, which applies similar principles (including also adopting the term *actant*) to sociology. See Latour 2005.

work, allowing for substantially different readings of the same excerpt or work, echoing

Steven Rings's *prismatic* view of transformational networks, that applying the theory is 'at

its most powerful in the pluralistic exploration of phenomenologically rich local passages'.[2]

Although topical networks allow for a degree of plurality, the restrictive number of topics

possible to identify in a work—especially those which reach Actant level—restrict an infinite

number of interpretations.

This chapter will (1) survey discussions of network relations in literature, (2) explore the

problem of segmentation in post-tonal music, drawing upon issues arising with Lewin's

network thinking, and (3) demonstrate the application of Topical Networks in analyses of

Adès's *Still Sorrowing* (1992), Ligeti's *Hamburg Concerto* (1998-99, rev. 2003), and

Ligeti's Trio for Violin, Horn, and Piano (1982).

4.1 Broader semiotic contexts

For Agawu, central to topical identity is the 'structuralist idea of relationality, [which] is the

difference between various topics'.[3] The relations between the signs' technical constituents

rather than expressive associations—such as harmony, rhythm, dynamics for topics—

distinguish signs from one another, which can motivate form. Such relationality is central to

understanding signs more generally and the following brief survey of the complex theories of

relating signs will contextualise this broader conceptual framework for topical networks.

Central to Saussure's original linguistic model is the 'diacritical' or 'differential'

definition of elements. He argued that these elements are not individually existing substances

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[2] Rings 2011, 38. The analysis of *Living Toys* in Chapter 7 takes up this perspective more explicitly
with transformational networks.

[3] Agawu 1991, 49.

or objects, but 'forms' generated out of oppositions in a structure of differences. For example, the word *cat*—which does not inherently represent a cat through its sound—can be related through what it is not, such as *cut*. But *cat* and *cut* are not a binary pole, as many other words can be added which focus on different letters of the word *cat*, such as *bat*, *cap*, etc. Although differences structure the elements, there are no positive terms, as Saussure writes:

> In language there are only differences. Even more important: a difference generally implies positive terms between which the difference is set up; but in language there are only differences *without positive terms*.[4]

Jonathan Culler allies Saussure's conception of the relations between objects to a mathematical network: 'units are not positive entities but the nodes of a series of differences, just as a mathematical point has no content but is defined by its relations to other points'.[5] None is the 'first' positive term of opposition; in networking topics, there is no 'first' or 'original' topic. And each element can be defined in opposition to another, but in many cases parameters share a characteristic despite signifying starkly different objects: the words *cat* and *bat* do not represent the same animal but have the common phoneme *-at*. Non-signifying constituting elements can be shared, yet form the foundation for unrelated signs. In other words, Elementary-level characteristics can be shared across expressively unrelated topics. The aim of establishing these relations is not mere taxonomy; rather, the interest lies in how

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[4] Saussure 1986 [1916], 120.
[5] Culler 1975, 11.

objects exist in relation to one another, with such relations as nexuses of wider associations.

Greimas's semiotic project developed Saussure's approach, alongside Lévi-Strauss's anthropology and Propp's narrative theories, to study narrative texts. These studies of shifting relations between objects in narrative texts provide a useful model for music. Chapter 2 and 3's exploration of a hierarchy of characteristics and isotopy are facets of Greimas's theoretical approach; he later developed these principles into oppositions, introducing his 'First Conception of Structure' which acknowledges the innocently seeming observation that, given two distinct objects, there always exists a relationship between them. Analysing the constituting characteristics of a sign, an element can be opposed or related on what Greimas terms a *semantic axis*, or the 'common denominator of the two terms from whose ground the articulation of signification emerges'.[6] For example, black and white are opposed on the Semantic Axis of colour. Applied to music, parameters of harmony, rhythm, dynamics, tempo, etc. can function as semantic axes and Greimas's 'common denominator' can refer to the E- or I-level characteristics.[7] He expands this system to a *spectacle*

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[6] Greimas 1984 [1966], 21.

[7] Deleuze and Guattari's molecular level loosely echoes Greimas's Semantic Axis in its association of elements at a "deeper" level. Edward Campbell describes how this might apply to music's inspiration from other arts: 'For the composer, pre-material components can derive from a great number of milieus including music, literature, painting, cinema, philosophy, the sciences, politics and so on…These forces meet and enter into relations at a molecular level, below that of representational forms and in such a way that they formulate an intensive diagram composed of music's most molecular properties and components. 'These range from the relatively molar character of individual chords, pitch aggregates, musical gestures, single pitches, durations, timbres and attacks to the previously unattainable sub-components of sound and pitch, all of which can be connected, disconnected and transposed in multiple ways as a new diagram is traced with its functions reorganized.' (Campbell 2013, 146-47).

(translated to 'drama'), or 'a network of relationships simultaneously apprehended which, as detailed above, characterises the 'apprehension' or 'seizing' of signification, of the meaningful whole'. For Greimas, these are—crucially—networks of relationship between multiple *actants.*

Greimas was criticised for not fully considering the cultural codes and convention which drive such interpretative understandings.[8] Through exploring the reader's role in interpreting the sign, Barthes and Eco, amongst other 'post-structuralists', challenged conceptions of self-contained unity implied in this method.[9] Indeed, Barthes' extremely detailed analysis of Balzac's *Sarrasine* in *S/Z* almost parodies Greimas's analysis of Maupassant's 'Deux Amis' in *Maupassant*, demonstrating the 'plural of the text' and impossibility of a complete authoritative reading, rather than claiming to analyse the whole as Greimas.[10] This is another case of raising the status of the reader who is free to enter a text from any point. No route is correct, there is no unified beginning nor end of a network of

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[8] A major English-language critique is Culler 1975, 75-95. Schleifer pushes back, suggesting that Culler's characterisation of Greimas as the arch-structuralist lacks nuance, sidestepping Greimas's concern for the reader's role. Structuralist thinking enables Greimas to explore such analytical approaches in detail, but necessitates such nuanced intuition. Schleifer writes that the analyst finds 'room for theoretical constructions which do claim a power of generalized explanatory grasp…but he also insists…that any such theory must be justified in turn by its proven capacity to account for our concrete intuitions as language-users [sic]' Schleifer 1987, xiii. He continues, quoting a clear indication of Greimas's concern for the subject: 'It is the decoder's personality (which is an individual variable) that is chosen as a standard to pronounce upon the properties of the text whose existence is objective because it is linguistic', see Greimas 1984 [1966], 113. The 'variable' of the reader's 'personality' strongly points to multiple possible readings.

[9] Notably texts include Barthes 1974, Barthes 1977 [1967], Eco 1979, Eco 1989 [1962].

[10] Schleifer 1987, 150.

associations. Rather, the reader—or listener—slips and slides around the signifiers, each creating near-individualised forms. Barthes describes how an 'ideal text' might be conceived:

> It has no beginning . . . we gain access to it by several entrances, none of which can be authoritatively declared to be the main one; the codes it mobilizes extend as far as the eye can reach.[11]

Applying Barthes' conception to music, we might view a work's topics as providing 'several entrances' into the work's harmony, rhythm, etc. Due to dependency on listener experience, no single topic can authoritatively be declared the primary entrance point. And as each topic brings a different set of characteristics—also depending heavily on listener experience—different listeners (or groups of listeners) will prioritise different relations within a work.[12] Multiple quite different networks of topical relations can exist simultaneously, depending on what topics the listener identifies. Viewing networks as dynamic both within a single hearing and across multiple listeners begins to systematise a culturally situated pluralist application of network thinking in post-tonal music.

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[11] Barthes 1974, 5.

[12] This framework takes up Subotnik's critique of "structural listening". Structural listening describes the understanding that the quality of a work is rooted in the ideal of organicism, the appreciation of which relies upon a high level of technical training. Whilst the network analyses below require a degree of technical knowledge, the input to these structures—topics—embrace variety of experience and critical-cultural potential. Specifically, Subotnik sees 'an ongoing obligation to seek carefully reasoned ways of investigating and assessing the social and moral significance of the values discerned in music. The desirability of cultural relativism ought not to condemn us, even at the level of theory, to a positivistic tolerance for totalitarian musical styles and practices.' (Subotnik 1996, 171). Situating topic theory's moderate embrace of plurality alongside transformational theory's flexible application might begin to reflect her hopes. See also Dell'Antonio 2004.

4.2 Principles of topical networks

A topical network maps relations across topical characteristics. The characteristics listed

under the hierarchies are all candidates for nodes of a network. The choice of which

characteristics to prioritise depends on a significant relation with one or more characteristics

from another topic, whether as an opposition, a commonality, or something more complex

such as a transformational relation for the more intricate relations of harmony. The

opposition is rooted in an aesthetic driven by a dialectic whereas the commonality is rooted

in a more co-operative understanding. In addition to more abstract relationships, a successful

topical network would highlight characteristics that have a salient relation within the music.

For example, a common harmonic opposition is pitches of the harmonic series against

stacked fifths which, in the case of Ligeti's Violin Concerto (see Chapter 5) is a prominent

opposition explicitly realised in the harmony of the work's opening.

Given the near-infinite-seeming range of possible topical characteristics, identifying

salient characteristics might appear overly promiscuous. But to be placed as a node of the

network a topic's characteristic must be supported by an isotopy (or, if at the opening, a

single Actant-level appearance). Let's take an abstract example. A work begins in a duple

metre with no other topically suggestive characteristics. Duple metre alone is insufficient to

warrant a node, but if further characteristics of a March appear throughout the work—and

perhaps the duple metre is opposed to a Waltz's triple metre—then this would justify its

inclusion as a node of a network.

As consistent with the theory outlined in the previous chapters, these are technical

rather than expressive relations. That is, although some topics may share both characteristics

and associated imagery (e.g. the Hunt and Fanfare as loud and martial), topical networks

model relations independently of associated imagery. This approach generally contrasts with early topic theory which tends towards a series of relatively independent topics, as the post-collage aesthetic of Ligeti and Adès demands a more fluid understanding of topics.

In its relating of aurally salient objects, my topical network approach has strong roots in David Lewin's transformational networks. Central to both are their complementary blind spots. Whereas topic theory has developed a sophisticated understanding of what constitutes a topic, informed by a detailed engagement with semiotics and literary theory, less immediate is *how* topics relate. This contrasts with a theme across post-tonal analysis—especially regarding pitch—of choosing *what* to relate. The issue of segmentation is pervasive in Forte-style post-tonal analysis, where analysts are often implicitly drawing upon other parameters to aid selection.[13] Lewin's transformational networks expand this approach, but the issue remains of what objects to relate.[14] Noting that Lewin 'left open many questions about how to construct meaningful transformational analyses',[15] John Roeder highlights the importance—mirroring Eco—of balancing object and relation salience with mathematical coherence. He proposes guidelines for a successful transformational analysis, including choosing aurally salient objects, complete but minimal object family, suitably constrained yet prominent and repeated transformations applicable to other families, and homology to musical form.[16] This allows for a number of possible transformational analyses of a single passage—risking what Michael Buchler describes as 'a Pandora's box of relational

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[13] Representative literature includes Hasty 1981, Hanninen 2001, and Hanninen 2012.

[14] For substantial introductions to transformational theory, see Cherlin 1993, Satyendra 2004 and Rings 2011, 9-41.

[15] Roeder 2009a, 1.9.

[16] Roeder 2009a, 12.1.

permissiveness'[17]—but completeness is rarely the aim; each analysis will have its own perspectives to promote, but the art of balancing these priorities is central to a successful network analysis.

In conflating these issues, topical networks provide an approach to demonstrate how topics—where aural salience is primary—can function as nodes of a network. Although I am indebted to transformational analysis as a conceptual model, as detailed in Chapter 2 topics are characterised by a complex of different parameters, each contributing to the topic's definition to different degrees. And within each parameter, commonalities and oppositions can be modelled in different ways: for example, dynamics form a straightforward continuum from quiet to loud, the outer extremes forming a clear binary opposition. Metre is more complex, as a listener might focus on the local metre or hypermetre, duple against triple, or regular against irregular, depending on the relevance for the topic. Harmony is perhaps the most complex: in post-tonal music transformational networks provide a sophisticated method of modelling relations, for which the terms opposition and association are insufficient. Instead, more nuanced associations or manipulations of material are suitable for analysing these relations. Thus, although Topical Networks can incorporate transformational networks—indeed, Chapter 6 models topics solely on a transformation of their associated harmonic characteristics—the salient relations may be in other parameters which demand less complex relationships.

Returning to music-theoretical networks, Steven Rings's 'prismatic' understanding of Lewin's transformational theory—in contrast to Schenkerian thinking—evocatively

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[17] Buchler 2007, 2 For a more general critique, see Buchler 2016.

resonates with Barthes' description of an 'ideal text' above:

> If any given passage of music admits of an indeterminate number of intervallic or transformational apperceptions, it of course becomes impossible to execute anything approaching a complete analysis of a given work. Instead, the apparatus encourages one to adopt an analytical technique that we might call prismatic, in which phenomenologically rich local passages are refracted and explored from multiple perspectives.[18]

Viewing a work through the refracted prism of topics echoes Barthes' pluralist conception of slipping and sliding around signifiers to latch onto significant elements contributing to the form. Lewin's spatial network conception is succinctly summed up in his analysis of Stockhausen's *Klavierstück III* and further echoes the literary conception:

> This network cannot depict for us how the piece moves through chronological time. But that is not necessarily a methodological disadvantage, for we can view the chronological progress of the piece as a path, or a series of path-segments, through the network. And that is interesting, both theoretically and analytically. The piece, in this sense, makes several "passes" through sections of its network; the beginnings and endings of the path-segments thereby acquire special functions. Furthermore, as the path-segments fill or suggest the totality of the network, they constitute one way in which the piece, articulated chronologically into its several "passes," projects form.[19]

Simply put, these aurally salient 'special functions' with a network gain more perceptual

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[18] Rings 2011, 37-8. In his analysis of Brahms' String Quintet op.111, Rings uses 'Gypsy music' as a motivation to select transformational objects. Suggestively, 'Gypsy music' appears on Mirka's list of twentieth-century topics (see p.30).

[19] Lewin 1993, 17.

relevance if they are topics.

Fig.4.3.1 outlines the three principal relations. Lewin's networks are rigorously formal with pitch. I retain a degree of this rigour, using defined operations in my analyses shown by arrows. Given the necessity for incorporating other parameters, a simple line shows a less formalised association without directionality. This transference retains network thinking— that is, the similarity and transformation of a parameter—but is necessarily less formal. This can be through common intervals and shared sets or subsets or rhythms, which can be "transformed" through augmentation and diminution, retrograding, etc., but are less strict. Even less defined are texture, timbre, dynamics, and expressive markings. Finally, an opposition is shown through a box on a line. These relationships will be further nuanced through the incorporation of troping in Chapter 7.

Transformation with defined operation

Looser association through common intervals, sets, or other parameters of rhythm, contour, timbre, etc.

Opposition between two characteristics
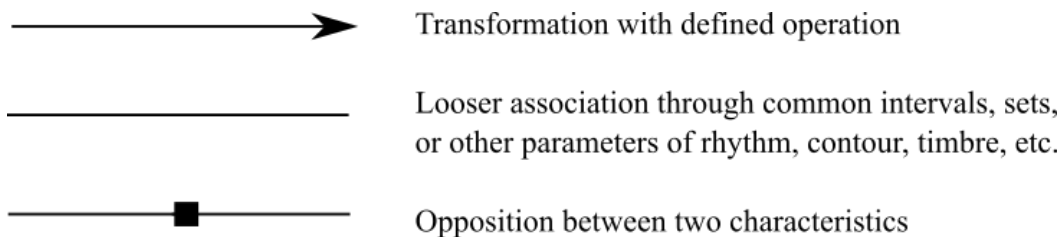
Fig.4.3.1: Three primary relations of a topical network.

4.3 The Lament and Fanfare in Thomas Adès, *Still Sorrowing*

Adès's early solo piano work *Still Sorrowing* (1992) is a short piece dominated by a delicately resonant texture, hovering primarily around low dynamics. Objects are placed in the piano's strings to give a guitar-like effect to certain pitches. These characteristics contribute to the Lament and Fanfare, but the dominating descending patterns strongly point

to the Lament. Rather than analyse the piece chronologically as with *Musica Ricercata*, to build a Topical Network I will (1) identify the topics at Actant level and (2) explore significant interactions of the topics' characteristics which contribute to an expressive narrative. This expands isotopy's linking of possibly unrelated characteristics in each of these topics to a range of interactions, building a narrative of musical relations informed by the experience of topical associations.

First, let us look at the clearest Actant fulfillment of the Lament (Fig.4.3.1), which occurs in the final moments:

Fig.4.3.1: Final bars of Adès, *Still Sorrowing*, showing an Actant-level realisation of the Lament. © Faber Music Ltd., London.

In these final two bars all the characteristic aspects of the Lament are expressed: the descending chromatic tetrachord in the lower voice of the middle staff in (near) regular rhythm. The whole dynamic is *ppp-pppp* and the low tessitura might be considered to be expressing the bass tessitura of the Lament; at least, these last bars are in a relatively low

register compared to the rest of the work. This moment realises a Lament trajectory developed across the work (discussed below) which incorporates all the characteristics and associations of the Lament.

In contrast to the Lament, a Fanfare-type pattern appears prominently in the middle of the work (from b.89). Fanfares are brief, often single-line melodies, either played by brass instruments or imitating the performance style of brass instruments. As brass instruments were historically restricted to using the pitches of the harmonic series, a Fanfare is characterised by the harmonic series' lower pitches. Copland's *Fanfare for the Common Man* is an archetypal example containing all these characteristics. Appropriate for my understanding of the Fanfare's characteristics, Daniel Harrison coins the term 'Bugleity', referring to the 'pure *yet severely limited* overtonal hierarchy of five pitches corresponding to the lower regions of the overtone series'.[20] That is, the Fanfare draws upon a limited group of pitches which contain an inherent hierarchy. Considered within Harrison's analysis of contemporary tonal music, this characteristic of a limited repertoire of pitches of the Fanfare topic cement tonal allusions in constrast to the Lament's tendency towards chromaticism. The Fanfare hierarchy can be modelled as follows:

FANFARE

Actant: *f-ff-fff*, lower pitches of harmonic series (a 'bugleity')

Intermediate: tertian harmonies, mid-high tessitura

Elementary: Prominent ascent, regular rhythm landing on a sustained pitch

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[20] Harrison 2016, 21.
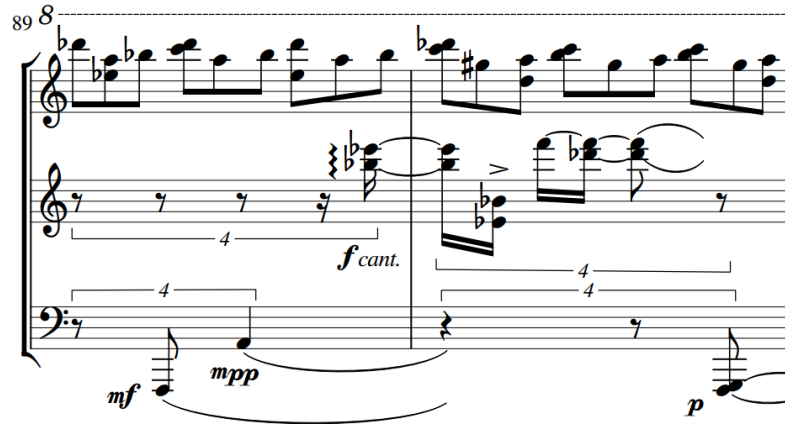
Fig.4.3.2: Adès, *Still Sorrowing*, Actant-level Fanfare, bb.89-90. © Faber Music Ltd., London.

A few nuances are required: Fanfares contain strong initial ascents, even if descents occur later. Echoing the similarly militaristic March topic, the near-regular rhythm reaches up to a top pitch, which is often sustained. And the Intermediate-level characteristic of tertian harmonies is a more embracing interpretation of the limited use of the harmonic series.

The excerpt at bb.89-90 (Fig.4.3.2) is ascending, with regular rhythm, and the prominent pitches F-A-E♭ are from the F harmonic series with loosely appropriate spacing, thus meeting the criteria of the Actant-level Fanfare topic. (The compound metre in the highest line perhaps alludes to a Hunt, even Pastoral topic.) There are a number of oppositions in the characteristics of the Lament and Fanfare: the dynamics, ascending against descending contours, diatonic tertian harmonies against chromaticism. Given that both these topics appear prominently, we might expect these oppositions to occupy a role in the work's vocabulary before the Actant level appearances. As with isotopy, these moments may not immediately be associated with one another, but through a topical lens they cohere into a more directed sequence of events. In the following I focus on two primary oppositions in

these topics: the ascent/descent contours and the chromatic/diatonic.

Fig.4.3.3: Opening of Adès, *Still Sorrowing*, showing prominent ascents and descents, foreshadowing the Fanfare and Lament oppositions. © Faber Music Ltd., London.

The opposition between descent and ascent is clear in the opening of *Still Sorrowing*. As Fig.4.3.3 excerpts, the material is sparse, not obviously embodying any topic. But there is a subtle opposition between rising and falling gestures, as shown by the analysis on Fig.4.3.3. The opening two ascents from a F-B dyad to G-C are expanded in b.4 to three parts, including a B♭-D in the top line. This major third supports the tertian harmony characteristic

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of the Fanfare, returned to in the brief descent in bb.4-5, which also contains B♭-D. This descent is answered by two rising flourishes with increasingly muddy pitches, undermining the previous clarity. Rather than point to either topic and their expressive oppositions, this opening passage sets up a general opposition of ascent and descent.

This dialogue develops in the following bars. Fig.4.3.4 shows bb.12-14, where a substantial descent is interspersed between two ascents. Although this descent is the most substantial thus far, the wide interval covered in b.13 of the top staff (F down to A♭), and high tessitura somewhat undermine the Lament. This expansion of the two-note descent projects the Lament more substantially, though, and the developing dialogue between the rising flourish and descending pattern continues to dominate the following bars. Over the following 20 bars, the tessitura lowers and the surface rhythmic activity increases, building up energy until a sudden *cresc.* to *ff* from b.37 (Fig.4.3.5). A more identifiably slow chromatic descent now appears in the top line, thus realising the Lament at a high Intermediate level through a hypermetrically regular chromatic *p* descent. By this moment, the ascent which was so prominent at the opening has effectively disappeared and projections of the Lament dominate, though a full Actant appearance remains wanting. Soon after (from b.146, Fig.4.3.6) the rising pattern returns, now embedded in a reprise of the opening B-F to C-G and satisfying the Fanfare at the Intermediate level. The Lament characteristics almost disappear (barring the brief flourishing chromatic descent), but as they appear after the associations with topics this reprise of the opening ascent/descent dialogue shifts from a simple opposition of musical elements to more firmly within the isotopies of the Lament and Fanfares.

Fig.4.3.4: Continuation of ascent/descent dialogue, Adès, *Still Sorrowing*, bb.12-14. ©

Faber Music Ltd., London.

Fig.4.3.5: Adès, *Still Sorrowing*, bb.37-40, Lament at Intermediate level through

descending chromatic line in the top voice. © Faber Music Ltd., London.
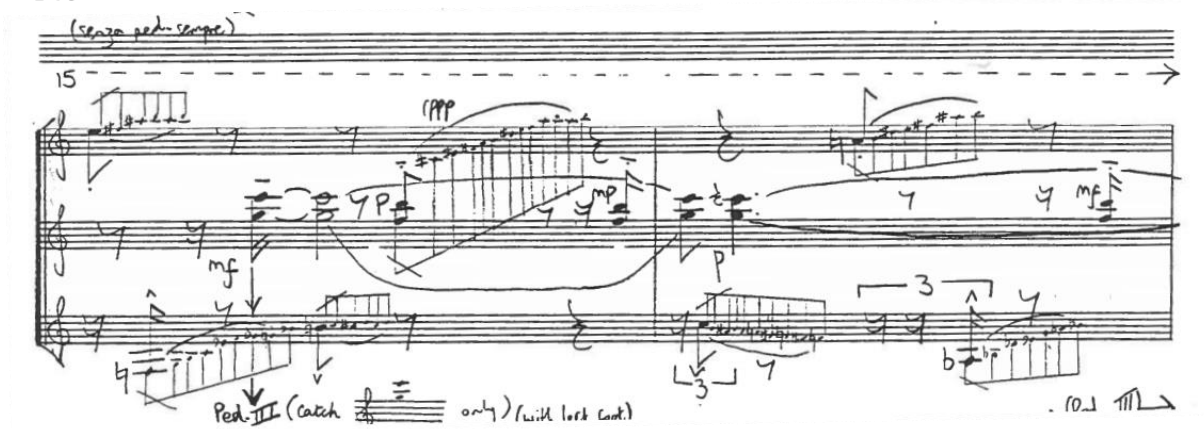
Fig.4.3.6: Adès, *Still Sorrowing*, bb.146-47, I-level realisation of Fanfare in combination with the reprise of the opening F-B/G-C material. © Faber Music Ltd., London.

Viewed through an isotopic lens, this ascent/descent dialogue can be allied with relationships in other parameters. Let us turn to an opposition in harmony. In *Still Sorrowing*, the harmonic opposition of chromatic/diatonic similarly points towards the Lament and Fanfare. More specifically, I defined the Actant-level harmonic constituents of the Lament as descending tone- or semitone-based scale (often spanning a tetrachord), based around a fourth (diminished, perfect, or augmented). This contrasts with the Fanfare's 'bugleity' pitch repertoire of the lower regions of the harmonic series.

Let's return to the opening of *Still Sorrowing* to explore the beginning of the trajectories of the harmonic rather than contour characteristics of the Lament and Fanfare. As Fig.4.3.7 excerpts, the opening phrase contains a salient opposition: the opening bar's two verticalised fourths can loosely be interpreted as introducing the outline of the Lament's fourths. These pitches are filled in in b.12 (the middle staff) which contrasts with the lowest staff's slightly slower rising outline of pitches of the G♭ harmonic series. This rising pattern, which is *pp* rather than *pppp*, supports the Fanfare harmony; the overall effect of the rising two hands is

of an increased chromaticism, a characteristic of the Lament. Without the E-level descent this moment cannot reach the higher levels of the Lament hierarchy and the very low dynamics restrict the Fanfare realisation, but the combination of these harmonies points towards the two topics.

The following bar's descending pattern suggests a B♭^{7}, a sonority similarly built from the lower pitches of the overtone series and a part of the Fanfare isotopy. In contrast the stepwise descent in the two upper staves is part of the Lament isotopy, although the pitches are rooted in the static overtones. As such, these two bars contain a curious cross-relation of the Fanfare's and Lament's characteristics: b.12 is rising (Fanfare), though contains chromaticism (Lament), whilst b.13 is descending (Lament) yet overtonal (Fanfare). These bars embody the topical oppositions, though their misalignment restricts their realisation.

Fig.4.3.7: Adès, *Still Sorrowing*, opposition of Lament and Fanfare harmonic characteristics, bb.12-13. © Faber Music Ltd., London.

Fig.4.3.8 reproduces the surrounding material to the Actant-level realisation of the Fanfare cited above (Fig.4.3.2) in bb.86-93. Several characteristics point to the Fanfare topic. The top line is a three-note repeated rising pattern high in the tessitura, built primarily on major seconds and fourths, characteristics supporting the Fanfare of the two other lines. On a larger scale this primarily diatonic language opposes the larger-scale descent of this pattern by semitones (along with *pp*) are Lament characteristics. Within this primarily Fanfare moment, the Lament's descending chromaticism is distantly present. (As the Fanfare is at the Actant level and the Lament is at the Intermediate level, this is an example of a *dominant* trope, as discussed in Chapter 7.) The injections of chromatic descents support a Lament, now more directly opposed to the Fanfare's rising overtone allusions. With both topics now significantly more prominent than the opening phrases, the expressive juxtaposition of a prominent Fanfare over a Lament is clearer than the opening.

Fig.4.3.9 summarises these observations of descent/ascent and chromatic/diatonic oppositions of the Lament and Fanfare into a two-topic Topical Network. I have inserted examples of each level. These are excerpted chronologically across the piece, suggestive of each topic's gradual projection and subsequent realisation across the piece. At the Elementary level, I have selected the ascents and descents from the opening. At the Intermediate level, the excerpts continue the descent/ascent binary whilst incorporating the chromatic/diatonic opposition. Finally, the Actant-level excerpts futher continue the descent/ascent and chromatic/diatonic from the previous oppositions, but with the new characteristics of isolated tetrachord and slow (Lament) and *forte*, triadic/overtones (Fanfare), now clearly pointing towards the topics.

A: Fanfare
forte, lower pitches of harmonic series, mid-high tessitura, prominent ascent, regular rhythm landing on a sustained pitch

I: Lament
metrically regular, chromaticism, piano, descent

Fig.4.3.8: Adès, *Still Sorrowing,* bb.81-88, showing Lament at Intermediate level and Fanfare at Actant level. © Faber Music Ltd., London.

The technical oppositions can be analysed as contributing to the work's form, independent of the topical lens. A topical lens, however, semantically enriches these characteristics. Using this method of analysis, we can create a narrative of *Still Sorrowing* in which a Fanfare gradually emerges, only to dissipate under the cover of the Lament, which only fully appears in the final moments. Chapter 5 explores a similar topical interaction between the Lament and the Fanfare in Ligeti's Violin Concerto. For now, I will expand this analytical method to a larger number of topics and demonstrate how, through the flexibility

of networks to incorporate a different number of nodes, topical networks can model multiple complementary understandings of relations, depending on the topics identified by the listener.

Fig.4.3.9: Topical Network summary of oppositions and associations of the Lament and Fanfare at different hierarchical levels across Adès, *Still Sorrowing*. © Faber Music Ltd., London.

4.4 Networking the Hunt, Chorale, and Folk topics in Ligeti, *Hamburg Concerto*

Adding more topics increases the complexity of relations: whereas the Lament and Fanfare in

Still Sorrowing had oppositions of chromatic/diatonic and ascent/descent, topics do not

necessarily sit in such neat dialogues. Three or more topics could contain an opposition in

one parameter and overlap with another topic in a different parameter. Widening the scope of

possible interactions adds a dynamism which enriches the interplay of topical characteristics.

The *Hamburg Concerto* (1999, rev. 2003) was Ligeti's last major work and, as is

common throughout his later works, is semantically rich. In effect, the work is a horn

concerto, with the solo horn's use of natural tuning amplified by four obbligato natural horns.

This imaginative use of natural horn tuning has been the primary focus of analytical

studies.[21] Relative to the large-scale through-composed earlier works and even the relative

short movements of the Violin Concerto, the *Hamburg Concerto* is fragmentary, consisting

of seven movements, divided into a total of fourteen distinct episodes. These tableaux

provide a set of topical case studies: some point to a clear single topic whilst others contain a

range of topical interactions. Although a defining characteristic of topics are their ability to

function independently of composers' programmatic associations, as an entrance I will use

the movement's titles as guidelines. Perhaps this entrance mirrors the effect of a listener first

encountering the work. The titles are:

I. Praeludium: Adagio espressivo

II. Signale, Tanz, Choral

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[21] Searby 2012, Corey 2011, Cheung 2010.

III. Aria, Aksak, Hoketus

IV. Solo, Intermezzo, Mixtur, Kanon

V. Spectra

VI. Capriccio

VII. Hymnus

These words range from conjuring evocative images to a netural tempo designation (Adagio espressivo). The most topically familiar are *Signale, Tanz, Choral, Aksak,* and *Hymnus. Signale* is suggestive of a Fanfare, *Tanz* an unspecified dance, *Chorale* and *Hymnus* a Chorale, and *Aksak* a folk dance. Other genre references (Praeludium, Aria, Solo, Intermezzo, Capriccio) and references to contrapuntal devices (Hoketus, Kanon) potentially allude to topics. For example, traditionally a prelude might suggest a French overture and canon point to the learned style. I will focus on the topically evocative titles, as these topics do appear over the work. More specifically, I will initially focus on three topics:

1. Hunt

2. Chorale

3. Folk

These three are inherited topics, pointing to Ligeti's dialogue with tradition. Accordingly, each brings its own hermeneutic associations. The Hunt is a familiar topic associated with the horn, common through Mozart's Horn Concertos, Mahler's Symphonies, and Britten's *Serenade.* Monelle's extensive historicising of the Hunt highlights characteristics of the Hunt

in order to distinguish from the Fanfare. Although they share imagery of heroism, masculinity, adventure, and the outdoors, and musical characteristics of *f-fff*, triadic, and brass, the Hunt is associated with more pastoral imagery, distinguished by multiple parts (usually in 'horn fifths'), slightly lower tessitura (specifically, the horn's third register), and compound time (in common with the pastoral). This contrasts with the Fanfare as a single line in common time, and with the dotted rhythms of a March.[22] The multiple natural horns of the *Hamburg Concerto* particularly suit the characteristics of the Hunt described by Monelle. Although these topics can be parsed, occasionally in the *Hamburg Concerto* the lower-level manifestations of the Hunt might easily overlap with the Fanfare, for example, if a horn plays a single line. Nevertheless, the hierarchy of the Hunt is:

HUNT

Actant: *f-ff-fff*, brass timbre, harmonic series, compound metre

Intermediate: tertian harmony, mid-high tessitura, multiple parts

Elementary: Ascending, regular rhythm

The Chorale topic is a familiar topic. Although primarily associated with Lutheran Chorales, the topic is common throughout the twentieth century. Associated with religious imagery, in the *Hamburg Concerto* the use of a Chorale may hint towards a deeper interpretation: as Ligeti was nearing 80 during the composition, the work fits into a list of twentieth-century final or near-final compositions which use a Chorale, notably the 'Postlude' of Stravinsky's *Requiem Canticles* (1966) and Copland's *Night Thoughts* (1972).

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[22] See Monelle 2006b, 72-94.

Indeed, the seventh movement *Hymnus* was a later addition.[23] For reference, the Chorale hierarchy is:

CHORALE

Actant: Appropriate voice-leading, medium/low dynamic, clear phrases at a medium tempo, singable range and articulation

Intermediate: Tertian voicings, homogeneous timbre, regular rhythm, three or more distinct parts

Elementary: Homophonic

The Folk topic is more complex. The idea of a single folk music implied by my label is, of course, completely reductive of the huge variety of folk music both generally and as topical material as diverse such as that which appears in the music of Vaughan Williams and Stravinsky. Danuta Mirka's second category in her unpublished list of twentieth-century topics (see 1.2) is 'topics associated with various ethnicities', which implies that a more precise version of Eastern European folk music is common across avant-garde music of the twentieth century.[24] Her list contains specific geographical locations for these topics centred on Eastern Europe, including Czech, Polish, Hungarian, and Gypsy music. Probing the distinctions between these regions, although rich, is beyond the current scope. For my purposes of analysing the topical characteristics I conceive the Folk topic as embodying what Marina Ritzarev describes as 'onto-vernacular', where 'the primary folklore repertoire is

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[23] Although Ligeti also planned an eighth movement. See Steinitz 2003, 362.

[24] Agawu 2009, 48-9.

transferred to the multi-social and multi-ethnic (both versus the 'tribal') urban society and thus affected by common-practice idioms'.[25] This broad, urban, international and Westernised conception of Folk idioms contrasts with the specific 'phylo-vernacular, or 'the primary, authentic layer of folklore'.[26] I use the term 'folk' attached to Ligeti's music in this manner, to reference a loose grouping of specific Transylvanian idioms within a broader onto-vernacular category. Ligeti himself mirrors Ritzarev's 'onto-vernacular' with his description of a pseudo-international 'synthetic folklore' in an interview with Claude Samuel:

> Ligeti: There's also a lot of synthetic folklore
>
> Samuel: Is it what Bartók calls imaginary folklore?
>
> Ligeti: No, because Bartok's imaginary folklore is completely Hungarian, Romanian, or Arab, always within the spirit of an existing folklore. In my case, it's a humorous interpolation. My folklore ingredients are impossible, imaginary, unrelated to any specific nation.[27]

Although certain elements may overlap with those of other composers, Ligeti's use of folk materials does contain distinct Eastern European elements echoing Bartok's and Kodály's use, in contrast to, for example, the use of folk materials by Vaughan Williams. More specifically, Bianca Ţiplea-Temeş details Ligeti' s continued connection with his Romanian heritage, from his stay at the Folk Music Institute of Bucharest in 1949-1950 to promoting his works from the 1980s onwards through associations with this heritage. She notes how

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[25] Ritzarev 2012, 39.

[26] Ritzarev 2012, 39.

[27] Ligeti and Samuel 1983 [1981], 119.

jottings from Ligeti's sketches continually refer to a Romanian folk association such as *bucium*, *bocet*, *hora lungă*, and 'Romanian folk instruments', often clearly appearing in the music, such as the 'Hora lungă' first movement of the Viola Sonata.[28]

From this context, my topical hierarchy of a Ligeti-leaning Folk topic draws upon a specific common Translyvanian element, the *Aksak* rhythm, alongside characteristics that might be associated with a 'synthetic folklore'. The *Aksak* refers to an Eastern European dance rhythm at a fast tempo with combinations of duple and triple groups.[29] The groupings are irregular at the local level, but on a higher hypermetre they are regular (in Ligeti's movement, at the level of the 9/8 bar). The hierarchy can be outlined as follows:

FOLK

Actant: *forte*, alternations between duple and triple divisions, alternative tunings

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[28] Ţiplea-Temeş 2012. In her study of Ligeti's and Kurtág's relationship with the Hungarian music scene during the Cold War, Rachel Beckles Willson extensively details Ligeti's often fraught relationship with the post-1956 official institutions which promoted a nationalist Hungarian music, often through the promotion of works which contain rather generic folk materials, strongly echoing Ligeti's image of a 'synthetic folklore'. See Willson 2007.

[29] Reinhard, Stokes and Reinhard 2001: 'The rhythms of Turkish folk music, most pronounced in the instrumental music, are of great diversity. Besides simple and compound metres with rhythmically enlivening syncopation, there are other metres consisting of, for example, five, seven or 11 pulses, and metres with irregular subdivisions, for example, an eight-beat bar divided into 3 + 3 + 2 beats. Such constructions are usually called *aksak* (although this refers in its specific sense only to the subdivision of nine into 2 + 2 + 2 + 3 beats). *Aksak* means 'limping' or 'slumping', a reference to the asymmetric 'limping' movement created by such rhythms. Although these metres occur in some folksongs (e.g. the *kırık hava*), they are found principally in dance-songs and instrumental dance melodies.' (accessed 25/3/19). The *aksak* remains persvasive across styles and genres, such as featuring prominently in Dave Brubeck's *Blue Rondo a la Turk*.

Intermediate: Non-diatonic scales, irregular accents, "rustic" timbre

Elementary: Fifths, fast

Each of these three topics are prominent in the *Hamburg Concerto*. Fig.4.4.1 extracts an example of each.

Fig.4.4.1 (following page): Ligeti, *Hamburg Concerto*, showing the topics of the Hunt (II/8), Chorale (II/16), and Folk (IV/29) appearances at Actant level. Copyright © 2003 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

As with the analysis of *Still Sorrowing*, the characteristics of each parameter can be mapped abstractly: Fig.4.4.2 outlines significant oppositional and overlapping characteristics of the three topics in rhythm, tempo, harmony, texture, and dynamics.[30] Each parameter has a different level of complexity in creating oppositions and associations. For example, some characteristics exist on a single continuum (e.g. tempo, dynamics) whereas others contain a wealth of information, such as harmony, which can be associated or opposed in many ways and depends on the standpoint. Similarly, rhythmic characteristics require nuancing. For example, a local irregularity of 2+3 might have a larger hypermetrical regularity. And the Chorale might have the opposite rhythmic profile: locally regular but hypermetrically irregular. Note that the Chorale and Folk topics tend towards opposition in almost all parameters.

As established with regard to isotopy, a topic attaches characteristics across different parameters which would not necessarily otherwise be associated. Expanding this principle to topical networks, putting on a pair of topic spectacles focuses oppositions which, without the topical lenses, not be evident. Using this principle, let us assess excerpts from the *Hamburg Concerto* to explore the relationships outlined in Fig.4.4.2.

Fig.4.4.2 (following page): Topical networks of Hunt, Chorale, and Folk topics in Ligeti, *Hamburg Concerto.*

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[30] The E/I/A hierarchy is not on this diagram for ease of representation, though each characteristic can be placed on the hierarchy.

_____   Looser association through common intervals, sets,
                       or other parameters of rhythm, contour, timbre, etc.

_____■_____   Opposition between two characteristics

Rhythm

| Hunt |
regular

| ■ | Folk |
| Chorale | *irregular*
regular   *aksak (2+3)*
foursquare

Tempo

                                             | Hunt |
                                             fast

| Chorale | ■
moderato | Folk |
                                             fast

Harmony

                    | Hunt |
                    harmonic series

| Chorale | ■ | Folk |
Tertian   *Fifths*

Texture

| Hunt |
Homophonic

| | Folk |
| Chorale | *Homophonic/*
Homophonic   *Melody & Accomp.*

Dynamics

                                             | Hunt |
                                             loud

| Chorale | ■
quiet | Folk |
                                             loud

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Fig.4.4.3 excerpts bb.5-7 of the opening movement, before any topic is established. Referring to the harmonic network above, there is a clear opposition between a rising line of harmonic series against a B♭-F fifth. This technical opposition is visceral in the music but reaches a new hermeneutic status when associated with the Hunt and the Folk respectively. As the network of Harmony in Fig.4.4.2 shows, the harmonic series is not immediately opposed to either the fifth-based Folk nor the tertian-based Chorale, as it is effectively characterised by all intervals. But the natural horn's *tuning* is characteristic of the Hunt; therefore, despite the stepwise motion the listener may latch onto the flat tenth and eleventh partials of D and E—especially with the horn timbre—and associate it with a harmonic series more broadly, and thus begins to project a Hunt or Fanfare topic. In this context, the sudden bare fifth is a striking shift, setting up a suggestive opposition (regardless of topical association). But other parameters are active: the *pp* dynamic and slow tempo project the Chorale, for example, if expected by the listener, which is unlikely at this early stage.

Fig.4.4.3: Ligeti, *Hamburg Concerto*, I/5-7, showing Hunt and Folk characteristics.

Fig.4.4.4 skips to the opening of the third movement, showing a more complex interaction between Folk and Hunt characteristics. As shown by the analysis to the left of the score, the rhythmic characteristics oppose whilst the overlap between harmonic characteristics are highlighted. The rhythmic opposition between the alternating 2+3 in the solo horn and the regular rhythm of the accompanying strings realise an opposition in the Rhythm network in Fig.4.4.2. The regular rhythm is a characteristic of the Chorale and, although this single characteristic is insufficient to suggest any affinity to a Chorale isotopy in this excerpt, the characteristic is embedded in the fabric of the work. In contrast, the strings are based on two stacked fifths, characteristic of the Folk—along with the "rustic" timbre—contrasts with the solo horn's harmonic series. But, as noted above, the harmonic series contains fifths, which appear as (for example) the F-C framing pitches in bb.1-2. Including the inversion of fourths, the A♭-E♭s further this association. Although the sets are different, the focus on two stacked fifths is a favourite device of Ligeti's, here binding the harmonic characteristics of the Folk and Hunt.[31]

Fig.4.4.4 (following page): Ligeti, *Hamburg Concerto*, third movement, opening, showing rhythmic and harmonic relations. Copyright © 2003 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

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[31] See Callender's Sl transformation in Callender 2007 and the analysis of Ligeti's Violin Concerto in Chapter 6.

4.4.2 Adding the Sound Mass Topic

These three inherited topics are alluded to in the movements' titles, but in the previous chapter I established that the Sound Mass topic was active in the *Hamburg Concerto*.[32] Fig.4.4.6 adopts the position of a listener not just familiar with historically prevalent Hunt/Chorale/Folk universe, but experienced with the concept and associated imagery of the Sound Mass as a fresh topic. The addition of the Sound Mass's characteristics reframes the relationships of the previous three topics, as the subsuming in a perceptual whole opposes almost all of the nuanced characteristics of the inherited topics. That is, although the dynamics can be associated with the Chorale (as established in the previous chapter), the Sound Mass' saturation— leading to a rejection of metre and harmony—reframes rhythm, tempo, harmony, and texture to make the previously subtle distinctions now much closer. Within these new topical networks, the characteristics of the Hunt and Folk are a lot closer than Fig.4.4.2, relative to the mysterious new Sound Mass.

Fig.4.4.6 (following page): Revised networks incorporating the Sound Mass topic in Ligeti, *Hamburg Concerto*.

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[32] Another notable instance of the Sound Mass in the *Hamburg Concerto* is mvt.4, 66-137. The dense harmonies of the group of horns could also be interpreted in this isotopy.

Rhythm

Hunt — Sound Mass
regular — *static*

Chorale — Folk
regular — *irregular*
foursquare — *aksak (2+3)*

Tempo

Sound Mass — Hunt
no tempo — *fast*

Chorale — Folk
moderato — *fast*

Harmony

Hunt
harmonic series

Chorale — Folk
Tertian — *Fifths*

Sound Mass
cluster

Texture

Hunt
Homophonic

Folk
Homophonic/
Melody & Accomp.

Chorale
Homophonic

Sound Mass
saturated

Dynamics

Sound Mass — Hunt
quiet — *loud*

Chorale — Folk
quiet — *loud*

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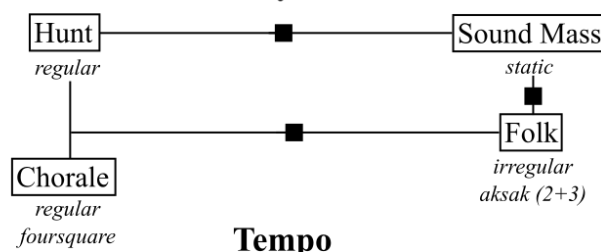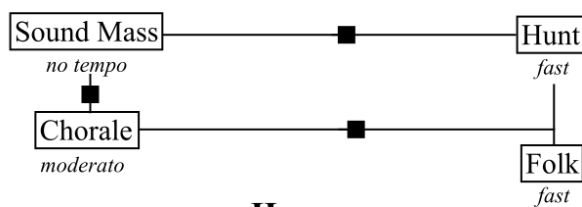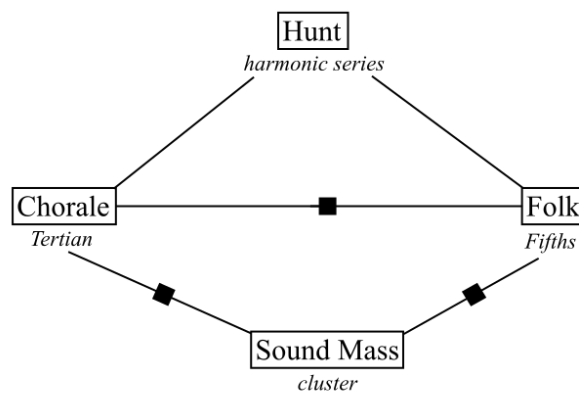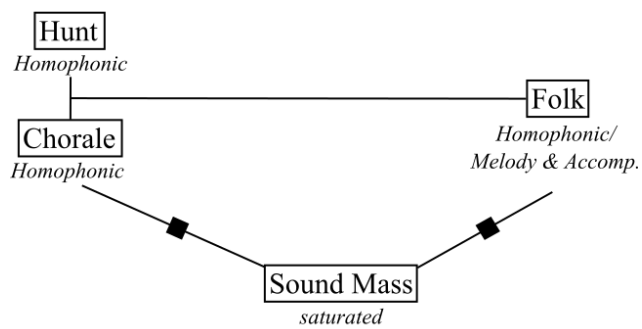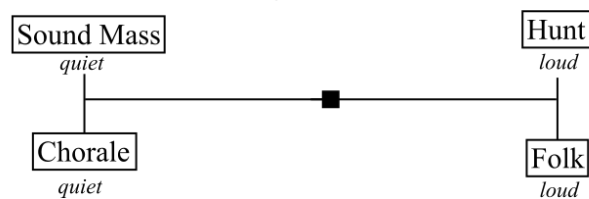
Let us return to the opening of the *Concerto*. Fig.4.4.7 expands the analysis of Fig.4.4.3 to incorporate the Sound Mass which appears at Actant level either side. In non-topical terms, the sudden stepwise rise of the solo horn after five bars of clusters is striking; the following ringing out of a fifth furthers this opposition to the dense opening sonorities. In topical terms, the previously topically distinct elements of the Hunt and Folk analysed above are now more closely connected under the more general characteristic of containing distinct pitches. And through their similar relationships to the broader pastoral type, the imagery of the Hunt and Folk are more fraternal relative to the imagery associated with the Sound Mass. This contributes to different dialectics which frame the work: Fig.4.4.2 frames regular/irregular rhythm as an important distinction (for Chorale/Folk), but now relative to the Sound Mass's complete *lack* of rhythm, the Chorale and Folk rhythms are relatively similar. This shift demonstrates how experiences and generic expectations of the listener can dramatically alter what is deemed formally important, with dramatic expressive consequences.

Notably absent from this list of topics above is the Lament, which is so pervasive in Ligeti's later music. There are minimal clear descending patterns which would satisfactorily project or realise the Lament. One exception is bb.32-34 of 'Capriccio' (see Fig.4.4.8), noted by Steinitz and Searby.[33] Here, the solo horn's descending tetrachord is an exact retrograde of the pitches of the Lament with the same timbre and dynamic. Whilst the preceding discussion established the opening C-D-E-F rise within the Hunt isotopy, if—as Steinitz and Searby assert—this moment evokes a Lament, this transformational relation resituates the

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[33] Steinitz 2003, 357, Searby 2012, 239.

Fig.4.4.7: Expanding Fig.4.4.3 to show Sound Mass framing in Ligeti, *Hamburg Concerto*. Copyright © 2003 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

prominent first entry of the solo horn within another expressive trajectory. Rather than projecting the Hunt as the analysis through the movements' titles suggests, it can also weakly project the Lament. Furthermore, the harmonisation by the trumpet and trombone is suggestive of a Chorale, itself almost an aligned cycle (a concept of aligning interval cycles homophonically Philip Stoecker traces to Alban Berg, see Chapter 6),[34] as the lower two parts move consistently by semitone against the solo horn's tones (besides F-E). This type of harmonic relationship based on complex manipulations of harmony is the focus of the

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[34] Stoecker 2014, 32.

following section.

Fig.4.4.8: Ligeti, *Hamburg Concerto*, retrograde relationship between Hunt and Lament, focusing on harmonic characteristics only. Copyright © 2003 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

4.5 Transforming 'Les Adieux' in Ligeti, Trio for Violin, Horn, and Piano

Harmony is a particularly complex parameter to reduce to either an opposition or a commonality. This analysis of Ligeti's Trio for Violin, Horn, and Piano, along with Chapter 6's transformational analysis of Adès's *Living Toys*, explore how the harmonies of the topics of Folk, Lament, and March can be associated through different degrees of manipulation, enriching the associations of the topical network. The topics I identify in both Ligeti's Trio and Adès's *Living Toys* vary in the immediacy of their harmonic associations. For example, whilst a Lament contains a tone- or semitone-based scale, a March has significantly fewer harmonic associations, besides a tendency towards triads. Accordingly the harmonic relations

below are in part rooted in the topics' characteristics and in part through the use of the harmonies associated with certain topics. In terms of Agawu's adoption of Jakobson's introversive-extroversive binary, some of the harmonies are rooted in an extroversive association (e.g. the Lament) and others *become* associated through an introversive relation (e.g. the March). In other words, the conventional harmony of some topics is clear whilst for others a harmonic association only emerges through its use within the work.

The Folk and Lament topics appeared prominently in the previous examples, but the inherited topic of the March requires introducing a new hierarchy:

MARCH

Actant: Triad-resembling harmonies, marching tempo, simple melody, extended textural regularity

Intermediate: Simple (often static) harmonies, dotted rhythms

Elementary: Duple metre

This hierarchy is informed by Johanna Frymoyer's list of characteristics, which itself is adapted from Monelle's detailed history of the topic. As her aim is to demonstrate the emergence of newer topics, her 'Idiomatic' level details the variety of marching tempos, from a funeral march to a comic charge or attack march, and how further instrumental and motivic characteristics can point to national marches, including a 'Turkish march' with bass drum, triangle, and cymbal and a 'French march' which includes dotted rhythms and unison scoring, informed by a wealth of intertextual and programmatic associations. Rather than parse such distinctions, my hierarchy of characteristics outlines a more general March at the

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tempo of around 120bpm.

Ligeti's Trio famously opens with a distorted reference to Beethoven's 'Les Adieux' Piano Sonata, op.81a. The three descending dyads are manipulated throughout the work, with different elements extracted to provide the kernel for later topics: essentially the harmony is drifts towards major for the Folk and minor for the Lament, with the March movement opening with the 'Lebewohl' in inversion. Through traditional associations with tragedy, the Lament can be linked to the minor mode.[35] Folk music is associated with modes: in the Horn Trio the Folk topic is associated with major sonorities. The March generally contains a balanced set of major and minor intervals. That is, the Lament's harmony is more directly extroversive relative to the harmonic associations of the Folk and March.

The opening of 'Les Adieux' is a combination of the Hunt and Lament topics, or a trope (see Chapter 7). On Beethoven's original Tarasti notes that the inversion of the conventionally *forte* and rising horn fifths to descending and *piano* dynamic transforms them to a symbol of farewell. This denies the Elementary ascending characteristic of the Hunt and instead points towards the Lament, a topic which has a significantly stronger isotopy over the work.[36] This eventual focus on the Lament does not mirror the images which Ligeti was initially constructing in his sketches. Steinitz's discussion of the Horn Trio sketches points to the idea of a two-part chorale with suggestions of extensions of the distortion of the horn fifths idea. Initially, Ligeti was more interested in the possibilities inherent in a more anonymous horn fifths sequence rather than specifically op.81a.[37] (This gestation of a

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[35] On the correlation of the minor mode with tragic in the music of Beethoven, see Hatten 1994, 36-38.

[36] Tarasti 2002, 7.

[37] Steinitz 2011, 184.

quotation emerging *from* a topic perhaps goes against conceptions of composers gaining

inspiration from a specific work.) In other words, although the presence of a horn might lead

the listener to expect a prolonged Hunt topic (as in the *Hamburg Concerto*) Ligeti subverts

this by introducing the Lebewohl motive. But whilst the Hunt topic's characteristics do

appear prominently throughout the first movement, the Lament exercises a strong influence

over the remainder of the work.

In Beethoven's Sonata two versions of the Lebewohl motive appear in the Adagio

introduction to 'Les Adieux' (Fig.4.5.1). The first is widely known and the second, naturally,

less so. But, crucially for Ligeti's treatment of the reference, they occupy two complementary

interval trajectories: the first is M3, P5, m6—a familiar tonal horn call—whereas the second

occurrence contains more dissonant intervals. The first chord is a diminished seventh, thus

containing m3s and A4s. The second chord is a dominant seventh, similarly containing a

prominent m3 between the top two voices and an A4 between the two middle voices. The

traditional interval vocabulary of the horn call is distorted, although the (again deceptive)

resolution onto a Cb major chord restores a familiar sonority devoid of m3s and A4s.

Besides the general characteristics (slow, descending, a limited number of homophonic

voices) Ligeti's version continues harmonic elements of Beethoven's progression. First, the

two-voice three-chord interval pattern is bookended by a M3 and m6, as the opening of

Beethoven's. The top two voices of Beethoven's second instance maintain the intervals (3rd,

6th) but shift the quality (*minor* 3rd, *major* 6th). This will become important later. Second,

the central interval of all three excerpts is *not* a 3rd or 6th but (1) a crisp P5, (2) a more

complex dominant seventh, and (3) an A4. In Fig.4.5.1 I have mapped the prominent A4

interval of the dominant seventh to Ligeti's use. An alternative route to Ligeti's

Fig.4.5.1: Beethoven, Sonata no.26, op.81a 'Les Adieux', b.1, 7, showing possible intervallic associations between the interval vocabulary of the two instances of the motive and the opening of the Horn Trio.

manipulation is a T4 of Beethoven's opening followed by the three notes, in the dotted box of Fig.4.5.1, transposed up a semitone. This adaption from maintains the intervallic vocabulary but disrupts suggestions of either G or A♭ major. And, as such, Ligeti's third continuation of the Beethoven model is across the increasing distortion of the progression itself away from the purity of the horn fifths of the opening of 'Les Adieux'. That is, although Ligeti's opening undoubtedly refers to Beethoven's Sonata, the degree of distortion, which already appears within 'Les Adieux' itself, increases. This points towards an increasingly chromaticised Hunt and—along with the stepwise descent—a burgeoning Lament isotopy.

The opening hexachord appears in direct transpositions, shown in Fig.4.5.2. The appearance at b.41 overlays two, although the lower violin starts with an open fifth. Although

the horn never partakes in the Lebewohl motive, other elements contribute to a Hunt topic.

Monelle mentions Ligeti's use of a Dampierre-style horn hunting call throughout this first

movement, noting the rising whooping (or 'hourvari') effect which Ligeti often employs—

including in the violin part—satisfying many more characteristics of the Hunt outlined in the

hierarchy above.[38] To this I would add the horn's use of triplet rhythm throughout the

opening, evoking a compound metre. Rather than existing independently of the recurring

Lebewohl motive, these elements are bound together into the Hunt isotopy, dominating the

opening movement.
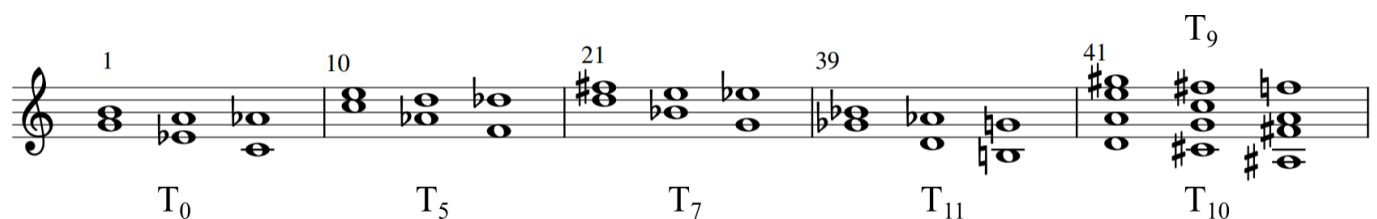
Fig.4.5.2: Ligeti, Horn Trio, opening motive and transpositions.

Topics in the following movements extract the harmonic characteristics of the Lebewohl,

but transform the elements such that it loses the Actant-level Hunt characteristics. Following

this opening section, at b.60 the tempo suddenly picks up, with a more distinct metre of

alternating 2+3, suggestive of an *aksak* rhythmic pattern (Fig.4.5.3). Despite this shift, the

characteristic interval pattern of Fig.4.5.1 is maintained. As shown on Fig.4.5.3, the grouping

into three dyads of a tritone sandwiched between thirds and sixths persists, now without the

characteristic descent and reinforced at the double octave. The excerpt starts at the end of this

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[38] Monelle 2006b, 97.

cycle and the cycle continues into the next passage. Rather than maintain the opening

distorted *Lebewohl* hexachord's pitches, the interval pattern of Ligeti's version and

Beethoven's two appearance is central. In other words, characteristics associated with the

Folk topic appear alongside a "majorised" version of the opening interval pattern. Although

the major intervals themselves are not inherently associated with the broad umbrella of folk

materials, this link contrasts with the Lament's more concrete affiliation with the minor key

and intervals.

Fig.4.5.3: Ligeti, Horn Trio, bb.60-62, appearance of Folk material maintains the interval

cycle established in the opening section.[39] Copyright © 1982 Schott Music GmbH & Co.

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[39] I have ignored the B natural at the beginning of b.62 as the violin contains only two pitches of B♭-
E, which support the interval cycle. Also note the misprint, missing E♭ in the RH, b.61.

The third movement embodies a distorted March. As Fig.4.5.4 shows, the opening bars' interval vocabulary continues a similar principle to the Folk above, with the opening Lebewohl hexachord is interspersed between two T_7 and a RI_8 (reordered as shown). This illusion of harmonic stasis alongside an extended textural regularity at a march tempo with strong, short *marcatissimo* articulation, and *forte* dynamic strongly point towards a March at Actant level. The Beethoven reference becomes increasingly distant. Unlike the Folk topic's extraction of the interval cycle, the hexachord itself is maintained.

Fig.4.5.4: Recurrence of the opening hexachord at the opening of Ligeti, Horn Trio, III.

Fig.4.5.5 shows the opening dyads of the *Lamento* final movement, which contains the same interval cycle of third-tritone-sixth with two Lament-related alterations: the third and sixth are both minor and the second two chords are transposed up a semitone resulting in

(012) in the top line. Two more dyads constitute this passacaglia pattern, a cycle characteristic of the Lament. Both these contribute to Lament characteristics through their increased use of semitones as the *pianto* and "minorising". The descent at the opening of the first movement is at the Lament's Elementary level, but now reaches the Intermediate level with nearly the same material; only the dynamic and tempo change notably. Later in the movement the Lament gains more characteristics, becoming a wrenching cry in the upper registers. As Fig.4.5.5 shows, the final moments (b.95) markedly begin on a major third, as the work's opening, but rather than form the sequence M3-TT-m6, the tritone slips down a semitone in a manner akin to the opening semitonal "slip up" distortion of Beethoven (Fig.4.5.1). The tritone interval is prolonged before a final arrival on a major third rather than minor sixth, with the appearance of two close major thirds brightening the final moments after an extensive focus on the minor. Additionally, it expands the opening three-dyad *lebewohl* and shrinks the five-dyad passacaglia motive, finally creating a characteristic lament tetrachord over an (augmented) fourth.[40]
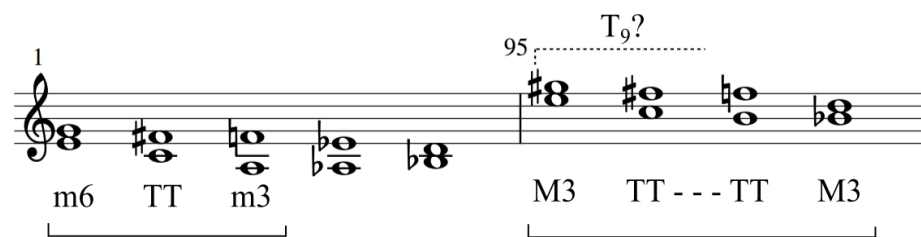

Fig.4.5.5: Opening five-dyad passacaglia and final possible Lament tetrachord in Ligeti, Horn Trio, IV.

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[40] A similar process of expanding a characteristic three-note pattern to a Lament tetrachord occurs in Adès's *Living Toys* (see Chapter 7).

Fig.4.5.6 sums up these observations, mapping how the Lebewohl motive gives rise to

the harmonic vocabulary of each topic. This exploration of harmonies through the lens of

topics demonstrates how the networking approach outlined above can be productively

nuanced. This mapping mirrors Ligeti's stimulation of imagery through the associations with

the horn in writing the Trio: 'As soon as he [a 'pianist from Hamburg'] pronounced the word

horn, somewhere inside my head I heard the sound of a horn as if coming from a distant

forest in a fairy tale, just as in a poem by Eichendorff'.[41] The horn's associations with the

pastoral and (through the brass timbre) military is traceable. But, as Beckles Willson notes, in

Romania the horn is also associated with the Lament:

> In many parts of Romania a natural horn is used to announce mortalities in village communities: the
> intonation of single notes at sunrise, midday and sunset is as much a sound of death as is the weeping
> and the lamenting.[42]

Although the dominant Western mode is to associate the horn with the Hunt—as extensively

documented by Monelle—through this more nuanced understanding a wider network of

associations can be created. And with this knowledge, we can retrospectively reinterpret the

opening descending horns as announcements of mortalities, becoming a stronger part of the

Lament isotopy rather than pointing to a bucolic Arcadian Hunt isotopy. Perhaps Ligeti's

Trio even reframes 'Les Adieux' through a Romanian lens, such that the Lament-Hunt trope

of Beethoven's opening is now refracted to a Lament. This precise knowledge highlights the

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[41] Ligeti and Várnai 1983 [1978], 22.

[42] Willson 2007, 181.

role of the listener's experience in creating such associations and consequently re-evaluating previous assumptions.
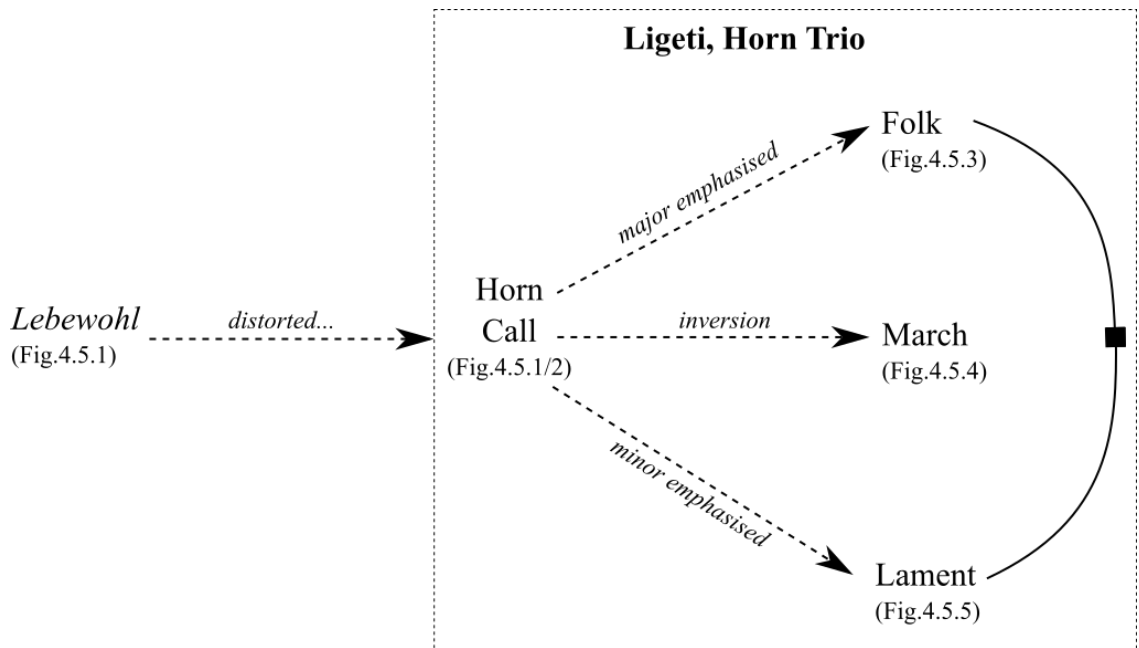

Fig.4.5.6: Overview of loose harmonic relationships across the topics in Ligeti, Horn Trio with the corresponding Figures added.

4.6 Aims and limitations of topical networks

Reframing the opening of Ligeti's Horn Trio through the knowledge of role of the horn in parts of Romania reminds us of the kaleidoscopic understanding of topics and musical meaning. The method of topical networks develops this to model these observations on the level of large-scale form. That is, situating characteristics associated with topics as network nodes demonstrates how a topical lens can home in on significant relationships across parameters that, through a topical magnifying glass, can be understood to drive a work's rhetoric. Rather than give prominence to sets which form neat relations, prioritising signification can instead reveal larger formal relations across multiple parameters. And

topics' reliance on multiple parameters can elucidate significant harmonic, rhythmic, timbral, and other important musical elements. Topic theory's heavy reliance on identification through experience binds network theory's relationship to theories of reading and listening.

The flexibility of network thinking allies with the necessary flexibility of topic identification. This not only echoes modernist conceptions of individualised forms, but also allows for multiple readings of the same section, as demonstrated with two complementary networks of topics in the *Hamburg Concerto*. This pushes back against any conception of an inherent structure in these works, although the conventionalised nature of topics tempers a hyper-plurality. Likewise, although different topics can be identified, to provide a coherent analysis, the topic(s) must be present enough and must provide salient and recurring relationships. Again, this understanding echoes Rings's 'prismatic' conception of transformational theory: rather than presenting an ideal inherent structure presented—as Rings characterises Schenkerian analysis—network thinking reveals multiple possible readings, dependent on what aspects are deemed significant by the listener. These are not mutually exclusive interpretations, but complementary. Such a continually dynamic approach invites the analyst to further examine the work's interactions.

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Part I has developed a method for understanding topics' role in the form. Following establishing what constitutes a topic in the twentieth century (Chapter 1), I developed a method for analysing individual topics both in isolation (Chapter 2) and then possible roles in the form (Chapter 3). Topical Networks (Chapter 4) then expanded this to multiple topical relations, providing an insight into how the tensions of topics' relationships can drive the work. Part II will build on these observations, taking major works by Ligeti and Adès in three

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long-form analyses. These will demonstrate the further potential in applying these analytical

methods and aesthetic principles whilst raising further issues.

Part II: Analytical Essays

5. INTERTEXTUALITY AND PARODY IN LIGETI'S VIOLIN CONCERTO

Speaking in 1969, Ligeti described his recent output as 'programme music without a programme, music that is developed extensively in its associations, yet pure music'.[1] And in a later interview with Denys Bouliane, he described his compositional process, mentioning Mozart's music as a model:

> For me the ideal is to start with very strong emotions but to subject them to a very, very strong stylization, that's what makes it art. For this reason I do not like out-and-out emotional, expressionistic outbursts. In the great established cultures, for example, strong emotions are forced into quite strict formulae.[2]

These attitudes resonate with topic theory: first, programme music without a programme—that is, to utilise conventionalised musical elements—strongly echoes a topic's ability to stand free without recourse to titles or programmes.[3] Second, Ligeti's reference to the 'strict formulae' of expression in Mozart's music appears to indicate Ligeti's identification of

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[1] Ligeti and Häusler 1983 [1968/69], 102, quoted in Lobanova 2002, 8.

[2] Ligeti and Bouliane 1983 translated in Lobanova 2002, 9. Regarding the Violin Concerto specifically, Ligeti wrote 'I always try to make a fusion of these external impulses with my internal images and ideas'. Ligeti 2007 [1992], 306.

[3] As Waltham-Smith writes: 'This means that, only if music's reference to a particular indexicality is authorized by some culturally-contingent general law of interpretation, will it constitute a topic.' See Waltham-Smith, 'The End of the Topic, or Indexicality at its Limit' in Nearchos, Lympouridis, Athanasopoulos and Nelson 2012, 211.

recurring semantic elements in the manner of a topic; in locating these standardised objects in eighteenth-century music, he echoes topic theory's repertoire focus. Elements of Ligeti's sketches further resonate with elements of topical thinking: in his study of the sketches, Jonathan Bernard includes the category of 'jottings', referring to incongruous lists of composers, pieces, musical styles and genres.[4] These images, often appearing before more structural concerns, are strongly reminiscent of Mirka's list of twentieth-century topics and are imported conventionalised styles and genres.

Whilst I have so far approached analyses of Ligeti's works independently of the composer's own commentary, these aspects of his compositional process and discourse on his own music support a topic-theory approach to his music. Perhaps even more so than other works by Ligeti analysed so far, the Violin Concerto (1990-92) embraces a cornucopia of references, from what Ligeti describes as the 'tradition of great violin concertos'[5] to the 'amazing harmonics and overblowing pipes' the composer had heard on recordings of music from Indonesia, New Guinea, and the Soloman Islands.[6] In his own article on the Violin Concerto, the composer details an impressively eclectic range of influences: Harry Partch, Claude Vivier, *Hoquetus David* by Machaut, Shostakovich's Symphony no.15, Stravinsky's *Symphonies of Wind Instruments*, Nancarrow, and Escher.[7] This rich tapestry of references requires substantial experience with a range of repertoire. Some of these references are more holistic, such as the adaption of Partch's tuning systems, and others are more abstract, such

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[4] Bernard 2011.

[5] Steinitz 2003, 331.

[6] Ligeti 1992, 3.

[7] Ligeti 2007 [1992], 306.

as Escher. This rhetoric is perhaps a self-situating move, embodying Wilson's 'rhetoric of autonomy' by focusing on unique poetic images rather than acknowledging similar compositional concerns and techniques to his contemporaries. I will concentrate primarily on the topical elements in the Concerto, as these conventionalised elements situate the work within a familiar expressive vocabulary that does not require familiarity with occasionally obscure intertextual references. Furthermore, the topical elements are more suitable for an analysis through my hierarchy of characteristics, isotopy, and topical networks.

The Violin Concerto's composition has a curious backstory, with issues further resonating with topical analysis. The first version of the Concerto was premiered in 1990 and soon withdrawn, with a substantially different second version premiered in 1992. Ligeti's motivation for the rewrite was his perception that the earlier work had not treated the folkloric atmosphere critically enough: 'perhaps through nostalgia, I came too close to Hungarian folk music, and I believe that this approach is no longer relevant today'.[8] In the context of the life-cycle of a topic introduced in Chapter 1—where a topic may become lapsed or in a state of 'deactivation'—we might surmise that, in Ligeti's view, use of folk materials had lost contemporary relevance.[9] Ligeti's solution in his rewriting was

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[8] Quoted in Lobanova 2002, 359. As Keréfky notes: 'Although Ligeti replaced the folkloric collage with a new opening movement that is much more well-ordered and introductory in character (hence its title Praeludium), he did not succeed in eliminating the "folkloric atmosphere" from the Violin Concerto (obviously, he did not want to do so either). On the contrary, four of the six melodies discussed above found their way into the fifth movement, where they resound partly in the middle section and partly in the soloist's cadenza, albeit embedded in a totally new context'. Kerékfy 2013, 37.

[9] An anachronist understanding of referencing 'oriental' music is more bluntly mentioned by Boulez: 'The music of Asia and India is to be admired because it has reached a stage of perfection, and it is this stage of perfection that interests me. But otherwise the music is dead.' Boulez 1986 [1967], 421.

manipulation and obscuring of these topics, as Kerékfy notes in his study of the sketches: 'Some of the underlying popular tunes are altered only slightly and so are easy to recognize, but others are transformed, even distorted, to such an extent that they are hardly identifiable'.[10] For many listeners unfamiliar with the Hungarian folk melodies, this change would likely have little impact on identification of a folk-like topic.

In the following analysis, I explore the interactions of four topics: Fiddle, Fanfare, Chorale, and Lament. I will also incorporate the fresh Sound Mass topic, as established in Chapter 3 with reference to the *Hamburg Concerto*, as it is prominent in the fourth movement. More specifically, the work is suitable for an isotopic analysis, as each movement of the Concerto develops characteristics introduced in the first movement to realise each of the four topics at Actant level over the course of the piece. Fig.5.0 provides an overview of the the principal Intermediate and Actant realisations of each: the Fiddle topic in the first movement, Chorale in the second, Fanfare in the third, Sound Mass in the fourth, and Lament in the fifth. The arrows show topical projection realised or a dissolution of associated characteristics. (Each topic has its own line type for ease of representation.) The sequence of topics at the Intermediate level (e.g. Fanfare-Lament) are temporalised. In this analysis each movement is characterised by one topic, with other topical characteristics informing the parameters of the movement. In the following I select significant topical moments, interactions of topical characteristics, interactions with intertextual references, and briefly discuss the role of parody. The chapter culminates in a topical network showing characteristic relationships between musical elements, incorporating an Sl (Slide) transformation.

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[10] Kerékfy 2013, 35.

I   II   III   IV   V

Actant   Fiddle   Chorale   Fanfare   Sound Mass   Lament

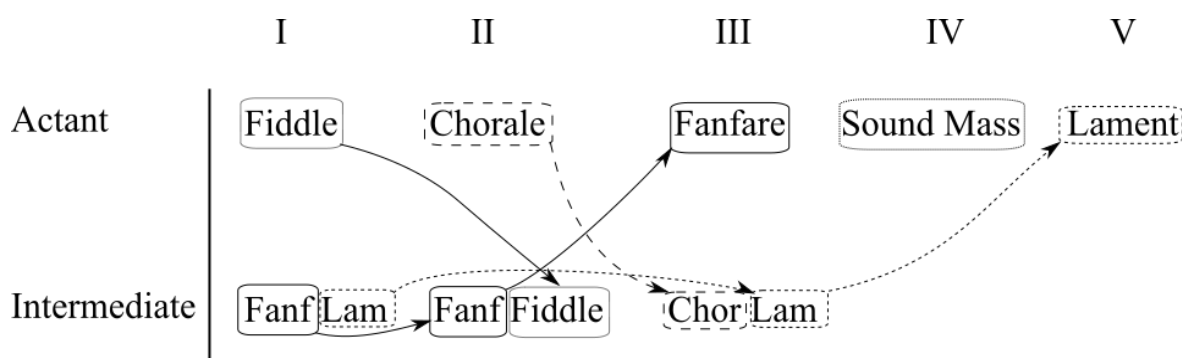Intermediate   Fanf Lam   Fanf Fiddle   Chor Lam

Fig.5.0: Summary of prominent Intermediate and Actant realisations across the five movements of Ligeti's Violin Concerto. Neighbouring topics on the Intermediate level are independent temporalized instances (i.e. not troping).

5.1 I. Praeludium

I detailed Ligeti's use of folk-like material in 4.4 with reference to the *Hamburg Concerto*. In the Violin Concerto topical material appears which would be better described as a Fiddle subset of the Folk type. This refers to general Folk characteristics which I detailed previously alongside violin-specific elements, still within the orbit of an Eastern European, 'synthetic folklore'. In particular the use of open strings creating stacked fifths, a characteristic sonority of Berg's, Adès's, and Unsuk Chin's own Violin Concertos. From this we can outline the following hierarchy:

FIDDLE

Actant: *forte*, alternations between duple and triple divisions, alternative tunings

Intermediate: Non-diatonic scales, irregular accents, "rustic" timbre

Elementary: fifths, fast

Conceived also as a subset of the pastoral topic, the Fiddle contains fifths and a "rustic"

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timbre alongside more specific elements such as non-diatonic scales and irregular accents.

In Ligeti's Concerto, the first movement contains the full scope of the Fiddle topic, from emerging in the opening with Elementary-level characteristics to an Actant-level realisation. Although the first movement is dominated by the Fiddle topic, seeds of material are introduced which retrospectively form the kernel of other topics.
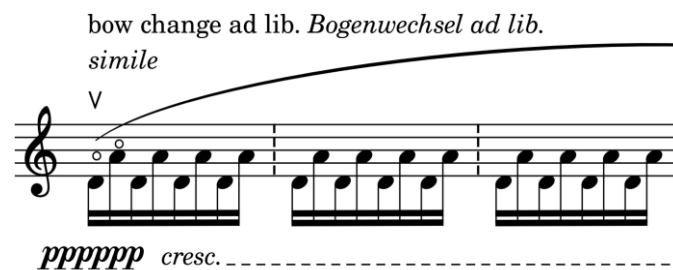

Fig.5.1.1: Opening of Ligeti, Violin Concerto, solo violin, Elementary-level Fiddle.

The work opens with a bare violin D-A fifth, *pppppp* (Fig.5.1.1). This opening establishes no discernible rhythmic information, minimal harmony (merely an open-string fifth), and is barely audible, giving little information about the timbre. Nevertheless, interpreting this opening through a potential topical hierarchy—and knowledge of Ligeti's other works and other violin concertos—we can already extract the fifth drone as evoking something within the realm of the pastoral, supported by the simplicity of the open strings of the violin, a paradigm of fiddle music. Such a fifth-based quiet opening has more distant precedents, e.g. openings to Beethoven's 'Pastoral' Symphony, Beethoven's Symphony No. 9, Brahms's G major Sextet, op.36, Wagner's *Das Rheingold*, and Ravel's *Daphnis and Chloe.* And in both these works the broader narrative context is broadly pastoral. Whilst a listener aware of Ligeti's other works' folk elements might quickly jump to this reading, it

would overlook the non-pastoral aspects, such as the *Vivacissimo luminoso,* extreme dynamic marking, and anxious speed of alterations.

In bar 4 the solo scordatura viola (sd.vla.) enters. The instrument is tuned down 114 cents, specifically so that the II string aligns with the 5th harmonic partial of the bass's A string, resulting in B-F♯-C♯-G♯ strings, -14 cents (see Fig.5.1.2). The sd.vla. enters with open F♯-C♯ strings, creating a slightly detuned major seventh or (0158) sonority with the solo violin (Fig.5.1.3); the fifth remains central, compounded by the detuned and thus unclear intervallic relationship between the two fifths. Through undermining the identity as a familiar major seventh—a chord which might project another isotopic path entirely—the non-12TET tuning evokes might evoke non-Western tunings. In b.7 the centrality of the fifth is heightened as all four strings of both instruments appear, albeit briefly.

In b.8 the solo scordatura violin (sd.vln.) enters (see Fig.5.1.3). The instrument is tuned up 69 cents, such that the violin's top string aligns with the seventh harmonic of the bass's G string. The open written B♭ and F natural are closer to a quarter tone than the viola, such that the sonority created is more ambiguously between a major seventh on B♭ and familiar violin stacked fifths of D-A-E. As in b.7, all four strings of the scordatura instrument soon appear. The effect of three instruments playing open fifths on differently tuned pitches furthers the focus on fifths, alongside suggestions of major seventh chords.
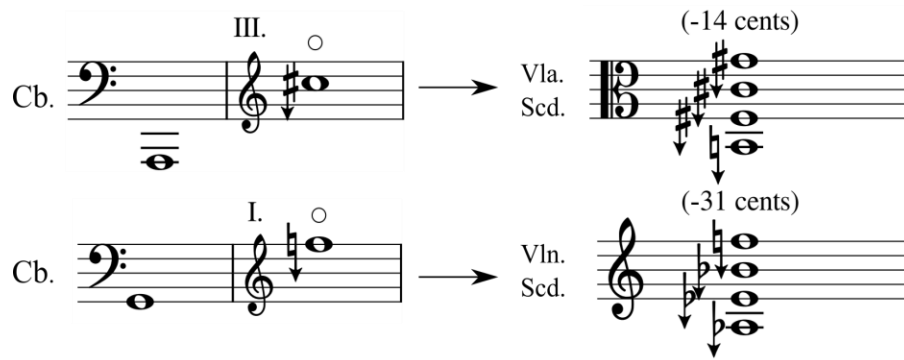
Fig.5.1.2: Ligeti, Violin Concerto, origin of the scordatura tuning of the solo violin and
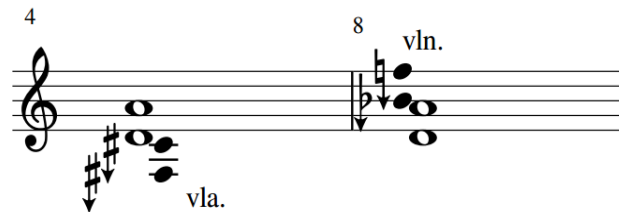
viola from the double bass.

Fig.5.1.3: Ligeti, Violin Concerto, I/4, solo violin and scordatura viola sonority, with

(detuned) inversion of (0158) around D-A open strings.

The stacked fifths begin to dominate the harmony. Though fifths are established as significant at the opening, the gradual introduction of overtones series begins to provide an opposition. Fig.5.1.4 shows the extent of fifth-based and overtone-glissandi-based figures in bb.11-12, setting up a harmonic opposition that will become topically relevant: whilst the fifths cement a pastoral element, the rising overtones form the foundation for the Fanfare topic. As Fig.5.1.5 shows, this dialectic is embedded in the derivation of the scordatura violin, as the solo violin's stacked open fifths on G are opposed to the bass's harmonic series, of which the seventh partial is the origin for the *new* stacked fifths. The extent of the layering

quickly creates a cluster effect, reminiscent of the sound mass textures in Ligeti's previous

works. Whilst the stacked fifths and overtone series opposition is the kernel of two topics,

their subsuming into a perceptual whole points towards the Sound Mass topic. I shall return

to this topical trajectory in the fourth movement.

Fig.5.1.4: Ligeti, Violin Concerto, I, bb.11-12, showing open strings stacked fifths

increasingly engulfed by overtone series of harmonic glissandi. Copyright © 1992 Schott

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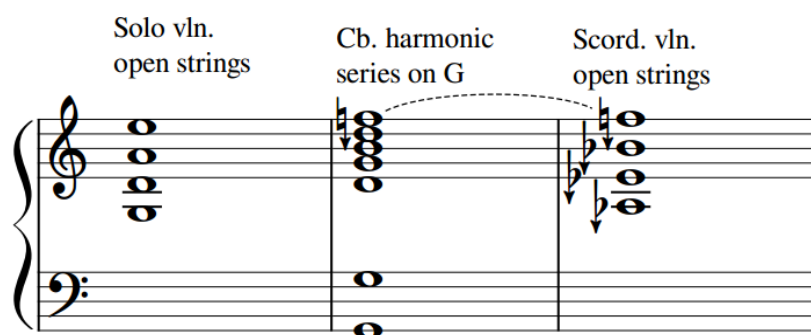Music GmbH & Co. KG, Mainz, Germany.

Fig.5.1.5: Harmonic opposition of stacked fifths and overtone series are both embedded in the scordaturas' tunings.

At b.14 significantly new material appears: the solo violin introduces *forte* accents, the attack emphasised by the marimba. Until b.24 the notes outlined are a scale (01236789, also known as Messiaen's Mode 4). This has three possible topical readings. First, the scale might satisfy the "non-diatonic" scales of the Intermediate level. Although the chromatic density of the set (0123) associates poorly with a "simplicity" of the pastoral/folk, the intervals Ligeti uses are primarily diatonic, with two semitones never occurring in succession. Second, the two tetrachords of Mode 4 point towards the chromaticism of the Lament. On the surface this *forte* rising and falling passage with primarily diatonic intervals projects little of Lament quality besides this, but more elements will appear, to more strongly support this isotopy. Third, the fast ascent will later become an element of the Fanfare, albeit in a scale uncharacteristic of a Fanfare.

As Fig.5.1.6 extracts, at b.34 the music shifts gear, with the previously disparate strands focused into a single metre. At this point all the Actant-level characteristics are fulfilled, thus establishing the Fiddle as a topic. Elements which projected the Fiddle topic from the beginning are more clearly realised: fifths are pervasive both horizontally and vertically in

the wind and strings accompaniment; the solo violin has a whole-tone scale (with the top C altered to B); the constant shifting between duple and triple metre creates an irregularity on a micro level, but maintains regularity at a higher level; and, the solo violin notwithstanding, the string pizzicati retain an uncomplex timbral reference.

Fig.5.1.6: Realisation of Fiddle topic at Actant level, Ligeti, Violin Concerto, I/34-35, containing all the characteristics listed in the hierarchy above. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

After the Fiddle material is established in the topical discourse, characteristics are increasingly exaggerated such that it shifts towards a caricature. In part, this manipulation is due to the interaction with the burgeoning Fanfare topic; the Fanfare is not fully realised until the third movement, but introducing the topic now will guide the following reading. The hierarchy of topical characteristics is as follows:

FANFARE

Actant: *f-ff-fff*, lower pitches of harmonic series

Intermediate: tertian harmonies, mid-high tessitura

Elementary: prominent ascent, regular rhythm landing on a sustained pitch

The interaction between the Fiddle and Fanfare is first clearly evident at bb.51-52 (Fig.5.1.7): the solo violin's *moto perpetuo* gains energy, reaching a climax of *ffffff,* a dynamic level beyond the innocence of the Fiddle and into the outdoor function of the Fanfare. The accompaniment of the sd.vln. and sd.vla. supports a Fanfare at the higher end of the Intermediate level through the *f-fff* diatonic vertical and horizontal intervals (albeit detuned from Equal Temperament) in regular rhythm—with brief appearances of overtone series, although minimally visceral in the thick texture—and a mid-high tessitura. The shifting contours undermine a clear statement of a Fanfare, but a sudden switch of texture at the end of b.52 fulfils these missing characteristics of ascending overtones. The *pp* dynamic and lack of distinct metre undermine the identification of a clear Fanfare. Nevertheless, the appearance of all the Fanfare characteristics in quick succession strongly supports project a future realisation.

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Indeed, at b.55 Ligeti explicitly refers to a topic in a performance direction, as the sd.vln. is marked 'like a fanfare' (Fig.5.1.8). In practice, the material is primarily related to the Fiddle topic: fifths, alteration between triple and duple rhythms, detuned violin. In the next bar, though, the trumpet and trombone take up this figure, transforming it more towards a Fanfare. Despite introducing the crucial brass timbre, the quiet dynamic and negation of the overtone series undermine a full Actant-level realisation.

Fig.5.1.8: Ligeti, Violin Concerto, I/56, showing characteristics of the Fiddle and fanfare topics and continued opposition between the overtone series and stacked fifths.

The Fiddle and Fanfare topics are tropologically relatively *compatible* and thus there is a limited potential for tropological *creativity* (see Chapter 7). Both topics primacy diatonic intervals and their associations with the outdoors results in overlapping loud dynamics. The Fanfare's association with the overtone series opposes the Fiddle association with stacked fifths, however—at least when a violin is involved. Ligeti exploits this distinction in this movement, alternating between the strings' open fifths and harmonic glissandi. But, as the

Fiddle is at Actant level rather than the Fanfare's Intermediate level, the Fiddle topic *dominates* the Fanfare. Their interaction is a *productive* trope over the work, as their differences provide both an expressive and harmonic impetus on a more global scale, already evident in this movement.

In contrast to the pervasive centrality of the stacked fifth/overtone series dialogue, the final bars introduce a fast, descending chromatic pattern from b.70. Extensive semitones are generally avoided until this moment where they pervade the texture in a manner reminiscent of the Shepard-Risset glissando imitation in his étude 'Vertige'. Whilst this could be interpreted intertextually, a listener framing this moment through a Ligeti lens would associate the descending chromatic with the Lament. The speed, middle tessitura, and continual descent (rather than grouping into tetrachords, for example) root this moment at Intermediate level. Rather than gain characteristics of Lament, the pattern is liquidated into repeated semiquavers of the bass drum, as if to dismiss the gentle Lament allusion. As with the Fanfare, though, this moment seeds an expectation of future Lament material.

5.2 II. Aria, Hoquetus, Choral

The second movement 'Aria, Hoquetus, Choral' is a set of variations on a folk-inflected theme, from which a Chorale gradually emerges. As noted with reference to Ligeti's *Hamburg Concerto*, a Chorale as a movement ending is a common device (see 4.5). To the list of Copland's *Night Thoughts* and Stravinsky's *Requiem Canticles* I would add Berg's Violin Concerto and Stravinsky's *Symphonies of Wind Instruments*.[11] The final movement is

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[11] Amy Bauer notes that the later 'organ-like registration of the clarinets' near the opening resemble the first appearance of the chorale in Berg's Concerto (Bauer 2006, 192).

a set of Chorale variations in a manner akin to the aria form of this movement of Ligeti's Concerto.

Beyond these intertextual associations the Chorale has relatively specific hermeneutic interpretations. Associated with the learnedness of church, the strict part-writing conventions with sung voices in conventional rhythm suggests a purity in opposition to the complexities of contrapuntal writing. In this movement of Ligeti's Concerto, the single line opening echoes this simplicity, almost as if the solo cantor to which the congregation responds. The movement gradually adopts Chorale characteristics, via a quartet of ocarinas, to strongly reference Stravinsky's *Symphonies of Wind Instruments* at the Actant realisation. This treatment similarly echoes the form of an eighteenth-century chorale cantata: a melody introduced in the aria—also part of the movement's title—might later be harmonised in a chorale movement.

Most of the Chorale's characteristics do not overlap with those of the Fiddle and Fanfare topics, notably the homophony, appropriate voice-leading, and medium dynamic. Tertian voicings incorporate fifths, though, providing an opportunity for harmonic overlap. The opening solo violin statement of the theme (Fig.5.2.1) is overtly melodious and alludes to folk or non-Western scales through the Lydian sharpened fourth. This melody is a quotation from the seventh movement of *Musica Ricercata*, the arrangement into the third Bagatelle, and slightly varied in the first movement of the Viola Sonata 'Hora lungă'. A crucial difference in the Concerto is that the altered F♯s and C♯s add a tritone, which skirts the interval vocabulary of the first movement's pivotal interaction of stacked fifths and overtone series. The prominent introduction here points towards a functional harmonic syntax of the Chorale. After all, a dominant requires a tritone to function.

Fig.5.2.1: Opening phrase of Ligeti, Violin Concerto, II. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

After the statement of the theme, the viola begins an accompaniment (Var.1), followed by flutes introducing a contrapuntal line for (Var.2). Characteristics of the Chorale are alluded to already: although the viola's sustained pitches are primarily accompanimental in Var.1 (bb.27-42), the flutes introduced in Var.2 (bb.43-63) move with the solo violin, creating a three-part homophony within a five-part texture, accompanied by the viola and contrabass. The regular rhythm and low dynamic support the Chorale reference, but the limited tertian harmonies and lack of proper voice-leading renders the variation at the lower end of the Intermediate level.

Fig.5.2.2: Ligeti, Violin Concerto, II/65-69, showing Fanfare at I-level at the opening of
Variation 3. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights
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Fig.5.2.3 (following page): Increased status of the Fanfare across three events in Ligeti,
Violin Concerto, mvts. I-II. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz,
Germany. All Rights Reserved. Used by permission of European American Music
Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG,
Mainz, Germany.

Fanfare

e₁ → e_1

I/31
E.: Ascending, fast

e₂ → e_2

I/40 (trp.)
I: Diatonic, regular rhythm, mid-high tessitura

e₃ → e_3

I: triadic/overtones, brass, regular rhythm, mid-high tessitura
(but *pp-mp* and quite slow)

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Variation 3 (bb.63-74, Fig.5.2.2 excerpts from b.65) references the Fanfare isotopy from

the first movement. Figure 5.2.3 maps the developing isotopy through events from the first

movement. The violas and cello's C and G fifth suggest C as a tonal or modal centre. Whilst

the solo violin persists with pitches possibly related to C Lydian, two horns slowly rise in

horn fifths rooted in the harmonic series of F♯, a tritone away, multiplying the effect of the

Lydian tritone of the opening. This rising gesture in the horn contains the characteristics

required for a Fanfare at Intermediate level, nearing the Actant level: it is ascending,

(relatively) fast, based upon overtones, regular rhythm, and a mid-high tessitura. The

dynamic of *pp-mp* limits its full Actant realisation, but its presence in the Fanfare isotopy

retrospectively raises the topical significance of these elements from the first movement.

Despite an F♯ harmonic series being a tritone away from C, the peak of the horn gesture

(b.69) reaches its own tritone A♯-E, the overlapping tritone between C7 and F♯7, thus

forming a dominant seventh sonority (with the violin's D as a ninth). This hesitation is an

Actant-level characteristic of the Chorale, supporting its isotopy. Elements of the Fiddle

isotopy can also be identified: the drone, violin timbre, and (more generally) unfamiliar

tuning. This trope highlights the overlapping characteristics of the Chorale, Fanfare, and

Fiddle at E-level, but distinct incompatibilities at A-level. Accordingly, we can already

identify how the shared characteristics can cohere the vocabulary of the work, despite

pointing to dramatically different expressive directions.

The introduction of an ocarina quartet dramatically shifts the dynamic and timbres,

entering *ff* playing a harmonised version of the theme in crochets (Fig.5.2.4).[12] (The reversal

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[12] Peter Edwards notes that this ocarina moment recalls the Bolivian flute motif from Harry Partch's

'The Quiet Hobo Meal' (Act II of Delusion of the Fury: A Ritual of Dream and Delusion), a further

of the A-level characteristic of medium/low dynamic is suggestive of parody, as discussed in Chapter 2.) The lowest contralto ocarina plays the original pitches, the three others create a shifting (0358) set, or a minor seventh with non-traditional spacing. The homophonic tertian voicings in regular rhythm satisfy the Intermediate level, but the parallel movement and *ff* dynamic undermine a full Actant realisation. Whilst this variation fulfils more characteristics, the absurdity of *ff* ocarinas distorts the chorale topic in a parodistic manner through the folk/exotic inflection (see below).

Fig.5.2.4: Ligeti, Violin Concerto, II, bb.75-6, extracting the first ocarina chorale.

Stacking two fifths echoes the prevalence of a detuned (0158) in the first movement. Such a relationship between major and minor seventh chords is familiar in Ligeti's output: in his analysis of Ligeti's piano Étude *Arc-en-ciel* (1985) Clifton Callender isolates progressions of major and minor sevenths, demonstrating how Ligeti maintains suitable voice-leading whilst maintaining two perfect fifths. As neither contain a tritone, they skirt any obvious tonal relation or leanings. He expands Lewin's Slide (S) transformation to an altered version of a slide transformation, Sl, to account for this process. This transformation preserves the two perfect fifths with the lowest notes a major or minor third apart, but one

possible intertextual link (Edwards 2015, 197).

pair moves down a semitone. In the process this alternates between major seventh (0158) and minor seventh (0358) chords, as shown in Fig.5.2.5a.[13] As Fig.5.2.5b shows, the inverse (Sl^{-1}) shifts one fifth up. Fig.5.2.5c maps relationships across the first two movements, expanding the inversional relationship of Fig.5.1.3 to incorporate the Sl transformation. Given the scordatura tuning and ocarinas unclear tuning, this transformation is not quite precise but nevertheless audible. (Callender's requirements that the fifths are maintained without a tritone are still fulfilled, however.) The sonority of I/b.8 transforms to the ocarina's chord via an Sl, maintaining the D-A fifth. An alternative route that maintains a stricture with tuning could be an ISl from I/4 to II/75. A later entrance of the ocarina quartet (Fig.5.2.6), now doubled by flutes and slide whistles, reverts to the (0158) set, with the Chorale remaining at Intermediate level. Despite the distance between these sonorities, the effect of the ocarinas two dramatic entrances on a related set established in the work's opening renders this relationship visceral.

Fig.5.2.7 shows the variation after Fig.5.2.6, at which the Chorale finally reaches Actant level as the material is at a lower dynamic with more suitable voice leading and a choir or organ-like sonority reminiscent of Berg's Violin Concerto. The major seventh is preserved in the first two sonorities but results from semitone and tone voice-leading rather than parallel motion. Though the chord in b.184 is not a seventh chord, it preserves the double fifths,

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[13] Callender 2007, 44. This Sl transformation is distinct from Lewin's own Slide (S) transformation, as Callender notes: 'The Sl transformation described here is similar to but not the same as Lewin's (1987, 178) Slide (S) operation on consonant triads. Lewin defines his S as the operation "that preserves the third of a triad while changing its mode," which amounts to inverting a triad about its third. For example, applying S to C major yields C minor, while applying S to C minor yields C major. Thus, S is an involution, whereas Sl is not' (46).

Fig.5.2.5: (a) Sl transformation from Callender 2007 (b) Sl^{-1} transformation (c) Transformations between seventh sonorities across the Concerto with levels of Fiddle and Chorale topics. Microtones are rounded to the nearest pitch in 12TET.

Fig.5.2.6: Ligeti, Violin Concerto, II/157-59, ocarinas, slide whistles, and flute in parallel (0158)s.

single semitone, a major triad, and avoids a tritone. Indeed, Ligeti manipulates the theme's intervals of the top line: the B natural in b.184 should be C, but retaining this would destroy the consistent interval structure.

Whilst the Chorale harmonisation of the opening aria theme mirrors an eighteenth-century cantata, this Actant-level realisation of the Chorale specifically strongly echoes the final Chorale of Stravinsky's *Symphonies of Wind Instruments,* a reference mentioned by Ligeti (Fig.5.2.8).[14] Though not a direct quote—Ligeti's movement is still a set of variations on the violin's opening theme—there are many overlapping elements: the quiet brass timbre, triads with added neighbouring semitones, the stepwise melodic contours, and the formal placement near the end of the movement. This 'aha' moment of the Actant level Chorale thus transcends the topic. The association of Stravinsky's Chorale with a memorium to Debussy—the Chorale was initially written for a special edition of *La Revue musicale* entitled *Le Tombeau de Claude Debussy*—brings new funeral associations to the listener familiar with the history and contexts. Alongside this context, the continued centrality of fifths and the theme's non-diatonic scale, combined with the *Symphonies* association with folk melodies, results in a broader folk isotopy simmering in the background at Elementary-

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[14] Ligeti 2007 [1992], 306. Schumann describes Stravinsky's Chorale as a 'creative' trope of the Hymn and Ombra topics. Whilst the Hymn and Chorale topics are effectively indistinguishable, Schumann explains the Ombra infusion: as the 'dissonant sonorities of the repeated opening chord (G major over a D-diminished triad) and frequent rests convey an unsettled expressive state connected to the ombra topic' (Schumann 2021, 10). Schumann's different subject position approach of the eighteenth century identifies these dissonances as trangressive to the Chorale, whereas within my subject position I understand Ligeti's microtonal harmonic vocabulary is relatively consonant. The differences between Schumann's and my topical labelling of Stravinsky's Chorale again demonstrates the rich plurality of topical analysis dependent on listener experience and expectation.

Intermediate levels. This line of topic-quotation-new topic (i.e. Chorale-*Symphonies*-folk) is

an example of multi-coding further explored in 5.2.

Fig.5.2.7: Ligeti, Violin Concerto, II/180-87, Chorale at Actant Level. Prominence of

(0358).

Fig.5.2.8: Stravinsky, opening of *Le Tombeau de Claude Debussy* for piano solo (1920),

a version of which appears at the end of *Symphonies of Wind Instruments*.

In sum, the second movement develops three isotopies: the Chorale isotopy transforms

from Elementary to Actant, the Fanfare develops from Elementary to Intermediate, and

Fiddle characteristics (given their prominence in the previous movement) continue to inform

the language. In containing overlapping characteristics, the topics co-exist without significant

rupture to the movement's language. The continued vocabulary of major and minor seventh chords from the first movement begins to cohere the work's harmony and topics into broader isotopic and transformational relationships.

5.3 III. Intermezzo

Returning to Ligeti's Concerto, the brief third movement, *Intermezzo*, more substantially introduces the Lament topic. The Lament previously reached the Intermediate level in the first movement, but becomes increasingly dominated by the Fanfare topic, which is realised at Actant level in this movement. These topics are primarily opposed by descent/ascent and chromaticism/diatonicism, which guide the trajectories.

The movement begins with a three-part texture of solo violin melody, rippling descending chromatic scales, and slow background chord progression.[15] The descending chromatic runs revisit the figure previously heard at the end of the first movement, establishing the Lament at the Intermediate level, although the overlapping of scales and high tessitura obscure a clear Lament. In conjunction with the constant descent, the top note of each descending violin chromatic runs gradually ascends through the complete chromatic C-C, reaching the final C at *ffffff feroce*. Such an Escher-like, cross-illusion play of ascent and descent is a familiar device for Ligeti (the opening of his String Quartet No.1, *Melodien*, 'Vertige' etude). This opening establishes the ascent/descent opposition, foundational for the Lament and Fanfare.

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[15] Stephen Taylor demonstrates how the violin's rhythmic pattern is indebted to Ligeti's interest in the Aka, specifically the asymmetrical principle of *Zoboko* (see Taylor 2012, 213-18).

III. Intermezzo

The quiet homophony of the background progression, reduced in Fig.5.3.2, embodies the characteristics of homogeneous homophonic timbre in (near-)regular rhythm, with appropriate voice-leading at a low dynamic. The slow tempo, lack of tertian harmonies, and lack of clear phrases results in an Intermediate-level realisation. Although the Chorale and Lament elements are relatively distinct, the texture as a whole can be considered a Chorale-Lament trope in a distinctly different construction to the Chorale-Lament trope in Adès's Quintet discussed in the previous chapter. Whereas in both cases the clear phrasing of the Chorale is missing, here the chromatic density of the Lament infects the Chorale's harmonies, limiting its Actant-realisation such that the Lament *dominates* the Chorale. Nevertheless, as Fig.5.3.2 shows, the progression gradually shifts from embodying a cluster-like sonority of the 7th-12th partials above a fundamental C to wedging out to an increased focus on stacked fourths and fifths, a method echoing the increasing "inharmonicity" of works of the spectralists. The sonority in b.5 contains the 7th, 9th, 11th and 13th partials above C and the set (01358), which combines both the prominent seventh chords of the previous movements, still avoiding the tonally suggestive tritone. As the sonorities expand through relatively smooth voice leading, a tritone is introduced but interval of a fifth remains central. Any association with overtone series is increasingly obscure. In topical terms, the opening out of the chord through chromatic voice-leading and increasing regularity of the harmonies

result in the Chorale as emerging from its subordinate side of the Lament-Chorale trope to almost reach the Actant level by b.25.
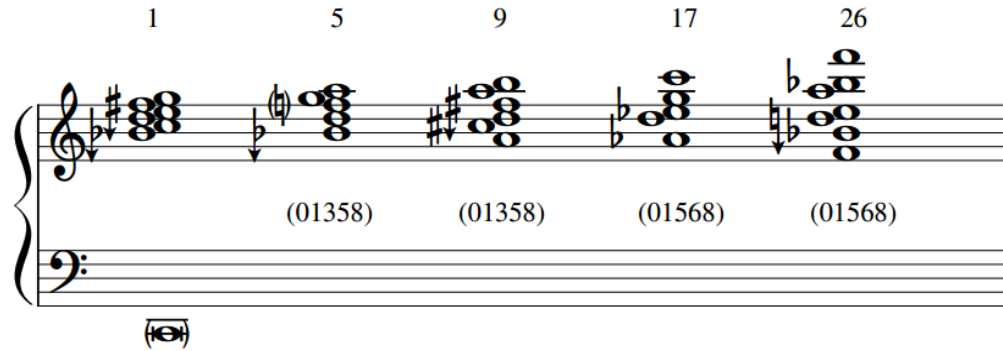
Fig.5.3.2: Ligeti, Violin Concerto, *Intermezzo,* opening background harmonies, showing a gradual shift from overtone harmonies to stacked fifths combination of (0158) and (0358) (rounding microtones to nearest 12TET pitch). This background embodies the Chorale at the I-level.

This anticipation is rudely interrupted by an emergent Fanfare topic. Fig.5.3.3 continues Fig.5.2.3's event list, showing how three further events establish the topic. In b.28 the horn enters with an overtone series on A, reaching E *pp espr.* (see Fig.5.3.2 at e4). Unlike the first movement the Actant level is clearly fulfilled through the brass and overtone series. It is only *ppp/pp* at this entry, though this dynamic is the loudest at this point. At b.39 (e5), the *forte* dynamic is reached, as is a longer sustained line after the rising gesture, the combination of which comfortably crosses the threshold from Intermediate to Actant. Event 6 extends these characteristics to double the rising gesture at the sixth, *ffff tutta la forza.* Indeed, the *sffff* iterations outline two fifths a sixth apart, creating another (0358) sonority. The Fanfare engulfs the Lament and Chorale, the overlapping descending chromatic runs taking off *fff*, dissolving before an abrupt cut. Unlike the familiar Lament-Chorale trope, the novelty of the

Lament and Fanfare in direct interaction is a large-scale *creative* trope. More specifically, the previously predominant Lament characteristics—notably the descent—are not fully realised due to the fast tempo and lack of descending tetrachord.

Gradually, as the rising top note of the scales begins to predominate, further Fanfare characteristics begin to emerge. Building on the previous movement and from this point until the end of the movement, the Fanfare becomes the presiding topic through increased iterations of Actant characteristics. But characteristics of the Lament never completely disappear, perhaps reluctant to submit completely to the increasingly aggressive and volume-dominant Fanfare. At e6, the accompaniment persists with the descending scale (not shown) which, although now *ff* and still fast, are stripped into isolated chromatic descending tetrachords, thereby fulfilling the Intermediate level. The layers of micropolyphony undermine any audibility in practice. Indeed, despite this theoretical change of level the Lament is now less of a Lament than at the movement's opening.

Fig.5.3.2 (following page): Continuation of Fanfare isotopy in Ligeti, Violin Concerto, III. Compare with Fig.5.2.3. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

Fanfare

e_4

III/28
I: Triadic/overtones, brass

e_5

III/39
A: Triadic/overtones, brass, *forte*

e_6

III/69
A: Triadic/overtones, brass, *forte*

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5.4 IV. Passacaglia

This movement contains less topical engagement than the others. More so than the previous movements, though, it contains a range of extreme expressive outbursts, leading Volker Helbing to describe the movement in biographical terms as a microcosm of the composer's confrontation between his 'role as a double survivor, mingled with the themes of lost homeland and childhood…[the Passacaglia] combines ciphers for grief, abandonment and hopelessness, and is presented as something seemingly unavoidable and inexorably growing'.[16] Such expressive effects may or may not directly relate to topics or quotations. Continuing the isotopies of the Lament, Fanfare, Chorale, and Fiddle from previous movements, topical characteristics can be entwined and continue an expressive trajectory. For example, in Ligeti's music—as Helbing writes—the Lament can function to express 'grief, abandonment and hopelessness'.[17] Rather than account for elements which provoke such a reaction, I shall focus on the topics thus far established and explore the presence of the Sound Mass topic, continuing the line from the first movement.

'Passacaglia' is used by Ligeti to refer to a repeated 6-bar pattern in two-part counterpoint. Fig.5.4.1 shows the opening six-dyad cycle built from a five-note rising chromatic scale and a five-note chromatic descending pattern interrupted by a rising minor 3rd. This pattern shifts up a fourth at each cycle, resulting in an Escher-effect of constant rising and descending, in a different manner to the Shepard-tone imitation.[18] Although the

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[16] Helbing 2018, 242.

[17] Helbing 2018, 235.

[18] For detailed discussion of the technical role of the passacaglia, see Taylor 2004 and Bauer 2006, 187-192. Taylor's registral graphs (see his Examples 5 and 11) clearly represent the simultaneous ascent and descent.

slow chromaticism and lower voice's descent point towards the Lament, the homophonic, regular rhythm, clear voice-leading, voice-like clarinet timbre, and a low dynamic evoke the Chorale at I-level. The *lento* tempo results in the harmonic changes perhaps too slow to reach Actant level, though, and the continual shifting harmonies avoid the Chorale's end-of-phrase hiatus. The solo violin's descending whole-tone tetrachord F♯-C from b.6 commandeers the descending line—and introduces a (linear) tritone—satisfying the Lament topic at I-level. This moment would reach Actant level—indeed, the final movement opens with the same pitches and reaches Actant level—but (as the Chorale) the continued extremely slow shifting of pitches renders the perception of a regular rhythm (or even the pitches as a group) difficult to ascertain. Alongside this, the regular rhythm of the clarinets combined with the descending chromatic motive supports the Lament reading. This opening thus exploits the *compatibility* of the Chorale and Lament topics in a manner similar to Adès's Quintet (see Fig.5.3.2) and complementary of the previous movement's Chorale-Lament trope.

As more instruments enter in canon, the clarity of these characteristics begins to be lost in an increasingly dense web of lines, far from the clear wedge of the opening. Within the characteristics of the Sound Mass, only the generally quiet dynamic overlaps with the Chorale and Lament. Over the course of the movement—and in a similar manner to the interaction between the Chorale and Sound Mass in the *Hamburg Concerto*—the Chorale's initially clear pitches gradually layer to become subsumed into a perceptual whole. This transformation is another example of a shifting isotopy and continues the Sound Mass characteristics of the opening of the Concerto. The switch between topics is indistinct; a liminal moment when it is ambiguous whether the lines are independent or part of a larger

whole.[19] Later in the movement the Sound Mass changes function to accompany melodic outbursts, which dominate the remainder of the movement, with occassional re-emergences of a "solo" Sound Mass topic interspersed between soaring violin lines.

Fig.5.4.1: Opening of Ligeti, Violin Concerto, IV showing the passacaglia cycle and descending violin line.

5.5 V. Appassionato

The final movement draws upon many characteristics and specific material from the previously established topics. Notably the opening finally realises the Lament at Actant level.

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[19] This liminality between topics echoes spectralist thinking. In particular, explorations of the distinction between a melody (perhaps equivalent to the singing style) and harmony or timbre are increasingly common in more recent spectralist-influenced works, as I have discussed elsewhere (see Donaldson 2021a).

The movement opens with the fast bare fifths reminiscent of the first movement. As Fig.5.5.1 shows, the opening of V continues the relationships across major and minor sevenths outlined in Fig.5.2.5: the opening tetrachord can be related as another Sl transformation from the opening movement from I/8. Additionally, the fifth movement's opening is a direct return to the first movement's texture and, through the intervening movements' association of fifths and violin timbre with the Fiddle topic, cements the opening clearly within this isotopic chain. The B♭-F dyad acts as a pivot, creating a large-scale harmonic function of the scordatura tuning, suggestive of the non-ET's deeper role. Furthermore, the simplicity of open standard-pitch D-A strings from first movement is significantly complicated through both the sd.vln. and sd.vla., the first time the isolated major/minor seventh sonority contains completely scordatura pitches. The Fiddle Actant characteristic of 'alternative tunings' gains significantly more prominence at this moment, suggestive of a higher level than the Elementary.

Fig.5.5.1 (following page): Opening of Ligeti, Violin Concerto, V, showing Sl relationship to mvt.I and prominent characteristics of the Fiddle and Lament topics.

A: Lament Isolated descending tone- or semitone-based scale spanning tetrachord, based around a fourth, (relatively) slow tempo

E: Fiddle Fifths, fast, alternative tunings, "rustic" timbre

Transformation from Praeludium opening...

S1

1/8 vln.

V/1 vln./vla.

Fl. picc.(2)

Agitato molto ♩. = 88

Ob.

Violino solo

Vl. con scord.

Va. con scord.

separate bowing, legato
Strich für Strich, legato punta d'arco
con sord.

ppp dolciss, cantabile

ppp leggiero

Unlike the somewhat circuitous reference to the Lament in the final moments of the first movement and the opening of the fourth movement, the Lament's Actant-level appearance in b.2 prominently establishes the topic. The entrance of the piccolo and oboe at a relatively slow pace and *ppp* state a descending whole-tone tetrachord in sixths, fulfilling all the characteristics of the Lament, except it is not in treble rather than more characteristic bass register and a tritone is outlined rather than perfect fourth. The Lament and Fiddle share minimal characteristics, except the fifth/fourth, which is skirted here through the tritone, and the loosely associated non-diatonic scales and chromaticism. Accordingly, counterpointing the two topics is novel so their interaction has a strong degree of tropological *creativity*, which leads to a large-scale *productive* trope between the two topics throughout this movement. Although the opening minor seventh sonority primarily satisfies Elementary characteristics of the Fiddle, unlike the searching-out opening of the first movement, by this final movement the Fiddle is established as central to the work's topical discourse. Consequently, the opening of the fifth movement in this context more strongly associates with the Fiddle topic, despite embodying the similar Elementary characteristics.

Fig.5.5.2 (following page): Ligeti, Violin Concerto, V/5-7, showing multiple interactions between Lament and Fiddle characteristics across three distinct lines. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

I: Lament
descending, chromatic,
regular rhythm

A: Fiddle fast, "rustic"
timbre, irregular
accents, non-diatonic
scales

A: Lament descending, chromatic, *ppp*, regular rhythm, slow

I: Fiddle fifths, fast, "rustic" timbre, alternative tunings

Fl. picc.(2)

Ob.

Violino solo

Vl.
con scord.

Va.
con scord.

Vc.

Fig.5.5.2 outlines the developing interaction between the Lament and Fiddle as a continued *productive* trope. The quiet serenity of this opening dialogue is interrupted by the *ff* solo violin's erratic outbursts in b.5; *ff*, non-diatonic scales and irregular accents are A-level characteristics and, combined with the alternative-tuned fifths, all the Fiddle characteristics are satisfied. There are, however, in separate parts and thus realising the topic more abstractly than I/b.34 (Fig.5.1.6). The solo violin is further complicated by continuing prominent descending chromatic lines, central to the Lament, thus troping the Fiddle and the Lament *within* the solo violin's line. The striking insertion of the solo violin's combination of these elements is perhaps highlighted by Ligeti's marking of 'with angst, as if screaming'.

At b.12, the troping of Lament and Fiddle shifts towards emphasising the former. The wild violin convulsions are transferred to descending motifs in the bassoon and trombone, leaning towards the Lament, which is counterpointed by the flute, clarinets, and percussion stating a clear Lament in parallel (025) trichords, descending in whole tones, and the solo violin, accompanied by pizzicato strings, stating a similar Lament through aligned cycles (that is, each line is an interval cycle of whole tone and semitones). The two lines of parallel trichords and wild gestures gain energy until *ffff*. The persistence of *forte* in the context of the three established topics might project an occurrence of the Fanfare. Indeed, further Fanfare characteristics begin to appear: at b.26 a sustained fourths-based trichord E♭-B♭-A♭ interjects *sub.ffff,* accompanied by percussion, thereby beginning to fulfil other characteristics of the Fanfare. The increasingly aggressive brass and loss of the crucial descending contour suggests that the opening Lament and Fiddle are transformed into the Fanfare, reaching a peak at bb.28 and 31.

From b.28 the Lament has disappeared, though. Instead, a sudden burst of *sffff* triplets

lands on another fourth (D-G), eliding with the solo violin's return to a clearer Fiddle topic through open-string based sonorities—specifically the same pitches of the Fanfare, D and G. The next Fanfare in b.31 continues the fourths, the top pitches descending a semitone from previously to C♯-F♯. In b.34 the trombone and bassoon provide a B/B♭ *ffff* bass. At b.35, there is a clear return to explicit Fiddle characteristics: the scordatura viola playing their open fifths, followed by a distinct return to material similar to the initial appearance in the first movement.

This moment re-establishes a more balanced *productive* trope between the Lament and Fiddle at b.36, mapped in Fig.5.5.3: the violin's aggressive triple/duple rhythmic alterations with irregular accents dominates, double-stopping with the two violins' open fifths; the constantly descending chromatic, now firmly established as a part of the Lament isotopy; finally, the characteristic (0158) on F finishes the Fiddle-Lament pattern, echoed by a (0358) on B associated with both the Fiddle and Chorale in b.38. Altogether, the spread of these now-familiar characteristics is novel, a generic novelty perhaps acknowledged by Ligeti through the expressive direction *bizzarro*.

Fig.5.5.3 (following page): Ligeti, Violin Concerto, V, showing the Fiddle and Lament characteristics continue appearances in the movement, now assembled in a strikingly originally combination. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

A: Fiddle duple/triple accents, detuning, *forte*

I: Lament descending, chromatic

E: Fiddle stacked fifths

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The glistening fifths from the opening of the first and fifth movements return at b.65 (Fig.5.5.4). Unlike the previous focuses on fifths, this final time the second dyad is a tritone C-F♯, not a perfect fifth, with the solo violin E♭, creating a thus-far unfamiliar (01368). Whilst this undermines the Fiddle topic, the chromatic descending tetrachord of the Lament is clearer than ever in the violin, transformed from the whole-tone scale of the opening of the movement to incorporate semitones (although it does not span a fourth and remains in a high tessitura). The Fiddle topic is comfortably in the background, now *dominated* by the Lament, the Fiddle characteristics literally functioning as an accompaniment to the soaring violin line.

In this section—which functions to recapitulate the movement's opening material—the descending Lament tetrachord continues. Rather than remain serene, an increase in dynamics results in characteristics more evocative of the Fanfare. Fig.5.5.5 shows the culmination of this process: a *ff* slide whistle Lament motive in minor thirds appears alongside *f>p* interjections from the bassoon. The solo violin explodes with gestures reminiscent of the troping of Lament and Fiddle at the opening of the movement (Fig.5.5.2), but now in a much more agitated manner, as if to recapitulate the topical interactions in a more extreme way. The pervasiveness of Lament characteristics renders this high on the I-level, though the loud dynamics limit the reaching of Actant level. This extreme reversal of this A-level characteristic is a parody, as outlined above, exemplifying how the tropological cross-pollination of topical characteristics can be interpreted as a reversed characteristic central to parody as a side-effect to troping. That is, the *f* of the Fiddle infects the Lament, which is normally characterised by a quiet dynamic. Alongside the uncharacteristically high register this creates a combination of characteristics understood as a parody of the Lament.

Fig.5.5.6 shows the ending gesture of the work. The chromatically descending Lament is

now *ffffff*, further reversing a crucial A-level characteristic and, continuing the parodistic effect. Conceived within the strong Lament isotopy, this dramatic reversal effectively destroys the cultural artifact of the Lament topic. Furthermore, the prominence of fifths (shown by [7] in Fig.5.5.6) echo the opening, though again the dynamic is reversed to *ffffff*. This curt gesture is as if the piece has been switched off, the fantasy of sophisticated interaction of topics and quotations a Surrealist dream of topical *objets trouvés* which suddenly dissipates into nothing.

Fig.5.5.4: Ligeti, Violin Concerto, V/65-66, showing a strong dominance of the Lament over the Fiddle. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

I: Lament descending, chromatic, regular rhythm

Bassoon

I: Lament descending tetrachord, chromatic, regular rhythm

ff as loud as possible without overblowing
so laut wie möglich ohne zu überblasen

Swanee Whistle 1 / Lotosflöte 1

ff as loud as possible without overblowing
so laut wie möglich ohne zu überblasen

Swanee Whislte 2 / Lotosflöte 2

Solo Violin

I: Lament descending, chromatic, regular rhythm
A: Fiddle fast, "rustic" timbre, irregular accents, non-diatonic scales

Fig.5.5.5: Ligeti, Violin Concerto, V/76, continued interaction of Lament and Fanfare characteristics in the bassoon, slide whistles, solo violin. Extreme reversal of dynamics and register of the Lament create a parodistic effect. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.
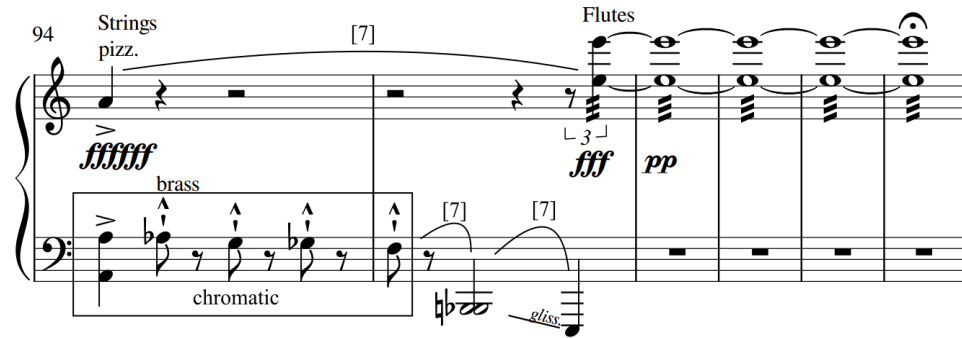
Fig.5.5.6: Ending of Ligeti, Violin Concerto, V, showing presence of both descending chromatic and prominence of fifths [7].

Fig.5.5.7 summarises the main topical interactions across the movement, showing the large-scale *productive* trope of the Fiddle and Lament. As the characteristics of the two topics are generally incompatible, I have highlighted (1) instances when one topic dominates another, (2) when topics contain overlapping characteristics and compatibly co-exist, and (3) the co-existence of incompatible characteristics, treated in a manner that creates a strong opposition, creating a parodistic treatment of the Lament. For example, in b.5 both the Lament and Fiddle co-exist in counterpoint though by b.76 they elide, the Lament adopting a high register and loud dynamic which reverse the familiar Lament. Worth noting is this movement's expressive trajectory's loose resemblance to the form of the overall work of Fig.5.0: the Fiddle starts at E-level, reaching I-level before the introduction of the Fanfare (b.28, as mvt.III). A return to the Lament in the "recapitulation" in b.65 mirrors the return of first movement's opening in the *Appassionato*.
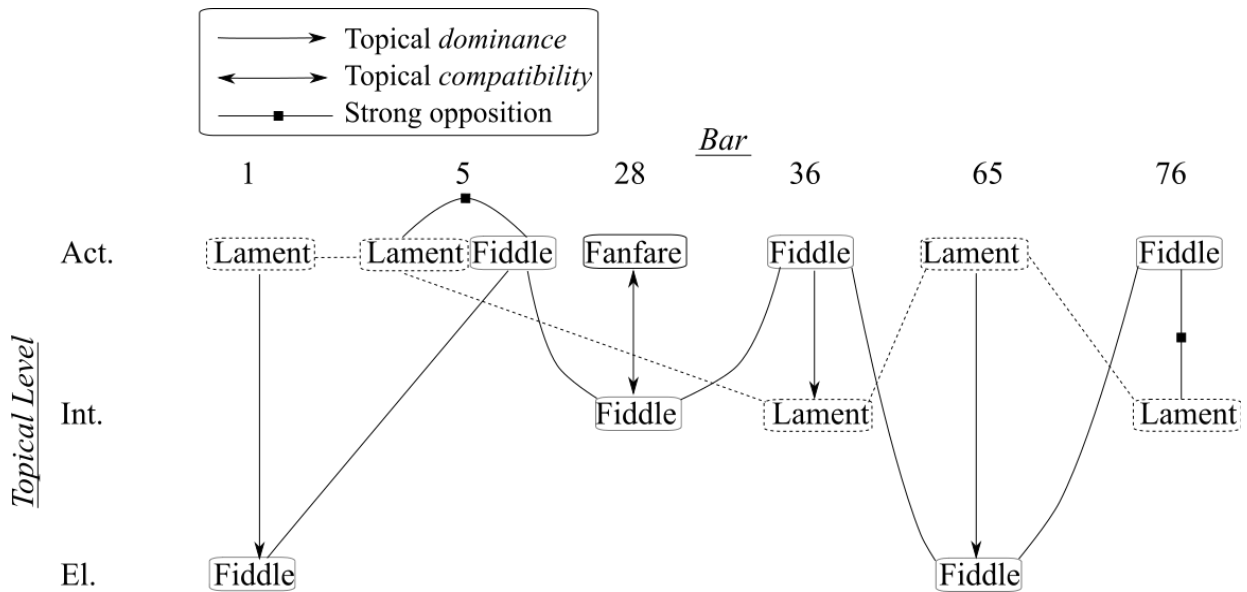
Fig.5.5.7: Summary of interactions of topical characteristics in Ligeti, Violin Concerto, V, highlighting the large-scale *productive* troping of the Lament and Fiddle. Only the prominent interactions are shown.

5.6 A topical network

Figure 5.5.1 is a topical network of the Fiddle, Chorale, Fanfare, and Lament topics, with significant excerpts from the Violin Concerto from the analysis above. The network prioritises certain relationships, such as the Sl transformation and tritone/non-tritone distinction. Other networks are possible and would prioritise different associations. For example, placing the Fiddle and the Lament in opposing corners restricts the analysis of important relationships, although the large-scale tritone/non-tritone relationship is labelled. The discussion above detailed the Fiddle and Lament relationship, particularly the troping and parody interaction in the final movement. Missing from this network is the Sound Mass, as its isotopy is not as prominent as these four inherited topics.

Fig.5.5.1 (following page): A topical network (including excerpts) of four topics in Ligeti's Violin Concerto. Copyright © 1992 Schott Music GmbH & Co. KG, Mainz, Germany. All Rights Reserved. Used by permission of European American Music Distributors Company, sole Canadian and U.S. agent for Schott Music GmbH & Co. KG, Mainz, Germany.

5.7 A Stravinsky isotopy?

The analysis above focuses on topics. But in his writings and interviews on the Concerto, Ligeti refers to other composers whose music influenced the work. In my analysis of the second movement, I noted the strong allusion to the Chorale which ends Stravinsky's *Symphonies of Wind Instruments*. Further allusions to Stravinsky's *The Rite of Spring* appear later in the Concerto and this chain of intertextual references can form a Stravinsky isotopy, a similar linking of other disparate material which, if the listener is familiar with the Stravinsky excerpts, associates material with no immediate motivic—or even topical—connection.

In the final movement of Ligeti's Concerto, a near-quotation appears of the prominent piccolo clarinet from towards the end of the Introduction to Part I of *The Rite of Spring* (Fig.5.7.2, bb.44-46). Ligeti's version uses the same instrument, similar tessitura, built around fourths, and even has a flat-orientated key allusion. Whilst evoking Stravinsky, this moment has more layers of authorial complexity: Ligeti's use is a specific Hungarian folk song transcribed by Bartok,[20] and the *Rite*'s associations with Russian folk material is well-

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[20] Helbing 2018, 231.

Transformation with defined operation

Looser association through common intervals, sets, or other parameters of rhythm, contour, timbre, etc.

Opposition between two characteristics

E: Elementary Level
I: Intermediate Level
A: Actant Level

Fiddle
E: Fifths, fast

V/1

SI

I/4

I: Non-diatonic scales, irregular accents, simple timbre

I/19

A: *forte*, duple and triple divisions, alternative tunings

I/39

(0358)

SI

(0158)

no tritones
vs.
tritones

Chorale
E: Homophonic (not polyphonic)

II/50

I: Tertian voicings, regular rhythm

II/75

II/157

SIT₋₃

II/180

A: Appropriate voice-leading, medium dynamic, clear phrases

Fanfare
E: Ascending, regular rhythm

I/31
Marimba

ascent vs. descent

I: Tertian harmonies, mid-high tessitura

I/40
trp.

diatonic vs. chromatic

A: loud, brass, harmonic series

III/39
horn

tritone central?

III/69
horn

Lament
E: Descending

I/22
Marimba

I: Chromatic, (hyper-)metrically regular, quiet

I/73

A: Isolated tone- and/or semitone-based scale spanning a tetrachord, slow

V/2
fl./ob.

V/66
vln.

established.[21] This augments the Fiddle isotopy to a more general Folk topic. (A listener familiar with the original melodies, and without knowledge of the *Rite*, might circumvent the Stravinsky association to focus solely on the folk associations.) A second prominent allusion to the *Rite* is the descending *forte* (012) in bb.52ff, which echoes the 'Evocation of the Ancestors' (Fig.5.7.3). Both excerpts contain a sustained unison climaxing in three heavily accented descending pitches, with the last pitch sustained. Within the context of the Concerto's Lament and Fanfare isotopies, this moment is a Lament-Fanfare trope, as the descending pitches and loud brass combine.

Each reference points to a different topic: the *Symphonies* is a Chorale, the piccolo clarinet is a Fiddle-Folk topic, and the descending brass *fff* chromatic line is a Fanfare-Lament trope, an interpretation aided by the isotopic trajectory analysed above. This intertextual association across the moments links these appearances of topics through a hermeneutic interpretation, contrasting with the primarily technical characteristics of the topical network above. And as with the multi-coded interpretation of Adès's Quintet's opening bars, the recurring references to Stravinsky point towards a similar self-situating. Rather than the more conservative and Germanic Brahms association of Adès's Quintet, through associating with Stravinsky Ligeti evokes both a modernist stalwart and composer whose music has strong connections with Russian—or more broadly, Eastern European— traditions. In other words, both Adès and Ligeti use similar topical and intertextual allusion multi-coding, but to situate themselves in different lineages.

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[21] The most notable detailed discussion of Stravinsky's relationship with folk traditions is Taruskin 1980.
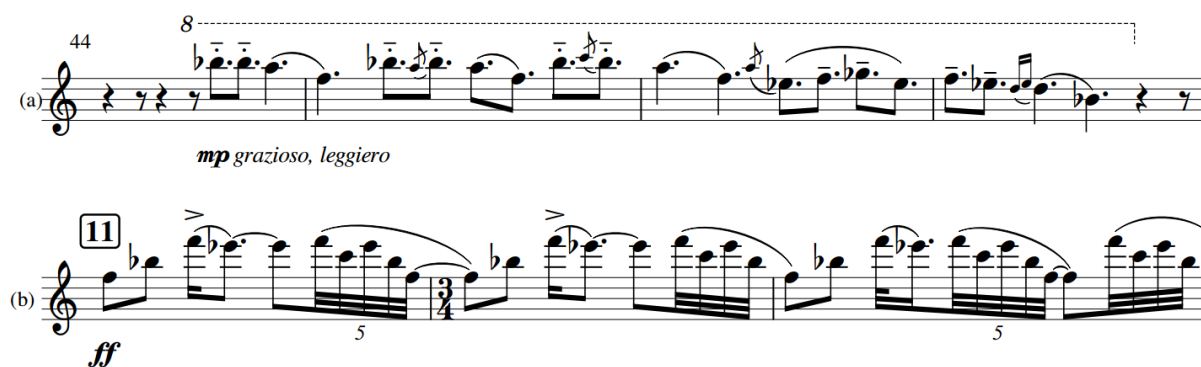
Fig.5.7.2: Reference to Stravinsky? (a) Ligeti, Violin Concerto V/44-47 (b) Stravinsky, *The Rite of Spring*, Fig.11. Both excerpts are piccolo clarinet only.

Fig.5.7.3 Further reference to Stravinsky? (a) Ligeti, Violin Concerto V/51-56 (b) Stravinsky, *The Rite of Spring*, Fig.122.

5.8 Echoes of Berg's Violin Concerto

Beyond the Stravinsky allusions, the relationships outlined in Ligeti's Violin Concerto are reminiscent of topical interactions in other violin concertos. Specifically, the violin's open strings encourage fifth-based sonorities and the timbre encourages a Fiddle-like topic. If the composer wishes to contrast these, they might draw upon harmony based upon the tritone,

which skirts fourths and fifths. Potential further violin concerto candidates include Adès's, Unsuk Chin's, and Kaija Saariaho's *Graal Théâtre.* Berg's Concerto in particular provides a compelling comparison.

If we take Ligeti at his word, he was not fond of the legacy of Berg's brand of expression: 'I hate neo-expression and I can't stand the neo-Mahlerite and neo-Bergian affectations, just as I can't stand post-modern architecture'.[22] But Ligeti's Violin Concerto has multiple technical and expressive parallels with Berg's Violin Concerto analysed in the previous chapter. Amy Bauer notes one parallel between the two works, writing that 'the Adagio of Berg's Violin Concerto bears an almost palimpsest-like relation to Ligeti's "Passacaglia"', identifying the characteristics of the Lament-like Carinthian folk song as a counter to Chorale-like sonorities.[23] This opposition echoes that of the Fiddle fifths and the tritone-based Lament analysed in Ligeti's Concerto. Fig.5.8.1 outlines the opening sonorities of the two concertos. Berg creates a row of stacked triads, which forms a similar fifth-based harmonic structure to Ligeti's opening which, despite the more complex detuned (0158) and (0358) sevenths, likewise contains stacked major and minor triads. This fifth-based harmony, skirting traditional tonal syntax, is an Elementary characteristic of the Fiddle topic, as outlined in 5.1.

Similarly, in both concertos the fifths are *opposed* to more chromatic elements. The various manifestations of Ligeti's Laments differ in the precise interval vocabulary, but prominent appearances of whole tone elements (thus avoiding perfect fifths) appear in both.

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[22] Tunde Szitha, 'A conversation with Gyorgy Ligeti', Hungarian Music Quarterly, vol 3, pt.1, (1992), p.1, see Searby 2000, 17.

[23] Bauer 2006, 192.

The descending whole tone is part of the retrograde row in Berg's Concerto: as Fig.5.8.2
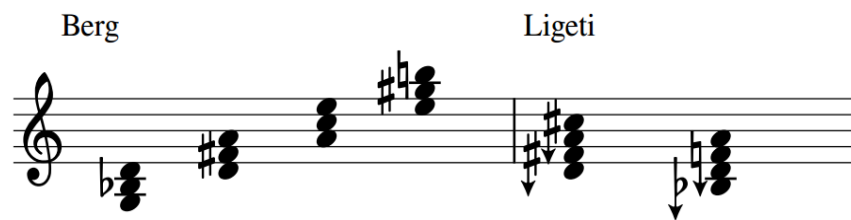
Fig.5.8.1: Structure of triadic/fifth-based sonorities which open Berg's and Ligeti's

Violin Concertos respectively.

excerpts, Berg's Carinthian folk song quote contains a descending whole-tone scale fragment whilst the opening Actant-level Lament of the final movement of Ligeti's Concerto contains a strikingly similar passage. This opposition to the stacked fifths above is indicative of deeper roots of the topical interactions in both works.
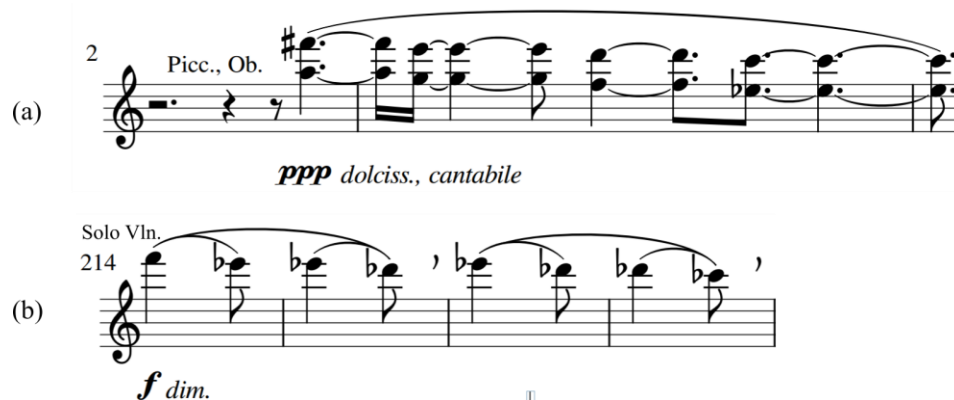
Fig.5.8.2: High-tessitura Laments in (a) Ligeti, Violin Concerto, V/2 and (b) Berg, Violin

Concerto, I/214, the opening of the Carinthian folk song.

Fig.5.8.3: Prominent Chorales in (a) Ligeti, Violin Concerto, II/180-187 and (b) Berg, Violin Concerto, II/142-145.

Finally, both works contain a prominent Chorale isotopy. As Fig.5.8.3 excerpts, the emergence of the Chorale at the end of Ligeti's second movement mirrors the emergence of Chorale near the end of Berg's Concerto. Both are prominent intertextual allusions, referring to Stravinsky's *Symphonies of Wind Instruments* (as described above) and Bach's 'Es ist genug' respectively. This provides a similar multi-coding across topical-intertextual lines to the opening of Adès's Piano Quintet (see Chapter 7) as both Berg's Concerto and Stravinsky's *Symphonies* contain explicit mournful context (of Manon Gropius and Debussy). A listener familiar with this context would frame the appearances of the Chorales as more funereal; a listener relating these two works would further cement this relationship.

5.9 Ligeti's Violin Concerto and the later twentieth century

Applying my method of topical analysis to the Violin Concerto supports Ligeti's claim cited above that he writes 'programme music without a programme'.[24] The Concerto contains a plethora of allusions, but any suggestion of a coherent authoritative extra-musical narrative would be misguided; the realisations of topics at Actant level and various troping relationships do not unfold in clear, logical narrative structure. The topics and intertextual allusions contain different harmonic, rhythmic, textural, etc. associations, on which the listener might build an understanding of the musical relations, which can be revised drastically across the form. For example, the initial set-up of significant interval oppositions can be significantly re-situated through the increasing significance of the Sound Mass topic, whose defining characteristic is destroying the relevance of the interval itself. This again demonstrates how different readings can profoundly shift the listener's focus on the musical form, harmony, rhythm etc.

In 1984 Ligeti himself describes an approach which mirrors Eco's and Barthes' concepts on which my theory draws, demonstrating a resistance to the perceived mathematising of structuralism in favour of a focus on the role of the listener as enriching the otherwise 'pure' music:

> My music is not puristic. It is contaminated by incredibly many associations, because I think highly synaesthetically. With sounds I always think of forms, with forms of colors and sounds etc., so that actually a great deal from the visual arts, from literature, but also certain scientific aspects, things of daily life, political aspects and a great many deal other things play a major role for me. I do not know

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[24] Ligeti and Häusler 1983 [1968/69], 102, quoted in Lobanova 2002, 8.

if these associations are my private matter. I would say a certain level of education is necessary to hear my music otherwise than if one listens to it without these associations is pure music. It is never program music, but it is very strongly charged with associations.[25]

Ligeti's rather bald reference to a 'certain level of education' loosely reflects the listener-orientated thinking of Eco and Barthes, for which I use the term 'experience'. That Ligeti suggests that one can listen to his music without such associations and still enjoy it as 'pure music' taps into the musical relationships identified above, which can exist autonomously of any topical association. The musical relations are perceptible without recourse to their associations with topical characteristics, but the link can magnify the musical interactions or provide new perspectives.

Furthermore, the topics' varying interactions create a range of tropes. Even the intertextual allusions—of which I have isolated the Stravinsky references—come in and out of focus. And the expressive role of the topics varies: for example, the Lament continues to function as an expressive genre of anguish in renewed ways, but parodies of the Lament descent complicate this. Similarly, the Chorale takes multi-faceted references in the second movement, from the *ff* ocarina quartet to the quiet reference to *Symphonies*, the latter far from a parody. The topics on which I have focused tend towards the inherited category which, alongside Ligeti's historical self-situating, supports a nostalgic reading of the work

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[25] Ligeti, *Musikalische Zeitfragen* 14 (1984), 70), quoted in Floros 1996, 28. Elsewhere Ligeti writes that 'Everything that is direct and unambiguous is alien to me. I love allusions, double-entendres, ambiguities, the double-bottomed, the cryptic. Ambiguous are also the various pictorial associations with my music, which I speak or think or sense while I envisage music' (Nordwall, 41, quoted in Floros, 28).

echoing one of Amy Bauer's three terms 'Nostaglia, Exoticism, and the Absolute'.[26]

Accordingly, despite the eclectic aesthetic, certain technical principles cohere the work. The interactions of tonally evocative elements such as stacked fifths/harmonic series alongside the shifting strictness of voice-leading of the Chorale elements and chromaticism of the Lament engage with characteristics of tonality without recourse to functional syntax. And the web of associations with these topics once the Actant level is reached—regardless of their immediate use—opens up a rich semantic tapestry.

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[26] Bauer 2006.

6. LIVING TOYS IN ADÈS′S *LIVING TOYS*: TRANSFORMING THE POST-TONAL TOPIC

As outlined in Chapter 4, networking topics confronts an issue often overlooked with topics of choosing how to relate topical objects. Transformational theory in particular has a complementary concern to topic theory: with a sophisticated set of possible relations available, the issue is often choosing *what* to relate rather than *how* to relate objects.[1] Noting that David Lewin 'left open many questions about how to construct meaningful transformational analyses',[2] John Roeder highlights the centrality of balancing object and relation salience with mathematical coherence. He proposes guidelines for a successful transformational analysis, including choosing aurally salient objects, a complete but minimal object family, suitably constrained yet prominent and repeated transformations applicable to other families, and that characteristic gestures correspond to segments, phrases, sections, and the processes that constitute them.[3] Within these guidelines, transformational theory is flexible, allowing for a number of possible transformational analyses of a single passage. Such flexibility, though, risks what Michael Buchler describes as 'a Pandora's box of relational permissiveness'.[4] Each analysis will therefore have its own perspectives to promote, implicitly weighing up these guiding factors. But the art of balancing these priorities is central to a successful transformational analysis.

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[1] For substantial introductions to transformational theory, see Cherlin 1993, Satyendra 2004 and Rings 2011, 9-41.

[2] Roeder 2009a, 1.9.

[3] Roeder 2009a, 12.1.

[4] Buchler 2007, 2. For a more general critique, see Buchler 2016.

In placing these issues of relations in dialogue with topics, this chapter proposes that the pitch material associated with topics can function as nodes of a transformational network (as part of a topical network), taking as a case study of the harmony of Adès's early chamber ensemble work *Living Toys* (1993). That is, whereas topic theory is faced with answering 'how to relate' salient objects, transformational theory's issue is with 'what to relate'. This approach nuances the oppositional/commonality focus of previous chapters' topical networks. Given topic theory's critical power, defining each transformational network node as a topically associated characteristic has the potential to enrich both analytical methods. And given the identification of topics is rooted in listeners' multiple familiarities and experiences, the flexibility of transformational thinking allows for the same music to be heard through different topical lenses, again echoing Steven Rings's description of a *prismatic* application of transformational theory, as the theory is 'at its most powerful in the pluralistic exploration of phenomenologically rich local passages'.[5] Attaching the lens of topics—which are in part defined by their pluralist understandings and phenomenological presence—further multiplies this kaleidoscopic potential of transformational theory, modelling multiple simultaneous perspectives harmonic relationships.

Adès's music reflects developments in collage, often quoting other composers' works or using other works as palimpsests—such as Elgar's 'Nimrod' in 'O Albion' from *Arcadiana* (1994)—but he also weaves more subtle external references that invoke (without direct quotation) imported styles and genres in a post-collage style: in other words, topics.[6]

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[5] Rings 2011, 38.

[6] For discussions of extra-musical influences, see Gallon 2011, Wells 2012, Venn 2012, Venn 2014, Venn 2015, and Whittall 2016.

The composer has described his eclectic influences, overlapping with attitudes familiar to topic theory:

> I'm also fascinated by the surface, the play of surfaces, in a way that's not to do with style…setting the piece in a location, even if it's an abstract piece, like Beethoven does. All of his work, say, a sonata movement – it has a topos. The topos might be a cantilena, or a recitative and aria, or it might be pastoral, or it might be a tempest scene, or it might be any number of things in one movement. He doesn't always do these things, but the point is the pieces have a location… It's a very honest praxis. And often the symphonic dialogue is a struggle between that topos, or genre, and some logic in the material.[7]

> So we have to be honest about these things and not be ashamed to say, 'Oh this?' I got it in the sixteenth century,' or whatever. Some people get horrified by this. But if the composer has properly heard beneath the surfaces, you are not really conscious of them: you just see the beauty of the form beneath.[8]

Whilst acknowledging the diversity of influence, in both these quotes Adès demonstrates a concern for relating the surface-level appearance to some deeper formal logic. More specifically, he describes his treatment of imported objects in a manner echoing transformational thinking:[9]

> I would write something, it would suggest a borrowing, I would push that borrowing into my own

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[7] Adès and Service 2012, 78.

[8] Adès and Service 2012, 79.

[9] For transformational-influenced approaches to Adès's music, see Roeder 2006, Roeder 2009b, Roeder 2014, Fox 2014, Stoecker 2015, and Stoecker 2016.

language and take it to an absurd point of distortion and from that, still other music would pop out. It is a dream logic, I suppose.[10]

'Pushing' one borrowing into another resonates with transforming one topic into another. In this regard, *Living Toys*—a work the composer admits the 'literary influences are very near the surface'[11]—contains a particularly large panoply of references, from distinct topics to obscured quotations. Complex references to tonality and topics defined by tonal elements in Adès's music further enrich this perspective.[12]

This chapter will explore how the harmonic constituents of what I term the Hero, Three Blind Mice (whose identity as a topic was discussed in Chapter 1), Toreador, and Lament topics can form a network. (The hierarchies of each are listed in the Appendix.) I develop an operation based upon the expansion and contraction of intervals which can model their relationships. Through introducing the additional topics of the Scotch Snap and Ritualistic Tolling, I shift away from the lens of transformations, instead highlighting the tonal pull of the pitch C, echoing Rings's 'prismatic' network. Finally, I explore the limits of this approach, particularly Roeder's guideline of 'aural salience', by incorporating the near-impossible perception of a veiled quotation of 'Daisy Bell' which, despite theoretically present and possible to link with the harmonic network, might only be identifiable via the movement's title and close score inspection.

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[10] Adès and Service 2012, 27.

[11] Adès and Service 2012, 72.

[12] On Adès's relationship to tonality, see Wörner 2017.

6.1 Relating two topics transformationally

Living Toys op.9 is, as *Still Sorrowing*, an early work of Adès's. The members of the ensemble of fourteen players are asked to draw on a panoply of instruments, from the oboist doubling sopranino recorder to the horn player requiring to double as a percussionist playing the whip. The work is divided into five movements—Angels, Aurochs, Militiamen, H.A.L.'s Death, and Playing Funerals—interspersed with three anagrammatically related interlude movements BALETT, BATTLE, TABLET. Such titles are suggestive of a network of images: 'angels and aurochs' refers to the penultimate sentence of Nabokov's *Lolita* and H.A.L.'s Death to the finale of Stanley Kubrick's *2001: A Space Odyssey.* Militiamen/BATTLE and Playing Funerals/TABLET evoke soldiers and—along with H.A.L.—further images related to death.

Alongside these already narratively evocative titles, inscribed in the preface is a poem:

> When they asked him what he wanted to be, the boy
> did not name any of the men's occupations, as they had
> all hoped he would, but replied: "I am going to be a
> hero, and dance with angels and bulls, and fight with
> bulls and soldiers, and die a hero in a distant place, and
> be buried a hero." Hearing the child's words, the men
> felt small, understanding that they were not heroes, and
> that their lives were less substantial than the dreams
> which surrounded him like toys.

Allegedly 'translated from the Spanish', the poem is actually Adès's own post-composition

concoction, suggesting a developing dialogue between drawing upon a range of

conventionalised patterns (that is, topics) and more general compositional concerns. Though

a central tenet of a topic is an independence from programmatic information, such imagery—

unsurprisingly—is related to clear generic references in the score. Let us first assess the

horn's initial entry, reproduced in Fig.6.1.1. It is loosely reminiscent of "heroic" works such

as the *Eroica* and *Ein Heldenleben* through the instrumentation, widely spaced rising and

falling contour, and key "on" E♭.[13] Accordingly, I will call this topic the Hero. This pattern

recurs throughout the work, notably bb.404-406 (labelled y on Fig.6.1.1), bb.457-461 (y, y',

y"), and bb.550-54 (y, the work's final phrase reproduced in Fig.6.3.3). A related label is the

Hunt, conjuring historically similar literary and social imagery of masculine heroism,

adventure, outdoors, and a high social class. Indeed, in his discussion of the eighteenth-

century hunting horn, Monelle notes that E♭ was 'the essential German hunting key' against

the use of D in France.[14] In *Ein Heldenleben* Strauss' own E♭ "hero" moves into battle to the

sound of three trumpets playing in the manner of hunting horns, demonstrating a conflation

of the two topics. In contrast to the characteristics of Fig.6.1.1, though, for Monelle the Hunt

most often contains multiple voices in compound time (see 4.5). The Hero hierarchy is as

follows:

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[13] The phrase is not *in* E♭ as y and y' use the natural harmonics of A♭. Nevertheless, the first and last

notes of the phrase are E♭, A♭ and B♭ are prominent framing pitches as a "subdominant" and

"dominant", and y" uses the harmonics of E♭.

[14] See Monelle 2006b, 42.

HERO

Actant: *f-ff*, horn

Intermediate: Harmonic series, mid-low tessitura

Elementary: Prominent ascending and descending contours, single voice

Fig.6.1.1: Adès, *Living Toys*, First appearance of horn as the Hero topic, showing relationship between the opening patterns.[15] © Faber Music Ltd., London.

Unlike previous chapters, I will focus on only Actant-level appearances of the Hero to strengthen the ties to the transformational networks. The three distinct elements—rising (y) and descending (y' and y")—are all three notes, spaced equally, expanding across the phrase.[16] This expansion of intervals can be modelled by what I term the Expansion (EXP) operation, based on the principle of expanding and compressing intervals by the same degree. We can formalise this:

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[15] In the score Adès rightly marks the B♭ as a deviation from Equal Temperament. But as it only deviates by +4 cents, I have removed his notation.

[16] The horn's natural tuning renders this slightly fuzzy, but the two non-ET notes tend towards the appropriate pitch: the -31c G♭ is closer to G♮ than G♭.

Given set S, with intervals a, b, c, etc., when presented in ascending order from the lowest

pitch s, so that

$$S = (s, T_a(s), T_b(s), T_c(s), etc.)$$

$$EXP_{(x)}(S) = (s, T_{a+x}(s), T_{b+2x}(s), T_{c+3x}(s), etc.)$$

We can also formalise the compressing of intervals, or CMP:

Given set S, with intervals a, b, c, etc., when presented in ascending order from the lowest

pitch s, and if x is restricted to intervals equal to or less than the smallest interval of the set,

so that

$$S = (s, T_a(s), T_b(s), T_c(s), etc.)$$

$$CMP_{(x)}(S) = (s, T_{a-x}(s), T_{b-2x}(s), T_{c-3x}(s), etc.)$$

Fig.6.1.2a maps an expanding three-note equal-interval cycle. The subscript refers to the

intervals' expansion rather than the surface realisation, such that the highest line D-E-G♭-A♭-

B♭ (etc.) is expanding by [2], but the interval is consistent. Fig.6.1.2b maps a $CMP_{(2)}$ cycle

from an unequal (0,16,31) set. Unlike the theoretically infinite expansions, due to the

restrictions of x as equal to or smaller than the smallest interval of the set, this cycle ends on

(023).

   These operations are adapted from the technique of aligned cycles, a favourite device

of Adès.[17] An aligned cycle is when two (or more, often three) interval cycles unfold

simultaneously in the same direction. Assuming each cycle is based upon a different interval,

the vertical intervals between the voices will expand or contract. The EXP and CMP

operations follows the aligned cycle principle of interval cycles of different sizes (although

the equations above incorporate non-equal interval groups), except the cycles do not appear

homophonically and one pitch—the lowest—remains stationary. Local aligned cycles allow

for modelling of larger-scale relationships, whilst maintaining the same harmonic logic.

Furthermore, although aligned cycles are primarily conceived as note-against-note sonorities,

the process is fundamentally the expansion and contraction of vertical intervals, useful in

mapping these relationships when they are expressed melodically.

$\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$

⟨1⟩ → ⟨2⟩ → ⟨3⟩ → ⟨4⟩ → ⟨5⟩ → ⟨6⟩ → ⟨7⟩ →
[012] [024] [036] [048] [027] [06] [027]

(a)

$\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$ $\text{EXP}_{(1)}$

→ ⟨8⟩ → ⟨9⟩ → ⟨10⟩ → ⟨11⟩ → ⟨0⟩ → ⟨1⟩
[048] [036] [024] [012] [0] [012]

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[17] Stoecker traces the vertical alignment of interval cycles to Alban Berg, and subsequently through George Perle and David Headlam. More recently Stoecker has theorised their principles and demonstrated the extent of their appearance and formal role in Adès's music. See Stoecker 2014, Stoecker 2015, and Stoecker 2016.

$$\text{(0,16,31)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,14,27)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,12,23)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,10,19)} \xrightarrow{\text{CMP}_{(2)}}$$

[047]   [023]   [01]   [035]

(b)

$$\xrightarrow{} \text{(0,8,15)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,6,11)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,4,7)} \xrightarrow{\text{CMP}_{(2)}} \text{(0,2,3)}$$

[047]   [056]   [047]   [023]
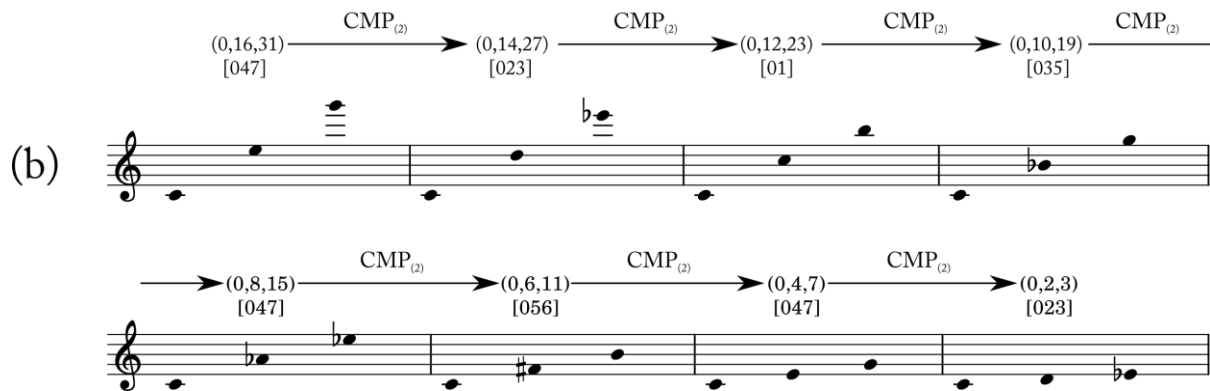
Fig.6.1.2: Examples of (a) three-note EXP$_{(1)}$ equal-interval cycle and (b) three-note CMP$_{(2)}$ unequal-interval cycle.

Returning to Fig.6.1.1 we can map y to y', applying T$_{-7}$R followed by expanding the intervals of 2.5 semitones by the same amount (4.5). (The decimal approximately accounts for the pitch deviation.) Likewise, in the next phrase y maps onto y" through expanding each interval by 7 semitones to reach the intervals of 9.5. Note that the operations are in pitch space rather than pitch class, due to the later introduction of Three Blind Mice, which is characteristically around middle C. Fig.6.1.3 maps out this transformational process from y to y' and y".
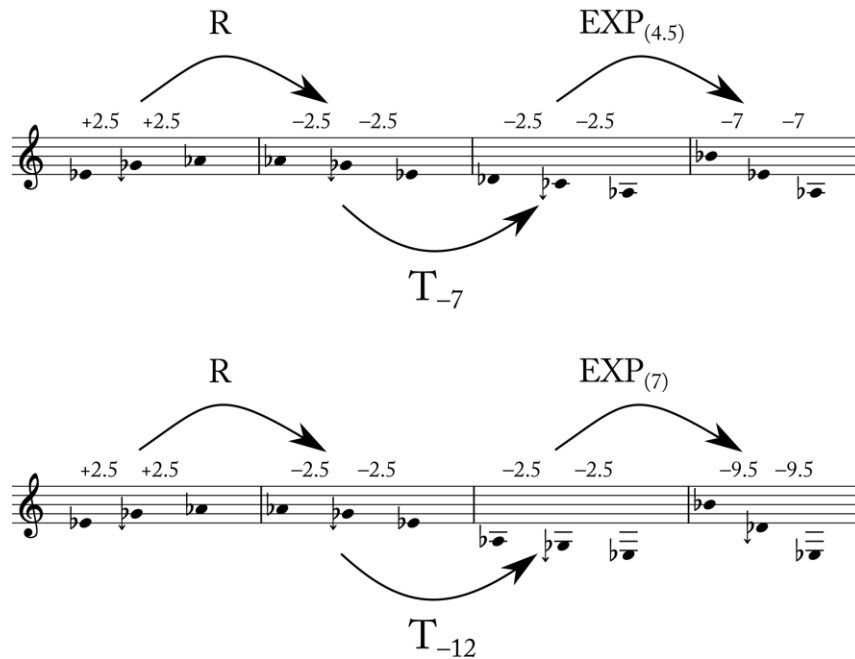
Fig.6.1.3: Transformational process from y to y' and y".

The EXP transformation is central to the internal pitch relations within this phrase and, following Roeder's guidelines, the relationships stand alone as prominent and repeated. We can justify the relevance of this moment through both its aural salience as a pronounced entrance of the horn and the topical associations. Continuing Roeder's requirements, these transformations also apply to other prominent objects in the piece. The incipit of Three Blind Mice gradually emerges, gaining prominence through repeated iterations in the second movement 'Aurochs' (bb.154-217), persisting into the first 'interlude' movement BALETT. As with the opening horn phrase, Three Blind Mice (hereafter TBM) is characterised by three equally spaced notes, but unlike the Hero's ascent and descent, TBM is always descending. And akin to the "Heroic" key of E♭, TBM in *Living Toys* is primarily centred on middle C. Due to C major's use of only white notes, many piano students may learn it here, evoking

imagery of simplicity, naiveté and—as a nursery rhyme—youth.[18] Adès's use reflects this, repeating iterations of the first three notes, often *ff*. A hierarchy of TBM could be mapped as:

THREE BLIND MICE (TBM)

Actant: *ff*, pitches E-D-C around middle C

Intermediate: Descending in whole tones

Elementary: A group of three equally spaced descending pitches

We can therefore relate the TBM set to the y, y', and y" cells. Fig.6.1.4 maps the CMP and T/R transformational processes from y, y', and y" of the Hero's first appearance to the archetypal TBM. This necessitates first transposing the lowest pitch to middle C (and for y retrograding), followed by contracting the Hero's intervals to (024) through CMP. Fig.6.1.5 further abstracts these relationships into a network, clarifying the prevalence of EXP/CMP across these three isolated objects (here and elsewhere I use left orthography, or reading from right to left). This mapping continues the transformational relationships internal to the Hero topic to another aurally salient recurring pattern; viewed through this topical lens begins to centralise these complementary transformations as harmonically important.

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[18] For a nineteenth-century discussion of key characteristics, see Christian Schubart's 1806 treatise *Ideen zu einer Asthetik der Tonkunst*, which describes C major's character as 'innocence, simplicity, naïveté, [and] baby-talk' in contrast to E♭ as the 'key of love, of devotion, [and] of intimate conversation with God'. See Schubart 2004 [1806]).
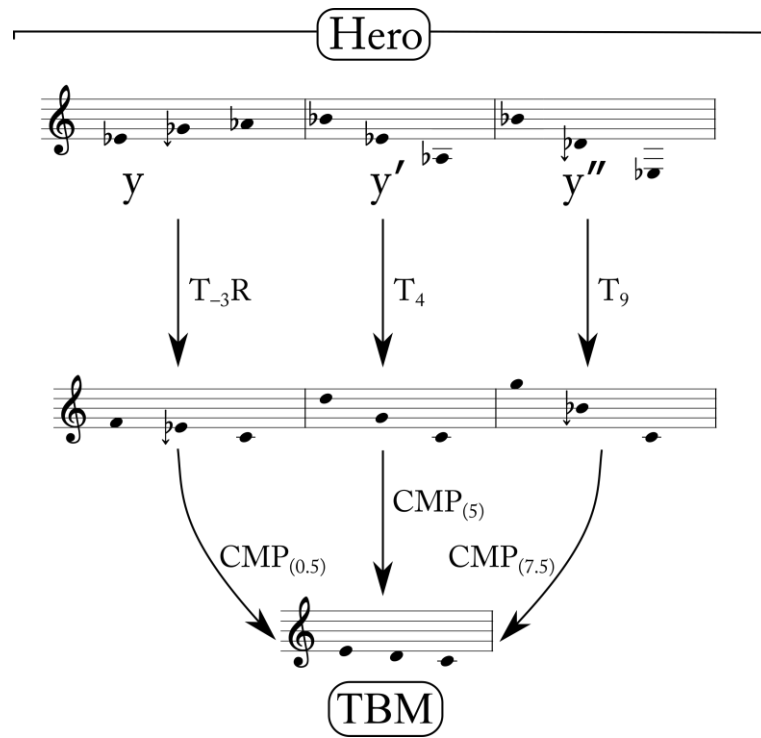
Fig.6.1.4: Hero to Three Blind Mice transformational network.
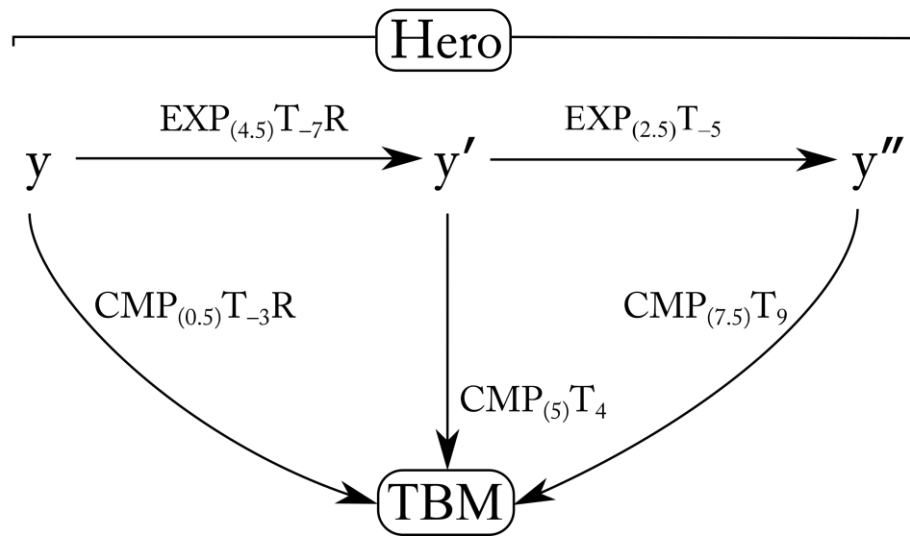
Fig.6.1.5: Hero to Three Blind Mice further abstracted.

The relationships between the Hero topic and the E-D-C descent are visceral in the

music. Fig.6.1.6 excerpts the opening of the first interlude movement BALETT, showing the interactions between the TBM and Hero figures. Despite the Hero appearing initially much earlier in the work, TBM is the input node for this excerpt, appearing in b.251 followed by a return of the rising Heroic pattern from the opening, related through an Expansion T_3 Retrograde. Across the passage the characteristics of TBM begin to be lost, dissolving from the Actant level. Initially the transposition T_8 moves away from "in C" but retains the (024) structure, occupying the Intermediate level; the further transposition and contraction into (012) retains the three-note equally spaced descent, but loses the characteristic interval structure as well as any sense of key, resulting in the Elementary level. The three increasingly diluted versions of TBM simultaneously appear in bb.263-67, creating an aligned cycle. Given these iterations' quick succession, the loosening of characteristics is visceral.

Fig.6.1.6: Adès, *Living Toys*. Extraction of Three Blind Mice and Hero elements at the opening of BALETT, showing interaction of Three Blind Mice and Hero and descent into an aligned cycle in b.262. © Faber Music Ltd., London.

Fig.6.1.7 abstracts Fig.6.1.6 to model an event-oriented network. The nestling of the

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single instance of the Hero topic within TBM is clear. Note that the single input of TBM is expanded to three simultaneous appearances of TBM in the final column to create the aligned cycle. The abstract transformations detailed in Fig.6.1.7 do not capture the topical significance of the two characteristic keys of C and E♭ in TBM and the Hero respectively. Considering each topic in isolation, only a listener with perfect pitch may establish these further cultural associations. But as *both* are present, the listener might hear their relationship of a minor third between C and E♭ and cement these topics' expressively central key relations.
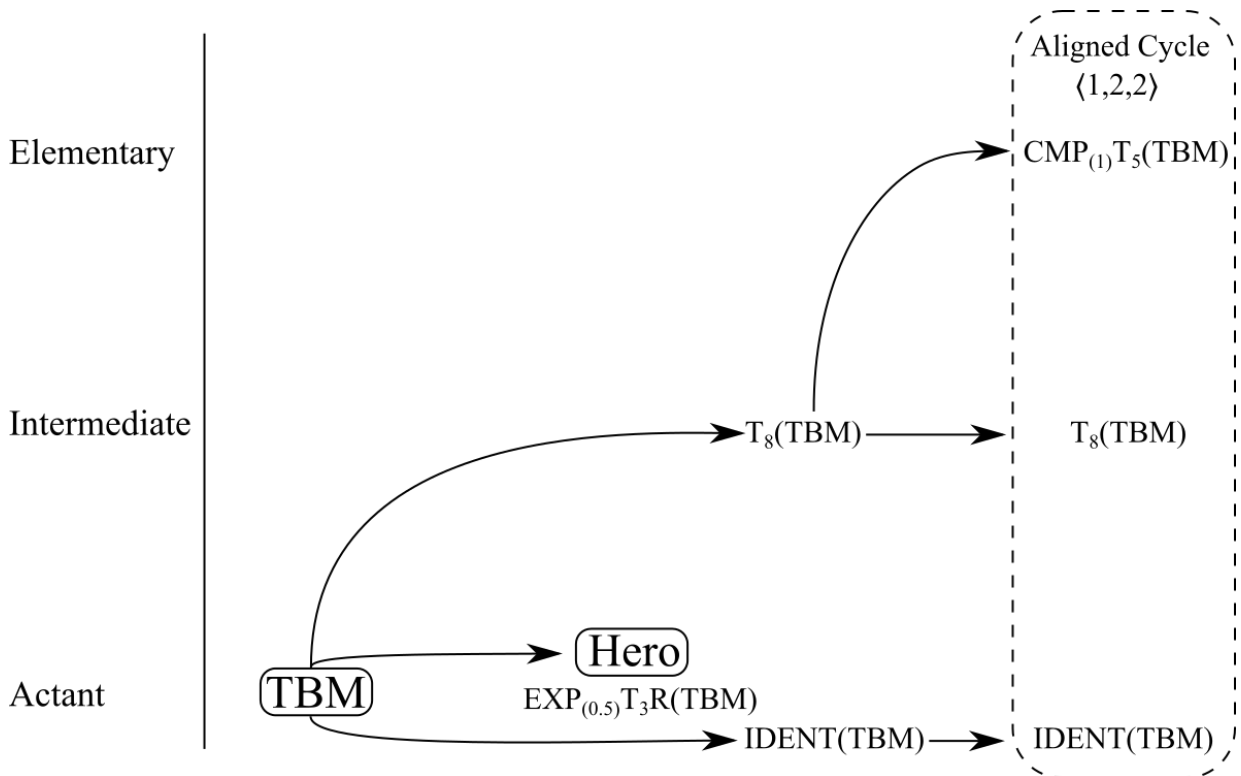
Fig.6.1.7: Transformational network of Three Blind Mice (TBM) and Hero, chronologically mapping Fig.6.1.6 to degree of topical presence.

6.2 Expanding the topical field

We can shift to foreground a complementary perspective on the work's harmony through centralising other topics. In the second movement entitled 'Aurochs' a figure extracted in Fig.6.2.1 appears. Multiple non-musical aspects already point towards an Iberian flavor: the movement's title—an auroch is an extinct bull which populated Europe until the seventeenth century—the 'from the Spanish' poem's mention of a 'fight with bulls', and the reproduction of Goya's *The Speed and Daring of Juanito Apiñani in the Ring of Madrid 1815–16* (1816) on the cover of the Faber edition of the work. The fast stepwise triplet pattern in the trumpet perhaps echoes music heard at a bull fight, resembling elements of Rimsky-Korsakov's *Capriccio Espagnole* ('Scena e canto gitano') and Ravel's *Rhapsodie Espagnol* ('Malagueña', Fig.6 and the main theme of 'Feria'). I shall therefore call this the Toreador topic with the hierarchy as follows:

TOREADOR

Actant: Trumpet, loud

Intermediate: Fast, soprano tessitura

Elementary: Notes grouped in threes, stepwise

Fig.6.2.1: Toreador topic in *Living Toys*, bb.127-129. © Faber Music Ltd., London.

The topic's pitches resemble the Hero and Three Blind Mice in their isolation of three

pitches, but now both ascending and descending. (Each recurrence of this pattern is based

around the octatonic, a dual-interval cycle, accounting for the additional B at the end of this

excerpt.) This prominent first appearance near the movement's opening is based upon C, as is

the initial version of Three Blind Mice topic. The Toreador's (023) could be related to TBM

through a similar EXP/CMP operation, except each pitch is treated slightly differently. A

Split Expansion/Compression operation can model this, treating each interval cycle

individually, but continuing the principle of the intervals expanding or contracting in the

same direction. I define the Split EXP and Split CMP by parsing the subscript:

Given set S, with ascending intervals a, b, c, etc., when presented in ascending order from

the lowest pitch s, so that

$$S = (s, T_a(s), T_b(s), T_c(s), \text{etc.})$$

$$EXP_{(x, y, z, \text{etc.})}(S) = (s, T_{a+x}(s), T_{b+y}(s), T_{c+z}(s), \text{etc.})$$

Given set S, with intervals a, b, c, etc., when presented in ascending order from the

lowest pitch s, and if x, y, z, etc. are restricted to intervals equal to or less than the smallest

interval of the set, so that

$$S = (s, T_a(s), T_b(s), T_c(s), \text{etc.})$$

$$CMP_{(x, y, z, \text{etc.})}(S) = (s, T_{a-x}(s), T_{b-y}(s), T_{c-z}(s), \text{etc.})$$

In this chapter I restrict myself to no more than 1.5 difference between x, y, z, etc. as the

transformation better resembles the non-split version—and the aligned cycles—if the

numbers are close.

Fig.6.2.2 models the CMP relationship between the Hero and TBM and incorporates the Toreador with the Split CMP transformation. The highest line continues a consistent descent by one semitone; the middle voice shifts from 2.5 to 2 and then transposes by 0. The contraction of intervals continues, though not in a consistent manner.

$$
\begin{array}{ccc}
\boxed{\text{Hero}} & \boxed{\text{TBM}} & \boxed{\text{Toreador}} \\
y & \mathrm{CMP}_{(0.5)}(y) & \mathrm{CMP}_{(0,1)}(\mathrm{TBM})
\end{array}
$$
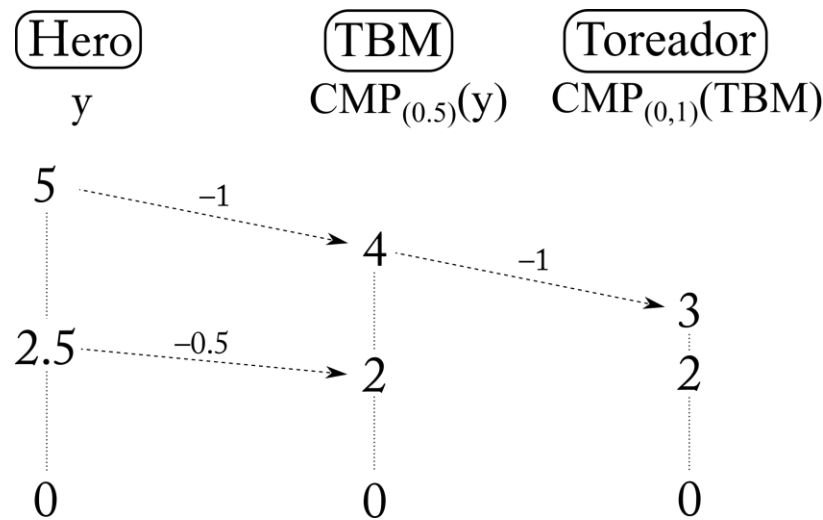
Fig.6.2.2: Intervallic relationships between Hero, Three Blind Mice, and Toreador, showing nuancing of CMP transformation.

But rather than view the Toreador topic through abstract sets, we might consider the role of specific transposition levels and pitch classes. The implied C major of the E-D-C of TBM is significant for its identity as a topic. The initial statement of the Toreador topic is also on C but contains the first three notes of C minor. Akin to Rings's prismatic understanding of transformational theory, the perspective of the keys of C major and minor refracts the focus from the solely transformational perspective to the lens of tonal allusion. Moving beyond the

EXP/CMP transformations as the primary link with other topics expands the network of topics, now moving beyond the more explicit associations with Adès's programmatic poem.

Occurring frequently throughout the work is a repeated tolling (Fig.6.2.3), often on a gong with the pitches C-G, sometimes G-D. Does this satisfy our definition of a topic? Yes: taking the definitions above, it *is* a musical style with distinct characteristics imported into another context. Echoing the opening of Britten's *War Requiem*, the ritualistic tolling is imported and referring to something beyond the work.[19] It evokes imagery of death—a theme of the movement's titles—the 'hero' of the poem perhaps 'dying a distant death'. Also, at the opening, and similarly prominent throughout, is a trochaic pattern resembling Scotch Snaps.[20] Fig.6.2.4 excerpts instruments playing Scotch Snaps across the first three movements. Note that the metric complexity of these excerpts means that the characteristic short, accented attack does not necessarily line up with the bar lines, which in any case do not always indicate perceived downbeats. The fourths/fifths of the repeated gong accompany in a manner evoking Scottish reels. Although the Scotch Snap technically only refers to the trochaic rhythm, in *Living Toys* the rhythmic pattern is primarily on C, D, and G minor triads, often a fourth or fifth apart as the Ritualistic Tolling. More associations are coming into view now: the pitch C recurs, as does a dialogue between major and minor, complementing the

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[19] Calling this tolling a topic risks veering beyond certain understandings of a topic. For example, Mirka (2014) might dismiss it as a topic due to its primarily iconic nature. Nevertheless, it retains the imported and decontextualised aspect of a topic, with distinct characteristics.

[20] Temperley and Temperley 2011) define a scotch snap as 'a rhythmic figure found in vocal music, typically consisting of a division of a quarter-note tactus in the ratio of 1:3, that is, a sixteenth and a dotted eighth, with one syllable on each note, and with the sixteenth on the beat' (53). It became associated with English and Scottish music—vocal or instrumental—from the seventeenth century. Instances in compound metre (as here) the division is 1:2 (ibid., 61).

Three Blind Mice and Toreador interaction outlined above.

Fig.6.2.3: Ritualistic Tolling near the opening, Adès, *Living Toys*, bb.5-15. © Faber

Music Ltd., London.

Fig.6.2.4: Instances of a Scotch Snap pattern across the first three movements of Adès,

Living Toys. © Faber Music Ltd., London.

From these observations the network can expand in scope to incorporate both the

transformations already established and looser associations. This begins to move away from

the stricture of a closed transformational space to conceiving more general, non-

transformational associations. Fig.6.2.5 maps some abstract relations of these five topics,

now incorporating the EXP transformation and tonally suggestive commonalities. Adding

more topics shifts focus to the major/minor mode opposition, thereby increasing the significance of the major and minor thirds and tonal elements. Indeed, the intervals of a major third, a minor third, and perfect fifth which constitute the major or minor triad are "filled in" by the three-notes of TBM, the Toreador, and the Hero respectively. In changing the focus to a listener prioritising the Scotch Snap and Ritualistic Tolling—even framing these as the input nodes of the network—an analysis of the harmonic language of *Living Toys* can shift from the previous analysis' focus on expansion and contraction to engaging pc intervals [3] and [4] with major/minor triads. This demonstrates how the malleability of a network—and therefore harmonic focus—is dependent on the listener's experience with a topic. A listener focusing on tonal objects can construct a different perspective on the harmony compared to a listener concentrating on possible transformational relations. The choice of "what" is aurally salient depends on a listener's experiences and generic expectations, echoing Agawu's characterisation of 'contextually defined fluidity' when identifying topics.[21] And depending on the listener's focus, they can slip and slide between modes of hearing and different perspectives on the network.

Now that abstract relations between five topics are established, let us return to the same passage of Fig.6.1.6 to incorporate extra topical material. Fig.6.2.5 maintains the strict relations established previously, expanding the graph to include looser associations read temporally from left to right. This semantically dense passage shows how the relationships identified in Fig.6.2.4 are realised in BALETT. Several elements can be traced to the initial Three Blind Mice: the implied C harmony of G-C for the Ritualistic Tolling and C and G

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[21] Agawu (1991, 36).

Defined Transformation
Looser Association

Scotch Snap

7
|
3
|
0

Contains [3]

Toreador

0 — 2 — 3

Contains [5]

EXP$_{(0.5,2)}$

Contains [5]

EXP$_{(0.5,2)}$R

Hero

5 — 2.5 — 0

EXP$_{(0,1)}$R

Ritualistic
Tolling

5
|
0

Contains [5]

EXP$_{(0.5)}$

TBM

4 — 2 — 0
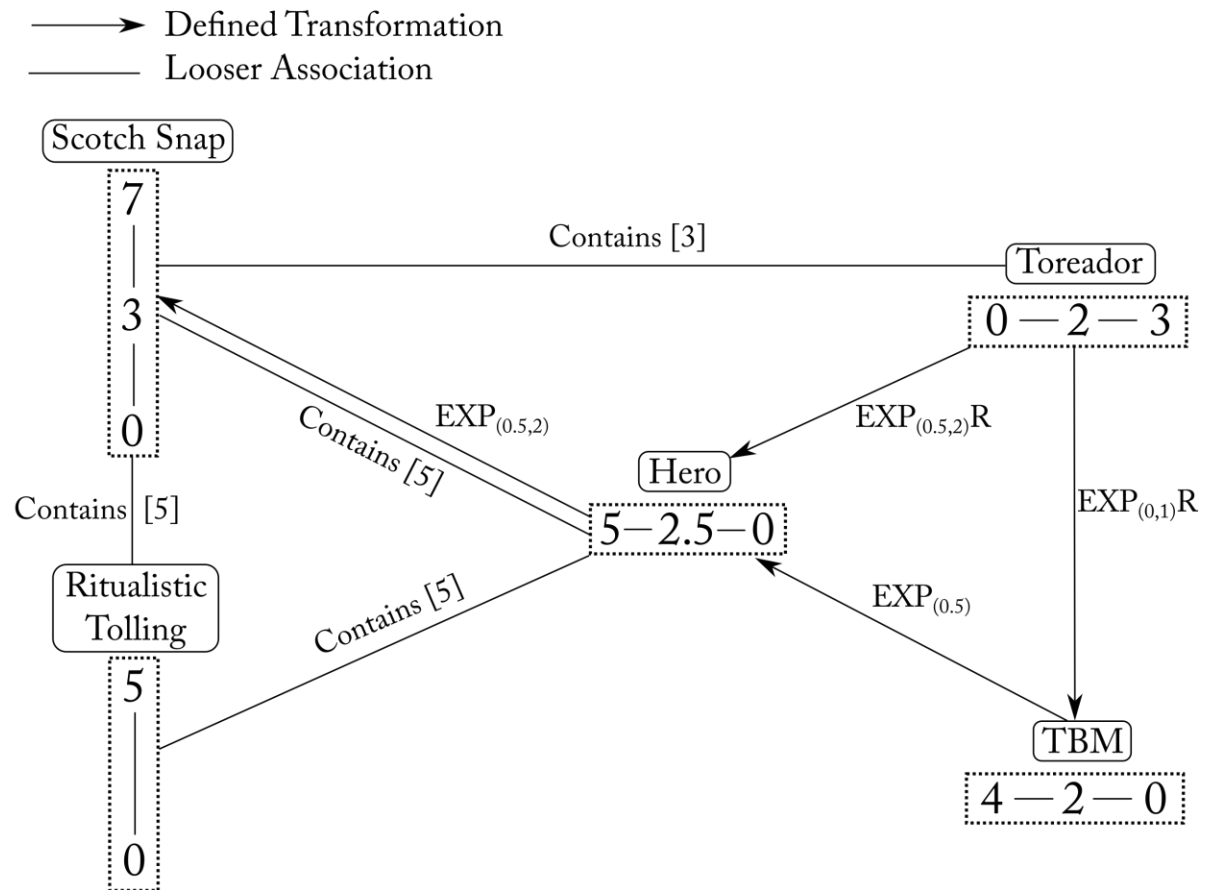
Fig.6.2.5: Abstract relations and associations between defining harmonic elements, incorporating five topics. Note inversional equivalence is assumed for the [5] and [7], as both are common in the Scotch Snap and Ritualistic Tolling.

triads of the Scotch Snap and the equally spaced interval structure is extracted for the Hero. In this passage the triads are minor, associated with the previously established C major-minor dialogue of the Three Blind Mice and Toreador. The Hero's expansion to an E♭-A♭ fourth mirrors the G-C fourth of the Ritualistic Tolling. A *ppp* diluted version of the Toreador appears in b.258: although the (023) trichord is only distantly present in bb.258-9, the passage maintains the sixteenth-note triplet figure with stepwise motion, but now closely

resembles the spacing of the harmonic series—embodied in the Hero—on C, the pitch now increasingly emerging as a gravitational pitch as more topics are added. The appearance at bb.270-71 contains more characteristics of the Toreador, including more prominent instances of (023) and *forte* dynamic. But the low tessitura of the bass clarinet misses the characteristic piercing trumpet timbre associated with a stronger realization of the Toreador topic. Within the previous context, this appearance strongly alludes to the Toreador without containing all the characteristics.

Fig.6.2.6 (following page): Figs. 6.1.6 and 6.1.7 widened to incorporate three new topics. Note how the increasing number of allusions to C raise the status of the "in C" of Three Blind Mice. © Faber Music Ltd., London.

A: **Three Blind Mice**
"in" C, on middle C (C4)

A: **Ritualistic Tolling**
Near-Regular Pulse, Pitches fourth or fifth apart

Realisation of implied C harmony

Realisation of implied C harmony into diatonic triads

T_8

$RT_3EXP_{(0.5)}$

A: **Hero**
Brass, on Eb

Tbn.

A: **Scotch Snap**
Triads on C, G, [5] prominent

[5]

Further realisation of implied C harmony

Harm. series,

I: **Toreador**
Grouped in threes

Piano

ppp

I: **Three Blind Mice**
Near-regular pulse, whole tones

$CMP_{(1)}T_9$

E: **Three Blind Mice**
3 notes descending by regular intervals

I: **Toreador**
Stepwise, brillante

B.Cl. *f*

Fast, stepwise triplets

251   253   254   254   257   258   265   270

6.3 Further interactions

The excerpt above is from the opening of the first interlude movement of *Living Toys*, BALETT. The second interlude movement BATTLE contains similar interactions between Three Blind Mice and the Hero (Fig.6.3.1) but contains more extensive aligned cycles. The excerpt starts with TBM in the soprano recorder (b.380), but through the extremely high tessitura, slow tempo, and "key" of B♭ it remains at I level. As shown in the middle staff of Fig.6.3.1, a prominent descent in tones continues this allusion to TBM, first avoiding any allusion to E-D-C through descending from C to E. The second iteration from b.389 picks up the descent with G♯-F♯ then introduces E-D, followed by an iteration from b.395 which isolates three notes, but "in" A♭, similar to the transformation in BALETT. The characteristic E-D-C—albeit not on middle C—is finally reached in bb.403-4. More extensively than in BALETT (Fig.6.1.6), this descent of TBM is expanded upwards into three- and four-voice aligned cycles, each containing whole-tone and semitone interval cycles, suggestive of a lower-level Lament and TBM.

Each aligned cycle process commences with a prominent signal of a single note in the top line, which combine to create a large-scale descending semitone cycle F♯-F-E. Although the cycles are generally adhered to, the descending tones of the top line of the final cycle of Fig.6.3.1 are readjusted to semitones to create a C-G dyad, further cementing the allusion to C to align with the appearance of E-D-C. Alongside these descents, rising and falling arpeggio patterns satisfy an Intermediate-level Hero topic, though initially too jagged (b.385), too quiet (bb.388-89), and not in the characteristic key. This restricts it to an Intermediate-level Hero. These topical projections culminate in a *f-ff* Actant statement of the Hero (y) in bb.404-6 alongside the statement of TBM in C major. Although not coordinated

with the descending sonorities, the equally spaced ascent of the Hero mirrors the descending

aligned cycles and, as in BALETT, the characteristics keys of E♭ and C are referred to

simultaneously. In both transformational and topical terms, the opening of BATTLE builds

on the nascent topical relationships at the opening of BALETT, further solidifying the

expanding and contracting of intervals as characteristic transformations and developing the

interactions of topical characteristics.

Towards the end of *Living Toys*, the movements' titles move towards less vivacious

subjects. Perhaps reflecting the poem's subject's wish to 'die a hero…and be buried a hero',

'H.A.L.'s Death', 'Playing Funerals', and 'TABLET' evoke more morbid imagery. Elements

of the Lament appear throughout these movements, mirroring this localised imagery and a

broader use of the topic in the later twentieth century. As established, the Lament is primarily

defined by a repeated descending chromatic tetrachord, often in the bass;[22] this relates to the

unidirectional rising and descending contours fundamental to the topics already presented.

The high tessitura descending semitones in the aligned cycles of BATTLE (Fig.6.3.1)

perhaps already alluded to the Lament. Similarly, in BALETT (Fig.6.1.6 and 6.1.7) the

descending (012) appeared within the prevailing context of TBM. But, as Fig.6.3.2 maps, the

Lament topic is more substantially established in 'Playing Funerals', primarily through the

shift to slow tempo and quiet dynamic. Repeated descending chromatic (012)s dominate the

top line, whilst the less obvious prevalence of (024)s suggests TBM. The constant repetition

echoes a Lament passacaglia, whilst the grouping into three notes supports TBM. The last

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[22] Although traditional tonal Laments are usually over a perfect fourth, my definition here expands the
pianto gesture of a falling minor second (an indexical sign of weeping) to a more conventionalised,
mechanical pattern of a descending (012) (see Bauer 2006, 58-59).

Fig.6.3.1: Interactions of Three Blind Mice, Hero, and Lament characteristics at the opening

of Adès, *Living Toys*, BATTLE.

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phrase expands to four sonorities—although the lowest part is not an interval cycle and the

C♯-C-B line remains three notes—finally reaching the characteristic Lament tetrachord.

Similarly, a higher-level descending chromatic tetrachord from b.530 moves from the highest

pitch F♭ to C, with the top line of each new aligned cycle starting one semitone above the

final note of the previous, except the final C.[23] The possible centrality of the pitch C and

dialogue of major-minor expressed in Fig.6.2.6 is only loosely present: an isolated <1,2>

cycle starts with an E-C dyad and expresses the E-D-C around middle C characteristic of

TBM (following B-A-G in the previous cycle as a "dominant"); likewise, the larger-scale

lament tetrachord outlines E (Fb) to C. But this appearance is of limited effect relative to the

dominating aligned cycles.

Fig.6.3.2: Adès, *Living Toys*, 'Playing Funerals', bb.524-540 reduction, showing recurring

aligned cycles. Embedded within each is one or more (024) of TBM, but the top line's

chromatic descent evokes a Lament.

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[23] This Escher-like layering of descents at different levels is reminiscent of movements of Ligeti's
Études, particularly 'Vertige' and the overlapping *lamento* motive in 'Automne à Varsovie'. Similar
processes with ascents appear in 'L'escalier du diable', and 'Coloana infinită' and the third
movements of his Violin Concerto (see 6.3 above).

Within the expressive marking of *Grave, quasi Nobilmente* and dynamics of *pp-ppp* the expressive associations of the Lament dominate the passage, but TBM's strength and temporal precedence in other movements leave it murmuring in the background. Echoing Adès's image of manipulating borrowed material until 'other music would pop out', the (012) previously understood as a $CMP_{(1)}$ of TBM's (024) (see Figs.6.1.6, 6.3.1) is now an autonomous topic. As both are established in the expressive discourse, the two topics enact a compatible trope.

Beyond this topical interaction, the characteristic transformational relationships remain, further cemented in the final phrase (Fig.6.3.3): the Fl./Ob./Cl./Tpt. flourish forms a ⟨1,1,2,2⟩ aligned cycle as the Hero topic returns in its opening form E♭-G♭-A♭. With topics remaining the primary frame of reference, the Lament troping with TBM highlights this expansion relationship over C foregrounded in Fig.6.2.5. The repeated F minor triad may allude to F minor as a funeral or "passionate" key, notably in works such as Beethoven's 'Appassionata' Sonata and 'Serioso' String Quartet op.95, and Haydn's Symphony no.49 'La passione'.[24] This key association continues the significance of C major and E♭ major for TBM and the Hero, albeit with a less immediate temporal attachment to the Lament topic in the piece.

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[24] Christian Schubart describes F minor as 'deep depression, wailing for the dead, groans of misery and [a] yearning for the grave' (see Schubart and DuBois (2004 [1806], 169).

Fig.6.3.3: Adès, *Living Toys*, final bars, showing the overlap of a <1,1,2,2> descending aligned cycle with the return of the Hero topic at Actant level with the original pitches. © Faber Music Ltd., London.

Fig.6.3.4 summarises the topical relations across *Living Toys* into a network, incorporating the complete initial appearance of the Hero. Focusing on the EXP transformation, the figure shows associations between the four topics' characteristic harmonies. The expansion process from the Lament to TBM via the Toreador mirrors the process of expansion in the initial Hero phrase. The three-note Lament is not completely faithful to the wider definition of a Lament as a tetrachord; it sits somewhere between the Lament and the *pianto*, maintaining the descending chromatic sigh. Returning to Roeder's guidelines for a successful transformational analysis, the object family is well-developed, the suitably constrained transformations EXP and R recur prominently, EXP is related to the recurring appearance of aligned cycles, and the objects chosen are both salient and central to the perception of form.
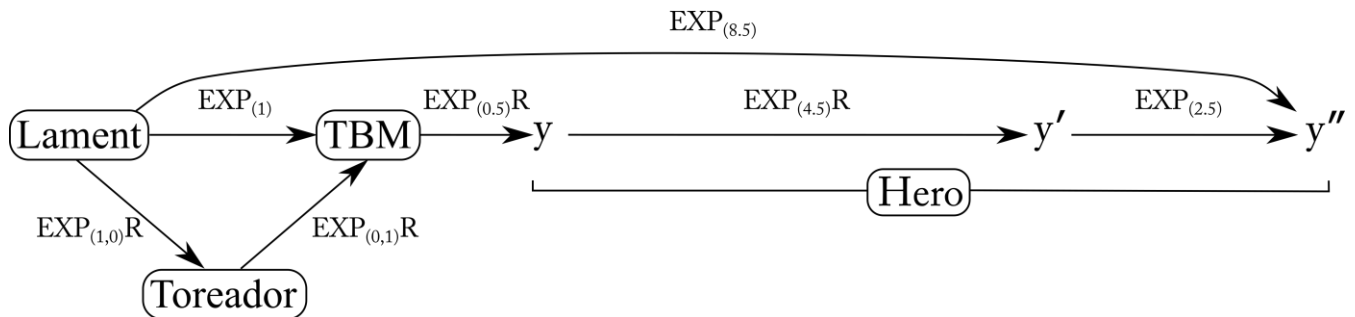
Fig.6.3.4: Summary of salient transformations across topics' characteristic harmonies in *Living Toys*.

6.4 H.A.L. and the limits of perception

Whilst quotations are often framed, they also may be more hidden, rendering them less aurally salient and therefore less immediate to such a network. But if a disguised quotation *is* identified by certain listeners, it can justifiably gain more prominence. As noted by Edward

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Venn, in *Living Toys* the song 'Daisy Bell' appears in the double bass and contrabassoon from bb.353-369 (Fig.6.4.1).[25] Though the listener might be primed to recognise the melody through the movement's title 'H.A.L.'s Death',[26] the low register, *ppp* dynamic, lack of clear metre, and slow tempo render the quotation barely audible even if the listener is prepared.

If they do identify it as semantically—and therefore potentially formally—important, the (023) could act to link 'Daisy Bell' to the network in Fig.6.3.4 through the Toreador as a common element. The descending major triad could similarly be related as an inversion of the Scotch Snap's minor triad, as a realisation of the major-mode implications of TBM, and as $EXP_{(2)}(023)$ (Fig.6.4.1a). But these relationships are hardly aurally salient within the quotation, let alone across the work. More evocatively—but even less aurally salient— Adès's version of 'Daisy Bell' gradually slips down through semitones in a similar manner to H.A.L.'s rendition in *2001*, reaching a perfect 4th below the initial F♯ major. Fig.6.4.1b marks each moment the quotation is shifted down, measured from the initial key. Sliding down chromatically—especially across a fourth—echoes E-level characteristics of the Lament which, as Fig.6.3.2 above shows, is identifiable elsewhere functioning on a larger scale. If a listener were to identify and centralize Daisy Bell's characteristics through this association, they might emphasize the (023) and descending semitones.

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[25] Venn 2017, 30.

[26] H.A.L. is presumably a reference to the artificial intelligence main antagonist HAL9000 of Stanley Kubrick's *2001: A Space Odyssey*. In the film, H.A.L. shifts from a dependable to increasingly untrustworthy member of the ship's crew. As H.A.L. begins to malfunction, the crew decide to shut HAL down. Faced with this prospect, H.A.L. continues its goals, in the process attempting to kill the crew, leading one of the astronauts to go into the airlock to deactivate H.A.L. The deactivation scene is without music except for the computer singing 'Daisy Bell (bicycle built for two)' as it dies.

Again echoing Rings's prismatic understanding, this invokes yet another perspective, through which the previously established transformations gain further nuanced relationships. As before, this widens the possible hearings of the harmony of the same music, albeit demanding a lot from the listener as, even on repeated hearings, the listener would likely require the score and familiarity with *2001* and the original song to reach this association. Continuing this principle, further near-quotations and allusions might expand these networks in similar manners. For example, the more aggressive appearances of the Scotch Snap pattern echo the *forte,* triadic, brass versions in the third movement of Janáček's Sinfonietta. Hearing this intertextual allusion rather than scotch snaps may highlight these elements; Janáček subtitled the work 'Military Sinfonietta', a world of associations distant from the rustic imagery of scotch snaps, yet consistent with the evocation of soldiers in the poem. Adès's appreciation of Janáček's music is well established, notably in his contribution to *Janáček Studies*.[27] More recently, he described the *Sinfonietta* as 'my absolutely favourite piece of music'.[28]

[27] Adès 1999.

[28] Maddocks 2020.

Fig.6.4.1: (a) Daisy Bell, original version, bb.1-8 (b) appearance in *Living Toys*,

contrabassoon and contrabass only. © Faber Music Ltd., London.

6.5 Transforming topics

The multitude of topics and quotations in *Living Toys* provide a rich case study for creating multiple possible readings. With this approach the topics identified—that is, aurally salient islands of signification—emphasise different harmonic relationships. This final barely perceptible yet hermeneutically rich example emphasises the listener-dependence of quotations and topic, building upon the dual readings of BALETT through the EXP and CMP transformations and the centrality of C and major/minor dichotomy. Again, listeners approaching a work with different generic expectations and experience—often related to their cultural, social, and political place—will likely focus on different topics. This creates different conceptions of harmonic relations through the EXP and CMP transformations, tonally evocative interval commonalities, and key associations in the same work simultaneously.

A criticism of allying transformation and topic theory might be that traditional transformational theory's focus on pitch and harmony does not fully represent topics, or in some cases the pitches contain a tangential relationship to topical representation. That is, although I have considered the conflation of characteristics in various parameters as contributing to topical identification, these isolated pitch constituents may not each immediately signify the various labels I have attached. Of course, this approach fits into my broader theory. But this does not mean that modelling these relationship transformationally is moot.

Let us reverse my *ex post facto* analysis with a thought experiment: if we were prompted, whether as a composition assignment or inspiration from our poetic muse, to write a piece based upon these five topics, certain harmonic relationships I have identified would

likely appear. Following this mindset, I could imagine the following compositional process. We might begin with the clear pitch constituents of Three Blind Mice, the descending stepwise pattern which could closely be associated with the Lament. These might have a relationship that could be modelled on my EXP/CMP transformation and a rising Heroic gesture could be a retrograde. (We might place this pattern in the horn and even in E♭ to cement this association.) The Scotch Snap and Toreador might prove trickier to relate to these three, but if we switched to a more tonally leaning perspective the Scotch Snap—which often uses major and minor triads—would, as in my analysis, relate to the tonal elements of TBM and Hero, perhaps in a manner I have diagrammed in Fig.6.2.5. The characteristics of the Toreador might need to be more liberally interpreted, though perhaps our suspicion that this topic can be signified primarily through other parameters frees up the harmonic relationships, enabling its harmonic characteristics to act as a link between other topic's characteristics. This could point to both the Expansion and Compression relationships and the tonal elements, again as shown in Fig.6.3.4. Once settling on such associations, perhaps in composing our piece we may continue to explore these relations at various points across the work, such that we reach a harmonic vocabulary through focusing on these pitch associations of the chosen topics.

Perhaps we may choose different topics with different associated harmonies which would likely create different harmonic relationships. Although there is no inevitability in these relationships, the harmonic constituents of these islands of signification *do* contain certain associated harmonic characteristics that, in my view, can form the basis of a work's harmony.

Let us return to my aligning of this approach to Roland Barthes's from Chapter 4.

Associating central signifying elements in a network echoes his conception of a network, as described in the preface to his analysis of Balzac's *Sarrasine* in *S/Z*:

> The five codes create a kind of network…the blanks and looseness of the analysis will be like footprints marking the escape of the text, for if the text is subject to some form, this form is not unitary, architectonic, finite.[29]

His conception of form as flexible, loose, with parts of the work (the 'blanks') not systematically accounted for in every analysis reflects this approach. Roeder's characterisation of transformational thinking mirrors these elements of Barthes, noting that transformational analyses are 'at best imperfect and incomplete signifiers of musical experience'.[30] In the preceding analysis, elements of the music which do not immediately fit into a transformational analysis may still engage with characteristics of the topics outlined. Such shifting degrees of topical focus conjures Barthes 'blanks' of the analysis. Whilst Lewin's conception *does* strive to account for every note, the transformational space has equivalent blind spots, containing elements not appearing in the music. And the movement through space highlights certain nodes, such that 'the beginnings and endings of the path-segments thereby acquire special functions…[and] constitute one way in which the piece, articulated chronologically into its several "passes," projects form'.[31] Simply put, these aurally salient 'special functions' can gain still more perceptual relevance if they are topics.

What is the status of an aesthetic which rewards assimilation of these analytical

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[29] Barthes (1974, 20).

[30] Roeder (2009a, 12.2).

[31] Lewin 1993, 17.

methods to relate a plethora of external influences? The 'dream logic' of relating borrowed objects to which Adès refers (see quotation at the beginning of this chapter) echoes elements of Surrealist aesthetics, a framework previously applied to Adès's music.[32] Specifically, a central element of Surrealist aesthetics is associating two objects through an unfamiliar medium, or what André Breton called a 'previously neglected association'.[33] Applied to topics in transformational theory, one characteristic (in this case, harmony) associates topics with no immediate expressive correspondence. For example, the poetic images of a Hero and Three Blind Mice do not immediately overlap, but their pitch structures *can* be associated through transformations. Adès's reference to toys in the title is highly suggestive of an aesthetic centred upon innocent play of objects rather than serious critical dissection, an interpretation of Adès's music reflected by Dominic Wells: 'polystylism implies the often-harsh juxtaposition of disparate musical styles, whereas Adès's music generally avoids this extreme conflict. Rather than a polystylist, he is a stylistic pluralist, allowing his music to converse with whatever music he hears, be it 'low' or 'high' art, historical or contemporary'.[34] Taruskin comes to a similar conclusion in his now-distant 1999 *New York Times* article situating Adès's work within a vaguely Surrealist aesthetic world, writing that 'Adès was thus able to buck sterile utopia while avoiding the opposing pitfall of ironic

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[32] For discussion of Surrealism and Adès's music, see Taruskin 2009 [1999], Massey 2018. Adès's mother is a well-known authority on Surrealism.

[33] Breton 1969, 26. I have written on the relationship between aesthetic concepts of early Parisian Surrealism and music in Donaldson 2020. Venn 2017, 146-150 explores Taruskin's aligning of Adès's music with Poulenc's in the context of surrealist principles.

[34] Wells 2012, 2.

pastiche'.[35] That is, his music's treatment of musical objects is neither an idealizing elevation nor a biting critique of their relevance to contemporary art, instead reflecting the *objet trouvé* central to Surrealist aesthetics.[36]

More broadly, this analysis represents Jencks's co-existence of 'traditional symbolism' (topics) and 'current technologies' (intervallic manipulation modelled through transformational networks) developed more fully in the following chapter. This weaving of references reflect his characterisation of the Post-Modern as artists who, on the one hand 'had to use a partly comprehensible language, a local and traditional symbolism' as a form of self-situating, but 'they also had to communicate with their peers and use a current technology'.[37] Adès's range of references, from the lineage associated with the Hero topic, associated with Beethoven and Strauss, to the quotation of 'Daisy Bell', associated with a Stanley Kubrick film from 1968, are a widely framed pluralist 'traditional symbolism' pointing to a large scope of listener experiences through which to enter a conception of the harmony.

In sum, replacing nodes of a transformational network with the pitches associated with topics develops the focus on 'what' a topic is to 'how' topics might contribute to harmony and form in post-tonal music. Viewing topics in post-tonal music *through* the lens of a network emphasises culturally centered perspectives on harmony and form. And

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[35] Taruskin 2009 [1999], 149.

[36] Arnold Whittall reaches a similar conclusion on Adès's music: 'he makes these references, these allusions, without any hang-ups, because he finds it pleasurable to do so; and (I presume) he hopes that listeners will share that pleasure. Anxiety, fear, guilt or even reverence, have nothing to do with it' (Whittall 2016, 5-6).

[37] Jencks 1998 [1977], 5.

acknowledging the role of different listener perspectives within the flexibility of transformational theory can construct multiple subjective conceptions of harmony and form within a single work. In short, we can hear the living toys in *Living Toys*.

7. MULTI-CODING, FORM, AND TROPING IN THOMAS ADÈS'S PIANO QUINTET

This final, more speculative chapter addresses Susan McClary's 2001 view that 'the mere labeling of topics in masterworks produces in me the kind of dismay I would feel if an art critic were to explicate Picasso's *Guernica* by proudly identifying the "horsie," without somehow noticing the creature's anguished grimace or the other figures on the canvas'.[38] Referencing Picasso's vanguard of early modernist art to critique topical analyses—which until the time of her writing had primarily focused on eighteenth- and nineteenth-century works—she highlights the limited use of simply labelling topics, as mere glib decorative additions. Following the primarily theoretical developments in Chapters 2-4, this chapter returns to Chapter 1's focus on interpreting topics in the later twentieth century. Echoing Fredric Jameson's mantra of 'always historicize!',[39] the treatment of topics must always be rooted in a historical context, as Allanbrook writes: 'failure to consult the historical context at worst falsifies analysis, and at best leaves it unedifyingly incomplete'.[40]

Indeed, under the wing of New Musicology a major appeal of early topic theory was its insights into the historical soundscapes of the late eighteenth century. Jumping forward to the late twentieth century requires adaptation, though. My entry to topical interpretation in the later twentieth century so far has been through semiotic theories of the same period, a body of work which contains a vast realm of sophisticated analyses of signs and objects in literature, film, art, etc. As Monelle suggests, topics align closely with Eco's influential

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[38] McClary 2001, 326. It is worth noting that McClary heaps praise on Monelle 2000.

[39] Jameson 2002, 9.

[40] Allanbrook 2008, 273.

concept of conventionalised 'cultural units'.[41] Aligning topics to this oft-referred concept can

provide a theoretical entrance to analyses of late twentieth-century arts which similarly draw

upon the concept of cultural units. Specifically, focusing on Adès's Piano Quintet, this

chapter will adapt influential theories of architecture by Charles Jencks, Aldo Rossi, and

Robert Venturi from the 1960s and 70s to analyse the layers of codes in the opening of the

Piano Quintet. These theories are often cited as the stimulus to a vertiginous range of

aesthetic experiments in the other arts,[42] and have been loosely grouped together under the

ever-increasingly all-embracing term 'postmodern', undoubtedly aided by the early

appearance of the term in Jencks's 1977 *The Language of Post-Modern Architecture.*

Principles introduced in these texts have proved influential across disciplines and adapt well

to topic theory. These approaches demonstrate the richness of adapting topic theory to this

music. Placing these interdisciplinary-infused approaches in dialogue with recent adaptions

of Robert Hatten's concept of troping, I will explore the formal role of three topics in Adès's

Quintet to demonstrate the continued multi-coding set up in the opening bars.

7.1 Broader contexts: the semiotics of post-war architecture

Jencks's influential text closely predates Jean-François Lyotard's catalysing use of the term

'postmodern' in his 1979 *La condition postmoderne*, stimulating many divergent

interpretations which soon frayed in many directions beyond the specific meaning outlined

by Jencks. This is typified by the Stanford Encyclopedia of Philosophy's entry simply

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[41] 'Musical topics mean by virtue of their correlation to cultural units' (Monelle 2000, 23).

[42] Major texts on this architectural approach include Rossi 1982 [1966], Venturi 1966, Venturi, Scott Brown and Izenour 1972, and Jencks 1998 [1977], Jencks 1987. On the origin in architecture, see for example, Hutcheon 1988, 22, Jameson 1991, 97-130.

beginning with 'That postmodernism is indefinable is a truism'.[43] Rather than directly engage

with the more philosophical-leaning literature, I shall focus on the lineage of this cluster of

early formulations of a specific aesthetic, as certain concerns resonate with the theory

outlined in the previous chapters.

Generally, these theories responded to direct requirements of the post-war cityscape,

grappling with, on the one hand, a continued modernising impulse and, on the other, an

increasing awareness of historical place. Historical awareness is particularly pronounced in

the medium of architecture as a building might literally neighbour an ancient monument or

an eighteenth-century townhouse. And a building's place in the wider fabric of a city (the

history with which the residents may identify) can lead to direct social and political

implications from a building's presence in a city. As literary theorist Linda Hutcheon

explains, the 'post-position' of the early uses of the term 'postmodern architecture' is clear,

as a building 'signals its contradictory dependence on and independence from that which

temporally preceded it and which literally made it possible'.[44] That is, a building's

experimentation with dramatic modernist aesthetics may be tempered by its surroundings.

This issue of a modernist impulse competing with historical sensitivity shifted to the

forefront in the post-war rebuilding of major European cities. In the immediate post-war

years, buildings which prioritised functionality quickly appdeared, notably those reflecting

principles of the Brutalist movement. But these extreme uses of material led buildings to

suffer from a sometimes unwelcome, sometimes desirable incongruity with the historical

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[43] Aylesworth 2015. Or, as Umberto Eco defeatistly puts it: 'Unfortunately, "postmodern" is a term *bon à tout faire*. I have the impression that it is applied today to anything the user happens to like' Eco 1985, 65.

[44] Hutcheon 1988, 17-18.

surroundings.

Paradoxically maintaining an experimental impulse alongside a more comfortable situating of a building is central to Aldo Rossi's manifesto for post-war Rome. In his 1966 *The Architecture of the City*, Rossi viewed urban areas—especially ones with many surviving ancient monuments as Rome—as a web of 'collective memories' of past 'objects and places'.[45] Contemporary architecture, he argued, should not reject but engage with a building's physical placement in this living tapestry of history. Along with Venturi and Jencks, Rossi suggested that buildings should adopt more nuanced allusions to this shared body of signs from the past. The response to such an awareness of historic reference should not be resurrections of past styles—this would be akin to neoclassicism or revivalism—but careful absorption of the 'collective memories' *into* modern techniques. In architecture these modern approaches are manifest as technological advancements, such as the inventive use of glass and concrete. Jencks furthered Rossi's approach, elaborating the broader relevance of balancing the competing aims of innovation—couched as an architect's 'communication with their peers'—and the importance of a building's users and place. For him a 'Post-Modern' architecture is

> one-half Modern and one-half something else—usually a traditional or regional language of a building. The major reason for this hybrid was clearly to do with the contrary pressures on the movement. Architects who wanted to get over the Modernist impasse, or failure to communicate with their users, had to use a partly comprehensible language, a local and traditional symbolism. But they also had to communicate with their peers and use a current technology. Hence the definitions of Post-Modernism

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[45] Rossi 1982 [1966], 130.

as '*double-coding*', as a series of important dualities.[46]

He centralises the tension between the modernist legacy of innovation and a desire for a direct communication, of which 'local and traditional symbolism'—that is, familiar signs—are central. The medium of architecture uniquely occupies the position of having both an aesthetic form and daily social use, a 'double-coding' of signs, communicating simultaneously with the architect's 'peers' and building's 'users'. Worth noting is that Jencks was initially uneasy with the term 'postmodern' to describe his new aesthetic approach, in part due to the ambiguous relationship to the modern. The term was, as Jencks put it, 'evasive, fashionable and worst or all, negative', suggesting instead 'radical eclecticism' or 'traditionalesque'.[47] (These alternative labels may be more appropriate for the topic-centred music analyses throughout this dissertation.)

Similar approaches to embracing the "discoveries" of the modernists' experiments alongside an increased historical sensitivity soon began to influence other arts. And although many have speculated on what a 'postmodern' music might consist of,[48] little has been written on how the multiple coding of signs and Jencks's balance of 'current technology' and 'traditional symbolism' might relate to an aesthetic in music. Expanding the theory outlined thus far can elucidate how these aesthetic principles might relate. As imported conventional objects, topics echo Rossi's conception of 'collective memories' and Jencks's 'traditional

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[46] Jencks 1998 [1977], 5. Italics mine.

[47] Jencks 1998 [1977], 7.

[48] Most notably Kramer 2016. On Ligeti, see Floros 1996, Searby 2010. On Adès, see Roeder 2006. Rutherford-Johnson 2017 somewhat confusing labels Adès as 'clearly a post-postmodern' composer (244), yet his characteristics of this new style are little different to the characteristics traditionally associated with postmodern.

symbolism'. These 'memories' are inherited rather than fresh topics: as continually relevant expressive genres such as the pastoral and the lament—even looking further back to Baroque *Affekte*—topics are a shared experience of a universe of referents within a specific group. Early conceptions of topic theory as mirroring the eighteenth-century musical vernacular[49] point to the universe of topics as a 'collective memory' of signifying musical materials. And unlike a quotation's reference to a specific work, a topic's generality has a less specific association with the past, mirroring Rossi's hope for an engagement with history whilst avoiding wholesale stylistic resurrection in the manner of neoclassicism or revivalism.

What of the technologically informed aspect of this style? Music's equivalent to a "technology" could be a broad scope of post-tonal experiments, from Schoenberg to Messiaen to Boulez, including explorations in harmony, rhythm, form, etc. My application of the concept of isotopy and introduction of topical networks echo the weaving of topics into a work's non-traditional form, a distinction made by Jonathan Kramer, who echoes Jencks's characterisation of neoclassical or revivalist approaches in music (such as Liebermann, Rochberg, Torke) as 'anti-modernist' rather than postmodern.[50]

Central to Jencks's approach is multi-coding of these two directions: a single sign can point in both directions. Or a sign can, perhaps simplistically, be decoded from the standpoints of both educated taste and popular sensibility, or as he puts it 'Modernism suffers

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[49] For example, Allanbrook writes that composers were 'in possession of something we can call an expressive vocabulary, a collection in music of what in the theory of rhetoric are called topoi, or topics for formal discourse. [They] held it in common with [their] audience' (Allanbrook, 1983, 2-3).

[50] Kramer 2016, 5. Kramer suggests that this distinction is pervasive in reception, noting that 'Many reviewers of the popular press do not distinguish antimodernism from postmodernism. They identify as postmodern any composition that was written recently but sounds as if it were not.' (ibid., 6).

from elitism. Post-Modernism is trying to get over that elitism'.[51] Such layered

understandings of music are common, especially with reference to theories of irony, satire,

and parody.[52] Although such ironic models are undoubtedly central to the respective

repertoires, the double layering of a "true" meaning buried under another superficial

understanding is distinct from multi-coding as Jencks's understanding renders the two (or

more) understandings as equally valid and paradoxical existing simultaneously, rather than

one dominating over another.[53] A wide dialogue of layered references within a single sign

alongside the "technology" can go beyond the simple binary of popular/elite. I shall return to

this later.

7.2 A multi-coded opening

The opening two bars of solo violin of Adès's single-movement Piano Quintet (2001) (Fig.

7.2.1) are a lightning rod for the complex layering of topics, multiple intertextual references,

and Jencks's 'current technology'.

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[51] Jencks 1998 [1977], 6. Juan Chattah draws upon the concept of double-coding to explore
'bifurcated narratives' in Dennis Kam's 'opera spoofa' *Opera 101* (2009). These narrative 'transgress
traditional archetypes and conventions by allowing for (two) simultaneous narrative paths', providing
a rich source, Chattah argues, for dialogues between nostalgia and irony. Chattah similarly draws
upon Hutcheon's writings, demonstrating the analytical potential of the concept without recourse to
topic theory. See Chattah 2020.

[52] See Sheinberg 2000, Everett 2004, Everett 2009, Frymoyer 2017, Cherlin 2017.

[53] One exception in applications to music is Esti Sheinberg's adaption of Hatten's unbalanced
markedness to conceive irony as *equipollent*. For her, this is the 'semantic source of irony', although
she emphasises the resultant ambiguity rather than simultaneous multi-coding. See Sheinberg 2000,
14.

(a)   < 2, 3, 4 >   (-2)

(b) C?:   I   V   (I?)   V
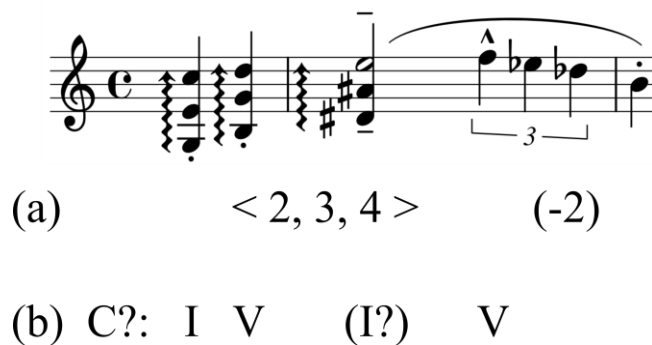
Fig.7.2.1: Two readings of the opening of Adès, Piano Quintet. (a) Aligned cycles followed by descending tones and (b) a possible tonic-dominant reading in C major. © Faber Music Ltd., London.

Stoecker notes that the first three triads are a <2,3,4> interval cycle, aligned vertically, what he terms an 'aligned cycle', a concept of aligning interval cycles homophonically that Stoecker traces to Alban Berg.[54] That is, the top line rises by tones (C-D-E), the middle line by minor thirds (E-G-A♯), and lowest line by major thirds (G-B-D♯). To conceive this opening through intervals cycles is to view it through post-tonal spectacles, situating Adès within a lineage including, amongst others, Berg and George Perle. In terms of Rossi's and Jencks's conception, the interval cycles are—perhaps rather simplistically—a 'current technology' of conceiving harmony, loosely analogous to the technological advances of concrete and glass.[55]

    But to keep these interval-cycle-tinted glasses on might hide the allusion to tonality

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[54] Stoecker 2014, 32.

[55] Although I consider the examples in music and architecture as *current* technology, the timespans are different. The association of interval cycles with Berg, for example, significantly predates the post-war technologies discussed by Rossi and Jencks. That said, innovation in early twentieth-century music is perhaps associated with contemporary innovations more so than in other arts.

created through the aligned cycle. Stoecker notes that a significant property of a complete

<2,3,4> aligned cycle is the incidence of four different (037) triads. That is, tonally

suggestive major or minor triads recur, such that the Quintet's opening exemplifies Adès, as

Stoecker puts it, 'providing listeners with brief glimpses of tonal sonorities'.[56] The first two

triads form a I-V in C (with inversions), the top sustained E of the third triad suggests a

return to I in C (undermined by the D♯-A♯ fifth) and the descending whole-tone tetrachord is

bookended by F-B, the characteristic tritone of V7 in C.[57] Heard through tonally tinted

spectacles, we could stretch to hear a I-V-I-V progression in C dissolving across the two

bars. Already the slippage between tonal and post-tonal hearings alludes to the past (that is,

tonality) within a new 'technology' of aligned interval cycles. In this sense, this glimpse of

tonality echoes Rossi's 'collective memory'. Such a refracted tonality can lead some to view

the tonal allusions through primarily post-tonal spectacles (as Stoecker) or, as in Rick

Anderson's review of the recording, the tonal allusions might equally provide a lens: '[i]t is a

modernistic piece, constructed out of tonal building blocks'.[58] Note that Anderson's

interpretation parallels Jencks's 'one-half Modern, one-half something else'. Placing

Stoecker's post-tonal reading and Anderson's tonal interpretations alongside one another

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[56] Stoecker 2014, 41. This 'gravitational pull of tonality' of the Piano Quintet's opening is also noted by Fox. See Fox 2004, 48.

[57] Alternatively, these pitches could point to a tritone substitution for the dominant in C: the F-B (C♭) are the characteristic tritone of D♭, supported by the intervening pitches of E♭ and D♭.

[58] Anderson, Rick, 2005: 'Piano Quintet by Thomas Adès: Piano Quintet in A, D667 ("The Trout") by Schubert', Notes, 62/ii, pp. 474–5, 474. (Arditti Quartet; Belcea Quartet; Corin Long; Thomas Adès. EMI Classics (5 57664 2, 2005.) Quoted in Stoecker 2014, 42. Anderson's reference to 'building blocks' suggests distinct objects in the manner of topics. Felix Wörner adopts Adès's term to describe a midpoint of 'irrationally functional harmony' (see Wörner 2017).

exemplify one level of Jencks's double-coding in Adès's opening.

Whilst tonality and post-tonality form a familiar duality, there are further references which enrich this opening with more specific signification. The opening rising triads embody an A-level Horn Call topic, if we map the Horn Call's hierarchy of characteristics as follows:

HORN CALL

Actant: loud, I-V harmonies in major key (or allusion to), short notes followed by a
sustained note

Intermediate: horn dyads or triads, mid tessitura (third register of horn)

Elementary: Prominent rising motion, interval or fourth/fifth

They demonstrate all the characteristics of all three levels, with the rising aligned cycle almost forming horn dyads. The Horn Call topic is an initiating gesture; historically the closely related hunting call often initiates the actual hunt,[59] and the ascending horn fifths also align with the initiating function of establishing a key, leading Caplin to describe the Horn Call as having a 'likely formal relation'.[60] As Agawu writes, in functional terms the similar Hunt topic is 'normally associated with announcements and opening gestures'.[61] If the listener heard this opening not as a dialogue between tonality/post-tonality but through the spectacles of the Horn Call isotopy, they cement a Horn Call as a part of the discourse. By

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[59] See Monelle 2006b, 63. Monelle also identifies the Hunt topic as more broadly signalling the beginning of an adventure (68).

[60] Caplin 2005, 115.

[61] Agawu 1991, 40.

beginning with a Horn Call topic, the Piano Quintet's opening appears to directly mirror the eighteenth- and nineteenth-century models. For a topic-centred listener steeped in this repertoire, this conventional treatment of a Horn Call topic as initiating may appear remarkably conservative, placing it directly in the lineage of Haydn, Mozart, etc.

But the reference to a Horn Call at the opening points beyond the topic towards a web of possible quotations and direct allusions. For example, the contours of the opening two bars are strongly reminiscent of the opening solo horn—the archetypal hunting instrument—of Brahms's Piano Concerto No.2 (Fig.7.2.2), similarly three rising tones followed by a descending triplet. Adès's admiration for Brahms is well-documented—not least his 'anti-homage' *Brahms* (2001)[62]—and the genre of the Piano Quintet alludes to Brahms' major contribution to the genre. Indeed, the Horn Call and Hunt topics pervade Brahms' oeuvre.[63] The 'collective memory' of the inherited topic still appears within the dialogue of tonality/post-tonality, but this topical and intertextual context broadens the scope, functioning both to cement a possible formal function—albeit within a new refracted, doubly coded harmonic vocabulary—and as a clear historical object within this new vocabulary. This forms another double coding of the Horn Call topic and Brahms intertextual allusion.

[62] For a detailed analysis of the semantic layers of *Brahms*, see Venn 2015.

[63] For examples and analysis see Monelle 2006b, 95-110.

Fig.7.2.2: Opening of Brahms, Piano Concerto no.2, showing a similar contour (b.1) and characteristics of the Horn call (opening horn and harmony of bb.2-3).

Both these codes point towards a similar repertoire and tradition, though, and the levels of coding go further. As Caplin notes, whereas the Horn Call is most often initiating, the descending horn fifths of the opening of Beethoven's 'Les Adieux' subvert this, creating a Lament-Horn Call trope of a descent (Fig.7.2.3a).[64] As detailed in section 4.6 above, the opening of Ligeti's Horn Trio (Fig.7.2.3b)—itself an homage to Brahms—alludes to Beethoven's opening, maintaining the descending horn fifths (albeit distorted) which similarly open the work. Through these two major works, the 'horn fifth' opening is reversed, perhaps commenting on the past, in Beethoven a literal 'farewell' to the Horn call. Viewed through the lens of this intertextual association—that is, putting on the glasses of

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[64] Caplin 2005 notes that the Lebewohl descent's natural association with closure, combined with the resulting deceptive cadence, lead to a form-functional disruption, prompting the listener 'to explore the aesthetic effect of this disturbance and even to consider whether the Lebewohl idea will eventually find its more appropriate formal position as a cadence' (122), although such a satisfying cadence never appears.

Horn Call-Beethoven-Ligeti as lineage rather than Horn Call-Brahms—we can understand the rising reference to a Horn Call as a *marked* return to a distant use of the Horn Call as initiating. That is, against the lineage of the eighteenth century, Adès's initiating gesture appears unremarkable, but against the Beethoven-Ligeti lineage it is a striking reversal. And from this perspective, Adès's opening does not embody the outdoors, masculine, heroic associations and programmatic possibilities of the Horn Call but, through its dilution through other texts, becomes a signifier of two separate strands of historical lineage.
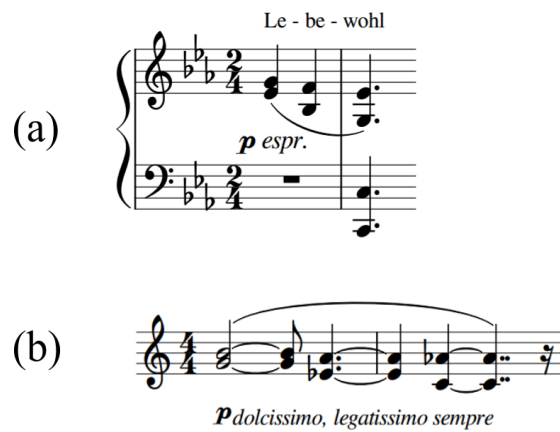
Fig.7.2.3: Openings of Beethoven, Piano Sonata, op.81a 'Les Adieux' and Ligeti, Horn Trio.

Whilst these layers of encoding in the Quintet's opening two bars demonstrate how a single moment can reflect these theories of architecture, the medium of music—more so than architecture—is particularly temporal. As mentioned above, if for Caplin and Agawu the hunt traditionally has a clear initiating function, the reversal to an opening descent in 'Les Adieux' and Ligeti's Horn Trio undermines this function. Which of these strands is prioritised depends on the generic framework, an understanding which echoes Eric Drott's application of two distinct genre lenses to the opening sonority of Grisey's *Partiels*. Drott

notes that the opening partial synthesis of the trombone resembles of a dominant ninth

sonority, a remarkably consonant sonority and therefore marked within the prevailing

dissonant language of the genre of the post-war avant-garde. In contrast, within the context of

a broader category of common-practice Western art music the same sonority is unmarked.[65]

Depending on the generic contexts that frame *Partiels*, Grisey's opening is understood as

either radical or traditional.

Figure 7.2.4 adapts Drott's field of genre oppositions, showing how Adès's opening can

be understood within a lineage of unmarked (-) (left column) or two marked reversals (+)

(right column). The listener can understand the Quintet's opening through either the left or

right column and, loosely, the second and third rows move forward in time. The top category

of 'Rising Horn Call topic as initiating' is rooted in the extra-musical associations (as

Monelle identifies) and tonal-syntactical characteristics (as Caplin identifies). Whereas most

eighteenth- and nineteenth-century repertoire utilised the Horn Call accordingly, the reversal

at the opening of 'Les Adieux' is marked on the middle row. Considering Adès's rising

opening within this lineage results in an unmarked interpretation. The lowest row moves

forward to the late-twentieth century. The lineage of the right column of Fig.7.2.4 shows

Ligeti's opening as unmarked relative to its clear association with 'Les Adieux' in the row

above. And therefore, within *this* lineage Adès's rising opening is instead marked. That the

lowest row of Fig.7.2.4 contains the same material as simultaneously marked and unmarked,

depending on context, is a double coding.

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[65] See Drott 2013, 17-36.

Rising horn call topic as initiating

Conventional treatment in eighteenth- and nineteenth-century tonal repertoire (-)	Beethoven, 'Les Adieux', opening (+)	
Adès, Piano Quintet, opening (-)	Ligeti, Horn Trio, opening (-)	Adès, Piano Quintet, opening (+)

Figure 7.2.4: Field of oppositions (after Drott 2013, 23) showing perception of Adès's Piano Quintet opening as either unmarked (-) within a lineage of eighteenth- and nineteenth-century tonal repertoire or marked (+) within the context of 'Les Adieux' and Ligeti's Trio.

A similar paradoxical layering of codes within temporal form appears in Fredric Jameson's analysis of the 1979 experimental film *AlienNATION* (Rankus, Manning, and Latham).[66] The film consists of a juxtaposition of images in a manner similar to collage including, amongst others, footage from Japanese sci-fi film *Monster Zero* (1965), voice-

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[66] Echoing the Surrealist André Breton's disdain for thinking seriously about analysing music, across his writings Fredric Jameson uses music theory as a paradigm of an overly abstract framework. For example, 'A.J. Greimas…is perhaps in many ways the most difficult and forbidding, bristling with scientificity, as these texts are, and breaking out at all points into that graphics of formalization…that always seems to the "humanist" to draw a boundary across which one looks with frustration at the forbidden promised lands of mathematics or symbolic logic, or *of musical theory'*. (italics mine) Fredric Jameson, 'Foreword' to Greimas 1987, vi. Similarly, 'Could one establish such an overall chart of the work's [*AlienNATION*] formal time, even in a very crude and general way, our description would necessarily remain as empty and as abstract as the terminology of musical form' Jameson 1991, 84. One wonders about the consequences of one of the major figures of interdisciplinary "Theory" so casually dismissing analysis of a major art form.

overs from self-help recordings, images include Magritte's hat disappearing into Lake

Michigan, and music sliced together, including excerpts from Beethoven's Piano Sonatas and

Holst's *The Planets*. Although they appear illogical, the 30-minute film is, for Jameson,

'punctuated with formal signals'.[67] Notably, the final brief clip of a lakeshore with a child's

building blocks around a dead fish in disarray refers to, on the one hand, a specific reference

to the group surrounding the washing-up of a sea creature at the beach in the final scene of

Fellini's *La Dolce Vita* (1960)—a reference already embodying a complex ironising of

references[68]—and, on the other, a more general trope of cinema, or what Jameson terms a

'mythic residue' of 'the sea as some primordial element, as the place at which the human and

the social confront the otherness of nature'.[69] In the Piano Quintet's opening, these references

are analogous to the direct quotations and broader Horn Call topic respectively. For Jameson,

although the formal function may appear traditional, these layers of references dissolve the

content leaving 'a faint aftertrace of its original formal connotation, that is, of its syntactical

function as closure… the signifier has become little more than a dim memory of a former

sign, and indeed, of the formal function of that now extinct sign'.[70] The sign's digestion

through different treatments in other works dilutes its significance, leaving (somewhat

paradoxically) the formal function to remain. It is not simply that Horn Call have an initiating

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[67] Jameson 1991, 82.

[68] In *La Dolce Vita*'s final scene, a grotesque sea monster is pulled ashore by a group whilst the film's protagonist (Marcello, a stylish photographer and socialite) glibly watches on. A mute young girl soon appears, distantly reminiscent of Marcello's object of affection Sylvia. As Waller writes, 'this ensemble of images has no determinable head or tail' (Waller 2002, 115).

[69] Jameson 1991, 84.

[70] Jameson 1991, 84.

function, but that Brahms and others have said: Horn Calls start pieces.[71] Beethoven's and

Ligeti's openings undermined this proclamation and Adès's use of the Horn Call goes a step

further by reversing the reversal, a non-innocent return to the original, embodying a similar

effect to that of *AlienNATION*, which Jameson describes as 'a certain nostalgia and

remembering that people did that kind of thing in those days'.[72]

    Elsewhere Jameson evocatively describes the phenomenon as a 'dusty spectacles' view

of the past: the references are 'organized systematically and formally to short-circuit [to] an

older type of social and historical interpretation which it perpetually holds out and

withdraws'.[73] The initiating Horn Call persists, but the references accumulated enrich the

semantic density. Unlike Beethoven's and Ligeti's openings' reversal of the rising initiating

function of the Horn Call, Adès's opening can also function at the level of familiar tonal

formal function—if we wish to prioritise a tonal lens—*whilst still being marked as*

transgressive against Beethoven and Ligeti. In this way, the opening bars engage both

positively and critically with these references to the past, simultaneously reinscribing and

intervening into a given order.[74]

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[71] Or, as Eco describes a similar coding in literature: 'I think of the postmodern attitude as that of a man who loves a very cultivated woman and knows he cannot say to her, I love you madly,' because he knows that she knows (and that she knows that he knows) that these words have already been written by Barbara Cartland. Still, there is a solution. He can say, 'As Barbara Cartland would put it, I love you madly.' At this point, having avoided false innocence, having said clearly that it is no longer possible to speak innocently, he will nevertheless have said what he wanted to say to the woman: that he loves her, but he loves her in an age of lost innocence' (Eco 1985, 67).

[72] Jameson 1991, 82.

[73] Jameson 1991, 23.

[74] In addition to Jameson's underlying political argument, Hutcheon 2002 provides a substantial overview. For example, she notes that 'Postmodernism paradoxically manages to legitimize culture

7.3 The troping of topics

The approach above focuses on the interpretation of a single moment through the possibility of layered meaning, through topics, intertextual allusions, and form. I will now continue this chapter's focus on hermeneutic interpretations of a single musical moment, but now through the lens of Hatten's troping. Troping is a literary concept adapted to music by Hatten which can aid an understanding of how topics can relate, describing the expressive effect of elements of one topic present in another. Specifically, Hatten defines troping in music as 'the bringing together of two otherwise incompatible style types in a single location to produce a unique expressive meaning from their collision or fusion'.[75] These interactions of topics within one gesture can create such fusions as a Lament-infused March or a Horn Call-Chorale. Hatten describes the effect as akin to creative metaphors in poetry, in that they are 'novel interactions between otherwise contrasting musical entities that spark new (emergent) meanings'.[76] That is, new collisions can create new expressions through placing a familiar topic in a new situation.

Unlike the possible similarities and oppositions outlined in the Chapter 4's discussion of topical networks, troping describes a true blend of two topics in a single moment that creates a new expressive effect. A trope retains the Elementary characteristics of *both* topics but may omit Intermediate- or Actant-level characteristics of one or both topics. Some topics are consequently more apt for tropological interaction than others. Below I outline Hatten's

(high and mass) even as it subverts it' (15). In *Remaking the Past*, Joseph Straus explores issues of influence through a Bloomian misreader lens which similarly engages with a use and abuse of previous material (though he focuses on broader harmonic and formal issues). See Straus 1990.

[75] Hatten 2004, 68.

[76] Hatten 2004, 297fn1.

theory of four axes of tropological interaction as applied to Mozart's music, digested through

Scott Schumann's application of these axes to the middle-period works of Stravinsky.[77]

Accordingly, I demonstrate the continued relevance of troping to these works of the later

twentieth century and their interaction with my wider theory. This will continue Hatten's

temporalising of troping to explore how topics might interact across the whole of the Piano

Quintet, showing how the references in this layered opening contribute to the expressive

fabric of the music.

In *Musical Meaning in Beethoven* Hatten lists three basic criteria to warrant a

tropological interpretation:

> 1. The trope must emerge from a clear juxtaposition of contradictory, or previously unrelated, types.
> 2. The trope must arise from a single functional location or process.
> 3. There must be evidence from a higher level…to support a tropological interpretation, as opposed to interpretations of contrast, or dramatic opposition of characters.[78]

There must be two previously distinct topics fused at a single moment. The third criterion

requires a larger context supporting this interpretation. Hatten refers to his expressive genres

and Grabócz's interpretation of isotopy (see 3.2.1), to which I would add my own application

of the term isotopy through its cementing of a topic in a work's discourse.

Building upon this general framework in a 2014 essay 'The Troping of Topics in

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[77] Scott Schumann details applications of these categories to Stravinsky's music, showing how the framework might aid understanding Stravinsky's distortion of topics. Unlike Stravinsky's more disjointed style, the dynamic interaction of topics in Ligeti, and Adès requires a more flexible application. See Schumann 2015 and Schumann 2021.

[78] Hatten 1994, 170.

Mozart's Instrumental Works', Hatten further explores these principles of interaction. He details four 'axes of relationships' between a topic and its environment, or between topics.[79] Schumann notes that the first two axes of 'compatibility' and 'dominance' describe local instances whilst the latter two of 'creativity' and 'productivity' apply to a larger scale. From this, the localised instances can be interpreted isotopically on a larger scale through their associated characteristics, whilst retaining their tropological expressive effect.

More specifically, each of the four axes are defined by Hatten as follows:[80]

> 1. Degree of *compatibility* between a topic and its new environment or another topic, ranging from similarity to complementarity to contradiction.

A high degree of compatibility describes a combination of topics that is of limited expressive scope or interest, or 'so obvious as to escape notice'.[81] That is, they share both expressive and technical characteristics and a relationship generally existing before a realisation in a work, such as in the March and the Fanfare, which can both be subsumed under a broadly military banner and contain similar characteristics of *forte*, triadic, medium tempo, etc. Incompatible topics, in contrast, are more likely to spark a creative metaphor. For example, a Lament-March would be a less likely combination, but still possible, as the Elementary level characteristics of the Lament (descent) and March (duple metre) do not contradict one another. In contrast, a Waltz-March trope would be effectively impossible as their Elementary-level characteristics contradict one another; the fundamental characteristics of

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[79] Hatten 2014, 515.

[80] Each definition is taken from Hatten 2014, 515.

[81] Hatten 2014, 516

both topics cannot be retained.[82] The close association between two distinct topics in a

shifting isotopy (see 3.5) is a temporal manifestation of compatible topics.

> 2. Degree of *dominance* by a topic over other material or topics in its new environment. Dominance
>
> may be based on hierarchical weight, temporal precedence, parametric density, completeness, and/or
>
> prototypicality.

Dominance describes how one (stronger) topic may adopt elements of another, what Hatten

describes as a 'flavoring'.[83] The relative weight of one topic over another is determined by its

hierarchical weight (frequency in the style), temporal precedence (strength of isotopy),

parametric density (how many parameters are controlled by the topic; topical networks can

aid this analysis), completeness (in my terms, proximity to the Actant level), and

prototypicality.

Some topics are more likely to dominate. Kofi Agawu refers to this hierarchy within

the universe of topics, writing that 'there are hierarchies in our perception of topical

interplay, so that Sturm und Drang may override, say, the learned style. We therefore need a

mechanism for establishing these hierarchies objectively'.[84] Indeed, Krumhansl's empirically

exploration of Agawu's assertions regarding topics in Mozart and Beethoven uncovered a

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[82] Theoretically a Waltz-March trope could exist in 12/8 or perhaps even 3/2, as these time signatures
contain divisions into both two and three. However, the metre of either the Waltz or the March would
necessarily exist on a hypermetrical level, rendering the co-existence of their characteristically similar
tempos difficult. Nevertheless, such a trope could exist through a fast March/slow Waltz (or vice
versa). I am yet to find a clear example, though.

[83] Hatten 2014, 519.

[84] Agawu 1991, 37.

hierarchy between topics as each could be identified to different degrees by the experiments' participants.[85] In terms of Hatten's dimensions, a topic such as the learned style can dominate the Sturm und Drang, though requires a subversion of the expectation through these determining factors.

The following two categories account for the more global role of troping.

> 3. Degree of *creativity* (and a resulting emergent meaning) in a topic's interaction with other material or topics in its new environment. A topic is more likely to generate fresh meaning if it is highly novel or striking in its tropological interaction.

A high degree of 'creativity' describes a combination of topics is striking within the generic expectations. (Hatten's reference to a degree of 'creativity' is problematic, as a low degree of creativity has pejorative implications. The word 'novelty' might be more apt, but I will retain Hatten's term.) In the later twentieth century, the familiarity of the Lament may result in less 'creativity'. In contrast, a fresh topic such as the Sound Mass or EDM can create new meaning, especially in interaction with a familiar topic. In terms of the aesthetic theories outlined above, a low level of creativity suggests a more conservative adoption of Rossi's 'collective memories'.

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[85] Krumhansl 1998. Krumhansl even concludes that the distinction between Mozart's and Beethoven's treatment of topics reflects Agawu's analysis: 'the topics in the Mozart piece are used to define the formal structure to a considerable degree. For the Beethoven piece, in contrast, memorability was more strongly correlated with the amount of emotion, as if emotional emphasis is given to the memorable musical figures, and these judgments produced similar hierarchies' (133). See also Clarke 2005, 156-188.

4. Degree of *productivity* over the course of a movement, with respect to the ongoing thematic and

expressive discourse (including the trope's influence on other movements of a larger work). A topic or

trope that productively engages with the motivic or thematic discourse will directly influence the

resulting expressive trajectory.

This axis refers to the trope's large-scale role in the musical structure. A topic or trope which

'productively engages with the motivic or thematic discourse' mirrors the aims of my

isotopic analysis. Analysing the multiple levels of the hierarchy of characteristics across a

work can aid in understanding the degree of influence from the topic's characteristics. Unlike

'productivity', isotopy considers engagement with the motivic and thematic discourse as a

part of the topic's trajectory, through projection or reminiscence.

In contrast to a topical network analysis' focus on oppositions, these four axes

provide a useful framework to understand the expressive impact of multiple topics in

interaction. Moments in Adès's Quintet provide examples of each axis. Locally, the

sequence of Horn Call and Lament in the opening bars is of limited 'creativity' or novelty, as

this pairing is common, though this familiarity allows for the rich layers of intertextual

interpretation, as outlined above. The sequence of the Horn Call followed by Lament—both

of a limited, Intermediate-level scope—suggests that these topics will have a continued

productive expressive discourse over the work. Indeed, the Horn Call and the Lament

continue to interact throughout. A prominent Chorale topic also emerges, interacting with the

other two.[86] We can map two significant networks of parameters which relate to these

(Fig.7.3.1). Note that these oppositions each refer to one parameter of the topics which

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[86] In the following analysis I refer to the hierarchies previously established. See sections 4.5 (Hunt),
3.5 (Lament), and 3.6 (Chorale) and the Appendix for a complete list of hierarchies.

contain prominent relationships; in contrast, troping refers to the fusion of topics, often through shared characteristics which are modelled here.

The rise and fall of the Horn Call and the Lament of the opening embody the contour relationship. Thus, along with the layers of codes in the first three triads as discussed, the opening also sets up a topical opposition. Furthermore, the 'irrationally functional harmony'[87] of the aligned cycles such as this might more strongly point towards the harmonic series and tertian harmonies of the Chorale, opposed to the chromaticism—or, more specifically, less overt diatonicism—of the Lament. Beyond these oppositions, these three topics share homophony (less so the Lament) in regular rhythm with harmony not dissimilar to a cadence, which render them suitable for troping whilst maintaining degrees of distinction. Indeed, these common characteristics form the foundation of the Quintet's vocabulary. This compatibility renders the Quintet more suitable for a troping-focused analysis than the more oppositional-centred analyses of, for example, Ligeti's Violin Concerto in Chapter 5.

Using this framework, Fig.7.3.2 maps the trajectory of these three topics' significant appearances and relationships across the work. Where topics are fused in a notably compatible manner they are labelled *compatible*; where one topic's characteristics are more prominent the relationship is labelled *dominance*. In general, if a topic is at a higher level of the topical hierarchy, it is more present and thus *dominates*. If the topics are at the same level and share one or more characteristics, they are deemed *compatible*. As Schumann's categorising of *compatibility* and *dominance* into 'local' troping, Fig.7.3.2 only refers to these two. I have labelled the opening two bars as 'A+I' as they are not a trope—the Lament

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[87] Wörner 2017.

appear after the Horn Call—but the opening is foundational for the topics' trajectories.

Contour

Horn Call — ■ — Lament
Ascent — *Descent*

Harmony

Horn Call — *I-V harmonies*

Chorale — ■ — Lament
Tertian — *Chromatic*
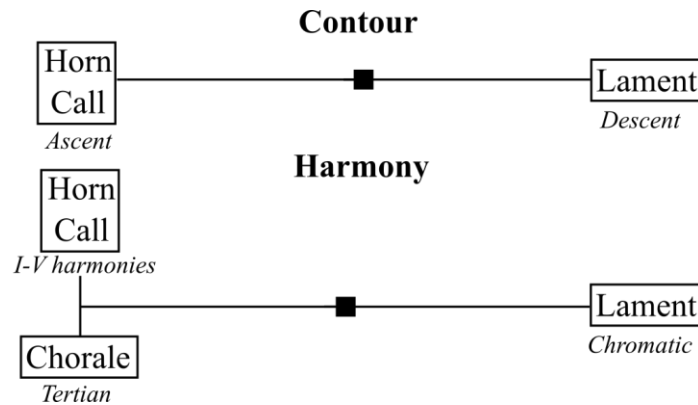
Fig.7.3.1: Two prominent networks outlining oppositions between the topics Horn Call, Lament, and Chorale in Adès, Piano Quintet. The box denotes an opposition and the line denotes a loose association.

Whilst the opening is a reversal of the openings of 'Les Adieux' and Ligeti's Horn Trio, as outlined above, following further ascents at Fig.2^{+17} the contour is reversed.[88] Now it reflects the "correct" descent of the Horn Call and Lament trope in Beethoven's and Ligeti's openings, supported by the *piano* dynamic. Following the introduction, the Lament pervades the remainder of the movement topically (until the return of the Horn Call at Fig.19^{+9}) in dialogue with an increasingly present Chorale. Elementary-level characteristics of the Chorale are already present in the opening's homophony, but not until a more sustained homophony in four parts appears in Fig.3^{+5} does a Chorale become clearer: here the four string instruments move in homophony, satisfying the characteristics of the Intermediate level. This moment may be considered Actant level, although the brief three

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[88] Fig.2^{+17} refers to the seventeen bars following Fig.2 in the score.

Fig.

Beethoven op.81a,
Brahms op.83,
Ligeti, Horn Trio

HORN CALL   LAMENT   CHORALE

A   +   I

2 +17

I   *compatible*   I

3 +5

I   *dominates*   I

4

I   *dominates*   A

11

sub.**ppp** calmo, senza vib., lontaniss.

I   *dominates*   A

12 +7

I   *compatible*   I   *compatible*   I

17

A   *dominates*   I

19 +9

A

22 +1

A

Fig.7.3.2: Outline of topical relationships in Adès, Piano Quintet, showing the Lament and Chorale emerging and recurring reference to the openings of Beethoven, op.81a and Ligeti, Horn Trio. © Faber Music Ltd., London.

sonorities are a fragment of a Chorale rather than a characteristic clear phrase and the

increasingly developing Lament gives the descending top line a semantic significance. Unlike the competing contours and harmony, this characteristic of the Lament can co-exist with the homophony, rendering a high degree of compatibility at their respective Intermediate levels, thus continuing the I-level compatibility of Fig.2^{+17}.

By this point (Fig.3^{+5}) Intermediate-level Lament and Chorale are strongly projecting Actant-level realisations. But the Chorale is realised first at Fig.4, strongly infected by the Lament.[89] The expansion of the opening phrase into the piano's near transposition continues the descent, thus better satisfying both the Lament characteristic and the Chorale's characteristic phrasing, supported by the interval cycles' clean voice leading. The near repetition of this passage (only the first cycle is shown in Fig.7.3.2) points to both the Lament's characteristic repetition of a ground bass, but the persistent high tessitura and quick tempo limits to the Intermediate level. Nevertheless, as the Chorale reaches Actant level— and the Lament is not too far off—Fig.4 demonstrates their high degree of *compatibility*. In the process, it re-interprets the characteristic of multiple parts of the opening chords of the Horn Call into a fundamental Chorale characteristic.

The trope of the Chorale and Lament recurs at Fig.11, where the now-Actant-level Chorale continues to dominate. Although the tempo has slowed and the top line is descending, the tessitura remains high, limiting a satisfactory Lament. In addition, as Fig.7.3.3 shows the succession of chords points towards local tertian functionality to create a clear phrase with a cadence in B minor, albeit with a semitonal shift down to B♭ for a

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[89] Stoecker calls this moment 'chorale-like', perhaps mapping onto my Intermediate level. The characteristics of four homophonic voices in a phrase with neat voice leading in medium-low dynamics satisfy the Actant level of my Chorale hierarchy. See Stoecker 2014, 45.

cadential six-four. Although the Lament classically contains functionality, as highlighted in previous examples, the later twentieth-century version often explores its non-diatonic aspects. Thus, this loose functionality points towards the functionality of the Chorale. Nevertheless, although the Chorale dominates the Lament, the latter's characteristics (especially descent) remain.

Fig.7.3.3: Adès, Piano Quintet, Fig.11, string parts only, showing possible Chorale-like harmony and phrasing. The piano elaborates a B minor triad, encouraging a B minor hearing and providing the root for the final sonority. © Faber Music Ltd., London.

The opening of the Quintet's development at Fig.12^{+7} brings the return of the Horn Call at I-level and is the first time to trope all three of the Horn Call, Lament, and Chorale. The moment echoes a common sonata-form device of the development opening with main theme material. And the reprise of the opening incorporates the layered codes, but now within the framework of a realised Chorale topic. The Chorale and Lament characteristics are clear—most centrally homophony, descent—but the allusion to the opening and rising horn fifths also evokes the Horn Call of the opening, continuing the Horn Call isotopy and projection of a later realisation. Unlike the opening, though, the descending contour again more directly refers to 'Les Adieux' and Ligeti's Horn Trio latent in the opening and more

realised Fig.2^{+17}. Although the intervals are distinctly wider than the tones of the Beethoven and Ligeti examples, the dynamics support the reference and continue the 'Les Adieux'-Horn Trio isotopy, continuing to draw out different isotopic trajectories, depending on the references identifies at the opening.

The Lament is realised at Actant level at Fig.17: the low tessitura, slow tempo, and prominent descending tetrachord satisfy the previously lacking characteristics of the Lament. The Chorale remains, but the slow tempo and low tessitura now render it the lesser of the Lament-Chorale topical pair. Finally, at Figs.19^{+9} (the recapitulation) and 22^{+1} the Horn Call topic returns in full swing, *f-fff* and significantly faster, satisfying Actant-level characteristics. Whereas the previous I-level appearances of the Horn Call are undermined by the troping with the Lament and Chorale, in this recapitulation the previous associations are trimmed to forefront the Horn Call. The final appearance at Fig.22^{+1} particularly highlights the characteristics of rising contour, high dynamic, and focus on I-V progressions that are perhaps unsuited to the Lament and Chorale.

Over the Quintet the different interactions of these topics, both on a small and large scale, provide further indications of the work's semantic and narrative richness within the limits of three topics. The three topics thus exemplify a *productive* trope. The Chorale's characteristics garner a significant influence on the work, while the continued dialogue with the Lament demonstrates a productive trope, influencing the expressive direction away from the Horn Call, until the latter's dramatic return towards the end. This simultaneously subverts the opening's focus on the Horn Call and Lament whilst satisfying this initial kernel of Horn Call characteristics. And although a single occurrence of I-level Horn Call characteristics is insufficient to properly project a topic (see 3.3.1), the continued engagement with the

reference to 'Les Adieux' and/or Ligeti's Horn Trio continue the intertextual-topic dialogue in an isotopy. This leads to a dual-coding at the scale of the larger form: the Hu Horn Call nt continues to be projected—elevating its semantic status—if the reversed contour and continued allusions of Figs.2^{+17} and 12^{+7} to Beethoven and Ligeti are understood to be significant. That is, *only with this intertextual understanding* does the Horn Call isotopy reach a more significant part of the semantic dialogue. Without this intertextual context, the Lament and Chorale dominate, with a perhaps surprising appearance of the Horn Call near the end.

7.4 The role of topics in late-twentieth-century music

Following this discussion and the extended analyses of Ligeti's Violin Concerto and Adès's *Living Toys* informed by my framework, I will highlight several key themes from this chapter which point towards further hermeneutic directions beyond this brief overview.

First, adopting the theory of musical topics is central to understanding these aesthetic principles in the music of Adès and the later music of Ligeti. Topics provide a lens through which to appreciate the historical awareness of these composers in dialogue with intertextual references. Returning to my definition from Chapter 1, a topic is a familiar musical style with distinct characteristics imported into another context. They are characterised by convention within a certain group, such that a topic's reference can be clearly understood without recourse to titles or programmatic indications, analogous to Rossi's 'collective memories' of past objects and places or Jencks's 'traditional symbolism' as topics are musical elements which engage with layers of reference to a shared history, the semantic richness of which can be compounded through the topics' potential to nest within quotations and intertextual references. Beyond the local signification, combining isotopy and topical networks with

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Hatten's concept of troping traces the development of topics and quotation in interaction, pointing to multi-coding on the level of musical form. That the characteristics of topics are relatively imprecise compared to intertextual references demonstrates a continued potential for renewal, suitable for these theories through the desire to reference past cultural objects, without resorting to the specificity of quotation that fewer listeners may appreciate.

Second, the layers of semantic coding may suit ironic readings. A simple binary model of irony—that is, there is a secondary understanding beyond the immediate—can be insufficient, however. Neither interpretations of the opening of Adès's Quintet subversively "reveals the true meaning" behind the other. Nevertheless, a listener can understand various combinations of multi-coding, each providing their own variant on irony or satire. For example, a listener identifying the Brahms and Beethoven references might understand a different variant of irony from another listener who centralises the Ligeti reference, or indeed, a listener who identifies all three. This prismatic play with the layering of references to the past echoes Eco's 'game of irony', that each perspective acknowledges the 'challenge of the past, of the already said' and to toy with multiple viewpoints is to 'play the game of irony'.[90] The multi-coding is not simply reviving familiar codes, but simultaneously problematising and reinscribing aspects from a multitude of perspectives, such as the formal function of the Horn Call. As such, for Eco this game further highlights the human construction of these codes and viewed from multiple perspectives continues to reveal a degree of arbitrariness and social-cultural conventionalisation. Accordingly, to strive for an idealised historical listener of the twentieth century, or to uncover a widely understood vernaculars as topic theory applied to eighteenth- and nineteenth-century music, belies the

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[90] Eco 1985, 67-68.

centrality of plural understandings outlined here.

The concept of multi-coding echoes the 'double-voiced discourse' model of feminist criticism introduced by Elaine Showalter.[91] A sign in a double-voiced discourse can similarly point in multiple directions, depending on the perceiver's experience, embodying the 'social, literary, and cultural heritages of both the muted and the dominant'.[92] Loosely, the dominant (male) discourse can ally to Jencks's 'one half modern', or the communication with peers through technology, whilst the 'muted' (female) discourse might mirror the simultaneous effort of 'trying to get over that elitism'.[93] Showalter argues for their equivalence in a manner similar to Jencks, a model which pushes back on concepts such as parody and irony. Expanding into other 'muted' groups, allying this analysis to Showalter's double-voicing points to the wider rich potential of multiple topic- or quotation-led entrances into a work and engagement with broader debates on the plurality of perception.

Furthermore, a topic requires a conventionalisation, but a question remains: to whom are topics conventionalised? Central to understanding the topics' role is the *choice* of sign which embodies a '*traditional* symbolism'. That is, through the choice of signs a composer can situate themselves within a certain tradition with its own familiar conventions. Jameson wryly refers to this renewed artistic agency as 'Surrealism without the unconscious',[94] highlighting the effect of choosing an *objet trouvé*—whether quotation, topic, or intertextual

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[91] Showalter 1981, 201-205. For an evocative application of this principle to contemporary music indepedent of topics and semiotics, see Roeder's analysis of Saariaho's 'The claw of the magnolia…' in Roeder 2016.

[92] Showalter 1981, 201.

[93] Jencks 1998 [1977], 6.

[94] Jameson 1991, 67.

reference—over another, contrary to the passive dream logic of the early Surrealists. Through channelling Jencks's conception of architecture, Linda Hutcheon points to how the choice of such signs can also reveal expectations about the identity of the interpreter:

> [P]ostmodernist architecture can certainly be élitist, if the codes necessary for its comprehension are not shared by both encoder and decoder. But the frequent use of a very common and easily recognized idiom—often that of classical architecture—works to combat such exclusiveness…Parody of the classical tradition offers a set of references that not only remain meaningful to the public but also continue to be compositionally useful to architects.[95]

Interpreting the use of signs of the 'easily recognized idiom' of classical architecture as analogous to topics prevalent in late-eighteenth-century music can perhaps help understand the relatively popular appeal of a work such as Adès's Quintet.[96] The topics such as the Horn Call, Chorale, and Lament as musical signs continually taken out of the proper context remain 'meaningful to the public' and 'continue to be compositionally useful' to composers. Fresh topics, though, occupy a different role from inherited topics. They may not necessarily be shared by both encoder and decoder, such as composer-curated topics, such as the Sound Mass or a more widely known topic such as EDM in Adès's *Asyla* may challenge the elitist perspectives though still within the complex compositional techniques used. These examples demonstrate the potential to use references to situate listeners.

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[95] Hutcheon 1988, 34.

[96] Hutcheon's reference to Classical architecture is referring to the principles of Greek and Roman antiquity, far removed from the late-eighteenth century to which I am referring to in music. Nevertheless, in both media the 'classical' remains a distant period and both retain the aesthetic goals of a highly refined style and a vocabulary of decorative elements.

Hutcheon further develops these interpretations of the sign, suggesting that, through highlighting the role of the reader, listener, or viewer through sharing an understanding of the code, the sign's place within a wider system is revealed. Through calling attention to the historical elements, the work's context is difficult to ignore. Unearthing the constitutes of a sign by tracing the ideologies (e.g. the Horn Call's historical association with the aristocracy) and their history (e.g. the Horn Call is also associated with the music of Brahms), Adès's and others' work frames various social, ideological, historical, and aesthetic contexts. Further contrasting to the "realist" representations favoured by artists in the eighteenth and nineteenth centuries (in literature and visual arts at least), Hutcheon suggests that, through tracing through a canon of works alongside the historical association, the referent 'is only accessible to us today in textualized form…the past is "archaeologized"…but its reservoir of available materials is always acknowledged as a textualized one'.[97] 'The issue', she writes, 'is no longer "to what empirically real object in the past does the language of history refer?"; it is more "to which discursive context could this language belong? To which prior textualizations must we refer?"'.[98] Each topic, such as the Horn Call, did literally exist as a sign, as demonstrated by Monelle's detailed historical analysis. But perhaps now each exists primarily through the canonical digestion—a textualisation—rather than as the "original" Horn Call. And, as a consequence, the composer and listener might struggle to hear the topic without some degree of reference to this canon.

And yet, as demonstrated with the analysis of the Quintet's opening bars, a text can somewhat paradoxically still retain the expressive effect, even formal function, attributed to

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[97] Hutcheon 1988, 93.

[98] Hutcheon 1988, 119.

the earlier modes of hearing. Reflecting on this Janus-faced coding, both Hutcheon and

Jameson highlight the simultaneous detailed academic study and wider popularity of this

aesthetic across the arts, noting the bestseller status and Hollywood adaptions of exemplar

novels such as Eco's *The Name of the Rose,* John Fowles' *The French Lieutenant's Woman,*

and E.L. Doctorow's *Ragtime* etc. Likewise, Jencks suggests that James Stirling's Neue

Staatsgalerie in Stuttgart, which he suggests typifies his aesthetic, is 'a very popular building

with young and old, and when I interviewed people there—a group of *plein air* painters,

school children, and businessmen—I found their different perceptions and tastes were

accommodated and stretched'.[99] Within contemporary music circles, Adès's music has

provoked a similar relative popularity. For example, he was the youngest winner of the

Grawemeyer Award followed by a series of EMI records and, writing in 1999 in the New

York Times, Richard Taruskin noted that 'If the attention being paid the twenty-eight-year-

old Mr. Adès is another sign of the times in classical music, there is reason, at this time of

millennial stock-taking and auguries of doom, for renewed hope'.[100] Given the similar

popularity afforded to a similar aesthetic understanding outlined above in literature and

architecture, perhaps this 'renewed hope' is through Adès's music's embodiment of this

semantically, historically, and technologically rich aesthetic.

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[99] Jencks 1987, 37.

[100] Taruskin 2009 [1999], 144.

Conclusion

In addressing the concept of a 'double-voiced discourse', as discussed in Chapter 7, feminist critic Elaine Showalter describes a 'muted' discourse subsumed under a 'dominant' discourse. This resonates with my signs-first, topic-theory led approach: her framing of this 'radical alteration' of perceiving meaning against a more dominant, orthodox discourse (or mode of music analysis) aptly maps onto my focus on the meaning-objects as a means to provide a new perspective on familiar material and, indeed, the significance of topic theory more generally:

> In the purest feminist literary criticism we are…presented with a radical alteration of our vision, a demand that we see meaning in what has previously been empty space. The orthodox plot recedes, and another plot, hitherto submerged in the anonymity of the background, stands out in bold relief like a thumbprint.[1]

Translating this to the critical potential of topic theory at large: topic theory is a radical alternative to the dominant modes of analysis, seeing meaning—through imported conventionalised objects—in what has previously been empty space. In my method a thumbprint of musical topics remains imprinted on conventional modes of analysis, no longer relegated to the background and no longer subservient to certain orthodox analytical plots. Beyond feminist theory and the rich potential in other 'muted' groups, Showalter's concept of double voicing equalises the dominant modes within the pair. My contribution in this

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[1] Showalter 1981, 204.

dissertation concentrates on the relationships with familiar modes of analysis and the

relationship to musical form and temporal perception, aiming to show how the spectacles of

topics can similarly alter our vision of the music.

More specifically, my main contributions in this dissertation are:

(1) Theoretical. This dissertation has developed new theoretical approaches to (a) topics

and (b) analysing semantically rich post-tonal repertoire. The hierarchy of topical

characteristics, applied temporally (isotopy), and networked (topical networks)

conceives topics as dynamic objects within the form. Aspects of these principles

could be adapted for tonal music, but the liberation from tonal syntax in post-tonal

music allows for freer relationships. As such, these analytical approaches engage

traditional post-tonal analytical approaches with the hermeneutic realm. Furthermore,

whilst other analytical theories of post-tonal music explore the listener's role in

constructing form, my approach is a theory based upon experience and familiarity

with cultural objects. As I draw upon major theories in semiotics—which are

influential across the twentieth century across domains—this approach provides the

foundation for which to engage in dialogue with other interdisciplinary theories

which engage with similar principles. My more speculative Chapter 7 suggests

avenues to follow; there are further theoretical lines of inquiry and repertoire on

which to further develop my approach.

(2) Historical. Although I focus on two composers, the music of Ligeti and Adès

embodies a wider 'post-collage' aesthetic. That is, one which extensively draws upon

references—particularly topics—alongside more traditional compositional techniques

of contemporary music.[2] As such, the music of Ligeti and Adès embodies a simultaneous turning towards embracing conventionalised signs as expression whilst maintaining familiar compositional principles. The model is particularly suited to this repertoire: Ligeti's position as a major figure of the avant-garde from the 1950s alongside his later works' embracing of references suits this analytical approach. (In contrast, a composer such as Xenakis did not embrace such references.) And, although born fifty years later, Adès's music similarly embraces referential material alongside familiar compositional techniques such as intervallic manipulation. Furthermore, this dissertation models stylistic differences between the two composers. Ligeti's music tends to oppose relatively clear imported material, often in a dialectical manner, such as modelled in my analysis of the Violin Concerto. In contrast, Adès's music is more likely to remain on the allusive I-level, with topics more in dialogue with one another (such as the troping in the Piano Quintet and manipulation of closely related pitch material in *Living Toys*).

I am far from the first to adapt significant theoretical concepts associated with structuralist and post-structuralist thinking to music theory. This dissertation is, though, an extended attempt to place traditional approaches to the structure and form of this repertoire in dialogue with these concepts through the rich lens of topic theory. And as these concepts are rooted in the complexities of the sign, they provide foundation for rich further study. As

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[2] This characterisation mirrors Jameson's characteristation of postmodern art as works which 'no longer simply 'quote' as a Joyce or a Mahler might have done, but incorporate into their very substance' (Jameson 1991, 3).

such, if we return to Caplin's dictum that topic theory is 'one of the success stories of modern musicology'[3]—understanding 'modern musicology' as referring to the pluralist, listener-orientated, historically sensitive modes of listening—then engaging topics with traditional formal methods can begin to actively demonstrate the dynamic hermeneutic and structural role of topics.

8.1 Recurring relationships

Whilst this dissertation has focused on individual analyses to demonstrate different approaches, there are recurring elements worth commenting on. The Lament topic is particularly common in this repertoire. This has previously been highlighted by Amy Bauer in Ligeti's music and David Metzer in music of recent decades more generally as a narrative of loss. Here, Ligeti's *Musica Ricercata,* the *Hamburg Concerto*, and the Violin Concerto and Adès's *Still Sorrowing* and *Living Toys* engage with a prominent Lament. On a practical level the chromaticism and loose characteristics of descending of the Lament can be easily alluded to in a post-tonal, emancipation-of-the-dissonance language, often contrasting with more explicitly tonally alluding topics such as the Horn Call or Three Blind Mice. In each work, however, the Lament is related in different ways, from the ascent/descent opposition in *Still Sorrowing* to a part of an EXP/CMP transformational space in *Living Toys*.

More specifically, certain relationships at the Elementary and Intermediate levels recur. For example, the opposition between the violin's stacked fifths and the horn's focus on the overtone series, especially the composers' use of natural overtones is prominent in Ligeti's Violin Concerto, the *Hamburg Concerto* and—to a lesser extent—in *Living Toys*. In each of

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[3] Caplin 2014, 114.

these works, this opposition is embedded deeper in the harmony and form of the work. This opposition alone is non-referential; rather, in providing the foundation for different topics it echoes the structuralist mantra of a deeper opposition. More generally, each topic's allusion to tonality can contribute to a tonal element of a work's harmony. For example, Three Blind Mice in *Living Toys* is suggestively tonal, as are the fifth-based Fiddle/Folk topics. Whereas the TBM is marked out through other parameters, the fifths are foundational for the Concerto's harmony. Analysing recurrences of these topical constituents such as this can reveal much about the harmonic vocabulary of a work.

8.2 Future directions

The focus on two composers' music is necessarily narrow but provides the foundation for future pathways. Contemporaneous composers whose music contains topics, topic-like objects, and quotation, such as Benjamin Britten, George Benjamin, Oliver Knussen, Witold Lutoslawski, Krzysztof Penderecki, and Alfred Schnittke could benefit from such an approach. More broadly, composers associated with collage technique, such as Luciano Berio, George Rochberg, and Bernd Alois Zimmermann, may benefit from expansion into the topical realm. Pushing the scope of a Topical Network approach with a hierarchy of characteristics backwards to composers such as Mahler may develop further formal views. Many of these composers—including Ligeti, and Adès—are well-known as opera composers. Echoing Allanbrook's study of topics in Mozart's operas as a means to elucidating the socio-cultural undertones, the wide range of inherited and fresh topics has the potential to provide insights. Similarly, larger-scale narrative genres such as musicals and film may benefit from such an approach. These could probe how the contradictions between topics in these genres may either support or undo the conventional relation to language, narrative, and their modes

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of signifying. Isotopy could be particularly rich here, assessing different topical paths, lower-level projections, and whether they are realised or not. Furthermore, within different genres and even cultures, different topical universes may exist, providing the foundation for different relationships and systems. For the purposes of outlining my approach I have focused primarily on familiar inherited topics, providing a relatively traditional account of topics in a relatively traditional-facing repertoire.[4] For example, Horace J. Maxile Jr.'s work on topics, quotation, and intertextual relationships in the music of Frederick Tillis and David N. Baker from jazz and vernacular perspectives provides a foundation for work on music from a strikingly different perspective to the mine, into which my approach could be adapted.[5] More broadly, the extensive borrowing and intertextual and stylistic allusion of hip-hop, as demonstrated by Justin Williams's study, is suggestive of a potentially rich dialogue with my description of a post-collage style with the contemporary music of Ligeti and Adès.[6] Expanding this would begin to delve into the rich tapestry of topics in the twentieth century across genres.

A further future direction that is tangential to my approach is a deeper historical study of individual topics. Amy Bauer's study of Ligeti's use of the Lament is a touchstone of this approach towards a single topic and single composer in twentieth-century music,[7] Raymond Monelle's detailed study of the origin of the Hunt, Military, and Pastoral topics alongside the

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[4] The concept of a historical object shifting in and out of focus can go beyond the topic. For example, my article on the appearances of melody in spectral music (Donaldson 2021a) explores how melody can reference past conventionalised modes of expression within a starkly innovative compositional approach.

[5] See Maxile 2008 and Maxile 2013.

[6] Williams 2013.

[7] Bauer 2006.

varied essays in the 'Contexts, Histories, Sources' section of the *Oxford Handbook* provide further models.[8] The study of the treatment of inherited topics in twentieth-century music building on the work of Frymoyer would be valuable. More generally, placing topic theory in a more extensive dialogue with Charles Wilson's critique of contemporary composers' 'rhetoric of autonomy' could demonstrate how composers often rely on conventionalised objects for expression. That is, mirroring Wilson's suggestion that 'If, as so often, artists feel they have an interest in proclaiming their autonomy, it is the critic's duty to demystify rather than collude in this essentially strategic position'.[9] Analysing the role of the conventionalised imported objects of topics can challenge some composers' rhetorical stances.

A further avenue is the topics' dialogue with performance studies. This is a burgeoning area of topic theory, though again the focus remains on eighteenth- and nineteenth-century music, with potentially rich avenues of application to twentieth-century music. A central thread is how performers' actions can foreground topics. For example, John Irving describes a feedback loop of intuiting a topic during practice, studying the materials to identify it, and then emphasising these characteristics in performance. Or, more poetically, he describes the three phases as '*feeling* topical content in the gestures of performance; *rationalizing* those physical responses in analytical reflection with the score; and *creatively* applying the potential for topical understanding to enhance our experience of this repertoire'.[10] Olga Sánchez-Kisielewska turns this approach to studies of recordings, demonstrating how the tempo choice and degree of articulation of the second movement of

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[8] Monelle 2006b, Mirka 2014.

[9] Wilson 2004, 19.

[10] Irving 2014, 548.

Mozart's Violin Sonata K. 304 can lead to identification of the moment as a hymn topic or a minuet.[11] In both these examples performer intervention can increase the presence of a topic. This can affect certain elements of the topical hierarchy, possibly pushing an Intermediate-level topic towards the Actant level. Of course, only topical characteristics present in the score can be forefronted; the performers have more agency when two or more topics are troped. For example, emphasising one topic's characteristics can result in it taking a more dominant role with its pair. Likewise, the exaggeration central to parody can be affected by the performer, especially if a dynamic is involved. More generally, the layout of performers can influence the topical expression. For example, in Ligeti's Violin Concerto the spatialisation of the solo violin as an individual away from the orchestra, far from the ocarina's Chorale, parses the topics visually.

Beyond this performance perspective, topics can provide an appealing way into a piece for students, especially those who otherwise may find an entrance to difficult repertoire challenging. If topics are, again, conceived not as an optional extra but the core of a post-tonal analysis and *then* lead to other theoretical methods, such students may find this music more accessible. For example, J. Peter Burkholder describes an undergraduate class where he asked students to identify places where the style or character changes in the quintessential topical example of the first movement of Mozart's K. 332 Piano Sonata. He then asked students to describe and name each style, so that "topics" is a name for something they discovered themselves.[12] In a post-tonal class this pedagogical approach could lead to the

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[11] Sánchez-Kisielewska 2020.

[12] Burkholder 2019. Due to the appealing approach for undergraduates, Burkholder has introduced topics into *A History of Western Music* since the 7th edition in 2005. The pianist John Irving mentions a similar reversal of topical experience, describing a quasi-embodied experience of the topics: 'It is

exploration of other analytical approaches, such as the transformational approach I applied to *Living Toys*. Inherited topics would likely be familiar to students from their experience with past repertoire; fresh topics would enable students to reflect on other experiences, especially in examples such as the use of EDM in Adès's *Asyla*.

8.3 A theory of topics for post-tonal music

I have discovered for myself in writing this dissertation that immersing oneself in structuralist and post-structuralist theory can sometimes result in a sense of knowing nothing at all. The continued reference to plurality, whether identifying the sign or topic or different conceptions of its constituting characteristics, can appear to drift into a meaningless hyper-plurality that may seem to have minimal analytical payoff. Crucially, though, semiotics insists on convention. Returning to Umberto Eco's definition of a sign I quoted at the opening of Chapter 1, a sign in culture can be '*everything* that, on the grounds of a previously established social convention, can be taken as *something standing for something else'*.[13] In music, topics are conventions existing within a conventionalised system. If we think about a musical object, we are likely thinking about it as a topic. And topics' conventional nature allows close analysis to show how convention can govern our experience of a work. More fundamentally, revealing these—as the early topic theorists so successfully uncovered in eighteenth-century music—can show how these conventions of expression can form the

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precisely in performance that a sophisticated topical landscape emerges in this finale [of Mozart's K. 454 Violin Sonata]. It could be read off the page, but at least in my own case, it was felt first of all in performance as a succession of gestures, and only rationalized subsequently in analysis of the score.' (Irving 2014, 542).

[13] Eco 1976, 16.

foundation of how we know and experience.[14] If we don't recognise a topic, due to different experiences, we don't recognise its existence within this system. And we might construct a different set of relationships. Maybe these are associated with topical characteristics, maybe not. Hatten succintly sums up this analytical payoff, writing that 'If the price is uncertainty, the reward is a correspondingly greater depth of musical understanding'.[15] Turning this topical mirror onto ourselves, or the contemporary music of the past decades, can reveal riches of meaning; with topics weighed down by an increased textualisation and range of listener experience, the uncertainty may be more significant than music of previous centuries, but perhaps the correspondingly greater plurality of experiences rewards a greater depth of musical understanding.[16]

In sum, this dissertation has unashamedly supported Danuta Mirka's remark that for music of the twentieth century 'the spectrum of such references and complexity of their sociocultural meanings exponentially increases'.[17] In tandem, though, I have shown how the problems faced in confronting the semantic complexity of this repertoire can not only reveal semantic richness but even stimulate the development of topic theory itself. The study of

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[14] Monelle similarly emphasises the foundational insights of semiotics as applicable to music analysis: 'musical theorists are sometimes apt to claim finality for their ideas…Semiotics, by revealing that analysis is a symbolic fact subject to aesthetic perception, shows up such claims as mere fantasy' (Monelle 1992, 124).

[15] Hatten 1994, 257.

[16] With reference to post-structuralist and post-modernist understandings, Linda Hutcheon describes the post-structuralist or post-modernist turn towards the listener which continues to centralise systems and order: 'What it [postmodernism] does say is that there are all kinds of orders and systems in our world—and that we create them all…The point is not exactly that the world is meaningless…but that any meaning that exists is of our own creation.' (Hutcheon 1988, 43).

[17] Mirka 2014, 47.

such conventionalised objects in music are both simultaneously identifiable and flexible, a malleable conception of the sign which leads Jonathan Culler to suggest that this type of model can be particularly productive in understanding the avant-garde in literature:

> Structuralism, because of its interest in the adventures of the sign, has been exceedingly open to the revolutionary work, finding in its resistance to the operations of reading confirmation of the fact that literary effects depend on these conventions and that literary evolution proceeds by displacement of old conventions of reading and development of the new.[18]

Utilising topic theory to approach recent avant-garde music is therefore not simply an extension or adaption of previous applications. Rather, it can provide the key to confirming discoveries of topic theory thus far whilst pushing its powerful insights into a whole new world of musical meaning.

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[18] Culler 1975, 130.

APPENDIX: HIERARCHIES OF CHARACTERISTICS

CHORALE

Actant: Appropriate voice-leading, medium/low dynamic, clear phrases at a medium tempo, singable range and articulation

Intermediate: Tertian voicings, homogeneous timbre, regular rhythm, three or more distinct parts

Elementary: Homophonic

Works: Ligeti, *Hamburg Concerto,* Violin Concerto*,* Adès, Piano Quintet

FANFARE

Actant: *f-ff-fff*, lower pitches of harmonic series

Intermediate: tertian harmonies, mid-high tessitura

Elementary: prominent ascent, regular rhythm landing on a sustained pitch

Works: Ligeti, Violin Concerto, Adès, *Still Sorrowing*

FIDDLE

Actant: *forte*, alternations between duple and triple divisions, alternative tunings

Intermediate: Non-diatonic scales, irregular accents, "rustic" timbre

Elementary: fifths, fast

Works: Ligeti, Violin Concerto

FOLK

Actant: *forte*, alternations between duple and triple divisions, alternative tunings[19]

Intermediate: Non-diatonic scales, irregular accents, "rustic" timbre

Elementary: fifths, fast

Works: Ligeti, *Hamburg Concerto*, Horn Trio

HERO

Actant: *f-ff*, horn

Intermediate: Harmonic series, mid-low tessitura

Elementary: Prominent ascending and descending contours, single voice

Works: Adès, *Living Toys*

HORN CALL

Actant: loud, I-V harmonies in major key (or allusion to), short notes followed by a sustained note

Intermediate: horn dyads or triads, mid tessitura (third register of horn)

Elementary: Prominent rising motion, interval or fourth/fifth

Works: Adès, Piano Quintet

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[19] For extensive discussion, see Ritzarev 2012. Her distinction between phylo-vernacular ('the primary, authentic layer of folklore') and onto-vernacular (where 'the primary folklore repertoire is transferred to the multi-social and multi-ethnic (both versus the 'tribal') urban society and thus affected by common-practice idioms') is useful in understanding folk references in art music (39).

HUNT

Actant: *f-ff-fff*, brass timbre, harmonic series, compound metre

Intermediate: tertian harmony, mid-high tessitura, multiple parts

Elementary: Ascending, regular rhythm

Works: Ligeti, *Hamburg Concerto*, Horn Trio

LAMENT

Actant: Isolated descending tone- or semitone-based scale (often spanning tetrachord) in

bass, traversing a fourth, slow tempo

Intermediate: (Hyper-)metrically regular, chromaticism, *piano*

Elementary: Descent

Works: Ligeti, *Musica Ricercata*, Horn Trio, Violin Concerto, Adès, *Still Sorrowing*, Piano Quintet, *Living*

Toys

MARCH

Actant: Triad-resembling harmonies, marching tempo,[20] simple melody, extended

textural regularity

Intermediate: Simple (often static) harmonies, dotted rhythms

Elementary: Duple metre

Works: Ligeti, *Musica Ricercata*

SOUND MASS

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[20] On different marching tempos, see Frymoyer 2017.

Actant: Subsuming of sound events into a perceptual whole, through the layering of many layers of pitch, rhythm, or timbre.

Intermediate: Several distinct layering of pitches (more than a simple chord), rhythms, or timbres, often closely spaced (metrically or in register) or multiple simultaneous (yet separate) groups.

Elementary: slow-moving/near-static harmony, unclear metre

Works: Ligeti, *Hamburg Concerto*, Violin Concerto

THREE BLIND MICE

Actant: *ff*, pitches E-D-C around middle C

Intermediate: Descending in whole tones

Elementary: A group of three equally spaced descending pitches

Works: Adès, *Living Toys*

TOREADOR

Actant: Trumpet, loud

Intermediate: Fast, soprano tessitura

Elementary: Notes grouped in threes, stepwise

Works: Adès, *Living Toys*

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