JMM

The Journal of Music and Meaning

www.musicandmeaning.net

Volume 12
2013/2014

ISSN 1603-7170.

Stravinsky's Sideward Glance:
Neoclassicism, Dialogised Structures and the Reflected Discourse of Bach

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Abstract

This article reassesses Stravinsky's early neoclassic music through the prism of Bakhtin's literary theory concept of dialogised heteroglossia (other voices). In close readings of extracts from the Concerto for Piano and Winds and the Octet, the paper considers the problematic metaphor of Bach's voices in Stravinsky's music. Forcefully dismissed by Taruskin and others as little more than constructivist sleight of hand on the part of the composer to re-imagine Bach as an architectonic icon in Stravinsky's own image, I argue that to obliterate Bach's 'other voice' from the early neoclassic works impoverishes the music, depriving it of its vital dialogical discourse between an imagined classical voice of Bach and Stravinsky's native Turanian voice. Building on Bakhtin's notion of the sideward glance at the reflected discourse of an absent interlocutor, semiotic theory and Cone's three ways of reading music (like a detective story), the paper confronts a number of partial- and mis-readings of neoclassicism ranging from Schenker, Taruskin, Hyde and Straus. The paper thus re-imagines the machine-like contrapuntal textural excesses of Stravinsky's neoclassicism in dialogical terms and, in the process, elevates Stravinsky's marginalised stylistic discourse as a vital hermeneutic counter to the more privileged appraisals of his neoclassic syntax.

1. Introduction

Prokofiev's infamous description of Stravinsky's 'dreadful sonata' as 'Bach but with pockmarks' (letter to Myaskovsky of August 1925, cited Walsh 1993: 128) is typical of a critical tone surrounding Stravinsky's neoclassic music. Failing to hear or read the music as a genuine dialogue between the voices of an imagined (past) Bach and a real (present) Stravinsky, Prokofiev's critique rests on a familiar prejudice of organicist superiority. Stravinsky's music is comprehended not in the esprit of its experiential immediacy but through an imposed retrospective apprehension of its rule-breaching un-grammatically. Dialogical perception all too readily gives way to dialectical cognition in such readings, thereby destroying the essence of what Bakhtin termed 'double-voiced discourse': a discourse bifurcated between conflicting voices (Bakhtin 1984; Bakhtin and Holquist 1981). This article explores the hermeneutic failure of such readings not, as Taruskin (1993a) has argued, for their reliance on a spurious 'back to Bach' ideology, but for their very failure to reconstruct the dialogised nature of his neoclassic music.

2. Cone's Double-voicing

In 'Three ways of Reading a Detective Story—Or a Brahms Intermezzo', Cone observed that, much like the plot of a Sherlock Holmes' mystery, music too is prone to retrospective reinterpretation in light of new evidence delivered later in the diachronic sweep of its narrative. The essay critiques formalist analysis, Schenker's in particular, for taking an all too 'synoptic and atemporal' view of music; one that does 'scant justice to our experience of hearing a composition in real time' (1977: 86). For Cone, the limitation of analysis is that it is 'firmly planted in Second-Hearing ground'. It lies between a 'purely experiential', 'diachronic' 'First Hearing' (or 'reading')—in which a narrative moment is experienced 'without prior knowledge of its outcome'—and an ideal 'Third Hearing'—which 'rations or suppresses' (previously learned,) abstracted, synoptic, (Second-Hearing) knowledge to experience a work's narrative diachronically *as if* for the first time, unfolding sequentially moment by moment.

> The First Reading is purely experiential: one knows only what one experiences (i.e. is being told). The trajectory of the reader's thought is one-dimensional, moving along the path laid out by the author. In the Second Reading one knows much more than one is being told; the trajectory of thought is zigzag, or even

> discontinuous, constantly shifting back and forth between the planes of memory and experience, until at last one is able to achieve a comprehensive bird's eye view of the narrative path. In the Third Reading there is a double trajectory. Thought moves simultaneously on two levels, one fully conscious and one at least partly suppressed. (Cone 1977: 80)

Cone finds this partial suppression of analytical hindsight analogous to a theatre audiences' suspension of disbelief, illustrating its musical application in a reading of Brahms' Intermezzo Op. 118 No. 1. 'A First Hearing [one 'based on total or partial ignorance of the events narrated'] becomes aware of the tonal problem too late' (i.e. 'the key is neither the F major suggested by the opening sonority, nor the C major of the first cadence and of the reprise, but-A minor!'). A 'Second Hearing' (i.e. Schenker's reduction 'to one concise progression: III-V$^{\#}$-I in A minor') 'is conscious of its solution too soon'. A successful Third Reading accepts 'neither the deceptive shifting of the First Reading nor the structurally precise but empirically unrealistic unity of the Second...it tries to do justice to the complexity of this synthesis' between 'tonal ambiguity' and 'structural unity' (Cone 1977: 79, 88-89). Experiential intuition (First Hearing) hears the music as tonally ambiguous, synoptic reflection (Second Hearing) as tonally unified. The Third Hearing arbitrates between the two, keeping alive the experiential sense of (intended) mystery by suspending disbelief to retain an open mind about the three tonic 'suspects' long after Schenker's synoptic second hearing has apprehended A minor as the 'culprit'.

Cone's simultaneous ('Third') hearing of the Intermezzo as both tonally ambiguous *and* unified draws striking parallels with Mikhail Bakhtin's literary theory notion of 'double-voiced discourse'. (I have noted elsewhere (McKay 2007) that Cone also draws implicit analogies with Bakhtinian double voicing through his concept of 'musical personae' developed in *The Composer's Voice* (1974).) Where Cone's simultaneously ambiguous and unified voices present themselves through tonal syntax, however, Bakhtin's are heard more in language styles or rhetorical gestures. Cone's dialogical third reading of Brahms relies on the suspension of synoptic tonal 'evidence' (obtained through analytical hindsight) to restore the experiential diachronic flow of music. Bakhtin's readings of dialogical discourse in Dosteovsky's literature, by contrast, disclose themselves more in the immediate, superimposed, synchronic present of conflicting language styles.

This is clearly articulated in an example Bakhtin gives distinguishing heteroglossia (lit. other voiced) from dialogised heteroglossia:

> [Bakhtin] clarifies this point by asking us to consider a hypothetical person, who probably could not exist: an illiterate peasant, for whom languages are not dialogized (Bakhtin 1981: 295-296). We may imagine that this peasant uses several languages—prays to God in one, sings songs in another, speaks to his family in a third, and, when he needs to dictate petitions to the authorities, employs a scribe to write in a "paper" language. Our hypothetical peasant employs each language at the appropriate time; his various languages are, as it were, automatically activated by these different contexts, and he does not dispute the adequacy of each language to its topic and task.
> We may also imagine that another peasant is capable of regarding "one language (and the verbal world corresponding to it) through the eyes of another language" (Bakhtin 1981: 296). He may try to approach the language of everyday life through the language of prayer and song, or the reverse. When this happens, the value systems and worldviews in these languages come to interact; they "interanimate" each other as they enter into dialogue. To the extent that this happens, it becomes more difficult to take for granted the value system of a given language. Those values may still be felt to be right and the language may still seem adequate to its topic, but not indisputably so, because they have been, however cautiously, disputed (Morson and Emerson 1990: 143).

Cone's description of his third reading as 'trying to do justice to the complexity of this synthesis' between (first reading) ambiguity and (second reading) unity might imply a dialectical resolution, converging and merging the contradiction, rather than a Bakhtinian dialogical mediation built on non-convergence and sustained friction. The deliberated phrase is equivocal however. It seems to imply that simultaneously maintaining two different levels of consciousness (experiential perception and rational cognition), rather than attempting genuine synthesis, is the real (dialogical) task of third reading.

Cone is not alone in advocating dialogical approaches towards Brahms. Korsyn explicitly applies Bakhtinian theory in his reading of Beethoven's voice in Brahms's music (Korsyn 1999, 1993, 1991). His discussion proceeds along Bloomian lines, tracing evidence of 'anxious influence' (signs of the repressed or antithetical influence of an oppressive anterior author/composer (Bloom 1973, 1983, 1975))—an approach also pursued by Klein (2005). Korsyn finds this evidence through 'negative intertextuality' (Jameson 1981: 137): an influence or trace of another voice that is

literally absent from the score but apparent in the effect it has on the music. (Korsyn (1999: 71) draws an analogy to the 'dark matter of the universe, the invisible matter that is known only through its effects on what is seen'.) The 'presence', or detection, of such absent signifiers or traces is central to Bakhtin's work on double-voiced discourse.

3. Bakhtin's Sideward Glance at the Reflected Discourse of Another

To illustrate this, Bakhtin presents an example of Makar Devushkin's speech style in an epistolary moment from Dostoevsky's *Poor Folk*.

> I live in the kitchen, or rather, to be more accurate, there is a room near the kitchen (and our kitchen, I ought to tell you, is clean, light and very nice), a little room, a modest corner...or rather the kitchen is a big room of three windows so I have a partition running along the inside wall, so that it makes as it were another room, an extra lodging; it is roomy and comfortable, and there is a window and all – in fact, every convenience. Well, so that is my little corner....It is true there are better lodgings – perhaps there may be much better, but convenience is the great thing; I have arranged it all for my own convenience, you know, and you must not imagine it is for anything else. (Dostoyevsky 1960; cited Bakhtin 1984: 205-206)

Bakhtin describes this style of discourse as one characterised by a 'sideward glance' at the 'reflected discourse' of an 'absent interlocutor'; a style defined by 'the intense anticipation of another's words'. Devushkin signals his reckoning with his absent interlocutor, the letter's recipient, Varenka Dobroselova, in two characteristic traits of his discourse: 'a certain halting quality to the speech, and its interruption by reservations'. Devushkin strives to re-contextualise every word 'to intensify their accent or to give them a new nuance in light of his interlocutor's possible response'. Keen to counter Dobroselova's anticipated impressions (first, that he is complaining about living in a kitchen; second, that living in a kitchen is any cause for concern), the natural flow of Devushkin's speech is disrupted; dialogised by Dobroselova's imagined, anticipated interjections which he counters as if in direct response.

Dobroselova's voice ('the potential words of the addressee') is thus 'present' in the effect it has on Devushkin's voice despite her literal absence from the scene. In semiotic parlance, it functions as an absent signifier: Dobroselova's reflected discourse signals the presence of another voice in Devushkin's speech. 'This sideward glance at a socially alien discourse determines not only the style and tone of Makar Devushkin's

speech, but also his very manner of thinking and experiencing, of seeing and understanding himself and the little world that surrounds him' (Bakhtin 1984: 205-207). In Cone's terms, a first reading hears Devushkin's description of his modest, convenient lodgings. A second reading comprehends his sideward glance to Dobroselova's reflected discourse, hearing (in the halting quality and reservations of his speech) her imagined, potential words of concern that Devushkin is lodging in a kitchen! A third reading hears the passage as one mediating between (but not synthesising) the double voices of Devushkin's laboured description and Dobroselova's imagined concern. Unlike the diachronically unfolding double voicing of Brahms' Intermezzo, Devushkin's double voicing presents itself in a single synchronic moment: the opening utterance, 'I live in the kitchen'; immediately bifurcated between (Devushkin's) descriptive assurance (that he is settled in convenient dwellings) and (Dobroselova's) cause for concern (that a kitchen is not a suitable abode).

The fundamental difference between the Brahms and Dostoevsky examples of double voicing lies not only in their manifestation through diachronic (unfolding) or synchronic (superimposed) moments, but also in their disclosure through syntactic (tonal ambiguity vs. structural unity) or stylistic (the halting turn of speech) qualities of discourse. This latter distinction relies on two differing modes of reasoning behind the analytical or interpretative judgments made at the level of Cone's second hearing. The synoptic, Schenkerian reduction of Brahms' tonal ambiguity into the III-V$^{\#}$-I progression in A minor employs deductive reasoning akin to that used by Sherlock Holmes, with whom Cone draws his literary analogy. By processes of synoptic, analytical deduction, points of tonal ambiguity experienced in first hearing are unified into a second hearing progression in A minor. Once the A minor tonic is established, the opening cadences are necessarily comprehended (in Schenkerian terms) as functions of that governing tonic. Only the ideal third hearing restores the sense of ambiguity to double-voice the passage. Devushkin's sideways glance at Dobroselova's reflected discourse, by contrast, employs abductive reasoning: it is a probable interpretation of, not a necessary explanation for, his halting speech style.

These distinctions between i) diachronic unfolding and synchronic superimposition, and ii) deductive analysis and abductive interpretation are important. They help to articulate how the music of Igor Stravinsky—the case study for this

article—differs in the way it exhibits traits of Bakhinian double voicing from Cone's Brahms example. Just as Cone draws on, and transcends, deductive Holmesian logic to double-voice Brahms' music over diachronically unfolding moments, so this article advocates an abductive methodology for double voicing Stravinsky's neoclassic music in a single synchronic moment, drawing on Umberto Eco's simultaneously postmodern and medieval reincarnation of Holmes as William of Baskerville in his novel, *The Name of the Rose* (Eco 1998).[1] In so doing, I critique (dialogise even) established readings of Stravinsky's neoclassic music for: i) their naive failure to move beyond second hearing standards of organic unity that dismiss the works as ungrammatical (Schenker); ii) too readily dismissing any reference to the other voice of Bach as mere aesthetic sleight of hand (Taruskin); iii) confusing the parodic play of other voices with improbable signs of anxious influence (Straus) and iv) hearing dialectical synthesis instead of dialogical friction while privileging syntax over style (Hyde).

4. Stravinsky's Double-voicing

The tendency of Stravinsky's music to invite Bakhtinian double-voiced readings is something of a hallmark of the composer's musical style. From syntactic techniques of polychordality, wrong-note harmony and polyrhythm—harmony/rhythm simultaneously pulling towards two different tonal centres or metres (Andriessen and Schönberger 1989; Bernstein 1976; Boulez 1991; Cross 1998; Kielian-Gilbert 1991; Straus 1990, 1987; van den Toorn 1988)—to the polystylism of *Oedipus Rex*'s self-confessed 'merzbild'—*lit*. a 'nonsense image' (Stravinsky and Craft 1968: 27) built from stylistic incongruities pulling in opposed directions (Bernstein 1976; Taruskin 2003b)—even to the 'inverted commas convention'—where, for example, in Stravinsky's neoclassic hands, 'sonata form' becomes a mere analogue of traditional organic sonata principles, negotiating its allotropic way as both sonata form and its simultaneous negation (Cross 1998; Hyde 2003; Straus 1987; McKay 2003)—descriptions of Stravinsky's bifurcated musical discourses abound. With the notable exception of Gritten's (2011) aesthetic discussion of 'distraction'–the vari-directional pull between differing polyphonic voices–in *Aria II* of the Violin Concerto and McKay (2007), commentators have seldom

[1] Eco (1994) and Inge (1988: 107 and 132-133) discuss Baskerville as a reincarnation of, and intertextual allusion to, Sherlock Holmes in the guise of a proto-postmodern detective employing Peircean abduction in place of Holmes' trademark reasoning by logical deduction.

conceptualised this in Bakhtinian terms, however, despite some striking parallels. This is due in large part to the predominantly syntactic, formalist grain of much Stravinsky literature which, combined with the composer's infamous anti-expressive aesthetics,[2] has privileged analysis of syntax over the more stylistic readings of rhetorical discourse akin to that found in Bakhtin's work. There are relatively few attempts to read Stravinsky's gestural discourse through the topical interplay of 'characteristic other voices' (what, in Bakhtinian terms, we might dub 'impersonal heteroglossia') and much of the work referencing the other voices of recognisable composers ('personified heteroglossia'), evident in allusion and quotation, has fallen short of genuine hermeneutic enquiry.

These latter approaches to personified heteroglossia divide between those seeking positive or negative intertexts and those concerned with other voices emanating from Stravinsky's 'immediate' or 'non-immediate' past[3] (or even, in a different context, future).[4] Cantoni's (1998, 1992, 1994) work on Stravinsky's references to Bach, Mozart and Verdi, for example, celebrates syntactic signs of 'other voices' as positive intertextual references to composers from Stravinsky's non-immediate, panromanogermanic past. Taruskin's new-historicist work on Stravinsky's Russian traditions, by contrast, counters the myths of modernist radicalism surrounding *The Rite of Spring* (Taruskin 1995a) and neoclassic, 'Back to Bach', revision (Taruskin 1993b, 1993a) by tracing etymologies of influence to composers and folk sources from Stravinsky's immediate Russian past (Taruskin 1996). In much the same vein as Korsyn's work on Brahms, Straus (1991, 1990) has notably attempted to account for such bifurcated or 'vari-directional' (Bakhtin 1984: 198) discourse in Stravinsky using Bloom's theory of anxious influence—the repressed or antithetical influence of negative intertexts and absent signifiers in contrast to the positive, present signifiers sought by Cantoni and Taruskin. (Strauss (2001: 183-248) has also attempted a more stylistic reading, with what he terms an expressive, topic theory account of Stravinsky's music,

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[2] Stravinsky frequently advocated music's constructivist principles over its expressive powers, describing it, for example, as 'sufficient in itself' (Stravinsky 1924), 'essentially powerless to express anything at all' (Stravinsky 1990) and built on modernist Apollonian values calling to order the chaos of nineteenth-century Dionysian, Wagnerian excess (Stravinsky 1994).

[3] Terms employed in van den Toorn (1995: 143-178).

[4] Cross (1998) presents an example of musicological work tracing intertexts (again, largely syntactic) forward to future works, thus moving from the realm of Stravinsky's influences to those influenced by him.

though, as I have noted elsewhere (McKay 2009: 567-568), most of his 'topics' are more private idiolects than genuine Ratner-inspired commonalities of style.) His methodology—an uneasy application of Fortean pitch class theory to accommodate tonal and post tonal interactions—fastidiously locates and separates precursor composer models from their 'anxious' Stravinskian deviations. Many have critiqued Straus's Bloomian turn, however, for: 'misreading' Bloom's theory out of context (Street 1991); failing to acknowledge that Stravinsky confessed to obvious 'influences' in order to disguise more compelling Russian influences; constructing an 'analytical machine' for generating pitch-structural affinities regardless of style (Taruskin 1993b); and dissecting Stravinsky's music into two conflicting layers: the tonal—governed by 'traditional tonal relations'—and the post-tonal—governed by 'the logic of recurring motives, motives which, transposed and/or inverted, are generalised as pitch-class sets' (van den Toorn 1995: 158-159). Taruskin's critique in particular hits the nail on the head: with the exceptions of Straus's 'fruitful' readings of the statue scene from *Don Giovanni* in the Graveyard scene of *The Rake's Progress* and Chopin's second ballade in the opening "Hymne" from the Serenade in A—there appears to be little if any sense of anxiety in these dialogues with the past:

> Straus casts the past as either depopulated or passive—an object. His "wilful" remaker, fully conscious and unworried, is at all times firmly in the driver's seat; his "post tonal usages" are always granted an easy, indeed an automatic, victory over the tonal practices they suppositionally, and impersonally, confront. Where is the anxiety? There is no contention between rival subjects, no need for psychic defense. There is in short, no fight at all'. (Taruskin 1993b: 128)

This sentiment resonates strongly with Boulez's assertion that, for Stravinsky, 'style was less a preoccupation than a Game' (Boulez et al. 1971: 58). 'The quotation' or 'found object' 'function[s] by distortion' and is paraded for its 'bizarreness…its näiveté'; its ability to look and sound *out* of context. The resulting 'difference of level between the various languages' and 'the heterogeneity of the elements' is 'integral' to Stravinsky's strategy of 'irony'; a strategy which, as Boulez (1971: 40) notes, uses 'parody' (another concept central to Bakhtin) openly.

> He still took the same pleasure in manipulating the musical objects that he ran across, even if they were objects found in a museum. There was almost a kind of childlike curiosity in taking apart the toy—the masterpiece—that came between his fingers, and a kind of mischeviousness in putting it back together again differently so that it would acquire an individual meaning.
>
> …The Game…denounces the accumulation of culture with which we are more or less obliged to live. To play with that culture is to try to annihilate its influence, by letting it be clearly understood that one has, from the outset, mastered all its mechanisms, including the most perverse. (Boulez et al. 1971: 58)

Stravinsky's engagement with past models as dialogised voices thus exhibits a tendency more towards the annihilation, than the anxiety, of influence. His music lacks any real sense of Bloom's Oedipal concept of creative misprision: there is no 'anxious' sense of having arrived belatedly on the scene; no oppressive influence of an anterior artist consciously overturned, or 'misread', by a younger artist as a means of clearing artistic space for their own identity. This playful tendency is borne out in Stravinsky's own description of playing with found objects as 'trying to refit old ships' by exploiting an 'apparent discontinuity' in using the 'disjecta membra, the quotations of other composers, the references to earlier styles ('hints of earlier and other creation'), the detritus that betokened a wreck (Stravinsky and Craft 1968: 129). Tradition for Stravinsky was therefore less a potent influence signalling an alliance with the past, more a postmodern intertext indicative of misalliance: a game of calculated heteroglossia to be played in joyful parodic critique with fragments of a cultural wreck: the all too familiar, and all too easily accessed, exhibits of a museum culture poised, in the early part of the twentieth-century, to stifle contemporary innovation and creativity.

Kundera (1996: 88-89) beautifully captures this sense of play, describing Stravinsky's music as expressing an 'inimitable delight in being', metaphorically depicting the émigré composer lingering in each room of his new mansion home furnished with the '"classics" of European music' (95-98). Hyde, conceptualising Stravinsky's play as a form of 'eclectic imitation', complements this imagery with a somewhat less reverential attitude towards the past. Tapping into the disorderly imagery evoked by Stravinsky's (1960: 104) admission that he suffered a 'rare form of kleptomania' with which he kept and used anything that came to hand, Hyde suggests that for Stravinsky, 'rather than a well-organised museum, tradition becomes a warehouse whose contents can be rearranged and plundered without damage or

responsibility' (2003: 103). In resonant tone, Wiebe (2009: 6) has more recently argued that Baba the Turk's aria in *The Rake's Progress*—in which she introduces us to her exotic collection of curious artefacts acquired from years of travel—is itself a manifestation of kleptomania akin not only to Stravinsky's habit but also to the opera's bricolage-like stylistic assemblage from a bewildering anthology of operatic artefacts.

Again Bakhtin's thought is apt in these contexts. His interpretation of Dosteovsky's poetics is predicated on the notion of voices intruding into an utterance. Much of Stravinsky's music, like Dosteovsky's novels, invites interpretation of these intrusive voices—whether on loan from the museum or plundered from a warehouse. As Boulez (1971: 40-41) observes, their use comes at a price: it 'tends to become a serious handicap for the inventor, who allows himself to live exclusively in a universe of references, who feels at ease and secure in the midst of the…monuments…of his culture'. Playing 'the [parodic] game', as Stravinsky did with aplomb in his neoclassic works, is one counter to this potentially stifling security; renouncing the game and 'rediscovering the Idea' (i.e. rejecting 'stylistic preoccupation as an apriori and once again regarding Style as a consequence of Idea' (59), as Boulez suggests Stravinsky did in his later turn to serial music) is another.

While Brahms had to surpress the actively present, inescapable influence of Beethoven, Stravinsky chose to breathe life into benign, passive, past voices whose 'oppressive' influence, if ever established, had already (long since) been overcome (e.g. Bach, Pergolesi) or whose potential influence had been marginalised by a modernism that had auto-excluded emotive, melodramatic romanticism from its canon (e.g. Verdi, Tchaikovsky). Where Brahms's music anxiously conceals negative intertexts, Stravinsky's parades other voices as positive intertexts. Stravinsky's reference to the past is a counteraction to the legacy of anxious influence, not a manifestation of it.

5. Stravinsky's Piano Concerto

A paradigm neoclassic work, the Concerto for Piano and Wind Instruments can be read as epitomising this sense of playing with the past through Bakhtin's concept of the sideward glance at an absent interlocutor (1984: 206). Composed in 1923-24, it is a work in which Stravinsky's discourse is determined by the reflected discourse of

another, namely Bach—not the real or historical Bach but Bach as a personification of the architectonic; a Bach constructed in Stravinsky's own image.

Taruskin (1993a) clearly articulates Stravinsky's motives for this neoclassic (re-) construction of Bach. Having already laid out his credentials as 'Wagner's Antichrist' (Craft 1984: 220; cited Taruskin 1993a: 291), Stravinsky, Taruskin contends, aligned himself to the values of 'purity, sobriety, objectivity, grace, impersonal precision, etc.—by which the French defined themselves in opposition to the decadently "psychological" Germans' (Taruskin 1993a: 290). To this end, Stravinsky invested in an architectonic definition of his neoclassicism promulgated by Boris de Schloezer's reading of the *Symphonies of Wind Instruments* as 'only a system of sounds' that 'does not pursue feeling or emotion'(1923; cited Messing 1986: 130; cited Taruskin 1993a: 290). Aligning these values to those of the contrapuntal master, Stravinsky's 'back to Bach' ploy was thus, for Taruskin, 'the original authenticity pitch':

> Far from an investment in "the German stem", the *retour à Bach* was an attempt to hijack the Father, to wrest the old contrapuntist *from* his errant country men (who with their abnormal "psychology" had betrayed his purity, his health-giving austerity, his dynamism, his detached and transcendent craft), and restore him to a properly elite station. (Taruskin 1993a: 293)

Taruskin is right to emphasize the ideological motivation behind Stravinsky's appropriation of an imagined Bach; a construction of Bach he elsewhere attributes to the influence on Stravinsky of the contemporary harpsichord performances of Wanda Landowska. Her anachronistic, 'Bach the geometrist', 'sewing machine style' performance practice may have borne little resemblance to Baroque performance tradition but it aligned strongly with Stravinsky's contemporaneous neoclassic predilection for monometric rhythm and performance-as-execution (Taruskin 1995b: 91-152). Dobroselova-like, Bach is thus absent from the scene of many of Stravinsky's neoclassic scores, the Piano Concerto in particular, but his trace is present (à la Korsyn's negative intertext and Bakhtin's sideward glance) in the affect it has on Stravinsky's discourse.

Figures 11-13 of the Piano Concerto, shown in Figure 1 as a paradigmatic chart, illustrates this sideward glance. (The first four (two-stave) stanzas comprise a typical three-part contrapuntal texture unfolding over its four syntagmatic rows. The bottom

stanza highlights the contrapuntal relationship between just the alto and bass lines unfolded over the first two syntagms.)

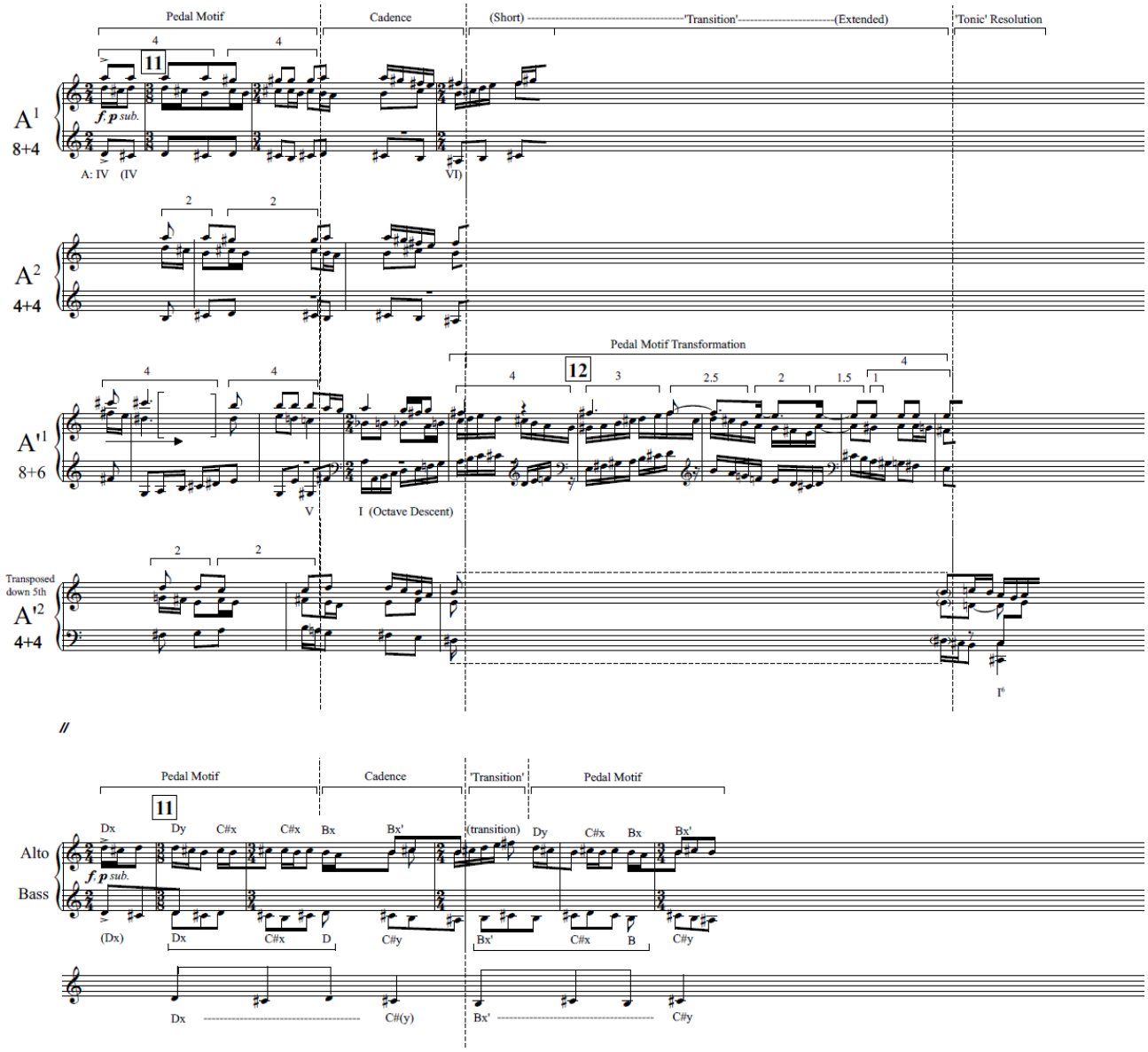

Figure 1: Paradigmatic chart of Stravinsky's Concerto for Piano and Wind Instruments Figures 11-13.

The reflected voice of Bach determines the style, tone and manner of Stravinsky's thinking and experiencing: the linear counterpoint and phrase structure. It likewise determines his seeing and understanding of himself: as a latter-day geometrical Bach, the personification of an imagined, architectonic, classicism predicated on (or rather 'as') a system of sounds. (Note the distribution of material across four archetypal gestural and structural paradigms: repeated note 'pedal motif', scalic 'cadence',

'transition' (a syncopated, additive variant of the pedal motive) and 'tonic resolution'.) It is as if 'a person is wholly present in his every gesture' (Bakhtin 1984: 207), albeit one that we accept through what Monelle (2000: 134) would term apodeitic complicity: the act of drawing generalised inferences from particular circumstances. Despite Taruskin's historicist unearthing of its ideological underpinnings, the listener is nonetheless drawn from the particularities of Stravinsky's sideward glance at textural counterpoint (impersonal heteroglossia) to the generality of Bach (personified heteroglossia). This *is* Bach, the listener senses, even though–as Walsh (1993: 121) keenly observes of the Octet–those Bachian 'conventions are being manoeuvred into shapes and continuities which, if he were to stop and think about them [through a Cone-inspired second hearing] consistently violate his sense of their innate logic'. Stravinsky thus orients his discourse and consciousness towards the discourse and consciousness of another.

For Bakhtin, the sideward glance at a reflected discourse is a two-way process evident in many characters of Dostoevsky's literature: 'the hero's attitude toward himself is inseparably bound up with his attitude toward another, and with the attitude of another toward him' (Bakhtin 1984: 207). That attitude of another (Bach) toward him (Stravinsky) is of course implied. Stravinsky's neoclassic music seems to be embroiled in a similar reflected discourse: his 'natural' post-tonal, octatonic, bichordal, bi-isotopic, juxtaposing discourse anticipates the potential responses of an absent, imagined, tonal, linearly unfolding, organic, Bach; a Bach emblematic of anticipated objections and interjections from German organicism; the grain *against* which Stravinsky's 'natural' Turanian discourse evolved. Taruskin (1996: 1167) goes so far as to define Stravinsky's paratactic Turanian style as an outright assault on panromanogermanic culture. The reflected discourse of German organicism, personified in an imagined/constructed Bach, is evident with visible signs (a façade of constantly flowing linear counterpoint) that affect Stravinsky's own discourse.

Just as Devushkin's reflected discourse embodies the two-way process of altering his natural discourse through faltering speech patterns both to reflect his attitude towards Dobroselova (i.e. that he would not wish her to think he was complaining about living in a kitchen) and to reflect Dobroselova's attitude towards him (i.e. that she might pity him for living in a kitchen), so Stravinsky's discourse reflects both his attitude

towards Bach (a personification of the high architectonic teleological organicist ideology to which his own 'system of sounds' aspires) and Bach's (imagined, hypothetical) attitude towards him ('his' anticipated disapproval of 'Stravinsky's' lower, 'rougher', inert juxtaposing Turanian ways). Stravinsky's neoclassic discourse is thus replete with classical signs, not out of a Bloomian sense of anxiety, but a Boulezian sense of playing the game. Stravinsky attempts to annihilate Bach's influence by demonstrating that he has mastered his contrapuntal mechanisms; mechanisms which appear to run on their own.

This machine-like contrapuntal play is so mastered as to be synthetic, lacking genuine organic credentials. Walsh alludes to this in his description of the Octet's '*meccanico* scales and rhythms', suggesting that what we accept as good counterpoint 'is really no more nor less than the translation into a different convention of an ostinato technique harking back to the Russian ballets'; his classical signs are thus 'referential' or 'symbolic' 'rather than organic', 'applied' rather than 'logically argued' (Walsh 1993: 126-128). Something similar can be seen in a close reading of Figures 11-13 of the Piano Concerto. To return to Cone's terminology, a first hearing is aware of the problem too late: the contrapuntal foreground articulates no clear sense of middleground harmony. A second hearing is aware of its solution too soon: this is false linear counterpoint in a faux classical style: mere contrapuntal mannerisms that fail to convincingly prolong any organically integrated middleground harmony. It is a paragon of Stravinsky's neoclassic conceit, aptly described by Walsh (1993: 119) in his discussion of *Mavra* as having 'the effect of changing tonality, with its associated phenomena of rhythm, phrasing and harmony, from a process into a system of gestures which constantly alludes to, but does not pursue, the logic which the listener expects of them'. As with Cone's Brahms example, Schenker again obliges in providing a model second hearing of the passage (Figure 2) in the shape of a middleground synoptic abstraction. He identifies a recognisable 'linear progression' (a 'plan') but one that is pock marked and negated by three signs of ungrammaticality: thwarting bass articulation, nondifferentiation of motives and 'dissonance'.

> Is it not the case, however, that Stravinsky contradicts this plan where he is able to? First his treatment of the outer-voice counterpoint, especially the bass, thwarts any articulation into linear progressions. Second, he makes no differentiation

> among the motives that would allow the linear progressions to be recognized in their individuality. Finally, while neglecting the progressions he makes the notes constantly coincide in dissonances, a procedure which serves him as a substitute for content and cohesion.
>
> Finally, a setting like Stravinsky's is insufficient even for certifying dissonances, because the only surety even for dissonances—and this is the crux of the matter—is the cohesiveness of a well-organized linear progression: without cohesiveness, dissonance does not even exist!...It is futile to masquerade all the inability to create tension by means of appropriate linear progressions as freedom, and to proclaim that nothing bad exists in music at all....
>
> Stravinsky's way of writing is altogether bad, inartistic and unmusical. (Schenker 1996: 17-18)

Schenker's final line (best read as ideological propaganda in support of an organicist analysis method atrophying in its utility for 1920's post tonal music) epitomises the problem of second hearing analysis for such neoclassical works. The problem is clearly articulated in Eco's distinction between perceptual (encyclopaedic) and linguistic/categorical (dictionary) knowledge; concepts that are respectively analogous to our first (gestural perception) and second (organic process recognition) hearing of the counterpoint in Figure 11. Using the example of Ayres Rock (which perceptually appears like a mountain but is categorically a large stone), Eco (2000: 226-227) suggests that (second hearing) linguistic/categorical knowledge is often 'reserved only for an elite' with specialist competences, while (first hearing) perception operates on a more intuitive level: 'people, when speaking plainly, run on encyclopedia mode, while only the learned turn to the dictionary'.

Schenker's assessment of the piano concerto thus employs a learned dictionary knowledge of counterpoint, in defiance of a more intuitive perceptual experience of the music's linear texture. To an extent Straus, in charting Stravinsky's 'ungrammatical' sonata forms, is therefore right to question whether Schenker's 'standard of organic unity' can 'be meaningfully applied to Stravinsky'. His conclusion—that Schenker's 'use of classical voice leading as a stick with which to beat modern composers can seem a bit beside the point' (Straus 1987: 145)—is however only partially true. Schenker's reading does have a point. It functions as a second hearing stepping stone to a third hearing that dialogically mediates between (first hearing) allusive contrapuntal mannerisms and (second hearing) thwarted organic processes.

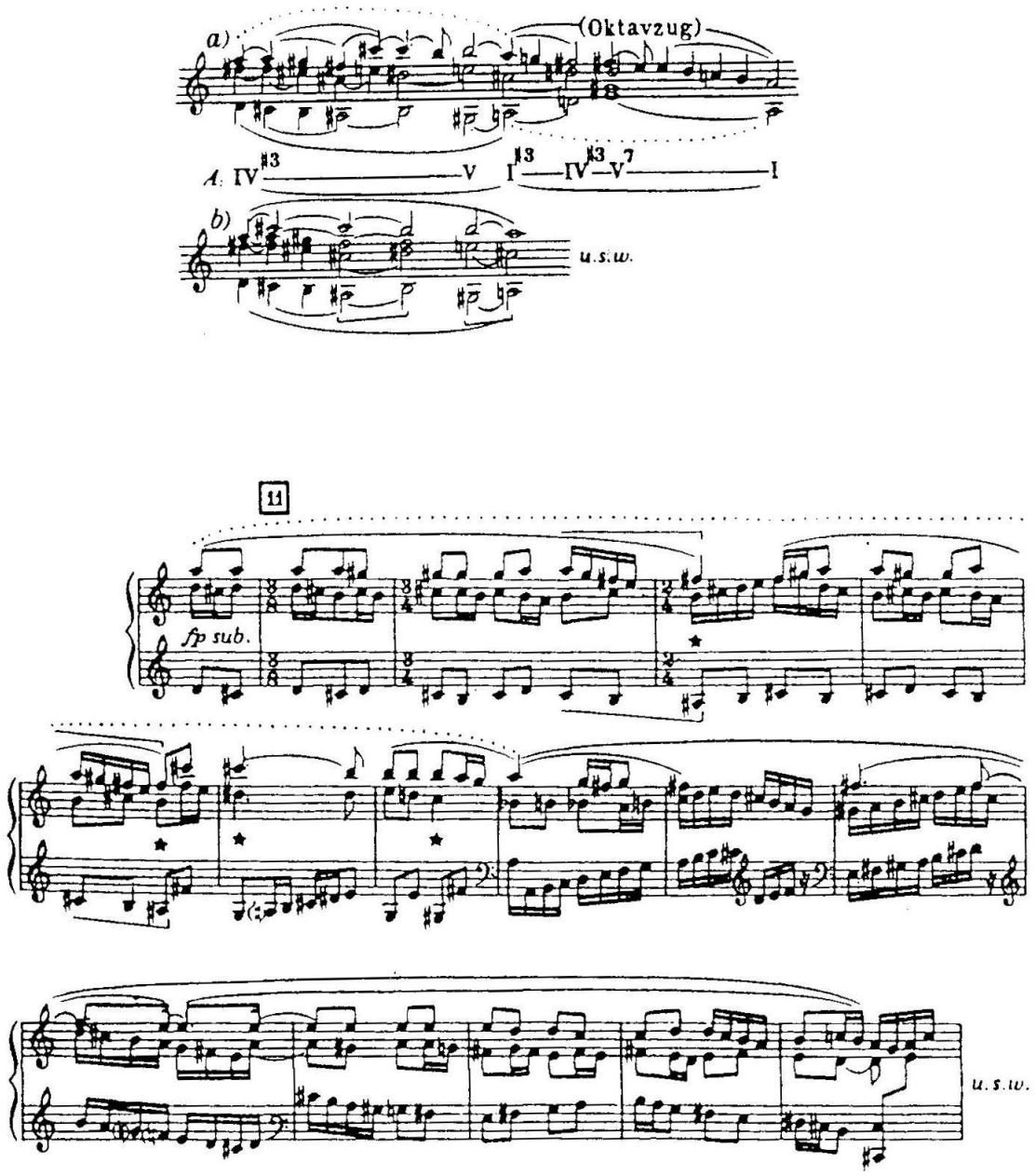

Figure 2: Drabkin's Reproduction of Schenker's Reduction of Stravinsky's Piano Concerto Figure 11-13.

6. Stravinsky's Neoclassic Dialect as Machine

The (third hearing) dialogism between (second hearing) thwarted Bachian/Schenkerian organic process and (first hearing) Stravinskian synthetic contrapuntal gestures ultimately encodes a transcendence of the dichotomy between nature and machine in the form of the 'mathematical sublime' generated by an analogue of what Yearsley—in his

discussion of J.S. Bach's fugal counterpoint—refers to as an excess of contrapuntal signs. He says of Bach's Canon at the Twelfth, from the *Art of Fugue*, BWV 1080/17, mm.66-72 that:

> the churning out of contrapuntal operations creates not the rhetorical force of, say, a fugal stretto, but the confusion that comes with an excess of signs. [The impression is] that the operations of counterpoint have taken over, automatically hitting upon short-term relations which go against the grain of the larger contrapuntal designs….Bach gives counterpoint the appearance of controlling musical events. (Yearsley 2002: 201)

Yearsley paints a picture of dialogised counterpoint; an over-coded counterpoint indicative of machine generation because the individual voices do not coalesce into a unified texture but foreground the friction between the individual voices and the (dis)unified whole. This is the same 'counterpoint of friction'—the mechanism without a soul, the deliberate display of artificiality—witnessed in the Piano Concerto. It stands in opposition to the 'natural' 'counterpoint of cooperation' advocated allegorically by Forkel and A.B. Marx i.e. that 'counterpoint could represent the unified efforts of a population' (Yearsley 2002: 233) by bringing together diverse individual voices/people under the collective power of the whole polyphony/population. In Bakhtinian terms, the counterpoint of friction is a vari-directional discourse. It foregrounds the heteroglossia of each component voice and its dialogised interaction with its surrounds. As such it is over-coded and suggestive of the machine. It is precisely the means of discourse most prevalent in Stravinsky's music. It is also the means of non-integrative counterpoint that resists the 'chilling Bach hermeneutics of the 1930s' (Yearsley 2002: 233) along fascist and proto-fascist lines (the coercion of individual voices to a powerful collective unity)—a troubling hermeneutic in which Stravinsky entangled his neoclassic music with Mussolini's fascist ideology and propaganda (Taruskin 1993a; 1997: 450-453), as Taruskin keenly observes:

> The neoclassical Stravinsky wanted to do for modern music what Il Duce promised to do for modern Europe: bring back order, bring back stability, bring back 'traditional values' that transcended individuals. And for music that meant back to Bach—Bach, that is, as he was then understood: not the great religious dramatist or the poet of the affections one encounters in the Passions and the

> cantatas, but rather the Bach one encountered at the keyboard, the fount of elite discipline and impersonal craft. (Taruskin 2003b: 804)

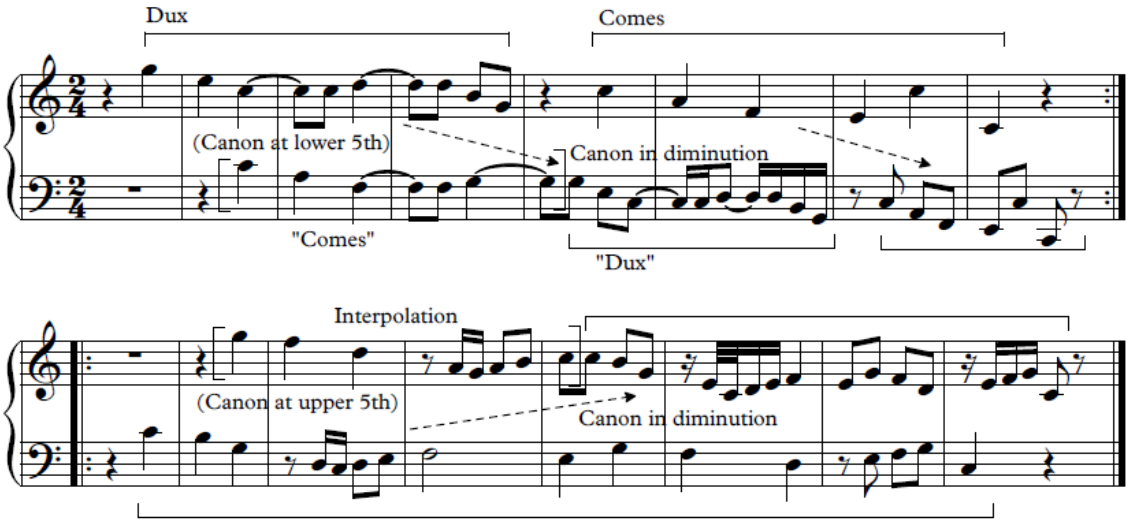

Figure 3: C.P.E. Bach, diminution canon, from J. P. Kirnberber's *Die Kunst des reinen Satzes* (Yearsley 2002: 187).

Bakhtin himself invoked the 'graphic analogy' or 'simple metaphor' (1984: 22) of the fugue in relation to Dostoevsky's 'polyphonic novel'; comments that arise in critique of Komarovich's following observation:

> The teleological coordination of elements (that is, plots) which are, from a pragmatic viewpoint, disunified parts, is the source of artistic unity in a Dostoevskian novel. And in this sense it can be compared to the artistic whole in polyphonic music: the five voices of a fugue, entering one by one and developing in contrapuntal harmony, remind one of the 'harmonization of voices' in a Dostoevskiean novel. (Kormarovich 1922: 67-68; cited Bakhtin 1984: 21)

Komarich incurs Bakhtin's objection for mistaking the *'direct* combination of separate elements of reality or separate plot lines' for 'the combination of fully valid consciousnesses, together with their worlds'. Komarovich, in effect reads the fugue as emblematic of a counterpoint of cooperation (for him realised as the disparate voices conforming to a 'law of unity…the law of purposeful activity'). Bakhtin, on the other hand, perceives his metaphorical fugue as analogous precisely because, like

Dostoevsky's polyphonic novel, it exhibits a counterpoint of friction: 'one could put it this way: the artistic will of polyphony is a will to combine many wills, a will to the event'. For Bakhtin (1984: 21), 'voices remain independent and…are combined in a unity of a higher order' there exists 'a combination of several individual wills' that do not succumb to the monologic conformity or unified efforts of a collective will.

Despite the superficial resonance between counterpoint and fascist ideology, Stravinsky's neoclassic turn to counterpoint again has at its heart the counterpoint of friction. Yearsley (2002: 187) finds 'contrapuntal sleight-of-hand' indicative of this friction as a sign of mechanical composition in C.P.E. Bach's example of a diminution canon from J. P. Kirnberber's *Die Kunst des reinen Satzes* (Figure 3). What appears to be an initial canon at the lower fifth between soprano *dux* and bass *comes* is in fact nothing more than an interpolated segment of imitation; a misleading sign that guides the listener to infer a false alternative contrapuntal process to the real diminution canon at the octave that appears in m.5. As Yearsley demonstrates, this bar is deliciously ambiguous. Following the false lead, the bass appears to be a faithful answer to the ongoing imitation rather than the initiation of the diminution canon that is confirmed in the following bar. Likewise the soprano at m.5 is not the octave imitation of the initial bass line it appears but the source of imitation for the bass line at m.7. In short, the passage confuses the roles of *dux* and *comes*; the music dialogises itself and ambiguous *dux-comes* utterances result. Following Eco, we might say that the perceptual and linguistic/categorical functions of *dux* and *comes* are at odds with one another.

> There is a marvellous confusion of the frame of reference, a surprising repudiation of what had apparently been the controlling contrapuntal technique….The effect of this overabundance of signs is that the counterpoint itself appears to be controlling the order of events; counterpoint itself seems to be the agent that disturbs the temporal and intervallic relationships between the voices, with several permutational possibilities available and one or another arbitrarily engaged at any moment. It is as if the contrapuntal operations are automatically generating the musical material. Like Vaucanson's automata[5] these contrapuntal constructs are products of human genius which, once fabricated, seem to run on their own, to think for themselves. (Yearsley 2002: 188)

[5] Richards (1999: 380-383) and Yearsley (2002: 175-183) discuss Vaucanson's automata.

The diminution canon example identifies a passage where '"normal" musical syntax has been subordinated to the contrapuntal mechanism' (195). Yearsley finds similar shifting frames of reference in the contrapuntal writing of Bach resulting from a 'seemingly automatic, almost arbitrary, illogical application of the rules' of counterpoint' (204). This is not at all unlike the application of counterpoint in Stravinsky's neoclassic piano concerto that so troubled Schenker. This three-part contrapuntal passage which launches the piano solo is so over-coded with contrapuntal signs and conflicting construction models that they too appear to 'run on their own, to think for themselves'.

The passage *appears* to divide into the two halves (A and A') shown in Figure 4. This roughly corresponds with Schenker's analysis of the passage as a move from a subdominant region (the A section; the first thirty quaver beats) to a brief dominant that resolves to an extended tonic region underscoring an octave descent from the tonic A in the soprano line (the A' section; quaver beat 32 to the end). This can be read from the bottom-up in Figure 4 and is shown in music notation in Figure 1. Schenker's harmonic analysis is at odds with the phrase structure: harmony and phraseology exhibit a counterpoint of friction. The dominant conclusion to the first harmonic section supporting the melodic B at the end of the pedal motif of A'[1] encroaches into the A' section of the motivic structure. The tonic supporting the octave descent likewise lacks strong thematic articulation: it begins in a cadence sub-phrase and overlaps an extended transition, a transposed restatement of the opening motive and a further two quaver-beat extension required to hit the target note A. This friction, a de-synchronisation between harmony and motive, is indicative of the machine at work: an illogical application of phrase structure cutting against the harmonic structure. It is evident on closer inspection of the motivic phrase structure which can be read in Figure 4 from the top down.

<table>
<tr><td colspan="12">Motivic form: A: (A^{1}-trans-A^{2}) A': (A'^{1}-trans-A'^{2})</td></tr>
<tr><td colspan="6">A section (figure 11^{-1}–11^{5})</td><td colspan="6">A' section (11^{6}–12^{6})</td></tr>
<tr><td>1-8</td><td>9-12</td><td></td><td>15-19</td><td>19-22</td><td></td><td>23-30</td><td>31-36</td><td></td><td>53-56</td><td>57-60</td><td>60-62-</td></tr>
<tr><td>pedal</td><td>cad.</td><td></td><td>pedal</td><td>cad.</td><td></td><td>pedal</td><td>cad.</td><td></td><td>pedal</td><td>cad.</td><td>tonic</td></tr>
<tr><td>A-G#</td><td>A-F#</td><td>F#-A</td><td>A-G#</td><td>A-F#</td><td></td><td>C#-B</td><td>A-F#</td><td>F#-E-D</td><td>D-C</td><td>C-B</td><td>A</td></tr>
<tr><td colspan="3">(1-12)</td><td colspan="2">(12-14)</td><td colspan="2">(15-22)</td><td colspan="2">(23-36)</td><td colspan="2">(36-52)</td><td>(53-62)</td></tr>
<tr><td colspan="3">A^{1}</td><td colspan="2">short transition</td><td colspan="2">A^{2}</td><td colspan="2">A'^{1}</td><td colspan="2">extended transition</td><td>A'^{2}</td></tr>
<tr><td colspan="7">quaver beat repetition mapping</td><td colspan="5">quaver beat repetition mapping</td></tr>
<tr><td colspan="7">[01-02]-03-04-05-[06-07]08-09-10-11-12
15-16-17----------18-19-20-21-22
(repeat at literal pitch)</td><td colspan="5">15-16-17-18-19-20-21-22
53-54-55-56-57-58-59-60
(repeat transposed down a 5th)</td></tr>
<tr><td colspan="12"></td></tr>
<tr><td colspan="7">Static, repeated minor 3rd alternation</td><td colspan="5">Progressive linear scalic descent to tonic A</td></tr>
<tr><td colspan="7">minor 3rd melodic contour</td><td colspan="5">minor 3rd & octave melodic descent</td></tr>
<tr><td colspan="2">descent
A-F#</td><td colspan="2">ascent
F#-A</td><td colspan="3">descent
A-F#</td><td colspan="2">descent
C#-A A-F#</td><td colspan="2">descent
F#-D</td><td>descent
D-A</td></tr>
<tr><td colspan="7">A-F#</td><td colspan="5">C#-A & A-----A</td></tr>
<tr><td colspan="2"></td><td colspan="2"></td><td colspan="3"></td><td colspan="2">cycle 5ths</td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">A: IV—VI</td><td colspan="2"></td><td colspan="3">IV–VI</td><td colspan="2">VI-II-V-I-IV</td><td colspan="2">V/–I</td><td>IV–vi–V–I</td></tr>
<tr><td colspan="2">IV</td><td colspan="2"></td><td colspan="3"></td><td colspan="2">V–I–IV</td><td colspan="2">V/–I</td><td></td></tr>
<tr><td colspan="12">IV----------V I (I prolonged by octave descent)</td></tr>
<tr><td colspan="7">Exposition</td><td colspan="4">Development</td><td>Recap.</td></tr>
<tr><td colspan="12">Harmonic form: A: (IV-V) B: (I-------)</td></tr>
</table>

Figure 4: Piano Concerto formal plan

The motivic structure divides into two halves: A (relatively static: an A-F# melodic descent twice reiterated over subdominant harmony) and A' (relatively mobile: a C#-A followed by an A octave melodic descent over dominant-tonic harmony). Each half comprises an A^1 phrase followed by an A^2 phrase (a reduced repeat, either identical or transformed) with an intervening short or extended transition between each phrase. Each phrase is subdivided into two halves comprising a 'pedal motif' and a 'cadence sub-phrase'. The pedal motif comprises the reiterated As and G#s of the opening

soprano line. These are repeated in reductive units resulting in an alternation of 8 beat (A^1 and A'^1) and 4 beat (A^2 and A'^2) durations for each pedal phrase. The repetitions are transposed in the A' section: up a third (to C# and B at A'^1) and down a fifth (to D and C at A'^2). These building blocks are most clearly delineated in the soprano part, as summarised in isolation in Figure 5.

Phrase	**Pedal motif**	**Cadence sub-phrase**	**transition/extension**
A^1	A-G# 8 quavers (4x4)	A-F# 4 quavers	(F#-A) 3 quavers
A^2	A-G# 4 quavers (2x2)	A-F# 4 quavers	n/a
A'^1	C#-B transposed up 3rd 8 quavers (4x4)	A-F# at pitch 6 quavers	F#-E 17 quavers [4]-3-2½-2-1½-1-[4]
A'^2	D-C transposed down 5th 4 quavers (2x2)	D-B transposed down 5th 4 quavers	B-A (extension) 3 quavers

Figure 5: Paradigmatic alignment of soprano motifs

This construction reveals Stravinsky's mechanical additive processes at work. The symmetrical 8 by 4 phrasing, however, is more neoclassical in proportion than the irregular phrase durations typically associated with those processes in his earlier Russian and Turanian works. Compared to the pedal motif, the cadence sub-phrase appears relatively 'fixed' in phrase length: always 4 quaver durations with the exception of A'^1 where it is transformed considerably and extended over 6 quaver durations. The cadence sub-phrase comprises an 'upbeat' quaver A followed by a descending semiquaver scale run to F# (a completion of the minor third descent left incomplete by the pedal motif's A-G# descent). The combined pedal motif and cadence sub-phrase of A^1 thus outlines a melodic descent of a minor third: A-G#-F#. This contour prototype repeats in the ensuing phrases (at its various transpositions) with significant alteration in the surrounding counterpoint. The final transposition down a fifth to a minor third descent of D-C-B results in the cadence sub-phrase in A'^2 targeting pitch B at its expected conclusion on quaver 60 and a two-quaver extension is required for the real

cadence on A at quaver 62 to complete the octave descent. Figure 5 shows this arrangement clearly in paradigmatic formation.

Phrase	**Register**	**Contour/ phrasing**	**Pedal motif**	**Cadence subphrase**	**Transition/ extension**
A^1	soprano	contour	A-G#	A-F#	(F#-A)
		phrasing	8 (4x4)	4	
	alto		Dx-Dy-C#x-C#x	Bx-Bx’	B-A rising scale
	bass		[Dx]-Dx-C#x	D–C#y	
A^2	soprano	contour	A-G#	A-F#	
		phrasing	4 (2x2)	4	no transition
	alto		Dy-C#x	Bx-Bx’	
	bass		Bx’-C#x’	B-C#y	
A'^1	soprano	contour	C#-B	A-F#	F#-E
		phrasing	8 (4x4)	6	15 3-2½-2-1½-1
	alto		F#y-D#(x)-[Ey]	Bb(x’)-Ay’	scales in 3rds
	bass		F#n-G-E-nG#	A octave	scales in 3rds
A'^2	soprano	contour	D-C	D-B	B-A (extension)
		phrasing	4 (2x2)	4	2
	alto		Gy-F#x	Ex-Ex’	Ex
	bass		Ey’-Ax’	G-F#y	C#x

Figure 6: Piano Concerto iterative construction Fig. 11.

Against this additive motive construction in the soprano line, Stravinsky weaves linear counterpoint in the alto and bass lines. Figure 6 highlights the contrapuntal interplay of the three-part texture ‘smoothed’ into paradigmatic alignment with the structure defined by the soprano line. The formulas in Figure 6 refer to two simple contrapuntal motives around which the alto and bass line are fixated: x, a complete lower neighbour note pattern, or its upper neighbour inversion x’ and y, a descending scale (passing note pattern) spanning a minor third or its ascending inversion y’. Capital letters refer to starting pitches, thus Dx indicates motif x beginning on pitch D (i.e. D-C#-D). Letters in

square brackets indicate a motif that overlaps and letters in curved brackets indicate chromatic variants.[6]

The interaction of parts in section A is particularly indicative of the machine at work; a 'seemingly automatic, almost arbitrary, illogical application of the rules of counterpoint'. It results from the application of interdependent processes in soprano, alto and bass. The soprano line, as already stated, oscillates between the pedal motif and cadence sub-phrase. The alto and bass lines are fixated around motifs x and y to such an extent that the alto appears as if it were some form of transformational diminution of the bass set to a semiquaver-semiquaver-quaver pattern against the bass's three even quaver pattern (i.e. the alto takes two quaver beats to unfold the three-note motives where the bass requires three beats). In fact there is no such strict diminution relationship, only its illusion conjured by different rhythmic ratios and the use of identical motifs. This interplay of motifs between alto and bass is summarised in Figure 7 and highlighted in Figure 5.

	Pedal motifs				Cadence sub-phrases		
Alto A^1	Dx	Dy	C#x	C#x	Bx	Bx'	Reductive Repeat
Alto A^2	Dy		C#x		Bx	Bx'	
Bass A^1 *Dux*	[Dx] Dx →		C#x →		D →	C#y →A#	Inversion Canon at minor 3rd
Comes Bass A^2	Bx' →		C#x' →		B →	C#y →A#	
	Pedal motifs + short transition				Cadence sub-phrases		
N.B. 'Dx' indicates pitch D, motif x (if no motif is shown, the pitch is a single pitch of one quaver beat duration)							

Figure 7: Contrapuntal play of motif x and y in A^1 and A^2.

The alto line comprises a transformed diminution of the bass line at A^1 (i.e. the bass Dx is 'doubled' in the alto to [Dx + Dy]; C#x to [C#x + C#x]). Those expanded

[6] This notation of iterative features is modelled loosely on Nattiez's (1975: 330-354) paradigmatic sequence equations employed in his analysis of Debussy's *Syrinx*.

pairings are eliminated in the alto at A^2 where the alto follows the bass line *dux* but maintains its substitution of Dy for Dx. The cadence sub-phrase in A^1 and A^2 repeats a fixed, interlocking Bx - Bx' pair in the alto and this keeps the alto line phrase synchronised with the soprano at A^1 and A^2. The alto line therefore allies itself to the soprano phrase structure but imitates the bass motivic structure. This bass line unfolds its own contrapuntal process that cuts across the A^1 and A^2 divide articulated by the soprano and alto lines. Its organising rationale is that of an inverted canon at the minor third. The *dux* begins on D and the *comes* on B and the inversion is indicated by the substitution of motif x in the *dux* with x' in the *comes*. The canon is not absolute as the fixed cadence sub-phrase bass line impinges on it in the form of a recurring C#y at the end of both *dux* and *comes* but the basic relation by inversion at the minor third is evident:

reduction:	Dx		C#y		
Dux:	Dx	C#x	D	C#y	
A^1: [D-C#]	**D-C#-D**	**C#-B-C#**	**D**	**C#-**B-A#	
A^2:	**(B-C#)-B**		**C#-D-C#**	**B**	**C#-**B-A#
Comes::	Bx'	C#x'	**B**	C#y	
reduction:	Bx'		C#y		

Given that motifs x and y are respectively neighbour note and passing note figures, Stravinsky's 'canonic' construction here is neutered to the raw dissonant diminution mechanisms of (Schenkerian) contrapuntal construction itself. As such the passage lays bare the mechanics of linear counterpoint seemingly devoid of creative invention—a tell-tale sign of machine construction. Indeed, as the reductions above show, the *dux* and *comes* respectively elaborate mere Dx (complete lower neighbour note on D) and Bx' (complete upper neighbour note on B) figures, each appended to a C#y (passing note) fixed cadence sub-phrase. The precise alignment of this highly rational symmetrical plan, however, is disrupted by the unequal phrase lengths between A^1 and A^2. It presents yet another example of a Stravinskian dialogised structure. The prototype 'plan' for the contrapuntal procedures of the alto and bass line is designed to run over ten quaver beats divided into two balanced ('neoclassically' proportioned)

phrases of 6+4 but Stravinsky's ('Russian' juxtaposing) additive construction of the pedal motif results in A^1 having a phrase structure of 8+4 while A^2 has a structure of 4+4 (neither of which equate to a single phrase of ten quavers, though the two phrases combined equate to the twenty quaver total). A^1 and A^2 combined have a total of twenty-two quavers. Thus two extra quavers disrupt the twenty-quaver bass pattern from synchronicity with the soprano pedal motif and cadence. The two disrupting quavers in the bass occur at the beginning of A^1. Once these are eliminated the inversion canon (starting on the downbeat of figure 11) relationship between the bass of A^1 and A^2 reveals itself clearly. A^2 is four bars shorter than A^1, however, as a result of the interpolated additive units on beats 1, 2, 6 and 7. The alignment of the bass canon to the soprano line is thus further disrupted by the early onset of the B-C# quavers. These should start the *comes* of the inverted canon at the minor third at the beginning of A^2 (as indicated above in brackets) but commence prematurely in the short transition at the end of A^1 so as to complete their pattern on target at the end of A^2.

This is a complex arrangement of a bass governed by the mechanical application of an inverted canon belligerently (mechanically) forcing its organising rationality against the grain of the music's phrasing. It is as if a machine had attempted to synthesise the two incompatible processes, strict inverted canon and additive construction, each respectively a symbol of eighteenth-century organic counterpoint and modernist block juxtaposition. The resulting estrangement is pure dialogised heteroglossia; a vari-directional utterance that pulls in opposite directions, here each even parodies the other since additive construction (construction by addition, reduction, interpolation etc.) is anathema to the strict contrapuntal practice of canon (construction by exact imitation subject only to coherent rules of preordained imitation).

I have elsewhere referred to a similar incidence of dialogised heteroglossia—the Piano Sonata's bifurcation between Turanian additive construction and classical phrasing (McKay 2009)—as operating on three levels of discourse (superordinate, basic and subordinate) derived from Rosch and Lakoff's respective linguistic theory work on prototype effects (Lakoff 1990; Rosch et al. 1976). Although the complexities and intricacies of this passage are fundamentally syntactic details (evident on the subordinate level as a dialogue between asymmetrical, additive construction and symmetrical, four-by-four, canonic phrasing), Stravinsky's overcoding of contrapuntal

signifiers is essentially a (basic level) stylistic reference to the topic of learned style and its simultaneous mechanical deconstruction, negation and parody with what we might term 'ill-learned style'. These dialogised *ethopeitic* (characteristic) topical references are further dialogised (again on the basic level) by the *prosopoeitic* (personified) voices of (Baroque) Bach and (necolassic) Stravinsky respectively. Ultimately the passage is heard on a meta-stylistic (superordinate) level as a dialogue between Stravinsky's Russian/Turanian (asymmetric, additive and dissonant) and neoclassic (proportionately phrased, canonic and consonant) voices. This overly mechanical, awkwardly repetitive and complex double-voiced passage thus presents itself in Bakhtinian light: its every utterance is governed by a neoclassic 'sideward glance' to the reflected discourse of Bachian counterpoint. Recalling our opening Bakhtinian example of Devushkin's speech style in his letter to Dobroselova, it is as if Stravinsky writes in this passage of his new neoclassic lodgings in the contrapuntal kitchen of Baroque learned style. An arrangement of convenience, that—despite Schenker's evident alarm and Bach's imagined disapproval—should be cause for delight rather than concern.

Yet further evidence of dialogism between additive and canonic formation indicative of mechanical construction is found in Figure 6. This simple rhythmic reduction to even quavers of section A, reveals the alto line to be a virtual pedal like the soprano above it. The two upper texture lines in tandem thus appear to unfold a line in open fifths: $_{D}{}^{A}$-$_{C\#}{}^{G\#}$-$_{B}{}^{F\#}$. However the bass line targets an A# to support the soprano's F# goal, suggesting an alternative 'wrong-note' chord complex structure, $_{D/C\#}{}^{A}$-$_{C\#/B}{}^{G\#}$-$_{B/A\#}{}^{F\#}$, in which the progression is read not as unfolding parallel fifths (with the alto and bass united) but parallel thirteenths (i.e. parallel sixths displaced over the octave) with the bass notes (C#-B-A#) supported by an upper neighbour note pedal vertically in the alto and horizontally in its linear flow. Such a reading runs into difficulties, however, at the shortened repeat at A^2. The reduction from eight quavers to four (resulting from the additive construction) combined with the exchange of bass note Bs for Ds (resulting from the displaced inversion canon at the minor third) has the effect of shuffling the vertical 'triads' defined in A^1 as follows: $_{B/C\#}{}^{A}$-$_{C\#/D}{}^{G\#}$-$_{B/A\#}{}^{F\#}$. The triads still imply a I^6-$(V^{(2)})$-VI^6 contour (this time with the first two triads supported by lower neighbour notes) but the effect is one of the music all but tripping over itself in over-coded contrapuntal manoeuvres that grate against the incompatible additive framework into

which they are contorted. In place of a linear counterpoint that articulates vertical harmony, this rhythmic reduction reveals instead an iterative process for generating triads by the mechanical substitution of any note D for B running out of control. Instead of three stable sonorities, the machine generates copious triads by permutation:

A	A	**A**	**A**	A	A		**G#**	G#	**G#**		**F#**
B	D	D	B	D	B		C#	C#	C#		B
D	D	**C#**	**C#**	B	B		**D**	C#	**B**		**A#**
un		I^6		ln			(V^2)		$(V^6{}_4)$		VI^6

Figure 8: Concerto for Piano and winds counterpoint analysis.

Quaver beats 1-10 starting on D are followed by imitation in inversion starting on B with both phrases appending a fixed cadence of three quavers C#-B-A# [y] (Figure 8). The alto line appears to mimic this in pseudo imitative diminution but immediately contradicts this by establishing its own double semiquaver-quaver reiterated pattern against the even quavers of the bass. The passage prototype should unfold a $_{C\#}{}^{A}$-$_{B}{}^{G\#}$-$_{A\#}{}^{F\#}$ linear intervallic descent in thirds but instead the alto's dislocation unfolds an alternative $_{D}{}^{A}$-$_{C\#}{}^{G\#}$-$_{B}{}^{F\#}$ decent in fifths. This throws the alto line out of sync with the passage.

This close reading of a short contrapuntal extract of the Piano Concerto, like Yearsley's close reading of the C.P.E Bach double canon, thus conveys a sense of self-referential music turned in on itself generating an automatic, machine-like counterfeit music through its over coded contrapuntal gestures. It resonates strongly with Yearsley's sense of Bach's self-deconstructing moment:

> Bach presents an automatic, self-referential music…I hear Bach playing at fabricating mechanistic composition, producing not so much music as meta-music, not so much compositional thought as a picture of the objects of compositional thought and how they might be automatically strung together, yet still grammatically coherent. Bach presents a counterfeit of "real" music, an imposture of a "real" composer, compelling in its manifest arbitrariness, sublime awkwardness, and nearly perpetual energy. (Yearsley 2002: 207)

Through his dialogised, sideward glance at the reflected discourse of Bach, Stravinsky yields a similar sense of mechanical meta-music but goes one stage further

in dropping the 'grammatically coherent' constraints that Bach adhered to—much to Schenker's ire. This form of reflected discourse differs from the more Bloomian readings of anxious influence. When Stravinsky wrestles with his own construct of Bachian ideology in his neoclassic works, it is not an emic confrontation from within the organicist tradition but an etic, dialogical grappling from without. In this sense, the sideward glance of much of his neoclassic discourse is genuinely double voiced: 'his' Turanian perspective—a language of octatonicism, bi-/polyrhythms and juxtaposed, stratified structures—is a rough, ethnic language entirely other and opposed to the Austro-Germanic organicist language image reflected through it. From this perspective, Stravinsky suffers no anxious influence, has no need to clear creative space amid the oppressive presence of anterior 'masters' and is not engaged in any Bloomian process of misprision. He is actively practicing a sideward glance at the reflected discourse of a created, personified other language: a dialogic confrontation between juxtaposing Turanian and architectonic organicist ideologies. The lack of anxiety Stravinsky felt towards his anterior composers is perhaps evident in his appreciation not of their Romantic reification as great artists, but—in the spirit of his Maritainian philosophical leanings evident in his *Poetics of Music*[7]—of their artisan qualities. Of Bach, for example, he observed 'what incomparable instrumental writing is Bach's. You can smell the resin in his violin parts, taste the reeds in the oboes' (Stravinsky and Craft 1959: 31).

7. Hyde on the Octet

Stravinsky's Octet (1922-23), a work composed immediately prior to the Piano Concerto, offers many examples of similar sideward glances to the reflected discourse of Bach. Existing analyses of the work, however, tend to dismiss the dialogical nature of the music; none more so than Martha Hyde's presentation of the work as her model example of what she terms eclectic imitation. Hyde's (1996, 2003) systematic theory of imitation and anachronism in Stravinsky's neoclassicism critiques conventional influence studies for their confused 'squabbling' about the 'first sightings' of classical signifiers: triads, major scales, tonal bass lines, dominant-tonic cadences, tonal centres

[7] Maritain's (1920) philosophy significantly influenced the thinking behind Stravinsky's (1994) aesthetic ideas.

or classical forms. Akin to Meyer's (1983: 530) critique of influence studies for its ingrained 'covert causalism' (i.e. merely identifying the source, or cause, of an alluded 'other voice' as sufficient explanation for the effect it exerts in its host work), Hyde argues that such sightings are 'inconclusive if not interpreted in a broader context'. This she provides in the form of a taxonomy of 'imitative resources and effects' for categorising anachronistic incongruities in Stravinsky's neoclassic music (Hyde 2003: 99): 'metamorphic anachronism' defamiliarises or playfully mocks an all too familiar convention (e.g. the rags of *The Soldier's Tale* or *Piano-Rag-Music*); 'eclectic imitation' indifferently juxtaposes 'allusions, echoes, phrases, techniques and structures from unspecified sources' (e.g. the diatonic-octatonic interaction of the Octet or the 'merzbild' (Stravinsky and Craft 1968: 27) 'salad of clichés' (Taruskin 2003b: 807) of *Oedipus Rex*); 'reverential imitation' comprises 'artful arrangements' rather than genuine neoclassic pieces (e.g. the Pergolesi and Tchaikovsky pastiches of *Pulcinella* and *The Fairy's Kiss*); 'heuristic imitation' recasts borrowed forms into a modern vernacular (e.g. the dialogised sonata form in Symphony in C); and 'dialectical imitation' critiques the integrity of its own model(s) (e.g. *The Rake's Progress* as critique of opera buffa, Faustian notions of time and classical mythology). Respectively these modes of imitation control, conceal, celebrate, confront and contest the anachronistic relationship between past and present ingrained in Stravinsky's neoclassic music.

With the notable exception of dialectical imitation, however, Hyde confines her notion of anachronism to something residing in overtly structural parameters (e.g. octatonic-diatonic interaction, harmonic and contrapuntal constructs, classical forms and textures etc.). As with most of the Stravinsky literature on influence and intertexts, little, if any, consideration is given to the role of interpretation in broadening out from these structural features to their emblematic status as signifiers of language styles with associated ideologies. Against this, I will argue that a comparable shift from sighting signifiers in structural parameters to interpreting their signifieds in semantic parameters is possible (necessary even) in fully interpreting the examples Hyde gives of eclectic and heuristic imitation. Such a shift in Hyde's theory can readily be made and would make possible the application of two hermeneutic strategies for interpreting similar rhetorical clashes of styles, forms, constructs and periods to those she finds abundant in

Stravinsky's musical discourse: Robert Hatten's notion of 'emergent meaning' arising from rhetorical tropes encoded in musical discourse (1994, 2004) and, once again, Mikhail Bakhtin's literary theory concept of double-voiced discourse (1981; 1984).

8. Eclectic Imitation: Rhetorical Skill With Brute Facts

Hyde's example of the variation theme from the Octet as a paradigm of eclectic imitation demonstrates both this shortcoming and the potential for expansion of her work. Shadowing van den Toorn's (1983: 332-337) analysis (Figure 9), she identifies a false synthesis between a superimposed octatonic theme and diatonic accompaniment as signalling an anachronistic relationship. Van den Toorn dubs this 'tonally incriminating behaviour': 'an accompaniment that implicates an interpenetrating diatonic reference'. This form of dialogic collision is more than mere 'time travelling' (Lambert 1937) between tonality and post-tonality however. Again it bears the hallmarks of a Bakhtinian 'double-voiced' discourse.

Stravinsky's natural discourse speaks through the octatonic self of his Turanian style:[8] a theme centred on pitch A constructed from two overlapping transposed [0134] tetrachords of collection III ([A-Bb-C-C#] at fig. 24 and [C-C#-D#-E] at fig. 25). Against this, a superimposed counter-discourse (Bakhtin 1984: 209) speaks through the diatonic other of classical style: a 'pseudo D minor reference' in block chords with a bass line 'suggesting a I-II-V-I harmonic progression'. Both utterances maintain their separate identities, bifurcating the voice of the Octet theme in a manner analoguous to a Bakhtinian vari-directional discourse. Only the ending on a Picardy-third F# at fig. 25^{+6} (which, unlike the note D or any constituents of a D minor triad, belongs both to D tonality and to octatonic collection III) indicates any notional sense of merging unity, fusion or synthesis between the two opposed utterances.

[8] Taruskin (1996: 1119-1440) defines the Turanian style.

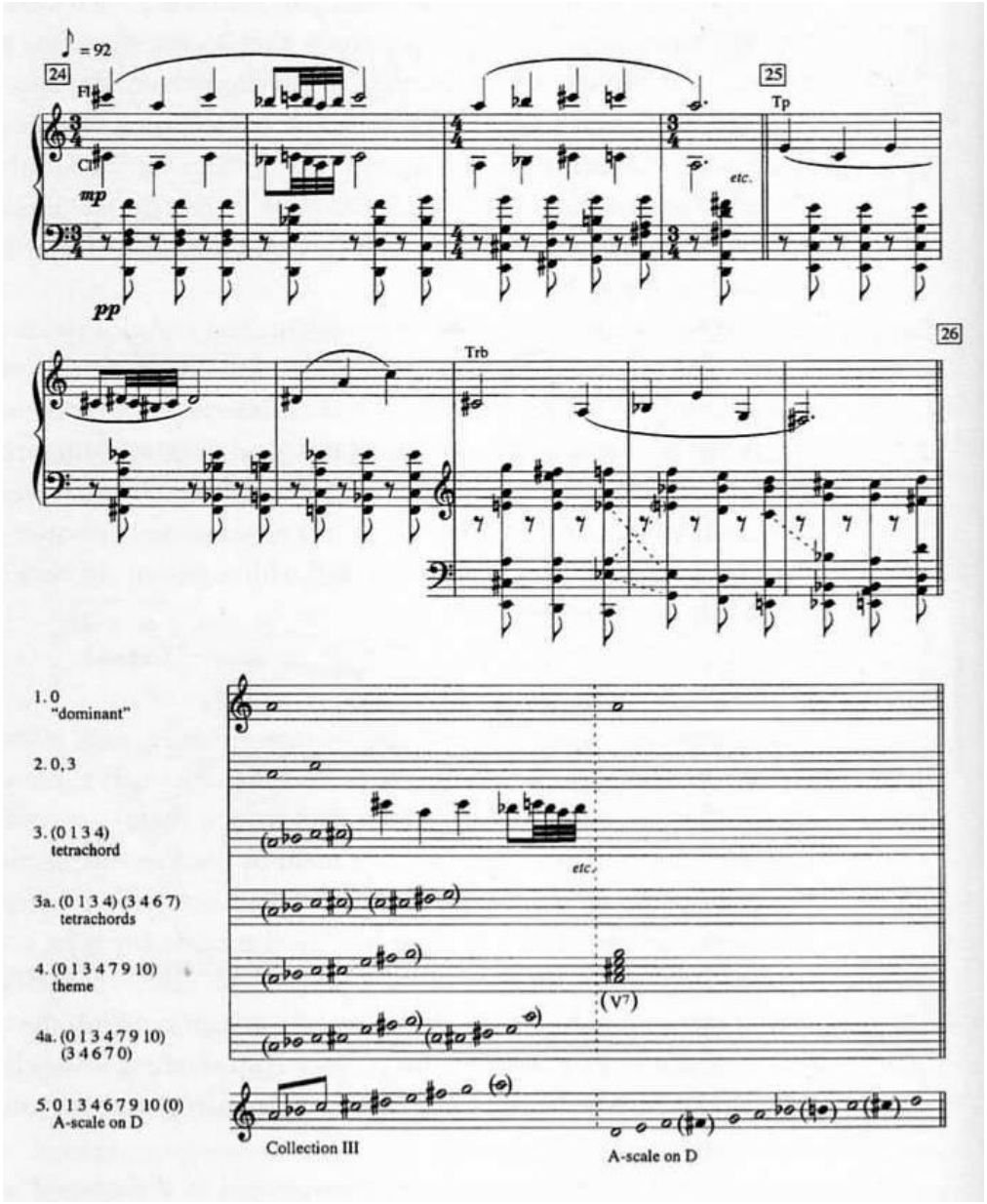

Figure 9: the rhetorical counters of Eclectic imitation in Octet (1952 version). 'Tema con Variazioni': reduction and analysis from Van den Toorn (1983, 334), cited Hyde (2003, 104)

For Hyde (2003: 103), the passage creates an '*allusion* to a dominant-tonic relation' that is 'consumated' by the theme's F# at the end of the phrase, affecting 'what sounds like a cadential dominant-to-tonic resolution on D'. F# unites the D minor tonality (the 'surrogate stimulus' (Eco 2000: 353-356) for the 'tonic') with the octatonic collection centred on A (the surrogate stimulus for the 'dominant', articulated throughout with recurring A-C/C# minor/major diads). The 'intrusion' of one against the other, however, ensures that the 'allusion is only approximate'. Hyde thus reads the

Octet as exhibiting a 'delicate rhetorical balance between tonal allusion' (the surrogate stimuli of octatonic-diatonic interaction in imitation of a classical cadence gesture) and 'reality' (an authentic classical cadence in which opposed forces of dominant and tonic are unified) (105). This emphasis on the rhetorical skill of juxtaposed oppositions in Stravinsky's discourse precludes any sense of unified vision and reinforces the dialogic collision of its other-voiced quality: 'no definite meaning emerges from the superimposition since, for their effect, both must maintain their independence; here clashing elements function primarily as rhetorical counters' (Hyde 2003: 105).

Hyde's reading again follows Van den Toorn's assertion that neoclassicism simply 'imposes itself in the form of an octatonic…and diatonic…interpenetration' (1983: 335). (It is this interpenetrating imposition, defining a 'superficial engagement' with anachronicism, that distinguishes Hyde's eclectic imitation of the Octet from the synthesising 'deeper engagement' of 'heuristic imitation' she finds in the Symphony in C; the first movement of which presents a more 'unified' dialogue between arch and sonata form construction.) In Meyer's terms, we might say the Octet mimics the 'brute facts' of its respective 'classical' models (theme-accompaniment texture and dominant-tonic allusion), not in ignorance of their 'institutional facts', but as a deliberate strategy of parodic recontextualisation. [9]

9. Dialogical Scrutiny: Interanimation vs. Stratification

Hyde's emphasis on the non-synthesising aspects of syntax, however, overlooks the interanimation of the 'Turanian' and 'classical' language styles through which it is voiced. The on-the-beat, proportioned metrical phrases of the linear melody with its disciplined, lyrical voice-leading, belongs not to the octatonic Turanian language style of its pitch content but to the 'classical' language style found in its stratified and metrically dislocated vertical harmonic 'accompaniment'. Similarly the off-the-beat, repetitive pseudo-diatonic chords of the accompaniment (often displaying unorthodox conjunct, rather than contrary, motion) adopt a relentless ostinato-like pose that mechanically chugs its way through the melody's ('classical') phrases and cadence

[9] Meyer (1983: 537) articulats the distinction between 'brute facts' (mechanical miming) and 'institutional facts' (replication complying with a known set of rules and strategies).

points displaying a pseudo-asymmetry (transcending any shift in the bar line generated by the interpolated 4-4 bar) more evocative of Stravinsky's Turanian language style.

Critiquing Hyde's analysis, then, one could argue that Stravinsky's rhetorical skill at juggling anachronism here displays a deft cross-matching of his 'rhetorical counters' across different parameters. The theme speaks an octatonic Turanian language in its pitch content (and indeed its exposed parallel double-octave texture) but a classical one in its phrase structure and voice-leading. Conversely, the accompaniment speaks a 'classical' language in its pseudo-diatonic pitch structure (pseudo rather than actual because it is a diatonic-octatonic hybrid merely aping the mannerisms of diatonic chords and a I-II-V-I progression) but a Turanian one in its relentless ostinato-like texture and uncompromising off-beat identity; regimentally repeating oblivious to the phrase sensitivity of the melody it supposedly accompanies. In this regard, the accompaniment draws striking parallels with that of 'The Royal March' in *The Soldier's Tale* but the March topic of the Octet (those repeated chords of the accompaniment) is all the more striking for its dialogised, bi-isotopic, relationship with the combined waltz and aria style topical references of the theme. Theme and accompaniment are thus stratified into a double-voiced discourse of both pure (syntactic) and referential (stylistic) signs but one in which Stravinsky has interanimated the constituent parameters of this dialogised discourse. It would take more than a consolatory F# Picardy-third to synthesise these 'other voices'. The gambit relies on an engrained Turanian-Classical friction running throughout the constituent parameters of theme and accompaniment that ensures their stratification across a variety of interanimating parameters.

Pegging parameters to opposed discourse styles is an extension of what I have previously termed 'synchronic subversion' (McKay 2003). That technique, evident in the second piece of The Three Pieces for String Quartet (later subtitled 'Excentrique' in its arrangement for Four Orchestral Studies) highlighted a physical dislocation of theme from accompaniment in an 'unthemed accompaniment' paradigm (bb.26-28). 'Theme' was obliterated from the scene but its trace, its 'negative intertext', was in the process rendered highly conspicuous as an absent signifier. That Turanian 'death of the theme' gambit takes on a new manifestation in Hyde's example of eclectic imitation in the Octet: on the parametric level, theme is reunited with accompaniment (both now

function as present signifiers) but they fail to speak with one voice. Theme is divorced from accompaniment despite their apparent coexistence. They speak through a Turanian dialect in certain parameters and a 'Classical' one in others. The technique recalls Bakhtin's illustration of dialogised heteroglossia, discussed above, as an imaginary peasant capable of regarding and interanimating "one language (and the verbal world corresponding to it) through the eyes of another language".

Parameters, such as theme and accompaniment, which were formerly divorced from one another in Turanian works like *Excentrique*, are thus reunited in neoclassic works like the Octet, Piano Sonata and, as we have seen in its gestural counterpoint, the Piano Concerto.[10] Theme has no longer been obliterated from the scene—replaced by a series of Turanian punctuating gestures (such as those dominating the textural discourse of *The Wedding*, *Renard* and the second piece of the Three Pieces for String Quartet)—but has returned to its rightful synchronicity with cadence and accompaniment, its respective diachronic and synchronic partners. Their double-voicing is expressed more subtly in deviation within, rather than between, parameters. Theme does not speak univocally through a Turanian dialect, as might be inferred from Hyde's metonymic priviliging of its octatonic pitch construction. Rather, it is riven across its parameters between both Turanian and Classical dialects. The respective language styles have consciously affected one another through a cross pollination. In so doing, the Octet example constitutes another example of a Bakhtinian sideward glance at the reflected discourse of another: a Turanian Stravinsky, anticipating the critical responses of an imagined, absent, classical Bach to his neoclassic utterance.

Hyde's reading of the Octet example as a paradigm of eclectic imitation can thus be critiqued on a number of grounds: i) it metonymically privileges pitch construction as the primary signifying parameter of musical discourse (a familiar charge wielded against formalist analysis); ii) it employs this metonymic interpretation to stratify 'theme' from 'accompaniment' as a basis for observing the 'rhetorical skill' with which these (presumed abstract) constructivist 'blocks' of sound are juggled in the absence of any compelling evidence of a unifying synthesis; iii) it fails to read these abstract constructs as signs of language styles that, as Bakhtin (1984: xxxii) would say, belong to someone and express particular ideologies and values; iv) it fails to probe into the

[10] For an analysis of this point in the Piano Sonata, see McKay (2009).

constituent parameters of theme and accompaniment to read the interanimating signs of these opposed language styles: a parody of the machine-like military march 'troped' (to coin Hatten's use of the term)[11] with the more humanising spirit of dance (waltz) and song (aria style); v) it consequently fails to read the Octet as internally dialogised within the constituent parameters of theme and accompaniment as well as between these two paradigms. In short, Hyde's discussion of the Octet's eclectic imitation, follows Straus in reinscribing Stravinsky's geometric formalist agenda by privileging constructivist values centred on 'abstract' pitch relations over any gestural interpretation of language styles; the constituents (*semes* and *topoi*) of which scatter more freely across a variety of parameters. On the evidence of our case study from the Octet, *pace* Hyde, the significance of types of tonal construction (octatonicism and pseudo-diatonicism stratified between theme and accompaniment respectively) emerges not in its own right but when these constructs are translated into language styles—when gestures are seen to articulate the other-voiced nature of the musical language.

10. Conclusion

Language styles, as Bakhtin found in his literary theory studies of Dostoevsky's poetics, have an inter-animating tendency to be 'double-voiced', 'vari-directional' and/or 'parodic'; a tendency Stravinsky exploits in his neoclassical musical discourse, despite the Stravinskian pretence of autonomous, inexpressive, 'pure' music that attempts to divorce music from its expressive contexts. When superimposed or juxtaposed language styles compete or conflate with one another, Bakhtin's theories call forth for dialogic mediation: we come to understand one language through the inter-animating presence of another—a competing language that often pulls in an opposite direction, exerts a recontextualising force (often parodic) and appears to belong to someone, expressing a dominant or marginal ideology. Double-voiced language thus offers a form of social critique, generated by a collision between two social languages, the result of which questions official monologism through dialogic mediation. Heteroglot discourses (i.e. those built on the 'other-voiced' qualities of conflated language styles) therefore exert a

[11] Hatten (1994; cited, 2004: 68) 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'.

centrifugal hermeneutic force: they comprise an irreducible heterogeneity that resists the unifying tendencies pursued by much music academy-led analysis.

Texts, like Stravinsky's scores, when read in a Bakhtinian light, thus appear less autonomous or 'self sufficient' than Stravinsky would have us believe. They are seen more as 'relational' events whose meaning is interpreted by their outreach to other music and ideological values. The curious case of Stravinsky's neoclassic music thus offers an intriguing modern and postmodern musical counterpart both to Bakhtin's literary theory study of Dosteovsky and to Cone's (musicologist-as-detective) study of Brahms. It is a case less-suited to the (second hearing) Schenker-like, deductive reasoning of Conan-Doyle's Sherlock Holmes, one more for his postmodern reincarnation, William of Baskerville; the medieval (yet proto-twentieth-century) detective intertextually conjured-up (as a thinly veiled personification of Peirce's (1958: 89-164) abductive reasoning) in Umberto Eco's *The Name of the Rose*. Textual, deductive hermeneutic readings of Stravinsky's neoclassic music will struggle to move beyond Schenker's 'second hearing' concern at the ungrammaticality of neoclassicism. Intertextual, abductive hermeneutic readings by contrast can interpret such signs in Bakhtinian terms as a dialogised sideward glance at the reflected discourse of another, approaching something of the ideal 'third hearing' interpretation advocated by Cone.

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Sungura Music's Development in Zimbabwe: The Emergence of Trendsetters, Emulators and Copycats

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Abstract

Violation of copyright law has caused quite a stir in Zimbabwe's Sungura[1] music performance. Some prominent musicians accuse upcoming artistes of illegally copying their music, although the popular musicians themselves developed it by modeling on foreign popular musicians' songs, which were on the local market and shows in Zimbabwe. By tracing the development of sungura from the 1960s to contemporary times using a diffusionist paradigm, this paper exposes how sungura artists have developed a genre that owes its popularity to record companies' policies, the media as well as the sungura artists' virtuosity in fusing foreign musical genres (especially Congolese, Kenyan, Tanzanian and South African) and local indigenous traditional styles (mhande, mbende, jiti, shangara). We interviewed sungura artists, recording company personnel and music promoters to elicit their views on the major influences on the development of museve.[2] Based on insights drawn from musical ethnography, the paper goes on to propose a revised framework of analysis and terminology to account for sungura musicians' relationships. We examine the characteristics of a couple of sungura musicians with a view to justifying how each falls into a particular category. Using critical African cultural studies, we proffer the terms trendsetters[3], emulators[4] and copycats[5] as categories into which sungura musicians in Zimbabwe fit. One way or the other there is mimicry which might account for lack of lawsuits against perceived violators of copyright law. The conclusion suggests collaboration to reform sungura musicians' connections which we think holds potential to propel them to greater success.

[1] A name used to refer to a genre of music which started as a subgenre of rhumba music resulting from a fusion of *benga, rhumba, soukous* and some Zimbabwean indigenous genres.
[2] Another name which Zimbabweans give to fast paced *sungura* music.
[3] S*ungura* musicians who create original styles of playing *sungura* that become popular musicians.
[4] A group of *sungura* musicians whose musical style emulates that of the trendsetters.
[5] Musicians who plagiarize other musicians' intellectual property.

1. Introduction

Our focus in this article is to discuss copyright infringement in the growth of *sungura* music in Zimbabwe. It is important to critically examine the factors that gave birth to *sungura* as it is popularly referred to. The role of major recording studios, television stations and radio broadcasters also comes under the spotlight in order to appreciate the rise of *sungura* music in Zimbabwe. We posit that *sungura* music's development reveals three categories of musicians: trendsetters, emulators and copycats. Another important aspect is to review the impact of legislation in Zimbabwe and how it has affected the growth and development of *sungura* music from 1980 to date. Public live show performances by *sungura* musicians are chances for artists to go out to the people showcasing their music. In this presentation we explore the various forces involved in promoting music in Zimbabwe. We also focus on how the media and technology have affected *sungura* music in and outside Zimbabwe. We suggest that sungura musicians should refocus themselves on symbiotic projects and stop viewing each other antagonistically if their financial plight is to improve.

2. Theory and Method

In grappling with issues of *sungura* music's development, we adopted a qualitative research design in this study. According to Creswell (2008: 46) in qualitative research "…the researcher relies on the views of participants; asks broad, general questions and collects data consisting largely of words from participants…" Qualitative research methods were chosen because they are sensitive to the many mutually shaping influences that were encountered during this study (Lincoln & Guba: 1985). We collected data through open ended interviews and participant observation in live music shows coupled with thick descriptions and interpretation (Geertz: 1995). Bresler (1995) asserts that qualitative research methods such as participant observation and open ended interviews are adaptable to dealing with multiple realities. We immersed ourselves in *sungura* music performances and sought to incorporate emic perspectives from the *sungura* musicians themselves.

Relations amongst artists in sungura music generate an intriguing discourse in music plagiarism. We use a combination of anthropological, ethnomusicological theory and critical African cultural studies to trace the origin of sungura music as well as

mount an ontology that proposes new lenses through which to view and refer to diverse characters plying their trades in Zimbabwe's sungura music. The crux of the theoretical lenses that we used for purposes of analysing sungura music's development were borrowed from diffusionism, which asserts that "cultural traits move over time and space out from the point of origin" (Stone 2008: 27). In a quest to trace the development of *sungura* from East and Central Africa through a close study of *sungura* artists, seminal perspectives were borrowed from anthropological keen interest in cultural traits and how they diffuse over time from one place to another. The theory which undergirded this research proposes that music performance, including *sungura*, originates from a particular location and spreads to other places over long distances and the passage of time. Thus in this study which sought to trace the development of *sungura* music in Zimbabwe, the tenet of diffusionism purports that societies are built of many traits which exhibit various origins and histories (Stone, 2008:29) provided the basis for analysing the historiography of *sungura* music. In depth investigations into *sungura* artists and their various pathways were done in a bid to establish the degree to which they exhibited competencies to create within *sungura* music. It is through that analysis that we hoped to establish the best way to explain the emergence of *sungura* music in Zimbabwe.

After exploring factors affecting the plight of sungura artists based on insights drawn from musical ethnography, the paper identifies trendsetters, emulators and copycats as the existing identities in which sungura players find themselves as they occupy different poshtos in *sungura* music. Trendsetters tower as iconic figures. Upcoming artists end up emulating the sungura trendsetters because they do not have control over the means of music production, impoverished as they are by neo-colonist machinations. They are left with no option but to create around what is perceived as lucrative by record producing companies, not mere intent to plagiarize others' intellectual property. We use critical African cultural studies, which represent marginalized groups with a transformative agenda and propose that sungura artists should value their connectedness and mutual intelligibility, which we think is a priori to their future success. We argue that record labels propel the upsurge in emulators since they offer recording contracts to artists who play *sungura* music because of the financial benefit it brings to their stables.

3. The Etymology of *Sungura*

Sungura is a Swahili name for a rabbit (Digolo & Njoora 2009). *Sungura* music seems to logically resemble the character of the rabbit in folktales that were told to us as we grew up. Notably in the folktales, the rabbit is largely depicted as a wise and cunning little animal. According to N. Zackaria (personal communication, 12 August 2012) taking the character of the rabbit to symbolize *sungura* music is because it is played fast with immense creative imagination and artistry in the style of the guitars, drums and vocals. The majority of *sungura* songs on the local music market are a portrayal of some highly complex performance skills on instruments hence we can visualize the craftiness and antics of the rabbit as the music plays on. A couple of writers (Kwaramba 1997, Eyre 2001 and Mhiripiri 2010) have based their definition of sungura music on its distinctively fast rhythm and supposed East African origin and this resonates in tune with our linking it to genres from there.

Sungura music evolved from a combination of musical genres from the East and Central African region (Murombo 2005). Respondents revealed that *sungura* was born as Zimbabweans emulated *soukous*[6] and *benga*[7] from Central Africa. The main features of *sungura* typify *soukous* and *benga* music. According to N. Zachariah (personal communication, 2012) the term *sungura* was derived from a record label from East and Central Africa, particularly Kenya and Tanzania. The music distributed on the *sungura* label was *benga*, rhumba and *soukous* which Zimbabwean musicians emulated. Some record companies distributed music from the late 1960s to the early 1970s on *kanindo* and *sungura* labels. N. Zachariah is a music artist and he said in the interview that he the music he plays is s*ungura*. After independence in 1980 radio and television broadcasts became open to indigenous music hence the shift towards *sungura*. The impetus to play the indigenous music is also linked to the local record companies' deliberate promotion of *sungura*.

After 1980 some of the prominent record companies like Gramma Records, Record and Tape Promotions (RTP) and Zimbabwe Music Corporation (ZMC)

[7] The term soukous comes from a French word secouer which means to shake. The genre originated in the Belgian and French Congo in 1930s to the 1940s. It is the predecessor of *kwasa kwasa* and *ndombolo*. It is also called African rumba.

[8] The genre that emerged in the 1970s and has similarities with the rumba played on guitar in Kenya, Uganda and Tanzania.

encouraged new and old musicians who were contracted them to play *sungura* music. In corroborating with the role of record companies, an experienced producer and engineer with ZMC, Mabaleka (2010) said that "As engineers we used to give our old and new musicians records and audio cassettes with music from the Democratic Republic of Congo, Kenya and Tanzania." He went on to say that the musicians would practice the style of music on the polyvinyl records and audiocassettes from the *sungura* label. One of the reasons why recording engineers encouraged artists to emulate music on the *sungura* label was that it was popular among clients and they stood to benefit from sales if more artists played it.

With time record companies found that the *sungura* label had high sales so it made sense to promote it. Whilst it was rational to assert that *sungura* music appealed to the people, the underlying lyrics in Swahili or other foreign languages did not convey meaning to the majority of Zimbabweans. Singing in local languages would be appreciated by more people. In this scenario the record companies in Zimbabwe took advantage of musicians singing in local languages to proliferate recording and distribution of sungura music. In the process they forced the local Zimbabwean musicians to adapt a new style with lyrics in Shona and or Ndebele languages. This actually marked the birth of emulators. Our main target are the record companies such as Gallo, Teal and Trutone records, which were subsidiaries of South African record labels. They played a big role in the rise and development of *sungura* music out of sheer pursuit of the resultant financial gains they stood to gain since *sungura* has recorded high weekly sales in Zimbabwe (Mhiripiri 2011). Since local Zimbabwean musicians had a task to emulate the sungura music, it implied producing a fusion of the genres of rhumba, *benga, kanindo* and *soukous* with their indigenous genres such as *masiganda*, *mhande*, *shangara*, *jiti* and *tsavatsava* that they had been playing for a long time. The resultant genre that emerged is sungura music which at the present moment is unique to Zimbabwe, even though one can sense a feel of rumba, *benga, kanindo* and *soukous* in it.

According to Mr. Murombo, the then financial director at Gramma, (personal communication, 2005) more than 70% of the musicians contracted to Gramma Records specialized in *sungura* music and most of them were Shona speaking. Even though the majority was Shona, *sungura* has also grown immensely among the Ndebele and

Kalanga communities in western Zimbabwe. The late Beatah Mangete, Nduna Malaba, the late Solomon Skuza, Chase Skuza, Tukuye and Ndolwane Sounds are some of the Ndebele/Kalanga musicians who play *sungura* music.

In Zimbabwe, *sungura* music depends on the musician's background. It can have dominance of any of the following: *kwasa kwasa*[8], *rumba*, *benga, soukous* or Zimbabwean traditional musical genres. It is common for Zezuru musicians to play *shangara* and *jiti*. The *Karanga* people usually play *mhande*. *Mbende* is a common genre amongst people of Murewa and Mutoko areas. *Jiti* is a contemporary genre among the generality of the Shona ethnic groups. *Tsavatsava* is practiced among the *Korekore* people of northwestern Zimbabwe. Notwithstanding the geographical locations of the local styles and genres, it is important to note that to date people from different cultural backgrounds come together for a myriad of reasons, resulting in increased diffusion of musical styles. In essence the knowledge concerning traditional music and practice has become accessible to many through information technology (IT) via the radio, television, DVD, CD and internet. Therefore the IT has enabled Zimbabwe to be one big constituency with a variety of genres due to various music genres coming in contact with each other.

OK Success is one of the earliest Congolese bands to settle in Harare in the 1960s (http://www.embargo.ca/zim/artists/bios/oksucc/index.htm[9]). The late James Chimombe was once a member of Ok Success Band. From the 1970s some Zimbabwean musicians began to emulate musical styles of musicians from the then Zaire, now the Democratic Republic of Congo. The likes of Zexie Manatsa, Thomas Mapfumo and Oliver Mtukudzi, whose music featured on radio in the early 1970s, had songs with a strong resemblance of *sungura* music. The term *sungura* came into prominent use after independence and most bands specialized in music by musicians from East and Central Africa. The visiting bands that found a new home in Harare included Limpopo Jazz Band, Orchestra Mangelepa and Real Sounds of Africa. In addition to the above bands, Sam Mangwana, Pepe Kale, Alouis Mabele, Kanda Bongoman, Alan Kounkou, Yondo Sister, Koffi Olomide, Lubumbashi Stars and Extra Musica visited Zimbabwe after

[9] A fast pace kind of soukous that evolved in the Congo region in the late 1980s to the early 1990s.

[9] [Editor's note: This and the other weblinks in this article are no longer active, as of February 17, 2014. Please see the end of the reference list for information of the latest retrieval dates of these links.]

1980 (Zindi 2003). An indigenous Zimbabwean guitar style, *masiganda,* also borrowed certain techniques from the East and Central African influence (Pfukwa, 2010:172). The Zimbabwean indigenous guitar style utilized a technique combining rhythm and bass lines on an acoustic guitar. In Zimbabwe *masiganda* music emerged in the 1940s. In the late 1970s there emerged a strong influence of rhumba thereby influencing music in Zimbabwe. *Sungura* music thus results from influences of rhumba, kanindo, soukous, indigenous styles and *masiganda* which came in contact as people migrated through time and space. Most *sungura* bands' rhythm guitarists play the *masiganda* technique.

4. The Growth of *Sungura* Music in Zimbabwe

We attribute the rise of *sungura* music to the freedom from colonialism and the increased opportunity to play Zimbabwean indigenous music on national radio and television stations. It can be seen as a symbol of rising self-consciousness amongst local music artists with a newly found freedom to express their experiences. Before independence most popular musicians did not specialize in specific genres since they played a variety of music when recording was a nightmare due to segregative colonial attitudes. Notably, Zexie Manatsa, a very prolific bass guitarist and lead vocalist who rose to fame in the mid 1970s, played music with *nyanja* and *chewa* lyrics. Zexie Manatsa also played *mbaqanga,* a genre from South Africa, fused with Zimbabwean *tsavatsava, shangara, mbende, jiti* beats as well as the styles from East and Central Africa. In the 1970s musicians who played fusions of musical genres included Doctor Footswitch, Okavango Boys, Search Brothers, Thomas Mapfumo and Oliver Mtukudzi. After 1980 there was a general shift towards specialized performance of musical genres with many bands focusing on playing indigenous music genres of Zimbabwe. Specialization in *sungura* music was a gradual process as many musicians came into the popular music industry (Pfukwa, 2011).

In the 1980s the late musicians Ephraim Joe, John Chibadura, Simon and Naison Chimbetu formed a band called Sungura Boys. Many other musicians including the late Cephas Mashakada, the late Leornard Dembo, Nicholas Zachariah, Jonah Moyo, Mashura, the late Tongai Moyo, Hosiah Chipanga, Aaron Chinamira, Alick Macheso, Mitchell Jambo, Cosmus Chuma, Solo Moyo, the late System Phanuel Tazvida, Ketai Muchawaya and Admire Kasenga began to specialize in *sungura* music after

independence. It is now a common trend for Zimbabwean popular musicians to specialize in and record music of one specific genre thus avoiding a mixed bag of songs (http://www.embargo.ca/zim/artists).

The large number of *sungura* artists in Zimbabwe is attributed to the fact that the major recording studios in the recording industry promote this genre more than any other, albeit for making profits. In essence sungura music, as a product of signification, is largely driven by Gramma Records (GR), Zimbabwe Music Corporation (ZMC) and Record and Tape Promotion (RTP) who record the majority of the big name *sungura* artistes in Zimbabwe, resulting in the playing of *sungura* music by upcoming emulators. However it is important to note that Gramma leads the recording industry in terms of the most prominent *sungura* artistes as well as the highest gross earnings per musician. At the time of writing this paper, Gramma Records and Zimbabwe Music Corporation were entities belonging to Elias Musakwa, a Zimbabwean businessman who is also a gospel musician and an engineer/producer in the recording industry. The obvious reason for pro-studios to encourage new musicians to emulate the trendsetters the fact that the sales of their type of music are very high hence they boost their business. Macheso is a superbly gifted musician, an intelligent composer, arranger, performer choreographer and dancer. He plays with skill during his live shows and on the dance floor he leads by example as a gifted entertainer. A year after Macheso broke away from Gramma Records his album which was recorded in the Republic of South Africa shot to the top in sales and popularity. His 2007 album, Ndezvashe, was awarded a prize for the best album of the year. The same project also won the best track and video for the year 2007. Macheso proved that it is possible to record successfully outside the country without involving a major local recording company.

Somandla Ndebele is another musician who also left Gramma Records and did a recording project in South Africa in 2007. The idea of breaking away from the local recording companies can be good for established musicians as it may eventually lead them to establish their own recording studios. Going by the success of most big musicians like Macheso, Tongai Moyo and Charles Charamba, chances are that musicians can do better financially if they take the same route. Mapfumo and Mtukudzi are both legendary musicians not in the *sungura* fraternity who have achieved great success after breaking away from the local major recording labels. The experience that

the above-mentioned artistes gained while contracted to the local recording companies helped them to forge ahead with their recording business successfully. It can be conceived as having set a remarkable trend of breaking away from the big record companies a fit that Tongayi Moyo and Nicholas Zachariah have not done.

According to an unpublished research that we conducted in 2006, the total number of *sungura* musicians outnumbered all other musicians in the Zimbabwe music industry. The list of names of musicians who play *sungura* is inexhaustible because new musicians come onto the scene on a regular basis. Some *sungura* artistes with a lot of influence over other musicians set trends in the music industry and are also responsible for the growth of *sungura* music in terms of creativity.

5. Trendsetters and Emulators in *Sungura* Music

In this article we view trendsetters as *sungura* artistes who begin unique brands that become popular and exert influence on other musicians. The emergence of musicians who fall under the trendsetters is a combination inborn prowess, timing and luck. Trendsetters possess the ability to popularize some playing styles, vocal techniques and performance motifs, which other sungura artistes then emulate, and use in different ways. This popularity is gauged through high record sales and then propelled by record companies which encourage emulators to follow the creative ground breakers. From independence in 1980 the Zimbabwean popular music industry has grown from a small entity to a big force to reckon with. Despite the exponential growth in the number of artistes playing *sungura* music, not all *sungura* musicians fall under the category of trendsetters.

Trendsetting musicians consistently become icons because of their outstanding lyrics, playing style, dance and live show performances. In the category of trendsetters certain musicians have more impact on the popular music industry than others.

Ephraim Joe is one of the earliest *sungura* music players and he worked with many aspiring musicians in his band Sungura Boys such as Franco Hodobo, the late System Tazvida, Nicholas Zachariah, Alick Macheso, and the late John Chibadura who all emulated him. The bands that rose to fame during the time of Ephraim Joe were the Tembo brothers, Sungura boys, Mawonera Stars, Mverechena Band and the Muddy Face in the early 1980s. The likes of Nicholas Zachariah, Alick Macheso, Simon

Chimbetu, Leonard Dembo, Solomon Skhuza and System Tazvida are typical examples. These musicians have influenced *sungura* musicians in different ways. Nicholas Zachariah's lead guitar playing style has inspired so many young aspiring artists to play like him. Alick Macheso's bass guitar skills, socially relevant lyrics, vocal technique and arrangement of music have set the whole music industry alight and many upcoming artists admire him and try to play like him. Simon Chimbetu's vocal rendition, ululation and chants have lead to other artists emulating him. Leonard Dembo's lead guitar and lyrical comments on social issues influenced musicians to emulate him. The late Peter Tazvida, LeeRoy Kamusena and Cosmus Chuma are emulators of the late System Tazvida's blend of *sungura* music. Solomon Skuza is responsible for taking *sungura* to the Kalanga people in Zimbabwe. The likes of Kwejani Band, Ndolwane Sounds, Tukuye stars and Nduna Malaba are emulators of Solomon Skuza, a legend of *sungura* music in the 1980s. Today there are numerous *sungura* artistes and bands in Bulawayo, a place of the Ndebele people. Most of these artistes sing the songs in either Ndebele or Kalanga languages.

Alick Macheso set a new trend where a *sungura* band plays four guitars namely main rhythm, sub-rhythm, lead and bass, as did Nicholas Zachariah and Simon Chimbetu. Such an approach to the performance of *sungura* music brings out highly polyrhythmic music. Macheso and Zachariah can be labeled trendsetters in that there are so many young and upcoming artistes that follow their style of play among them are Joseph Garakara, Somandla Ndebele, Norman Tapambwa, Lenie Maketa and Solo Moyo just to name a few. Furthermore, Macheso, being a bass maestro, has revolutionized *sungura* as he commonly showcases his artistry on the bass guitar while the other instruments are quiet or subdued to give him space. Other selected instruments in his band are also afforded an opportunity to display proficiency in playing with the rest of the accompanying instruments remaining in the background. Such a scenario of showcasing skill in a band is now very common among *sungura* artists of today but its owed to Alick Macheso. Although Macheso was a highly skilled bassist and a singer under the leadership of Zachariah with Khiama Boys, he did not have much impact over his peers until he began to lead his own band.

There have been cries by *sungura* musicians about copycats. Macheso recorded and published a song, 'Murondatsimba' (copycat) to ridicule musicians from stealing

his intellectual property. What is amazing about this cry is that it only ended in the newspapers, magazines, the radio and television without a lawsuit against any artist. In many instances evidence to substantiate these claims has not been that easy hence the musicians have now resorted to mudslinging and engaging in a war of words through music. Alick Macheso and Tongai Moyo for example, traded insults "*usavhundutsirwe nezizi kuti rinenyanya, hadzisi nyanga inzeve*" (do not be intimidated by an owl thinking that it has horns, they are not horns but ears), and "*ini ndinoziva kuti zizi harina nyanga, asi kuti rakagara pamusoro penyanga*" (I know that an owl has no horns, but it is sitting on the horns). For some time they were the top two sungura artists and their song arrangements followed similar patterns and it is not clear who emulated who. We think Macheso (and any other *sungura* trendsetter) should focus on his intimacy and connectedness with emulators, rather than concentrating on divisiveness.

In 2005 Macheso accused Gramma Records for the proliferation of a legion of musicians whom he alleges to have been persuaded to emulate the big names such as Macheso, Dembo, Zachariah and Moyo. Macheso's claim looks as if it has substance as the majority of the emulators are contracted to the recording companies where the trendsetters are contracted. Notably, Macheso has never sued any copycat. It is quite complicated to settle a dispute in *sungura* music seeing as that it is difficult to draw fundamental differences in the style of playing of instruments. The focus on theft of intellectual property should therefore be clearly understood to make sure artistes have convincing evidence to take up legal action. *Sungura* is an intricate genre of music with polyphonic rhythms and sounds which are cumbersome to discriminate specific motifs as having been stolen from a musician. This is the reason why there has never been any lawsuit to settle copyright infringement in the *sungura* music fraternity. It is quite amazing that some musicians do not worry about other musicians emulating or imitating their *sungura* style. Macheso needs to be reminded that sungura is a product of fusion of styles that came before he started playing it. He also emulated the great artistry of his predecessors and should not selfishly deny his youngsters the chance to emulate him.

Ketayi Muchawaya, Knowledge Kunenyati and Marko Sibanda are *sungura* artistes who featured in the music industry soon after 1980. They had spent considerable time in Tanzania during the war of liberation for Zimbabwe and they were responsible for popularizing the dance style that was later developed into Borrowdale. Borrowdale

is contemporary dance where dancers imitate the galloping horses at the Borrowdale race course in Harare. Ketayi Muchawaya and his members were a marvel to watch as they danced on stage as Kasongo band. The current musicians of today choreographed it into what we have as Borrowdale and all its related dancing styles. Ketayi Muchawaya and Kasongo Band were also responsible for the growth and rise of *sungura* with some of the hits, *Kana uchida kuguta, Chitepo, Kudai uriwe* and *Mandivengereiko.* Indeed the original Kasongo Band was one of the forerunners of the *sungura* genre in Zimbabwe.

Leonard Dembo as a trendsetter of *sungura* influenced Tongai Moyo, First Farai, King Pharaoh and Innocent Mijuntu. The above-mentioned musicians have become great names in their own right though one can trace the musical style of play and motifs to the late Dembo. Although Dembo never used to include some talking along his music it has become a trademark for Tongai Moyo to joke, tease, mock, warn and show off during his performance. In most of his recording projects including the latest release of 2008 there is a common trend of showing his virtuosity on the guitar in a solo segment of a song. Such a trend has become very popular among many *sungura* artistes who include Macheso. Although a good number of the current *sungura* artistes use the style of show off through talking, the musician who popularized it is the late Paul Matavire.

Nicholas Zachariah is known as 'Senior Lecturer' because he is an instructor who has taught several other musicians how to play *sungura* music. He earned the nickname 'Senior Lecturer' for his invaluable help to many musicians to achieve an admirable style of playing the guitar. He began his career in 1967 and has never looked back. Macheso and all his emulators owe their success to Nicholas Zachariah. Zachariah's emulators include Paradzai Mesi, Joseph Garakara, Gift Amuli and Norman Tapambwa who are among many *sungura* musicians who use the bass guitar and other selected instruments to demonstrate their fine skills in their songs. Listening to the music of Zachariah, Macheso, Garakara, Amuli, Ndebele and Tapambwa shows that there are a lot of identifiable similarities in terms of arrangement and style. With 24 albums to his discography Zachariah addresses a variety of socio-economic and religious themes in his music. Likewise his emulators also compose and perform songs that address matters in social and economic spheres.

Nicholas Zachariah has however not been accorded many accolades for all the achievements he has realized. He does not complain about lack of recognition even

though he has done well. Furthermore Zachariah has often more often allowed his own band members including his brother Zachariah Zachariah to leave him (Nicholas) to join other rival bands. Many musicians have budded from Nicholas Zachariah and as such he never complains against any one of them for being emulators or copycats. Nicholas Zachariah and the late System Tazvida never complained of theft of their musical works yet they have many who play *sungura* music like them.

Paul Matavire was uniquely gifted at cracking jokes in all his performances. His lyrics showed knowledge of social issues, current affairs and the ability to articulate Shona proverbial expressions very well. He was blind and gifted in both singing and comedy on stage. His popularity was not commensurate with what he earned through his musical career. Research is needed to find out whether it was his personal failure or a result of exploitation through piracy or exploitation by his recording company. However, towards the end of his life he lived a miserable life. He fell sick with tuberculosis and did not have enough money to pay for the medical bills. He is not the only popular musician who died in abject poverty. The likes of John Chibadura, Leonard Dembo and Paul Mpofu also went through similar experience before they passed on. His style was emulated by David Mabvuramiti.

Simon Chimbetu was one of the trendsetters in *sungura* music in Zimbabwe. Playing music in the townships and public places was misconstrued as a profession for scruffy rogues and drunkards. The late Simon Chimbetu proved that popular musicians could be smart and progressive people. He is known for his strict insistence on elegance to all his band members. Besides smartness, Chimbetu became famous for his music that resembled the African bird *Dendera* and a strong presence of the east African *kanindo* style with vocals executed in Shona and Swahili. Today a number of sungura bands such as Dindingwe Stars, Kapfupi, Tryson Chimbetu and the Marxist Brothers, Briam, Allan and Sulumani Chimbetu all follow after Simon Chimbetu's style of *sungura* music. Simon Chimbetu inducted his brothers and children to play *sungura* music, a trait that is not so common among most musicians (Pfukwa 2010:175). It was rumored in Harare in the 1990s that Simon's brother Naison had plagiarized his song and recorded it but there was no lawsuit to that effect as the rumor eventually dissipated. Simon Chimbetu set the art of showing off through his ululating, vocables, chants, clothing, gestures and body movements. Today many of Chimbetu's emulators

do everything that Simon did while performing on stage. According to Simon Chimbetu (personal communication, 2005) "*Kana vamwe vaimbi vachitevedzera maridziro angu zvinoratidza kuti vanoafarira uye musambo weDendera uri kukura*" (If other artists follow the way I play sungura music, it shows that the style is being appreciated by others and growing). The legacy that we can see through his emulators shows that Simon Chimbetu was a liberal trendsetter who enjoyed the success of other musicians especially his own brothers.

System Tazvida formed his band the Chazezesa Challengers in 1993 in Chitungwiza. System Tazvida's musical themes were drawn largely from the hot social issues and he can be regarded as a trendsetter. His *sungura* music was based on three guitars bass, lead and rhythm. The uniqueness of his voice placed him in a class of his own coupled with a rare compositional proficiency that took his fans to real life situations. Such compositions warned, rebuked, encouraged, answered questions and encouraged those in love and consoled the bereaved and solace to the divorced and dejected. His approach to life was particularly surprising as he was never threatened by the potential skill among his band members. According to LeeRoy Kamusena (2006) a guitarist and band member with System Tazvida, all members in their band were afforded opportunities to learn and play all instruments and sing without restriction. Perhaps this is the reason why he never complained if the music from upcoming artistes sounded like his (System Tazvida) own.

LeeRoy Kamusena and ***Cosmus Chuma*** are among some of the musicians whose music emulates that of System Tazvida. It is the hope of many that those following the footsteps of the great artistes do not plagiarize their music. Though the above referred musicians sound like System Tazvida, they have done well to find their own peculiar traits that one would never find in someone else. In this regard it can be observed that System Tazvida is a trendsetter rather than an emulator. System, a Khiama Boys alumnus, grew sick of not receiving his fair share of royalties and decided to form his own band. Both his stints in Khiama Boys and the Sungura Boys had ended without any financial compensation (http://www.zimmusic.org).

Tongai Moyo, despite taking off as an emulator of Leonard Dembo and even mentioning in one of his early releases that he personally admired him, has finally branded his own type of sungura music. Since coming onto the music scene in 1988, he

has endeared himself to the sungura loving fans through his popular sungura sound and his group Utakataka Express commands a large following in Zimbabwe. His release of albums has been quite prolific indeed and some of them actually topped the local music charts. He has successfully held joint shows with other artists like Oliver Mutukudzi to give some top drawer performance acts, apart from his own concerts and national music galas. At one stage he has actually competed with Alick Macheso to hog the limelight in Zimbabwe's *sungura* music.

6. *Sungura* Music on Radio and Television

Since 1980 there have been a number of programs on radio and television to promote *sungura* music. The majority of the programs were sponsored by the recording companies, such as the program *Dzimbo ne*Gramma (songs with Gramma), *Dzichangoburwa ne*ZMC, (new releases at ZMC), and *Dzimbo itsva ne*RTP (new releases from RTP). The above-mentioned approach was removed in 2000 after the government enacted the law that authorized the 75% of local music on radio and television. The legislation was meant to allow other small and upcoming recording companies to participate in the recording industry.

The demands of the Broadcast Services Act of April 2000 implied that the radio and television were flooded with locally recorded music. While this legislation was good, it did not give advantage to small recording studios as they could not record quality *sungura* like the professional studios. The majority of the new recording studios engaged in recording hip hop and other loop based genres. In essence *sungura* has not been the domain of computer-based musicians because the use of live musical instruments is the main tenet of *sungura* music especially the guitar and the drums. As the bulk of musicians played *sungura* music, the radio stations played this genre without stiff competition from other genres. In addition the point alluded to in the previous sentence, the setting up of National FM (NFM), Spot (SFM), Power FM (PFM) and Radio Zimbabwe (RZ), all subsidiaries of Zimbabwe Broadcasting Holdings (ZBH), still gave a positive thrust to the promotion of *sungura*. Currently *sungura* music takes up more than 50% airplay on NFM and RZ, radio stations which are the widely listened to by the majority of the Zimbabweans. Other radio stations cater for other genres other than *sungura* even though occasionally they indulge in some *sungura* shots on air.

7. *Sungura* Music Live Show Performance

The approach to live shows in the early 1980s was largely confined to enclosed environments and seldom in open air settings. Not until after 2000, at the initiative of the then Minister of Information Prof Jonathan Moyo, a new wave of open live shows by the name of "galas" gained momentum. Initially they were meant to enhance political influence and propaganda of the ruling party Zimbabwe African National Union Patriotic Front (ZANU PF). The galas were normally held all night long with numerous bands and ensembles taking turns to strut their frenzy musicals on stage and drive the audience wild ecstatic with enjoyment. Most of the galas were held on national holidays such as the Heroes, Independence, Unity Day or the commemoration of the principal national heroes like the late Vice Presidents Joshua Nkomo and Simon Muzenda. As the galas started to gain momentum, all the national events got attached to the concept. Notwithstanding the fact that entrance was free, it is vital also to note that the presence of *sungura* musicians at the gala guarantees the success of the event.

While some people attend the live shows, others benefit from the live broadcast that is done through the national television and radio stations and in the end the galas are watched by many people. Although they try to bring a variety of musical genres to the galas, the people of Zimbabwe will be quick to agree that it is the *sungura* musicians who provide the best form of entertainment because they play live instruments. The computer-based performers play second fiddle to those performing on live instruments. At some galas people refuse to be addressed by the politicians as they feel they are deprived of their right to music. In 2006 at a gala held in Gweru at Ascot Stadium, the audience kept cheering and chanting the name of Alick Macheso thus refusing to be addressed by the political stalwart Emmerson Mnangagwa. It was only after Mr. Mnangagwa chanted a slogan, "*Pamberi naMacheso*!" (Forward with Macheso) that the crowd allowed him to deliver his speech. Tongai Moyo, Nicholas Zachariah, Paradzai Mesi, Somandla Ndebele, Cephas Mashakada, Hosiah Chipanga can stage and manage all night long live shows on their own since they are capable of taking the entertainment to the people with sufficient variety of music. *Sungura* live shows are entertaining as female and male dancers with highly rigorous foot and body movement hog the limelight. However it is sometimes heart-wrecking to see some of the female dancers' dressing close to nudity. Some *sungura* bands detest the use of female dancers in their

rank and file. Nicholas Zachariah is one of the musicians who use an all-male group of dancers and singers.

8. Conclusion

Sungura music is the most widely played music on Zimbabwean radio and television especially during prime time. The trendsetters have placed a lot of influence over the young and upcoming *sungura* musicians. There is no tangible evidence that the big *sungura* musicians are being bootlegged as they have not been able to prove a case in point in a court of law. Musicians who can prove infringement of their works should seek legal advice and sue the perpetrators instead of going to the press to engage in war of words with the accused. The trendsetting musicians should mentor young and aspiring musicians rather than accuse them of stealing their intellectual property. We are not naïve to copyright law but think that clear cases of plagiarism of song material would warrant prosecution, but it must be separated from emulation. Musicians should team up and set up professional recording studios to reduce costs of recording their albums. It is important that musicians seek legal counsel before they sign recording contracts. There is need to expose musicians to investment opportunities that are available for them to engage in so that their future is secure. The Musicians Union of Zimbabwe should be revived and a robust program set up to create awareness among members of their rights in the music industry, as well as cooperation. After all, *sungura* music is not about emphasizing cultural difference and separation but rather a deep connectedness of what has become a uniquely Zimbabwean popular music genre.

We suggest that *sungura* artists should start seeing each other as trendsetters and emulators, and forge ways of assisting each other to improve their art and plight. It is futile for trendsetters to bemoan their otherwise positive influence on the emulators by crying foul, when they started their own careers they were inspired by more experienced musicians also. What lacks is the economic resource to evade exploitation by record companies and if a formula is created to muscle them out, *sungura* musicians will exercise their creative rights without conditions. Upcoming artists who intend to ply their trade in *sungura* music should be accommodated so that it continues to grow as a genre. Synergies between trendsetters and emulators in joint shows and song production are examples of ways to engage in fruitful relationships. It is imperative that *sungura*

artists start recording their own music if they are to recognize financial gains from show business. Critical African Cultural Studies provides a self-conscious forum to inform *sungura* artists and other key players in the music industry to work towards changing attitudes, transforming institutions and appealing to performers to aim at development networking.

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Space as Reference: Representations of Space in Electroacoustic Music

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Abstract

This article discusses in detail the use of spatial references in electroacoustic music, which is the fourth of the five senses of space I identified in a broader investigation on the meaning of space in music, electroacoustic music and sound art. The expression *space as reference* refers to the use of the referential properties of sound to suggest or produce spatial impressions and associations. I start discussing the controversies related to the use of referential meaning in music, and how, since the development of electroacoustic music, it has become a crucial aspect in the characterization and definition of its different branches and aesthetic orientations. Then I discuss how a number of composers of electroacoustic music have conceptualized and worked with reference in their compositional practice. In the next section I discuss how soundscape composition has been working with spatial reference as a central aspect of its aesthetic principles. Afterwards, I expose how representation has been used as a structural element in the works *Night Song I* and *Night Song II*, and how these works can be characterized in terms of the terminology suggested by the aforementioned composers. In the conclusion, I discuss how the categories of abstraction and representation can be understood as relative and complimentary concepts, suggesting that, for the composer, it would be interesting to keep both aspects in mind, as both of them are relevant for the reception of their compositional work.

1. Introduction: Five Senses of Space and the Role of Representation in the Arts

In a broader investigation on the meaning of space in music and sound art[1], five different uses of space have been identified in association with sound and music: [1] space as *metaphor*, [2] space as *resonance*, [3] space as *sound spatialisation*, [4] space as *reference* and [5] space as *location*.

Space as *metaphor* consists in the use spatial images and metaphors to describe abstract concepts or perceptual experiences related to sound and music. Examples are the use of spatial concepts for the description of aspects of music not necessarily related to their spatial properties, such as *structure*, *materials*, *form*, and the notions of *high* and *low* related to pitch. Spatial concepts suggested by music writers such as *sonic space*, *noise-colouration space* and *timbre-space* (Wishart 1998); *tonal pitch space* (Lerdahl 1987) and *spectral space* (Smalley 1986 1997) also fall within the category of space as metaphor, as they do not refer to the actual perception of the spatial properties of sound, but to specific aspects of music, such as the compositional properties of sound, perception of pitch in tonal music and the perception of sound in electroacoustic music, respectively.

Space as *resonance* is related to the acoustic effects of the environment on sound, produced by phenomena such as *sound reflection*, *diffraction*, *resonance*, *acoustic shadows* and *reverberation*. The reverberation of music performance spaces has influenced the characteristics of the music performed in them since ancient times (Blesser and Salter, 2007: p. 92), being also a fundamental aspect of recorded and electroacoustic music (Smalley 2007). The acoustic effects of the environment on sound have been explored by a number of composers of experimental and electroacoustic music – among them Alvin Lucier, Barry Truax, Pauline Oliveros, Denis Smalley and George Crumb – and also by sound artists – Michael Asher, Michael Brewster, Maryanne Amacher and Edwin van der Heide, among others (LaBelle 2006).

Space as *sound spatialisation* is related to the surroundability of the auditory field and the ability of the auditory system to perceive distance, direction and motion of sound. Since the 1950s a number of composers – among them Pierre Schaeffer, Karlheinz Stockhausen, Pierre Boulez, Iannis Xenakis, Henry Brant and John Chowning

[1] Undertook under the sponsorship of Lancaster University, ORSAS Award and Peel Studentship during my PhD studies at Lancaster University (2008-2012).

– started to explore the perceptions of distance, direction and motion of sound as structural elements in their works, giving rise to the concept of *spatial music* (Harley, 1993: p. 128). Also, since the early 1970s, a number of sound artists – such as Howard Jones and Bernard Leitner – started to explore these same features in works of sound installation and sound sculpture (LaBelle 2006).

Space as *reference* is related to the ability of the auditory system to recognize sound sources. It refers to the power of sound to recall the experience of different places through the use of the referential properties of sound and will be the main subject of this article.

The fifth and last sense of space in music and sound art, space as *location*, is related to a broader sense of space, with all its social, cultural, historical and environmental implications. This sense of location is produced by the global perception of space produced by the information provided by all sensory channels. A number of composers of experimental music – especially John Cage and his followers – and sound artists – Maryanne Amacher and Bill Fontana, among others – have also worked with this global sense of space in their works. In most cases the works that explore space as *location* create a sense of *dislocation* by playing, in a given place, sounds which are not normally heard in that place. This creates a sense o dislocation in the viewer/listener, produced by the contradictory spatial impressions produced, on the one hand, by the sound, and, on the other hand, by the actual presence of the listener/viewer in a real place which does not correspond to the spatial impressions produced by the sound.

Representation has been a key subject in the aesthetics and philosophy of the arts, and a fundamental concern in a number of important debates in the field, such as the definition and classification of the arts, the characterization of its genres and sub-genres, and the process of reception. The subject has often been discussed in terms of the opposition between *abstraction* and *representation*. In this sense, abstraction is present when the work supposedly does not refer to anything external to itself, and has as its main characteristic the interplay of the purely perceptual qualities of the matter, or, in Dufrenne's terminology, the *sensuous* (Dufrenne, 1973: p. xxiv). Representation is present when "the sensuous quality of matter becomes a sign" (Dufrenne, 1973: p. 311). By becoming a sign, the work of art points to something other than itself – a real, legendary, mythic or imaginary being or object, an idea or a concept. As Dufrenne

(1973) points out, "what characterizes representation [...] [is] an appeal to concepts. The represented object is an identifiable object which demands recognition and which expects an unending analysis on the part of reflection". (p. 312)

The function of representation varies in different artistic modalities, having been used by Souriau as the foundation for his classification of the arts, according to which the visual arts – painting and sculpture – are representational, while decorative arts, architecture and music are non-representational (Dufrenne, 1973: pp. 311-312). Although these notions may be no longer valid in the context of the contemporary arts, they are present in the conceptions of music as a pure and abstract art, and in the representational character of most pre-modernist painting and sculpture. Since the advent of modernism, however, and even before, these notions have been challenged both in theoretical and practical terms by different artists and musicians. On the one hand, abstract artists such as Kandinsky, regarding music as the prototype of non-representational art, have used musical metaphors – rhythm, harmony and melody, among others – to describe their work (Dufrenne, 1973: pp. 247-300), using also music as source of inspiration and model for their abstract conceptions of painting (Welten, 2009). On the other hand, musical modernism brought to the fore the representational aspect of sound. As Weiss (2008) points out, "modernism brought a new theoretical and practical dimension to the role of the anecdotal (if not quite the programmatic) as a mode of referentiality, placing an increasing strain on the supposed abstraction and self-referentiality of the musical system". (p. 74)

The development of the technologies of photography and sound recording also had an important effect on the meaning of representation in visual arts and music, bringing to the fore the features that used to be regarded as non-essential aspects for their their definition, and challenging further the conceptions of music as a non-representational art and the visual arts as representational arts. As Wishart (1998) points out:

> The impact of technology on music and painting has been in opposite directions: the tape recorder has introduced the representational more easily into music, while the camera has tended to replace the figurative role of painting and allow painting to pursue the non-figurative domain. (p. 134)

The development of the technologies of recording, and, later, synthesis and artificial manipulation of sound, have been the basis of the development of electroacoustic music. By making the function of representation more evident, music technology brought to the fore, in an unprecedented way, the possibilities of using representation as a structural element in composition. Representations of space have become, then, one of the most interesting and important subjects and practices in electroacoustic music. In order to discuss the use of space as reference in electroacoustic music, the next section of this article starts with a discussion of the role of representation in the arts, followed by a short account of the problem of referential meaning in music. The third section discusses the problem of reference in acousmatic music, and the fourth examines the most relevant approaches to referential meaning in electroacoustic music. The fifth section discusses how soundscape composition has clearly and explicitly articulated the use of referential meaning as one of its central aesthetic principles. In the sixth section I show how the referential properties of sound have been used as structural elements in the composition of *Night Song I* and *Night Song II*, and in the seventh how the terminology suggested by the authors previously discussed can be used to describe and conceptualize the referential aspects of the aforementioned works. In the conclusion I discuss how the categories of abstraction and representation can be useful as aesthetic references to make compositional decisions in the process of creation of electroacoustic music.

2 Referential Meaning in Music

The representational value of musical sound has been the object of intense controversy and debate within the field of musicology and music studies. As Weiss (2008) points out, "the history of European musicology is perennially revised around a central ontological debate: whether music is a representational or an abstract art" (p. 11). At one extreme, music has been conceived as a pure and abstract art detached from any kind of representation. According to this conception, music should be appreciated as a pure discourse of sounds, devoid of any associations with the external world, either the immediate context – the referential, mimetic and narrative uses of musical sound – or the broader context – the historical, political and cultural context surrounding the work.

Following this reasoning, Dufrenne (1973) says that music "can be treated as a representational art only insofar as it ceases to be perceived as music" (p. 318).

Butor (1981), on the opposite extreme, criticizes this purist conception of music as the incapacity to recognize the influence of the historical context in the constitution of music and musical meaning. He says that, while in other domains it is firmly established that "there is no meaningless painting or poetry, or art without a precise historical situation" (p. 448), the idea that music can be a form of art detached from its historical context is still regarded as an acceptable position in certain musical circles. "This conception", he adds, "makes music literally inexplicable, and [...] the last bastion for the believers in art for art's sake" (Butor, 1981: p. 448).

Why has the referential aspect of music and the influence of the cultural and historical context been so controversial in music studies, when it has been largely accepted and recognized in the study of other artistic modalities? Ferrara believes that the traditional avoidance of referential meaning in music studies is due to the methodological challenges posed by the subject. As he points out "the absence of the referential level in music analysis arises from issues of method and not from what music is capable of meaning [...] many analysts conclude that the analysis of referential meaning in music could result in analytical chaos" (Ferrara, 1991: p. 8).

In spite of the traditional avoidance of referential meaning in musicology, however, contemporary music analysis starts to recognize the relevance of reference in music, which is evident in the work of authors such as Ferrara (1986, 1991), Agawu (1991) and Zbikowski (2005). As Weiss point out, "to the extent that musical mimesis is increasingly recognized as less marginal and more complex than previously believed, not only will new forms of musical representation most certainly arise, but innovative modes of listening will be demanded for older musical forms" (Weiss, 2008: p. 90).

3 The Problem of Reference in Acousmatic Music

The possibility of using recorded sound as material for composition has put in evidence the referential properties of sound and brought to the fore the controversies related to the use of reference in music, a central point in the theories and practices of electroacoustic music, and a fundamental aspect for the definition of its different trends and aesthetic orientations. The problem of reference in electroacoustic music has been

first discussed by French composer and theorist Pierre Schaeffer, and his views have been supported and further developed by the advocates of acousmatic music. Acousmatic music inherits from traditional musicology the purist conception of music as a non-referential art, giving to the old discourse a modernist flavor and using it as the basis for a compositional practice.

Schaeffer derived the idea of 'acousmatic situation' from the accounts that the disciples of Pythagoras listened to his teachings from behind a curtain, comparing this situation with the changes that electroacoustic technology brought to listening, in the sense that sounds coming from a loudspeaker do not have their original sources visible to the listener (Schaeffer, 2004: p. 77). Schaeffer's concepts of *reduced listening* and *sound object* are central for the theory of acousmatic music. Reduced listening "focuses on the traits of sound itself, independent of its cause and of its meaning" (Chion, 1994: p. 29). The notion of *sound object* is based on the perceptual and morphological properties of the sound, such as duration, presence or absence of pitch and noise elements, dynamic development and contour, characteristics of attack and decay, and spectral and timbral characteristics (Schaeffer, 2004).

Within the practitioners of acousmatic music, it is a common understanding that works that use reference or narrative as structural elements have limited musical value, being often qualified as "radiophonic" or "anecdotal". More abstract works, "concerned with developing discourses of sound types and timbres" (Emmerson and Smalley, 2001: p. 61) tend to be regarded as the true representatives of the acousmatic aesthetic. The avoidance of referential sound is, therefore, an important aesthetic principle for composers working with acousmatic music. However, in spite of this avoidance, in different degrees and with different compositional functions, the use of reference can be found as structural elements in a number of important works of the acousmatic repertoire, something that creates a tension between the aesthetic principles advocated by the composers and their compositional practice, as perceived by the listeners.

4 Reference in Electroacoustic Music

The concepts of *reduced listening* and *sound object*, and the acousmatic approach to music are important contributions to contemporary music, not only to electroacoustic composition, but also to vocal and instrumental music in general. However, a problem

arises when composers expect reduced listening to be the primary mode of reception of their music, not only because it is a highly specialized listening mode, but also because the auditory system naturally recognizes the sound sources as part of the process of listening. At some point in the development of electroacoustic music, the recognition of this aspect of the auditory system started to be become evident for a number of its practitioners. As Emmerson (1999) points out, "it proves very difficult to hear sound only in terms of an appreciation of its shape and spectral properties [...] [as] we listen to any sound conditioned by our primeval past and evolution." (p. 136)

Therefore, when the composer tries to build an abstract discourse using sounds with clearly recognizable sources, the listener may face a perceptual impasse, confronted with two conflicting arguments, "the more abstract musical discourse [...] and the almost cinematic stream of real objects being hit, scraped or otherwise set in motion" (Emmerson, 1986: p. 18). Because of the difficulty to avoid the recognition of sound sources, and because of the compositional possibilities brought by the use of reference in electroacoustic music, a number of composers have discussed and intentionally incorporated in their works the use of referential sound.

4.1 Mimetic and Aural discourse, Abstract and Abstracted Syntax

In his discussion of the relation of language to materials in electroacoustic music, Emmerson (1986) examines the links between sounds and the mental images associated with them, and the function of mimesis composition. Image is defined as something "lying somewhere between true synaesthesia with visual image and a more ambiguous complex of auditory, visual and emotional stimuli" (p. 17) and mimesis as "the imitation not only of nature, but also of aspects of human culture not usually associated directly with musical material" (p. 17). Emmerson creates a typology to classify the different kinds of musical discourses, taking into consideration two characteristics: (1) the presence or absence of mimesis, which characterizes the kind of discourse; and (2) whether the structure of the work is derived from the aural properties of the materials or conceived independently of them, which defines the kind of syntax.

The presence or absence of referential meaning defines three positions on a continuum, which defines three kinds of discourses. In aural discourse, the composer intends the listener to appreciate the purely aural properties of the sound. In mimetic

discourse the composer expects the listener to recognize the sound sources, being this recognition an important element in the reception of the work. In the intermediate category, combination of aural and mimetic discourse, both characteristics are present.

The second level of Emmerson's analysis is related to syntax, which can be abstract or abstracted and describes how the materials in the composition are organized in terms of formal structure. In abstract syntax, the formal principles of organization are defined independently from the materials, as if it was "an abstract architectonic form into which the material [...] [is] poured" (ibid: p. 36), and includes the use of any external principle of organization not derived from the aural properties of the material, such as serial principles, chance operations or the Fibonacci series. In abstracted syntax, the structure of the work derives directly from the aural properties of the material, as it ideally should happen in acousmatic music. There is also an intermediate category, called combination of abstract and abstracted syntax, in which both principles can be found. The crossing of the two sets of three categories generates nine categories, shown in Table 1, with examples.

Emmerson's Grid			
	Aural discourse dominant	**Combination of aural and mimetic discourse**	**Mimetic discourse dominant**
Abstract Syntax	(1) Aural discourse dominant/ abstract syntax Milton Babbitt: *Ensembles for Synthesizer* Stockhausen: *Two Electronic Studies* John Cage: *Williams Mix* and *Fontana Mix*	(4) Combination of aural and mimetic discourse Luigi Nono: *La Fabbrica Illuminata*	(7) Mimetic discourse dominant Stockhausen: *Telemusik*
Combination of abstract and abstracted syntax	(2) Aural discourse dominant/ Combination of abstract and abstracted syntax Stockhausen: *Momente* Harvey: *Mortuos Plango Vivos Voco*	(5) Combination of aural and mimetic discourse/ Combination of abstract and abstracted syntax Michael McNabb: *Dreamsong*	(8) Mimetic discourse dominant/ Combination of abstract and abstracted syntax Trevor Wishart: *Red Bird*
Abstracted syntax	(3) Aural discourse dominant/ Abstracted syntax Smalley: *Pentes* Parmegiani: *De Natura Sonorum*	(6) Combination of aural and mimetic discourse/ Abstracted syntax Bernard Parmegiani: *Dedans-Dehors*	(9) Mimetic discourse dominant/ Abstracted syntax Luc Ferrari: *Presque Rien no. 1* Luc Ferrari: *Music Promenade*

Table 1 Emmerson's classification of kinds of aural discourse and musical syntax (adapted from Emmerson, 1986: pp. 24-39).

4.2 Sound Landscape, myth and metaphor

Trevor Wishart's concept of *sound landscape* is also closely linked to the perception of real or imagined sound sources and to the referential properties of sound. He uses three characteristics to classify the kinds of landscapes that can be found in electroacoustic music: the *nature of the acoustic space*, the *disposition of sound-objects in space* and the *recognition of sources* (ibid: p. 140). The criteria of recognizability of sound objects and space, which can be *real* or *unreal*, are used to classify the kinds of soundscape into four categories, shown in Table 2. In order to characterize an object or space as real, the composer must be aware of the referential properties of the sounds used in the composition, using them without transformation to maintain their recognizability or transforming them in a way that maintains their recognizability.

Wishart's Sound Landscapes				
	Real-objects	Real-space	Unreal-objects	Unreal-space
Real landscape	X	X		
Imaginary landscape [1]		X	X	
Imaginary landscape [2]			X	X
Surrealist	X	X		

Table 2 Wishart's categories of sound landscapes, based on the combination of different kinds of objects and spaces: real (recognizable) and unreal (unrecognizable) (adapted from Wishart, 1998: p. 146).

4.3 Source Bonding, Indicative Fields, Surrogacy

Smalley's theory of *spectromorphology* has been developed as an attempt to describe sound in terms of its *intrinsic* features, being recognized as one of the most important theoretical approaches to acousmatic and electroacoustic music. In spite of his focus on the morphological features of sound, Smalley recognizes the importance of *extrinsic* meaning in music, suggesting three concepts to describe and discuss the referential aspects of sound and music: *source bonding*, *indicative fields* and *surrogacy*. *Source bonding* is defined as "the natural tendency to relate sounds to supposed sources and causes, and to relate sounds to each other because they appear to have shared or associated origins" (Smalley, 1997: p. 110).

The concept of *indicative fields* is derived from the first of Schaeffer's four listening modes. Smalley expands Schaeffer's idea, to include a broader frame of reference of what can be experienced by the listener outside and beyond the purely musical (Smalley, 1992: p. 519). Smalley suggests nine categories to classify the various ways by which the musical experience of the listener can be related to the experience of the external world, summarized in Table 3.

Smalley's Indicative Fields	
Gesture	Related to the physical gestures (including instrumental gesture) that produced the sound.
Utterance	Related to language and voice.
Behavior	Related to the contextual relationship between sounds in a musical context.
Energy	Related to the energetic profile of the sound, in terms of pitch, dynamics, timbral evolution.
Motion	Related to the physical motion of sound or its associations in musical contexts.
Object/substance	Related to the physical materials that produced the sound or to its imagined causes.
Environment	Related to the incorporation of environmental sounds in musical contexts.
Vision	Related to visual associations produced by sound only.
Space	Related to the spatial aspects of sound (articulation of musical discourse, affective aspects and diffusion).

Table 3 Smalley's nine categories of indicative fields (adapted from Smalley, 1992: pp. 521-532).

Smalley's concept of *surrogacy* describes to what extent real or imagined sources can be associated to recorded, synthesized or electronically transformed sounds. He first suggests three (1986) and, later, four surrogacy orders (1997), summarized in Table 4. *First order surrogacy* is related to non-musical contexts, when the sound source and gestural activity are clearly recognizable. *Second order surrogacy* corresponds to gestures performed in traditional musical instruments using recognizable performance skills, or to synthesized sounds modeled on traditional instruments. In *third order surrogacy*, "a gesture is inferred or imagined in the music [...] even though we do not know exactly what the source might be" (Smalley, 1997: p. 112). *Fourth order surrogacy* "is concerned with gestural vestiges. Source and cause become unknown and unknowable as any human action behind the sound disappears" (ibid: p. 112).

Smalley's Surrogacy Orders	
First Order	Non-musical contexts, sound source and gestural activity clearly recognizable.
Second Order	Musical contexts, sounds of musical instruments (real or synthesized) and conventional instrumental gestures.
Third Order	Inferred or imagined gesture. Uncertain sound source.
Fourth Order	Gestural vestiges. Unknown or unknowable sources and causes.

Table 4 Smalley's four surrogacy orders (adapted from Smalley, 1997: p. 112).

4.4 Storytelling, Real-world sounds, Real-world Music

In her account of the aesthetic implications of the use of *real-world* sounds in *real-world music*, Norman (1996) also discusses the importance of referential meaning in electroacoustic music. She compares the activity of the composer of real-world music with the activity of the storyteller in oral traditions, bringing to the fore the narrative possibilities of electroacoustic music. "Real-world music", she says, "makes musical stories from everyday sounds, it makes musical sense from 'ordinary' listening and it evokes an emotional response to the timbres of experience" (Norman, 1994: p. 109).

Norman identifies three listening modes that are important for real-world music: *referential listening*, related to the identification of sources and catching of information; *reflexive listening*, "a creative, enjoyable appraisal of the sound for its acoustic properties" (Norman, 1994: p. 5); and *contextual listening*, related to the memory, personal story and context of the listener (Norman, 1994: p. 8). These three listening modes interact with one another when the listener listens to real-world music, when both *remembered content* and *imagined content* come into play. In spite of its connections with the real world, however, real-world music should not be understood as a strictly descriptive and realistic art. As she points out, "real-world music is not concerned with realism, and *cannot* be concerned with realism because it seeks, instead, to initiate a journey which takes us away from our preconceptions, so that we might arrive at a changed, perhaps expanded, appreciation of reality" (Norman, 1996: p. 19).

4.5 Other Approaches to Referential Meaning in Electroacoustic Music

Other authors have also discussed the subject of referential meaning in electroacoustic music. Young (1996), in his discussion of *realism* and *abstraction*, speaks in terms of a *reality-abstraction continuum*, in which the notions of reality and abstraction "appear to the listener to be in constant flux" (p. 83). According to him, abstraction can be understood on different levels, and the notion of complete abstraction something difficult, if not impossible, to achieve in practice. As he points out "our conditioning by the sources and causes familiar in environment and culture means that we are seldom without some mental schema to which the origins of a sound may be potentially related, however vestigial or remote this may seem" (Young, 1996: p. 83).

In a critical review of Emmerson's typology, Fischman (2008) suggests the addition of two other continua to Emmerson's grid: [1] the *phonographic-constructed continuum*, used to describe the extent to which the composer keeps the material intact – the *phonographic* pole – and the extent to which the composer transforms the material – the *constructed* pole; and [2] the *real-unreal continuum*, used to describe the extent to which the virtual spaces created by the composer resemble reality – the *real* pole – or tend to imaginary spaces – the *unreal* pole. Referring to the aforementioned categories suggested by Wishart, he also suggests the *surreal* as an intermediary category.

5 Space as Reference and Soundscape Composition

Soundscape composition is the branch of electroacoustic music in which the spatial implications of referential sound are most explicitly articulated. *Soundscape composition* originated from the context of *soundscape studies*, later called *acoustic ecology*, an interdisciplinary field initially suggested by Murray Schafer's writings, focused on the study of the relationship between human beings and the sounds of the environment (Schafer, 1994: pp. 3-4). The reflections about the nature of music and its relationship with the sounds of the world, undertaken within soundscape studies, led to the development of two different kinds of musical practices: *live soundscape music*, or the use of outdoor spaces as performance places, and *soundscape composition*, or the use of environmental sounds as materials for electroacoustic composition.

Sometimes erroneously described as a development of acousmatic music that uses environmental sounds as material, soundscape composition has its own aesthetic

principles, in some aspects opposed to those advocated by acousmatic music. "Each soundscape composition", Westerkamp says, "emerges out of its own context in place and time, culturally, politically, socially, environmentally" (Westerkamp, 2002: p. 52). The referential aspect of the materials and the relationship with its original context are fundamental for soundscape composition. As Truax (2002) points out, "soundscape composition always keeps a clear degree of recognisability in its sounds [...] in order that the listener's recognition of and associations with these sounds may be invoked." (p. 6)

Truax (2002) describes the *found sound approach* and *abstracted approach* as two extremes of a continuum, in which different degrees of reference may be present. In the *found sound* approach the composer does not use any noticeable transformations of the original sounds. In the *abstracted approach*, the referential aspect of the sound is still present, but not as the main principle of organization and source of meaning. In practice, however, most compositions that use environmental sound can be placed at some point between these two extremes, regardless of the aesthetic affiliations of the composer.

6 Spatial Design and Spatial Narrative in *Night Song I* and *Night Song II*

In order to exemplify how the referential properties of sound can be used as structural elements in electroacoustic composition, this section describes the *spatial design* and *spatial narrative* of a set of two eight-channel pieces composed as one of the compositional results of the reflection on sound and space summarized in this article. The term *spatial design* is used to describe the general spatial features of a piece, or of a section of a piece, which has a clearly defined spatial identity. The term *spatial narrative* is used to describe how the overall spatial structure of a piece, or of a section of a piece, changes over time. *Night Song I* and *II* were composed primarily with sounds of nocturnal animals and natural phenomena, most of them taken from the Wildlife Archives of British Library. Although other aspects of sound were taken into consideration for their selection – spectromorphological and spatial properties, expressive potential, beauty and technical quality – their referential properties were a key element for their choice, as the pieces were conceived, from the start, as an exploration of the potential of referential sound to produce spatial associations.

The spatial narrative in *Night Song I* and *II* is based on the idea of an imaginary journey of a silent bird that flies through different environments. The environments visited by the bird-listener are described by the subtitles of the piece, *In an Open Forest*, *In the Sky with Bats*, *In a Cave* and *Valley of the Owls*. These soundscapes were created around a number of wildlife and environmental sounds associated with each of them. Sounds with different levels of transformation, and the unnatural sound of the organ clusters were also used. The use of eight-channel format allowed the production of an immersive sound environment which increased the realism of the soundscapes, when this realism was desired, and also the creation of perceptual effects not possible with stereo sound, such as motion of sound and the perception of sounds coming from different distances and directions.

6.1 *Night Song I*

Night Song I has three parts. In the first section, *In an Open Forest* the spatial design follows the spatial distribution of sounds in an open forest: sounds coming from all directions surrounding the listener. The foreground sounds are sounds of the black grouse and the wart-biter cricket. Sounds of new forest cicadas, natterjack toads, nightjars, mole crickets and organ clusters create the background atmosphere. Sounds of thunder and rain suggest a large open environment. The sounds of thunder, moorland and rain were transformed (decorrelated) and spread through different loudspeakers to produce envelopment and to enhance the atmosphere of a large open natural space.

The second section, *In the Sky with Bats* was composed using echolocation sounds of pipistrelle and noctule bats. The material was first expanded using a digital sampler, and then used to create a number of short four-channel fragments, which were panned to different sets of four loudspeakers in the eight-channel array. The idea was to translate aurally the experience of flying with bats, imagining how it would be to hear the direct and reflected sounds of echolocation coming from different directions.

The spatial design of the third section – *In a Cave* – followed the idea of placing different animals in a reverberant cave. The contrast between the outdoor spaces of the two previous sections and the enclosed space of a cave is achieved with the use of long cave convolution reverberation. The effects of motion of sound and sounds coming from different directions were achieved using the technique of panning of mono and

quad files. The hissing noise-like sounds were created by the transformation of sounds of barn owls, adders and grass snakes with pitch shifting, time-stretching and artificial reverberation, distributed through different speakers, to give a sense of envelopment. This spatial distribution is invested with symbolic value. As owls and snakes are the predators of most species sharing the cave, their presence would cause other species to get quiet, either because they would have been actually killed or because of their fear of death. The effect of envelopment enhances their threatening nature and their symbolism of danger and death, as they cannot be localized. The table below shows the structure of *Night Song I*. The referential aspects of sound, as it can be observed, were fundamental for the creation of the piece, and are also expected to be important in the reception of the work.

<table>
<tr><th colspan="4">Night Song I</th></tr>
<tr><th></th><th>Part 1 – In an Open Forest
(00'00" - 5'14")</th><th>Part 2 - In the Sky with Bats
(5'14 - 7'00")</th><th>Part 3 - In a Cave
(7'00' - 11'05")</th></tr>
<tr><td>Materials used</td><td>New forest cicada
Natterjack toad and tree frog
Field cricket
Mole cricket
Nightjar
Black grouse
Wart biter cricket
Organ clusters
Rain on foliage
Moorland soundscape
Thunderstorm</td><td>Echolocation sounds of Noctule and Pipistrelle bats</td><td>Echolocation sounds of Noctule, Pipistrelle and Daubenton's bats
Pine Marten
Stoat
Barn Owls (hiss)
Adder (hiss)
Grass Snake (hiss)</td></tr>
<tr><td>Spatial design and Spatial Narrative</td><td>Bird-listener in an open forest

Sounds coming from different directions

Spatial separation used to emulate a natural environment and to enhance stream segregation

Sounds of thunder, rain and moorland ambience spread through the different loudspeakers to produce envelopment</td><td>Bird-listener flying in the sky with bats
Sounds of bat echolocation emulating the motion of flight (different directions, different pitches)</td><td>Bird-listener in a cave (suggestion of territorial dispute
Cave reverberation to convey the experience of an enclosed natural space
Spatial counterpoint of the sounds of different animals
Sounds of barn owl, adder and grass snakes spread through different speakers to produce envelopment</td></tr>
<tr><td rowspan="2">Spatialisation techniques</td><td>Decorrelation (with pitch shifting)
Spatial counterpoint of short fragments</td><td>Panning of quadraphonic files
Digital delay
Artificial reverberation</td><td>Panning of quadraphonic files
Artificial reverberation</td></tr>
<tr><td colspan="3">Panning of stereo and mono files (using bus automation and direct output)</td></tr>
</table>

Analytic table 1 Spatial design and formal structure of *Night Song I*.

6.2 *Night Song II*

Night Song II has three parts in terms of spatial design, each one corresponding to one of the three sections of the piece defined by its subtitles: *In a Cave*, *Valley of the Owls* and *In the Sky with Bats*. The general idea for the spatial design and the compositional techniques used for Section 1 – *In a Cave* – is similar to that described for the session of the same name in *Night Song I*. The main difference is that other species are heard here: water shrew, water vole, edible dormouse and yellow-necked mouse. Their calls were pitch-shifted and spatialised using the same technique described above. The

environment suggested is of a quiet cave, in which the bird-listener is placed, and which it leaves behind gradually while it moves to an outdoor space, suggested by the sounds of wind, which produce a gradual transition to the next section.

Section 2 – *Valley of the Owls* – starts with sounds of owlets (*barn owl* and *little owl*) panned in the octophonic space to different directions, suggesting a space with nearby nests in trees surrounding the bird-listener. This is followed by sounds of little owls, which were slightly pitch-shifted and panned to different combinations of two speakers. The sounds of wind, which appear in the end of the previous section, become increasingly more present, and were decorrelated with pitch shifting and spread through different speakers. The extremely time-stretched sounds of little owls (glissandi) become increasingly more important, breaking the atmosphere of realism previously built by sounds of wind, owlets and little owls and suggesting a space increasingly less realistic. These slow-changing sounds, spread through different regions of the spectral space, were panned to different directions of the octophonic space. Extremely time-stretched glissandi-like calls of the long-eared owl complete the unrealistic soundscape, developing slow circular trajectories around the listener.

The general idea for the spatial design for Section 3 – *In the Sky with Bats* – is similar to that described for the session of the same name in *Night Song I*, but the spatialisation technique is slightly different. The original stereo files of Natterer's echolocation bats, which already had an interesting difference between the channels, were spectrally split (with different equalizations) and panned through different speakers, describing circular trajectories around the listener. In the final sequence, the same sounds developed a slow back-front motion crossing the octophonic space, ending the composition with a slow fade-out.

<table>
<tr><th colspan="6">Night Song II</th></tr>
<tr><th></th><th>Part 1 - In a cave
(0'00' - 3'10")</th><th colspan="3">Part 2 - Valley of the Owls
(3'10" - 9'00")</th><th>Part 3 – In the Sky with Bats
(9'00" – 11'05)</th></tr>
<tr><td rowspan="2">Materials used</td><td rowspan="2">Water shrew
Water vole
Edible dormouse
Yellow Necked Mouse
Low pitched wind
Howling wind</td><td>Nestling owlets (barn owl and little owl)</td><td>Long eared owl

Little owl</td><td>Long eared owl (processed - glissandi)</td><td>Bat echolocation sounds – group of Natterer's bats.</td></tr>
<tr><td colspan="3">Little owl call (processed - extreme time-stretching)</td><td></td></tr>
<tr><td>Spatial design</td><td>Bird-listener in a cave with little mammals and rodents
Cave reverberation
Spatial counterpoint</td><td colspan="3">Bird-listener in a natural space which becomes increasingly surreal.

Owlets in a nest in nearby trees – big valley with little owls all around – surreal soundscape (high-pitched glissandi)</td><td>Bird-listener flying in the sky with bats under the moonlight</td></tr>
<tr><td rowspan="2">Spatialisation techniques</td><td>Panning of quadraphonic files
Artificial reverberation</td><td colspan="3">Sounds with different pitch and spectral components spread through the different loudspeakers to produce envelopment and motion of sound.
Spectral splitting
Non-realistic reverberation (time-stretching)
Decorrelation (pitch-shifting)</td><td>Spectral splitting
Panning of stereo sounds</td></tr>
<tr><td colspan="5">Panning of stereo, mono and quadraphonic files
Decorrelation (pitch shifting)</td></tr>
</table>

Analytic table 2 Spatial design and formal structure of *Night Song II*.

7 The use of Reference in *Night Song I* and *II*

The categories of analysis presented in the fourth section of this article can be used to describe the structural aspects and the use of reference in *Night Song I* and *Night Song II*. According to Emmerson's terminology, the two pieces are examples of a *combination of aural and mimetic discourse*, as, in different moments, the referential properties and the purely aural properties of the sound become prominent, being both of important for the appreciation of the pieces as a whole. In terms of formal structure, the pieces fall into the category of *combination of abstract and abstracted syntax*, as both the aural properties of the material and an external principle – the journey of the bird –

were important structural elements for the definition of the structure of sections and parts.

In terms of Wishart's terminology, in different moments the four kinds of landscapes are present. The *real landscape* can be identified in the realistic moments – *In a Cave*, for instance – when both the objects – animals – and the space – the reverberant cave – are intended to be realistic. As the piece evolves and both the objects and space become less realistic – first part of *Valley of the Owls,* for instance – the *imaginary landscape* is evident. The *surrealist landscape* can be identified, for instance, in the beginning of *Night Song I*, when the sounds of organ clusters – unlikely to be found in an open forest – are mixed with sounds of insects and birds.

In terms of Smalley's terminology, many of the indicative fields can be found in *Night Song I* and *II*: *gestures*, in the bat echolocation sounds; *utterance*, in the voices of animals; *motion*, in the motion of spatialized sounds; *object*/*substance* and *environment*, evident in the sounds of natural phenomena; *vision*, in the many referential sounds that produce visual associations; and *space*, in the spatial design and spatial narrative of the pieces. Different surrogacy orders are also present: *first order*, in all sounds that are clearly recognizable, such as rain, thunder, bird song and insects; *third* and *fourth order*, when the sound sources are uncertain or vestigial, such as in the sounds with different levels of transformation of owl calls (glissandi) bat echolocation sounds (percussive sounds) and snakes (hiss-like sounds).

In terms of Norman's terminology, the *narrative* function is also present in *Night Song I* and *II*, in the idea of the bird-listener that flies through different soundscapes. The two pieces can also be described as *real-world music*, in the sense that they use the images and references to the real world not in strictly realistic terms, but as a point of departure and arrival, and in the sense that they may change the listener's perception of the soundscapes portrayed in the works.

In terms of the aesthetic principles advocated by *soundscape composition*, *Night Song I* and *II* cannot be characterized strictly as pieces of *soundscape composition*. Although the referential properties and the recognizability of sound sources are important for their reception, they are not documents or portraits of specific or real soundscapes. In terms of Truax's terminology, the different sections can be situated at different points between the *found sound approach* and the *abstracted approach*, as in

some moments the sounds are used with little or no transformation – *found sound approach* – and in other moments they are transformed in different degrees – *abstracted approach* – sometimes to the point of no longer being able to be recognized as referential sounds. In aesthetic terms, the pieces can be situated at some point between soundscape composition and acousmatic music, in the sense that both the referential and the purely aural properties of sound are important structural elements, and that both aspects are also expected to be important from the point of view of their reception.

8 Conclusions

In spite of all the controversies related to the use of reference in music, at the moment it seems to be one of the most important aspects of electroacoustic music. In spite of the recognition of its importance, however, it should be clear that the use of reference in composition, does not mean that the attention to the morphological, formal and more abstract aspects of sound should be disregarded or minimized. It appears that the best approach would be to cultivate the awareness of both aspects – on the one hand, the formal and more abstract aspects of sound and, on the other hand, its referential properties – in order to explore their potential for generating structures and different levels of meaning in the various categories of artistic works that use sound as material: fixed-media, live electronics or instrumental music, and works of sound art.

At some point in their creative process, in a more or less conscious way, composers decide to use or not to use representation, a decision that may have important implications for the reception of their work. As it happens in any artistic modality, in music, the awareness of the formal properties of the matter is an essential aspect of the process of their creation. When the artist decides to create a work that stands for itself as an autonomous work of art, with little or no connection with the external world, the avoidance of representation and the focus on the purely formal properties of their art is a purposeful choice. In this case, representation may be regarded as a weakness or a kind of undesirable interference that distracts the viewer/listener from the pure interplay of the formal properties of the matter, and, as such, something to be avoided. In this sense, Duffrene's warning against the dangers of representation is pertinent:

> Representational art risks being no more than a means in the service of representation. [...] authentic art, refusing to fall back on the subject as a basis for

> determining aesthetic value, tends to press this refusal, to the point of wishing to expel the subject from the structure of the work altogether. (p. 313)

The focus on the purely intrinsic features of the matter may show the skills of the artist, and the extent to which they have a good command of the formal and structural elements of their craft. If this is the basis and the purpose of the artist and a conscious choice, the avoidance of representation and the lack of connection with the external world do not necessarily need to be regarded as a weakness, but a matter of personal choice.

On the other hand, the use of representation opens up another universe of meaning, in which the artist may express their ideas and perceptions regarding different aspects of their experience of life and reality. In some cases, especially in modern art, the subject chosen may be secondary, and only an occasion or a pretext for the work. In other cases, however, the subject reveals the main concerns of the artist and the very purpose of the work. In this sense, the use of environmental sounds in Ferrari's *Presque Rien No. 1* (1970) or Westerkamp's *Kits Beach Soundwalk* (1989), the birdsong imitations in Messiaen's *From the Canyons to the Stars* (1971-1974), and the use of the thematic of war in Penderecki's *Threnody to the Victims of Hiroshima* (1960) or Crumb's *Black Angels* (1974) goes far beyond the merely accidental. In these cases, the artist transcends the ordinary aspects of the represented object, revealing their potential for expression and meaning and the artist's deepest impressions about the themes and subjects portrayed in the work. As Dufrenne (1973) points out, "whatever geographers have excluded from landscapes, historians from events, and photographers from faces [...] *this* is what the artist must say […]. He always represents it, but he does so in terms of a truth which is not that of objective knowledge." (p. 317)

In a post-acousmatic and post-soundscape era, whichever the choices of the composer working with recorded sound may be, it seems to be important to find a balance between the representational and abstract aspects of sound, as both aspects will interact with one another in the reception of the work. As Drever points out, "the challenge to soundscape composition artists is whether they can balance musical with representational concerns" (2002: p. 26). As the use of representation and abstraction is a core issue not only in soundscape composition, but also in other fields of contemporary artistic practices involving sound, this challenge may be extended to any

composers and sound artists working with electroacoustic, instrumental or live electronics music and sound art.

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The Force Dynamic Structure of the Phonographic Container: How Sound Engineers Conceptualise the 'Inside' of the Mix

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Abstract

The continuous development of new recording technologies and recording practices has had considerable impact on how popular music recordings are produced; yet our ability to articulate the impact of these technologies on the perception of sounds is limited. To describe what has been done to sounds in the mix often requires sound engineers to draw metaphorical comparisons with other experiences. Until now few scholars have studied the language of sound engineers. This article is based on a survey of metaphorical expressions used in interviews with sound engineers. The survey showed that sounds and sound effects are often described as forceful objects that *act* and *interact* in the mix. This interaction is characterised through expressions such as: the sound was 'pulled back' in the mix; the compressor was 'holding down' the sound; and the vocals were 'pushed up front'. Using cognitive linguistic theory as a guide, this article argues that sound engineers' use of force dynamic metaphors offers a better understanding of the structure and manifestation of recorded sound and the impact of record production on the listening experience.

1. Introduction

Recordings of musical performances are clearly aesthetically different from the sounds of acoustic instruments heard in real-world environments. Recording equipment and post-production effects, such as reverbs, delays, equalisation and compression, allow recording engineers to modify recorded sounds in creative ways into auditory phenomena aesthetically distinct from real-world sounds. Yet, as Jay Hodgson (2010) notes, the musical effect of recording technologies on the listening experience is often conspicuously absent from most analytical studies of music.

Musicologists have studied record listening in an impressive number of ways, obtaining great insight into how listeners attend to and extract meaning from recorded music. Music listening may, for instance, involve attending to the perceived intentions of the songwriter, feeling moved by the perceived bodily gestures of musicians or appreciating the more formal structures of the musical material (e.g., harmony, melody and rhythm) (Frith 1998). Adding to the findings of such studies I find that further attention should be given to the *activity* of sounds within the recorded material itself.

Since the late 1990s musicologists have been increasingly concerned with music recordings, a field Steven Cottrell (2010) has termed phonomusicology. In recognising record-making as an art form this field seeks to trace the influence of recording practices on, for instance, the listening experience. There are several difficulties, however, with such studies. First, music researchers analysing recorded music have usually not experienced the 'performances' in the recording studio that were later spliced together and processed to form the final track. For this reason they do not have the before-and-after perspective that allows them to judge what actually changed in the recording process. Second, even researchers who do have knowledge about the production practices behind a particular recording find that limitations of language often make it difficult to articulate what happened to the sound during the studio sessions. For this reason we still know little about how recording practice and audio effects change our perception of recorded music. The question remains as to which kinds of new layers of meaning are added in the recording and post-production process and how we should describe these extra layers. Seeking to answer such questions, this article presents the results of a study examining how sound engineers represent the sound of recording technologies in language. The approach seeks to probe the before-and-after perspective

of recordings, opening up an alternative view on the variety of ways in which different qualities of sound can change the experience of recorded music.

1.1 Conceptualising Sound

A number of scholars have studied language about music from different perspectives. Lawrence Zbikowski (2002) presented one of the most comprehensive studies of how music is understood and conceptualised in his book *Conceptualizing Music*. Building on cognitive linguistic theory he argues that the cognitive processes we use to understand music are not unique capacities for music understanding, but the same capacities through which we structure all experiences in our everyday life. Zbikowski's book contributes greatly to the understanding of notation-based music. It is, however, not concerned with non-notational experiences that may arise more from different qualities of sound, such as timbral and spatial characteristics. Morten Michelsen (1997) accounts for these experiences of sound (e.g., timbre and space) in his study of how academics and music reviewers use metaphors to express their experience of musical sounds. Michelsen argues that sounds are not necessarily experienced as complex phenomena. The complexity arises because our common language does not allow us to describe these phenomena precisely. For this reason metaphors are necessary conditions for all language about sound. In Michelsen's research and other related studies the language of sound engineers and other music production professionals is only touched upon very briefly, or not at all. One notable exception is the American anthropologist Thomas Porcello's (2004, 2005) studies of dialogue between recording engineers in the recording studio. In his 2004 article, "Speaking of Sound: Language and the Professionalization of Sound-Recording Engineers", Porcello explores the different linguistic resources which such sound engineers make use of in their search for *the right* sound. Porcello's work offers important suggestions regarding how a focus on speech about sound could enrich our understanding of sound engineering practice. Whereas Porcello, however, finds metaphorical descriptions of sound inherently vague, my study embraces these metaphors as a means to access how sound engineers think and respond to recorded sounds in the mix process.

Sound engineers are a specific category of specialised listeners. They distinguish themselves from most other musicians and composers by their primary focus on getting

the right sound over other parameters of musical expression. For this reason they are not just good at deciphering complex sound phenomena. They are also acquainted with the techniques used to make the sounds. Consequently they may listen more for the techniques *behind* the music than to the music *itself*. We can call this type of listening *recipe listening* (Landy 2007: 97) or *technological listening* (Smalley 1997: 109). Second, sound engineers are not just specialised listeners. They are also authors of the mix and have to some extent an idiosyncratic language for conceptualising what they do. Sound engineers are accustomed to certain ways of talking about sound and thus use much more elaborate metaphors than most other listeners.

1.2 Scope of the Article

This article explores the use of metaphors in sound engineers' evaluation of their work. I start by outlining the notion of the *phonographic container*, which is used to define the phenomenal frame in which recorded sounds appear. I then proceed to analyse the results of a survey of sound engineers' language. This survey is based on six textbooks for sound engineers (Alten 2011; Bartlett & Bartlett 2009; Bregitzer 2009; Gibson 2005; Izhaki 2008; Owsinski 1999), 20 interviews with sound engineers published in Bobby Owsinski's *The Mixing Engineers Handbook* (1999) and 35 interviews with sound engineers conducted by Paul Tingen and published *in Sound on Sound Magazine* (January 2007 to November 2009, one interview in every monthly issue). The textbooks, as well as the interviews, centre on a variety of different approaches to recording and mixing. In this article I will particularly focus on how the impact on dynamic range compression is conceptualised. This focus was chosen because I found a very elaborate use of metaphors in the interviews whenever dynamic range compression was discussed. It also serves to narrow down an otherwise quite complex field.

The analysis of the interviews is concerned with how sound engineers tend to describe sounds as entities that *act* and *interact* in the phonographic container. These descriptions point to how sound engineers often use force dynamic metaphors (Talmy 1985) when describing what is going on in their mix. This finding, I claim, will provide music researchers with new insights into the structure and manifestation of recorded sounds and offer new ways to understand the impact of record production on the listening experience.

2. Methodology

My argument rests on cognitive linguistic theory as it has evolved from the work of George Lakoff and Mark Johnson (1980), who describe how perceptual domains are structured by projecting patterns of experience from one domain to another. Studying metaphorical expressions, they sought to explain human meaning and the embodied origins of imaginative structures. The latter is described further under the heading *image schemas* introduced simultaneously in Johnson's *The Body in the Mind* (1987) and Lakoff's *Women, Fire and Dangerous Things* (1987).

Inspired by the Kantian notion of *imagination* Johnson (1987) describes image schemas as gestalt structures that consist of *parts* that are organised into unified *wholes*. Kant suggested that concepts of understanding and intuitions were connected through a *transcendental schema*. This schema is what structures our awareness of objects, by 'sketching out' possible applications of the concept. Likewise image schemas are characterised as abstract structures of recurring patterns of embodied experience that are *activated* through experience. These patterns may then organise more abstract understanding. We should acknowledge, however, the possible bias towards visual perception implied by the word 'image'. Image schemas are here understood in a broader sense as a function of all sensory experiences. These schemas emerge from our bodily experiences in everyday life and are thus closely tied to our perceptual capacities and bodily motor skills. For this reason we can see image schemas as embodied schemas that form the basis for perception, thought and language. Since language is based on the same conceptual system as that governing how we both think and act, we can gain access to the workings of this system by studying how we speak about certain phenomena.

3. The Phonographic Container

CONTAINMENT (Johnson 1887; Lakoff & Johnson 1999) is a central schema that structures our conceptualisation of experience in everyday life as well as in music. The schema (Figure 1) is activated when we experience events where something is located within another thing. Such events usually have an inside and an outside, as well as a boundary between them.

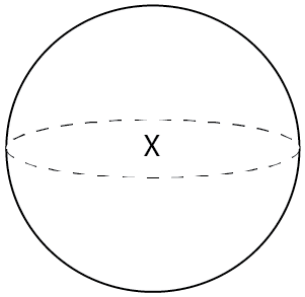


Figure 1: CONTAINMENT schema

When talking about recorded sounds, CONTAINMENT is a prevalent and established metaphor. We say that sounds and sound sources are *in* the recording, although no substantial entities reside in the medium but only different kinds of audio representations (e.g., grooves in records or ones and zeroes on CDs) that can reproduce auditory phenomena. We simply impose a CONTAINMENT schema on the recording. In the studied interviews with sound engineers the CONTAINMENT schema was often activated in their description of their mix, e.g., when they were talking about sounds *in* the mix, *in* the track or *in* the recording. But what does it mean that a sound is *in* the track, *in* the recording or *in* the mix?

On closer examination of the interviews it became apparent that sounds and sounds effects are often described in terms of how they act *in,* and *in relation to,* the phonographic container (my italics in all):

- There were a lot of things playing … but it made the track too *full*. (Renaud Letang *in* Tingen 2008, Apr.)
- If you use 96k you have all these frequencies above our hearing range that *just eat up headroom*. (Jacquire King *in* Tingen 2008, Dec.)
- I needed a longer reverb to *fill in spaces*. (Jason Goldstein *in* Tingen 2007, Apr.)
- You have these moments *in* the track where it is *open* and soaring and where the big reverbs *open all the floodgates*. (Chris Lord-Alge *in* Tingen 2007, May)
- [The sound] *jumps out* of the track too much. (Joe Chiccarelli *in* Tingen 2007, Oct.)
- Every time the kick *hits* [the compressor] *ducks* the bass track 2-3 dB to *give space* for the kick. (Fraser T. Smith *in* Tingen 2009, Nov.)

- I really start searching out the frequencies that are *clashing or rubbing against each other*. (Jon Gass *in* Owsinski 1999: 31)
- Then I'll do some frequency juggling so that everybody is *out of everybody else's way*. (Ed Seay *in* Owsinski 1999: 164)
- … It was one of these tracks that could easily have sounded way too *crowded*. (Manny Marroquin in Tingen 2007, Dec.)
- Instead of *occupying* a small spot *in the middle of the mix*, I could *fill* the whole spectrum. (David Pensado *in* Tingen 2007, Jan.)

As we can see from these quotes, sound engineers often conceptualise the inner workings of the mix by mapping agency onto sound and sound effects, e.g., "jump out", "eat up", "rubbing against each other" and "Every time the kick *hits* [the compressor] *ducks* the bass". Also we can see how the mix is conceptualised as a spatial container with *dimensions* that have relative and absolute *positions*. Sounds *take up space* within the recording, and sounds can potentially *get in the way* of each other. Each of the quotes describes different 'states' of the phonographic container and its content, for instance, the absolute position of sounds (e.g., *in the middle of the mix*), the relative position of sounds (e.g., *rubbing against each other*) or the *internal state* (e.g., *crowded*).

4. From Static to Force Dynamic Metaphors

We think of spatial language in terms of our bodily perspective rather than as a geometrical structure. Spaces are 'expressive' in several ways. Likewise, hearing is not a static phenomenon. When we say that a sound is *in* the mix we categorise a sound phenomenon. But meaning does not arise from this categorisation. It is conveyed by the sound of the physical signal through the perceptual process of listening (cf. Griffith 2002). Thus, when we use metaphors we risk objectifying sound phenomena, reducing them to static phenomena and thereby failing to represent their meaning (cf. Freeman 2004). Hence, meaning does not stem from the fact that we can describe sounds as *inside* or *outside* a container, but from our involvement with the musical flow of events that may incorporate aspects of the sound's 'inness'.

In academic literature recording techniques and post-production effects are often described as *passive* devices, i.e., devices through which sound mediates. The virtual space of a recording is often described as a spatially neutral *equilibrium* at a given point in time. But this view does not give us the full picture of what these effects do, and what sound is for the listener. This survey suggests that sound engineers often articulate the inner workings of the mix in terms of *force dynamic metaphors*. In this sense they appear to think of recording technologies as *interactive* devices that may cause different kinds of *action* in the phonographic container.

4.1 FORCE Gestalts

Force is a prevalent category in our understanding of the world, although we may only notice it when it acts unexpectedly. Leonard Talmy (1981, 1985) argues that *force* is an important aspect of all language structures. These *force structures* Talmy calls *force dynamics* since they refer to how entities interact *forcefully* with each other. Forces emerge as an elaborate system with different outcomes: e.g., forces may be *resisted*, *obeyed*, *overcome*, *blocked* or *absorbed*. The dynamic field of forces determines the outcome. Let us take as an example this expression: ”John cannot go out of the house”. The outcome of this situation is that John is still in the house. Yet according to Talmy it is a barrier that causes the outcome (in this situation an unknown barrier), and prevents John from going out, although he has a *tendency* to do so (Talmy 1985).

The idea that we ascribe an intrinsic *force tendency* (*action* or *rest*, *strong* or *weak*) to entities in language and thought is central to the present study. As we shall see, the relation between sounds and container is often characterised by a force dynamic relation emerging from the force tendencies of the sound and the container. As Mark Johnson (1987) notes, these dynamic relations have a schematic quality. Johnson extends Talmy’s findings to image-schematic FORCE gestalts, by asserting that there is an overlap between the meanings of verbs as applied in rational argument and as applied to the physical world. He then identifies a link between the modals ‘*must*, *may* and *can*’ to the image-schematic FORCE gestalts COMPULSION, REMOVAL OF RESTRAINT and ENABLEMENT respectively (Johnson 1987).

Even though *force dynamics* was originally applied to describe verbs of motion, it is easy to see how this notion can describe the production and experience of sound. As I

will show (section 5) FORCE schemas make it possible to account for structures of recorded sounds that are often neglected in other sound analytical approaches. I will argue for a broader view on sound experience that acknowledges what Talmy (2003) calls *causative situations*, i.e., the view that experience consists simultaneously of the caused and the causing event. In the following, I will discuss a few of the schemas that I find most pertinent to the present discussion, although many more influence how we reason about recorded sound.

4.2 Out-Orientation

As mentioned above we may think of sounds as dynamic objects acting within a three-dimensional phonographic container. Different characteristics of the container allow sounds to act in different ways, and different characteristics of the sound itself may provide for certain kinds of actions. Individual sounds are usually thought of as bounded objects constrained by other sounds in the mix. Sounds that are *tucked in* too much can thus be brought *out*, making the sound more *accessible*.

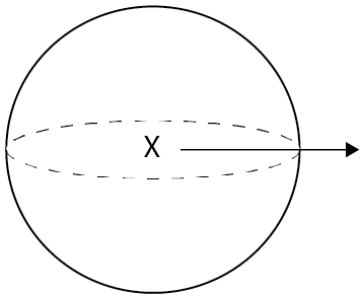


Figure 2: OUT schema

Whereas *in* and *out* can relate to physical orientation in space, the spatial orientation may be more abstract in other cases. In the following quotes sounds are described as moving entities with an *out-orientation* (Figure 2).

- I did … ride a couple of notes that didn't *come out* clearly. (Robert Carranza *in* Tingen 2008, May)
- When I put [the sound] through Linear Phase Equalizer it suddenly *jumped out*. (David Pensado in Tingen 2007, Jan.)

- A sampled handclap was made to *stand out* in the track by application of heavy low-end boost, shelving cut above 12 kHz and stereo widening. (Joe Zook in Tingen 2008, Jun.)

In these cases the out-movement describes the sound's orientation from a bounded position to a more *accessible* position. If a sound engineer *takes a sound out of the mix*, it means that the sound is no longer there. He has simply removed the sound from the mix. *Bringing a sound out* or making it *stand out*, however, means bringing it into prominence, e.g., into the auditory space available to the listener. C*oming out* is thus a metaphor that sound engineers use to describe how sounds are made *accessible* to the listener in the recording.

We can even think of positions that are neither *fully in* nor *fully out*. It seems that recording engineers often try to achieve a *balance* between these two positions. We can therefore consider availability and unavailability as endpoints on a continuum. The following quotes highlight this feature:

- The only thing I did on the bass was manually ride a couple of notes that didn't *come out clearly*. (Robert Carranza *in* Tingen 2008, May)
- The Space Designer … sounds like a very high-end reverb that brings the vocals *out a little more*. (Greg Kurstin *in* Tingen 2009, May)
- I applied quite a bit of L1 on track 48, to bring the vocals *out slightly*. (Fraser T. Smith *in* Tingen 2009, Nov)

Clearly, *slightly* and *a little bit more* designate the 'level' of *out* in each of these sentences. In quote two the expression '*brings the vocals out a little bit more*' describes how much the vocal is available to the listener; in this case, a little bit more than before the Space Designer effect was used. Saying that a sound source is more or less available must mean that some 'elements' of the sound source are not available (like pouring more of the soup into the cup, but not all of it). It seems that sound sources are never characterised as *fully in* or *fully out*. They always reside somewhere in between. Therefore sounds are characterised as having both *available* and *unavailable* parts.

4.3 Open and Closed Sounds

Several meanings are attached to the idea of sounds *coming out*, and technical explanations that link the use of recording techniques with this metaphorical understanding not always clear-cut. For instance, in some cases a sound engineer may bring a compressor into the signal chain to bring certain sounds *out*, whereas in other cases compression helps to keep a sound *inside*.[1] Much depends on the treated sound sources, how the effect is used and what the auditory context is.

As mentioned earlier, we may think of sounds as bounded entities constrained by other sounds in the mix. We may, however, also think of the sound itself as a container with a *core quality*. Sometimes sound engineers describe sounds as fully enclosed, hiding their inner details, and sometimes sounds are described as more available (*open*) to us. Sound engineers thus seem to connect the idea of *open* and *closed* with the way in which a sound's core quality (its details) are *afforded* to us. Stanley R. Alten (2011: 463) links the *openness* of a sound with characteristics such as *airy*, *transparent*, *natural*, or *detailed,* whereas openness for Bruce and Jenny Bartlett (2009: 42) is described in terms of *gentleness* and *"letting the instrument 'breathe'"*. Both of these producers appear to connect *openness* with *unrestricted* sounds. *Open* sounds are given space to propagate, and are brought *through* to the listener in a *transparent* manner. Such experiences involve notions of force relations (Talmy 1981, 1985) in which sounds have a *tendency* to *come out* unless constrained by the stronger force of the container.

One way of generating a *closed* sound is to cut out high frequencies, whereas more *openness* is often achieved by boosting high frequencies to bring out more details. Filtration is thus an effect closely linked to the experience of *open* and *closed*. A sound that we are accustomed to may be perceived as *closed* when the high frequencies are cut out, whereas a sound with lots of high frequency content is described as *open*. These experiences of *open* and *closed* appear to be grounded in the acoustics of real-life situations, such as: (1) when we hear a sound emanating from within a closed container; or (2) when we hear a sound that reaches our ears without any obstruction between the sound source and the listener. In the first example some part of the high frequencies is

[1] Quiet sounds are usually brought *out* when the overall mix is compressed, whereas louder sounds that *stick out* too much may be compressed in order to *keep them in place*.

absorbed (filtered out) by the container, whereas in the second example we hear the sound unmediated. For the same reason, the experience of *open* sounds is related to *accessibility* and *closed* sounds to *exclusion*.

5. Case: Dynamic Range Compression

The aim of the following section is to explore the experiential effect of dynamic range compression and see how sound engineers make sense of the auditory outcome of this effect. Timothy Warner rightly notes that in the academic world "dynamic compression is perhaps the least well explored or understood of all recording processes" (2009: 134). There may be many reasons for this inattention to dynamic compression. It is likely, however, that musicologists avoid the subject because of the lack of terminology to articulate the experiential effect of compression.

In physical terms, a dynamic range compressor is a processor that turns down signals by a certain ratio when the signals reach above a certain threshold. But what happens to the experience of the sound, when a mix, or individual tracks within the mix, is processed with a compressor? There is no single answer to this question. Most listeners notice that a track appears louder (increased RMS) after being compressed and regained. If this experience were the sole effect of compression, however, its effect would be similar to shaping the volume with dynamic faders. The effect of the compressor is often a neglected aspect in musicological analyses of recorded sound. This is somewhat odd when we consider that almost all recordings have been dynamically compressed to some extent, and quite extensively in many pop music genres. Yet it may be precisely because of the conventionality of heavy signal compression in modern recordings that we rarely pay much attention to it anymore.[2]

5.1 The Impact of Compression on Auditory Experience

A significant finding in the study of sound engineers' use of metaphors was that they often articulate the effect of compression in terms of *force dynamics*. In fact, the term *dynamic compression* is in itself *force dynamic*.

[2] The increasing focus on loudness in modern popular music recordings has caused recording engineers to apply still greater levels of compression. This tendency has led critics to talk about a *loudness war* (Milner 2009).

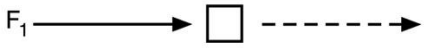


Figure 3: COMPULSION (Johnson 1987: 45)

COMPULSION denotes the *force* exerted on an object which causes it to move in a given direction. This *force* is always headed in a certain direction along a path. Sound engineers use several expressions that relate to the COMPULSION schema (Figure 3), when describing the effect of sound editing:

- When the drummer hits the snare, [the compressor] *sucks down* and you get a good crest on it. (Lee DeCarlo *in* Owsinski 1999: 5)
- If one side gets significantly louder the compressor will *grab it* and *pull it down* a little. (Jason Goldstein *in* Tingen 2007, Apr.)

These are cases of *caused* motion in which objects are moved by external *forces*. The *forces* are in both cases specified by the compressor setting. We can also see how the COMPULSION schema in both cases is dependent upon the PATH schema. The *force* moves along a vertical path going downward, whether it is *sucking down* or *pulling down*. In both examples the *force* is exerted on the sound from beneath it.

5.2 REMOVAL OF RESTRAINT Schema

The *force* may also follow a path that *transcends* the boundaries of the container. Consider the expression "the compression just helps [the sound] to *cut through* a little better" (Serge Tsai *in* Tingen 2007, Jun.). To say that the sound is *cutting through* something implies that music is moving from one container to another. We can say that the sound follows a path with a starting-point in the phonographic container and an end-point in listening space. In this way the sound penetrates the boundaries separating these two spaces. This event activates the REMOVAL OF RESTRAINT schema (Figure 4) that connects experiences of overcoming a boundary or obstacle that hinders an object's movement from one point to another:

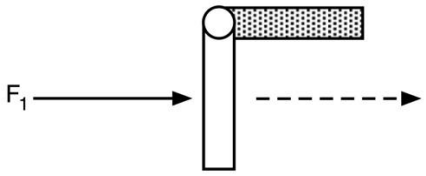


Figure 4: REMOVAL OF RESTRAINT (Johnson 1987: 47)

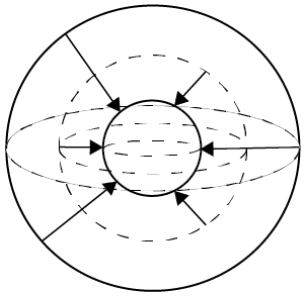
The REMOVAL OF RESTRAINT schema describes an obstacle that is removed by some entity that follows a path in a certain direction. Tsai's quote does not specify what the removed obstacle might be. Doubtless he is referring to the mix as such but exactly how the mix constitutes an obstacle to the specific sound remains unsolved. Since the compressor is the tool needed to fix the problem, we can assume that the obstacle is mainly related to volume. *Cutting through* implies making the sound audible by either making it louder (in the entire bandwidth or only in specific frequencies) or turning other sounds down.

5.3 EXPANSION and CONTRACTION Schemas

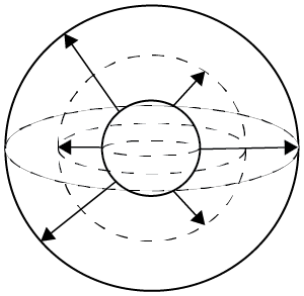
Squeeze is another common way to express the *force* exerted upon sounds by the compressor. For instance:

- There's also a compressor, which is working pretty hard, *squashing* the sound as hard as possible. (Greg Kurstin *in* Tingen 2009, May)
- What I'll do is put the drums in a limiter and just *crush* the hell out of it. (Lee DeCarlo *in* Owsinski 1999: 55)

The *forceful* nature of *squeeze* is not exerted from below the sound, but rather from all directions. Consequently *squeeze* has a different image-schematic structure from *pull* and *suck*. *Squeeze* is also connected to the CONTAINMENT schema. We can understand *squeeze* as a process of either making the container smaller or making the contained object bigger. When a contained object is *squeezed,* it has less room in which to move. Accordingly, the image-schematic structure of *squeeze* is related to the *size* of the contained object and/or the capacity of the container. CONTRACTION and EXPANSION schemas (Figure 5) come to mind here.



CONTRACTION OF CONTAINER



EXPANSION OF CONTENT

Figure 5: CONTRACTION and EXPANSION schemas (inspired by Brower 2000: 353)

The EXPANSION schema is also argued for in Candace Brower's article "A Cognitive Theory of Musical Meaning" (2000). Differently from the present study, however, Brower focuses on harmonic and melodic progression in music. She describes how the EXPANSION schema is activated when, for instance, a rising melodic line and a descending bass line occur at the same time. She thus connects CONTRACTION and EXPANSION with the changing boundaries of the pitch register.

In this article I show how CONTRACTION and EXPANSION are connected to the interaction between compressor and sounds in the phonographic container: for instance, by limiting the capacity of the sound container. If the overall mix is compressed, the boundaries of the sound container come to the fore, since the sound exceeds *force* on the boundaries. The capacity of the sound container is then brought to the fore when the contained sound reaches the maximum *volume*, or even goes above this level. This also implies that we must see recorded sounds as *squeezable* objects, because of their ability to lower the capacity of the sound container beyond the *amount* of sound. In this way the experiential effect of compression is represented as a *contraction* of the sound container.

5.4 Sounds as Living Organisms

This experience of CONTRACTION and EXPANSION is bodily embedded. Think about the heart and lungs that constantly oscillate between contraction and expansion. The metaphorical connections to bodily organs are articulated by sound engineers when,

for instance, talking about making ”the compressor *breathe* in time with the song” (Owsinski 1999: 55) or making a sound *pump* in sync to the music. In fact, sound engineers often conceptualise sounds and sound sources in terms of living organisms. This is especially so when the conversation revolves around compression: e.g., techniques to ”make the compressor *breathe*” (Owsinski 1999: 62); ”making the [sound] come *alive*” (Ed Seay *in* Owsinski 1999: 231); and over-using compression so that the sounds are ”squeezed to *death*” (George Massenburg *in* Owsinski 1999: 199). These expressions all circle around the conceptual metaphor THE MIX IS A LIVING ORGANISM.

As we have seen, sound sources are not static entities. They *act* and *interact*, not just *in* the phonographic container, but also *through*, *with* and *against* it. When a dynamic compressor is applied to the signal chain, it will not just alter the signal independently of the characteristics of the sound routed through it. A compressor *reacts* to the level and the spectrum of sound and often there is a strong sense of the involvement of *interaction*, *causal connections* and *energy*. When sound engineers make alterations to a sound they do not think of these alterations as something that happens *in* the sound source, but consider that something else *interferes* and causes the alterations. Therefore, rather than being a stable frame, the phonographic container is, so to speak, immersed in the dynamic flow of sounds that *balance* and *unbalance* each other, creating different forms of *tension*.

5.5 Active Containment

As argued, sound engineers appear to understand sound events as causal sequences that are structured by bodily *force dynamics*. This claim has implications for how we understand sound editing on a more general level. We have seen how the compressor *pulls*, *pushes* or *ducks* the sound, which causes it to *come out more clearly*, *sit well in the mix* and so forth. These actions, caused by the compressor, do not only describe a cause-effect relationship. They are essentially expressing the compressor’s *control* over the sound sources.

Physical control is a common way to express the more abstract *control* exerted by effect units on sounds:

- When you turn the ratio right up and lower the threshold it kind of *grabs* the sound in a way that no other compressor does, giving it a really sharp-sounding front end. (Robert Orton *in* Tingen 2009, Mar.)

In this example Robert Orton describes how the compressor *grabs* the sound to manipulate it in a certain way. *Grabbing* describes the compressor's *control* over the sound. In this sense the event of *grabbing* constitutes an interesting instance of containment. A common occurrence of grasping is when we reach out to grab an object with our hands. This event causes the object to be *in* our hands. The event includes the act of *enclosing* our hands around the object. Our hands then constitute an *active* container that *forces* its constraints upon the object. This event corresponds to how sound engineers often describe the compressor as an *active* container. In his study of literary thinking Mark Turner (1996) explains how such action-stories are often projected onto other events:

> It is common to project action-stories of grasping and controlling physical objects onto other event-stories. Conditions we control and enjoy correspond parabolically to physical objects we grasp, possess, and control … Within this logic of objects and grasping, something reliably within our grasp is subject to our control. When we project an action story of grasping, we project this logic. (Turner 1996: 34)

Accordingly, a compressor is conceptualised as a device that allows sound engineers to *control* sounds in different ways. This becomes even clearer in the following quote by producer Jason Goldstein:

- If one side gets significantly louder, the compressor will *grab* it and *pull it* down a little. (Jason Goldstein *in* Tingen 2007, Apr.)

The event described in this quote includes the act of *enclosing*, but we also see a combination of events that precedes and follows the enclosure. The sequence has a three-part structure: (1) the sound gets louder; (2) the compressor *grabs* the sound; (3) the compressor *pulls it down*. Looking at sequence 1 -> 2, we notice that the compressor *grabs* the sound only when the sound is getting louder.

Such experiences correspond to findings by Robert B. Dewell (2005), who argues that most of our experiences of containment involve both ENTRY (an object going into the container) and ENCLOSING. This finding has implications for the understanding of the CONTAINMENT schema as presented by Mark Johnson (1987). In Johnson's view a container is generally a passive element, and objects actively move in and out of it. In Dewell's (2005) account both the container and the contained object can act as active elements. Hence, containing is something the compressor actively does by grabbing the sound, i.e., *enclosing* the sound, and exposing *force* upon it. In this context the idea of CONTAINMENT as ENTRY CLOSING can be seen as broadening the CONTAINMENT schema, which adds to the understanding of the phonographic container by accounting for the dynamic processes that restructure and activate its internal structure.

6. A Functional Geometric Framework

In this article I have argued for a move from viewing containment in geometrical terms, as objects located within something else, towards a view of containment as a force dynamic structure. Geometrical containment is about physically locating an object within a container. This notion, however, fails to acknowledge two aspects of containment: (1) that objects and containers interact with each other; and (2) that both container and objects have specific *functional* features that affect our perceptions of containment.

Enclosure can take different forms. For an object to be fully enclosed, it is normally required to be fully surrounded by something else, e.g., canned beans. If we pour the beans into a bowl, they are no longer topologically enclosed. The bowl provides in many ways a weaker form of enclosure than the can, since it only partially encloses the beans. Thus the can and the bowl reflect two different 'degrees' of containment (Coventry & Garrod 2004). To be characterised as a container, however, the object must *function* as container.

For an object to be positioned within a container the container needs to constrain the object in some way — there must be a *functional relation* between the container and the content. If the container moves, the object will move with it. This idea is presented by Kenny C. Coventry and Simon C. Garrod (2004), who argue that the preposition *in*

involves both a geometric relation (*enclosure*) and an extra-geometrical relation (*location control*). This idea is developed further in the following section.

6.1 Location Control

The constraints of different sorts of containers are associated with varying degrees of *location control*. For instance, we think of a ball being *in* a bowl, even though the bowl does not fully enclose the ball. Nevertheless, the bowl keeps the ball in the same position, even when the bowl is moved. For this reason the bowl provides some degree of *location contro*l. Coventry and Garrod, however, found that the degree of location control diminishes gradually if the bowl is tilted. The perception of location control is thus related to the specific features of the container and the specific event that takes place. A container may fully enclose an object, providing a strong degree of location control, or only enclose it partially and provide a weak enclosure.

The specific features of the reference object (e.g., a ball) also contribute to the perception and representation of containment. Feist and Gentner (1998) demonstrated that animate objects (e.g., a fly) were less likely to be represented as *in* something than inanimate objects (e.g., a coin). Again, this finding is related to the idea of containment as location control. Since a bowl does not control a fly in the same way as it controls a ball, test subjects found it less appropriate to use the preposition *in* for the location of a fly than for the location of other inanimate objects. Feist and Gentner found that similar variations existed for different features of the container, e.g., the difference between something located in a hand (*animate container*) or a bowl (*inanimate container*). Thus the animacy of the container may also have an influence on the perceived degree of location control.

6.2 The Relation between the Phonographic Container and its Content

Both geometrical space and extra-geometrical features are represented in the way in which we talk about containment. To be precise, ‘what’ the contained object and the container are determines, to some degree, how we put into words ‘where’ the object is (Carlson-Radvansky et al. 1999). Spatial relations are not only represented through geometric routines but also through how objects act and interact.

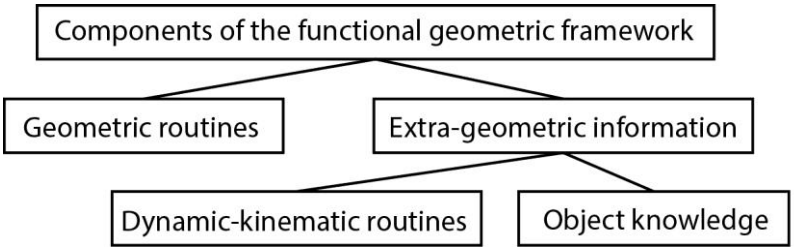


Figure 6: Functional Geometric Framework (Coventry & Garrod 2004: 55)

Spatial language is grounded in both *geometric routines* and *extra-geometric information* (Figure 6). Each of these elements may have more or less influence on the prepositions used to describe a scene. In some instances the actual geometry of a scene, i.e., the position of objects in Euclidian space, may determine the particular preposition, whereas extra-geometric information may have more influence in other situations. Coventry and Garrod divide extra-geometric information into two branches. The first branch, dynamic-kinematic routines, describes the perceived potential or actual dynamics in a scene, e.g., how objects act and interact and how the action and interaction evolve over time. In this context, dynamic-kinematic routines involve the perceived location control of a scene, i.e., the potential action of the contained object and its interaction with the container. The second branch, object knowledge, involves knowledge about the typical function of the object in a specific situation.

In the following quotes we can see how sound engineers use different, though metaphorically related, expressions to describe the enclosure of the container and the features of the contained object:[3]

(1) Container features

- If you add around 10k it *opens everything up*. (Marcella Araica *in* Tingen 2008, Feb.)
- *Open up* the bandwidth until you get the snare to jump out. (Owsinski 1999: 33)

[3] One of the problems related to applying the principles of the functional geometric framework to the auditory domain is that the distinction between the features of the reference object and the features of the container is not as clear-cut as in the visual domain. In other words, what count as features belonging to the sound source (*the contained object*) and what count as features belonging to the phonographic container may in many cases be fluid.

- The compression on all three of them was just to make sure nothing *jumped out* at you. (Demacio 'Demo' Castellon *in* Tingen 2008, Jul.)

(2) Contained object features

- If you make the attack harder, something will sound louder. It will *cut through* the mix without having to add additional volume. (Jason Goldstein *in* Tingen, 2007, Apr.)
- I also have to keep the kick and snare really punchy to kind of *cut through* (Jerry Finn *in* Owsinski 1999: 112)

These descriptions not only capture features of the container and the contained object respectively, they also add to the understanding of the mutual spatial relations between them. The first quote by Marcella Araica points to the understanding of the potential transformation of the container: if the frequency spectrum around 10 kHz is boosted, the container will change from a more closed state to a more open state, providing less *location control* for the sound sources in it. Likewise, Jason Goldstein describes how sound sources should be altered in order to *penetrate* the container.

Often compression activates a whole series of causally related events. Producer Tom Elmhirst articulates some of the complexities related to compression in his description of the tune "Rehab" (*Back to Black*, 2006) by Amy Winehouse:

- The Urei [compressor 1] will have been set with a very fast attack and a super-fast release, doing perhaps 10 dB of compression, while the Fairchild [compressor 2] will have had a very slow release. I can't quite explain what this does, but in my head the Urei will *catch* anything that *jumps out*, while the Fairchild will *pick up* the slack and keep a more constant *hold* of the vocal. (Tom Elmhirst *in* Tingen 2007, Aug.)

Although Elmhirst claims that he cannot explain what compressors do, he actually provides a fairly comprehensive description. At least four expressions of *forceful* action are detected in this quote: *catch*, *jump out*, *pick up* and *hold*. *Jump out* describes the sounds as *forceful* objects that *act*, moving from the inside to the outside of the

container. This is counter-weighted by compressor 1 (the Urei) that *catches* the sound, preventing it from jumping out. A second compressor *picks up* the slack and keeps a *hold* on the vocal, confining it to a fixed position. The *forces* of the vocal sound are restricted by the compressors, which on the one hand cause the voice to stay in the container and on the other hand keep it in a fixed position within the container.

In summary, I have presented two elements in the experience and description of sound sources in the phonographic container based on the linguistic corpus of interviews and sound engineering textbooks: (1) a purely geometric component defined in terms of physical localisation; and (2) a functional component that suggests the interactional and functional relation between the container and the contained object. Accordingly, the phonographic container does not constrain sounds in a predetermined way. It can take different forms and provide various 'degrees' of spatial *constraint* in different tracks.

7. Discussion

We have seen how embodied image schemas connect experience and conceptualisation and thereby represent particular experiences of auditory events. It was shown how schematic structures foreground the kinaesthetic components of the interaction between the sound and compression, and bring awareness of the *tensions* that are central to the experience of recorded sounds. The bodily response to 'active sounds' presented in this article, however, is of course only one of several ways in which recorded music makes sense to us. I have pointed to potential, yet undefined, meanings that musical sound may evoke in listeners. Consider, for instance, the variety of ways in which the perceived bodily gestures of musicians can enhance or change the emotional response to music (Frith 1998). These potential meanings point to an indexical layer of musical experience, grounded in the agency of actual sound sources (actual events) found outside the music itself. This study, however, has pointed to the *agency* of sounds-in-themselves within the sound structure of recorded music (virtual events), events we make sense of through bodily embedded experiences.

When we talk about sound phenomena in music we tend to objectify sounds, reducing them to static phenomena. Musical meaning, however, is not a response to something static but stems from our involvement with the musical flow of changing

events. Consider, for instance, how, at the formal level of musical structures, we talk about the *movement* of a melody, harmonic *progression* or the *tension* of a dominant seventh chord before it *resolves* to the tonic (Zbikowski 2002). Such expressions remind us that force dynamic structures are found on many levels of musical experience, and constitute one of the essential ways in which sounds make sense to us as music (Hjortkjær 2011). Recorded sounds, in fact, make sense to us in terms of how they *behave* within the phonographic container and succeed each other to be perceived as musical motion. In this sense sound (the flow of active sound events) and music (in the sense of formal structure) have mutually related meanings.

8. Conclusions

The metaphorical domain is well established in the study of music, yet there is still much to be said about the connection between language and the experience of musical sound. This article has sought to account for how sound engineers conceptualise recorded sounds. The study revealed that sound engineers often think in *force dynamics* when describing the inner workings of an audio mix. Believing with Lakoff and Johnson that these metaphors are not randomly picked, but form an essential structure of our musical understanding, I suggest that the identified expressions of *force* offer important clues as to the experiential qualities of recording practice and post-production effects. Sounds *act* and are *acted* upon by effects in the phonographic container, e.g., we may perceive the potential for a sound to move forward if it was not held back by some other effect. Such experiences were accounted for by referring to Leonard Talmy's conception of *force dynamics*.

Although we know a lot about the techniques of compression, the experiential effects of compression have previously been neglected in musicological writings, possibly because of the lack of an adequate vocabulary. I have suggested that the focus on FORCE metaphors makes a central contribution to the description of this effect.

CONTAINMENT is the central image schema discussed in this article. Using Coventry and Garrod's notion of *location control* I pointed to the idea that sounds interact with the phonographic container. They engage in what we may call a *functional relation* that reflects different 'degrees' of containment. I argued that we should think of the phonographic container as an active container that interacts with the content. The

phonographic container simply *functions* as a container in different ways, described in terms of the container's *ability* to *constrain* the sounds. For instance, sound engineers described some tracks as being *full* or as having *empty* regions, some appeared *closed* or more *open*, and in some tracks sounds *came out* clearly, whereas they were more *tucked in* in others. Further sounds have different *sizes* that take up more or less space in the container. Generally low frequency or loud sounds are characterised as *larger* than high-frequency or low-level sounds (Gibson 2005: 34-35). Sound engineers may also refer to other characteristics than the content volume. The *boundaries* of the phonographic container may have different characteristics and the container may *enclose* the sounds in different ways, providing a more *closed* or *open* structure, e.g., in some tracks the sounds may seem fixed and constrained, whereas other tracks have sounds that are more *loosely constrained*.

The finding suggests that we should focus more on the active shaping *forces* of the phonographic container. Not only are the static characteristics of the sound source and the position of the sound source felt, but also its potential *force*, i.e., its tendency to act. Consequently I suggest that the language of sound engineers yields further insight into the impact of recording technology on the listening experience and the potential meaning of recorded music.

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