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ANALYSING THE PRODUCT OF RECORDED MUSICAL ACTIVITY

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This chapter is part of a developmental process that I am undertaking within a larger community of scholars under the banner of “21st Century Music Practice.”¹ My aim within the community is to develop a theoretical model for musical analysis that is useful for the teaching of musical practice—particularly the practices that we lump together under the term “popular music.”² The teaching of popular music practice has been constricted by the hegemony of musical notation. This is not to say that students should not learn notation or that it is not useful in the popular music context, but that musical thought is shaped by the representational system that it uses and there is a dissonance between many of the practices of popular music and the ways in which notation encourages us to think about music. In particular, some of the assumptions that are inherent in our educational approaches, our cultural representations of music and our intellectual property laws are built upon the ideology of notation. That composition is more important than performance, that music is made of fixed discrete pitches, that an instrument produces a single timbre, that rhythm is perceived in relation to a fixed metrical grid and that musical structure should be determined in advance of performance.³ In some ways, this project might also be characterised as building an analytical system aimed at performance rather than composition but, as the title suggests, in this chapter I am limiting myself to the analysis of recorded music. Of course, I incorporate aspects of both performance and composition, but it also should be remembered that the project makes a schematic (i.e. limited or reduced) representation of the “original activities:” the visual element has been removed; the sound coming through speakers or headphones has a very different spatial character than a “lived” experience; and the recording involves some form of editorial process.⁴ The aim is, therefore, to develop an analytical process based on music theory that embraces some important features of popular music.

When discussing analysis, Jean-Jacques Nattiez distinguishes between the poietic (i.e. from the perspective of making), the neutral (i.e. from an analysis of the “text”) and the esthetic (i.e. from the perspective of experiencing).⁵ Indeed, he says “Each of these three standpoints ... is legitimate. Each one, however, conventionally asserts itself at the expense of the others ... the musical-semiological project [examines] how the three dimensions can be brought together in analysis.”⁶ While my approach in this chapter does not apply musical semiotics, it does have a similar ambition to unify these three forms of analysis.

While Nattiez, in the same paragraph, characterises the poietic as composition and generally discusses the neutral, immanent structures of a piece in terms of a score, I will also attempt to unify the composition, the performance and the recording as the “text” in popular music. To deconstruct the title of this chapter momentarily, the term “recorded musical activity” relates not just to the recorded performances but to all of the musical activities that contributed to the making of a particular recording: composing, performing, arranging, editing, sequencing, organising, programming, managing, recording, producing and mixing. This obviously implies that the text that I am studying consists of recorded popular music rather than some abstracted notion of the song or a number of live performances. As it happens, the recording chosen as an example, “Indépendance Cha Cha” by Le Grand Kallé et African Jazz (1961), captures an ensemble performance in a single take but that is not, by any means, a requirement for this sort of analysis. As we will see, the theoretical model that underpins this approach does not allow for Nattiez’s notion of “neutral” in terms of objective immanent features that can be identified. It does, however, allow us to distinguish between the esthetic as the norms of experience (i.e. listening to the recorded music) and other ways of experiencing music through representational systems such as spectrographs and symbolic notations.

Although the broader research project is focused on 21st century music practice, this chapter offers an example from mid 20th century African popular music for several reasons. The development of this theoretical model is predicated on the idea that contemporary practices need to be understood in the context of prior practice. As such, this example is a reminder that the spread of the influence of African musical practices through the tragic historical processes of the slave industry extends much further than those that are usually covered within popular music studies: North American and European, usually Anglophone, styles. Indeed, this example demonstrates the circularity of the process whereby African musical practices have been filtered through the Spanish colonial system in Cuba and then re-imported into the Belgian Congo via the international recording industry, and re-interpreted by the African Congolese. The relative simplicity of the recording process in the chosen example also focuses attention more on compositional and performance practices rather than the technological.

Theory

There are two key premises that underscore this theoretical model. The first is drawn from James Gibson’s ecological approach to perception which understands perception as an activity rather than as passive reception.⁷ The premise of the ecological approach is that the active nature of perception involves learning through building connections between the multi-modal sensation of action and the stimulus that flows from it. A knowledge of what a hand clap sounds like is formed from the sight, sound and sensation of clapping one’s hands—and the sensation consists of both the feeling of what it is like to move the muscles that make it happen and the touch / pain response that results from that action. My understanding of a gentle hand clap and an energetic one links the sound with the different types of energy I use to perform the actions, the different touch / pain responses they elicit, and a visualisation of how the actions look. The second premise comes from the world of embodied cognition⁸ and conceptual blending: that our entire understanding of the world outside of direct bodily sensation is metaphorical.⁹ On a simple level, one understands the sound of someone else clapping by relating it to one’s own experience of the activity.

On a more complex level one may make a metaphorical connection between a feature of an experience and one's own previous sensation—for example, the experience of a sudden onset of sound like a “clap of thunder.” This premise highlights two important points that are implicit in this embodied approach: (1) that we don't have access to the neutral, immanent features that Nattiez discusses and (2) some aspects of experience are unique to ourselves and some are shared with or similar to other people. Much of our experience of Bach is different to an 18th century German's because of cultural and physical differences in the environment that have shaped the way we build metaphorical connections to musical sound. At the same time, of course, we have a very basic empathy that comes from the mutual experience of inhabiting a human body.

The idea that musical meaning is based on the activities that make the sounds (and the environment they were made in) is the basis for a range of current analytical ideas in music studies. Alongside analysts who apply the ideas from the ecological approach to perception to music¹⁰ there are musicologists who have revised 17th and 18th century affect theory.¹¹ Within the world of electroacoustic music the notion of spectromorphology¹² explores musical sound in terms of particular forms of energy expenditure in particular environments.

This exclusion of Nattiez's neutral, immanent features has much broader philosophical implications which would be tangential to this study, but it does relate to the notion of whether analysis should aspire to objectivity or subjectivity. The empiricism of the scientific method would, therefore, be based on this empathy from mutual experience. For example, we all experience the phenomenon of gravity. While we cannot say definitively that there is such a thing, we can say that we experience the world “as if” gravity exists. The methodologies of the scientific method are thus built upon a range of measuring techniques that are supposed to be based on criteria that are mutually recognisable by human beings. For example, the colour-based litmus test for determining the acidity of a substance is based on an agreed colour chart where the specific colour that the litmus paper takes on after contact with the substance is matched to a pH number (the measure of its acidity). There is a great deal of cultural and individual difference in the way we identify colours and yet the international scientific community have managed to agree upon this colour-based test. The way that the test is mostly used is for an experimenter to compare the colour of their litmus test result with a chart and, for example, to decide that its colour lies in between the slightly darker orange example of the pH3 and the slightly lighter orange colour of the pH4. In short, the scientific community have agreed to use the relatively subjective notion of perceived colour as a schematic representation of acidic strength (a molecule's propensity to lose a proton in certain circumstances). From a pragmatic standpoint, we could then characterise empiricism as a communal agreement based on a range of personal and ideological acts of schematic interpretation. From a musical perspective, we could say that it is an empirical “fact” that “Indépendance Cha Cha” uses a four-bar sequence that moves from tonic to dominant and dominant to tonic and that it uses an E major scale. On the other hand, all of those analytical terms—bar, sequence, tonic, dominant, E major scale—are schematic interpretations. It may make equal sense to interpret the rhythm as a series of overlapping patterns of different lengths rather than in terms of bars. The terms tonic and dominant used in relation to harmony imply the simultaneous sounding of particular notes whereas in this instance they are not simultaneous and there are also other notes present that might subvert this interpretation. While the notes of the E major scale are both present and of stable pitch in all the guitar and bass parts, the vocals involve substantial pitch instability which might be heard as a particular tonal colouration that is more important than the relatively simplistic scalar mode.

This is why Nattiez's idea of a "neutral" approach, of the idea that we can somehow have access to the autonomous nature of a musical work, is not compatible with this theoretical approach. Allan Moore suggests that we can divorce analysis from the problematic idea of an autonomous work by considering our perception of its features as providing affordances for interpretation. "Why did the music sound like it did?"¹³ This stance, drawn from the ecological approach to perception, reflects the idea that our "perception of its features" is an active process of schematic interpretation controlled by a goal-driven agenda, i.e. what the music sounds like to me was determined by what I listen for. "What I listen for" is driven by expectations from previous experience and why I was listening to the piece of music.

Richard Middleton, while discussing the similar idea of gestural analysis, proposes that "three areas [of analysis] – gesture, connotation, argument – operate in different repertoires in diverse ratios and inter-relationships."¹⁴ These three areas of analysis are also an underlying principle in this theoretical model. The area of gesture relates to the idea that sounds (and therefore music) are understood as the sound of *something*—actors (human and non-human), activity and an environment. The idea that the sound of a gesture extends beyond the gesturing person to include the materiality of their environment (tools, instruments, surrounding space etc.) should be obvious because the nature of that sound is in part determined by the gesturing person's interaction with those things. That our interpretation of such sounds is determined by our multi-sensory experience of the sound-making activity and our previous experience of similar activities has already been discussed. Middleton's area of *connotation* relates to the notions of metaphor and conceptual blending. Certain features of a musical experience may appear similar to our previous experience in some way and cause us to connect other features that occurred in tandem with that previous experience to be recalled as well. This may be very specific, such as the association of a specific piece of music with a particularly exciting or traumatic moment in our life, or more general, such as the pattern of energy expenditure of the string parts in Debussy's *La Mer* being reminiscent of the motion of small waves on the sea. Middleton's third area of analysis, *argument*, is something that we have not yet explored: the idea that we can identify (and enjoy) specific structural features and relationships or developments as part of the intellectual process of listening to music. This, I would suggest, relates to the actual process of seeking out metaphors and conceptual blends. While the process of *connotation* involves the automatic triggering of associations with previous experience, Middleton's explanation of "argument" relates to our ability to identify patterns of thought (the composer's or performer's "argument") in the way the music is put together: what Middleton describes as structural listening. Within the neural theory of metaphor¹⁵ and conceptual blending,¹⁶ our way of making sense of the world is based on building metaphorical connections through shared characteristics between two or more experiences that may have nothing else in common. Thus, we often are able to predict the structure of musical form because some feature is repeated even though other features are varied. Inherent in Middleton's argument about these different areas of analysis is the idea that art music relies more on argument and popular music more on gesture and connotation i.e. that the interpretation and enjoyment of art music is related more to the intellectual skills of problem solving while popular music relies more on the automatic processes of gesture and connotation. This takes us back to the idea of judging a musical tradition built on interpretative and expressive performance through the prism of a music theory tradition built on notation and composition.

In addition to allowing a composer to represent musical forms and details that are too complex to be held in one's mind in a single moment, notation allows the contemplation of music in a way that is similarly outside of the moment. Until the development of recording, notation provided a permanent and analysable record of the composer's skills but the performer's skills were transitory and not subject to the same forms of analysis. With recording it became possible to explore the contribution that a performer's expressive shaping made because we could listen repeatedly. However, much the same as with the introduction of notation, it has taken a century for these analytical possibilities to be widely recognised. Scholars such as Ingrid Monson and the Performance Studies Network established by scholars such as Nicholas Cook, Dan Leech-Wilkinson and John Rink are exploring the detail of performance and improvisation through the use of recording technology. Further, more recent software developments in the creation of visual representation of digital sound such as Sonic Visualiser and Melodyne, allow for new possibilities of analysing recordings. Given these impressive analytical tools, what then does this suggest in terms of an alternative approach to music theory where the question of "what am I listening for?" is framed in relation to the practices of popular music? The following seven categories are an attempt to make a start on that alternative approach.

Rhythm and Timing

The notions of tempo and tactus (the sense of a repeated pulse) are central to most forms of popular music but the forms of patterning that are inherent in notation, the use of bars and the equal subdivision of note length values, are not. Popular music forms rarely use an even pulse. While the tempo may be consistent, there is often an equally consistent form of micro-timing variation—from the very obvious "long-short" swing of jazz and shuffle to the more recent stumbling rhythms of Nu-Soul and Hip Hop. Indeed, many forms of popular music rhythm are based on African-style timelines that involve an uneven pulse (e.g. ragga, salsa and the "Bo Diddley" rhythm in rock). In addition, thinking of structure in terms of bars often completely undermines the perception of hierarchical or overlapping phrase structures that are essential to understanding the momentum of a piece.

Pitch

The mechanism of the chromatic keyboard and its associated equal temperament tuning system is at the core of the Western tonal system and its notation. Whilst the keyboard is also at the heart of popular music styles, the expressive use of non-static pitch—slides, bends, glissando, portamento and micro-tonal ornaments—is often more important because it represents an individual and human resistance to the "norm." It is also at the heart of expressive gesture where movement towards or away from a pitch is often where the potential interpretational metaphor lies.

Timbre

Another key weapon in the expressive armoury of popular music is the dynamic shaping of timbre—the shrieks, screams, moans, scrapes, growls and distortions of popular music. Whilst the world of classical music is built upon the idea of instrumentalists producing a "good" stable tone, popular music instrumentalists build a reputation on the expressive manipulation of timbre.

Tonality and Harmony

One of the great developments in Western art music has been the astonishing expansion of harmonic language—particularly as a structuring principle. While this has been explored within some areas of popular music,¹⁷ the vast majority uses very simple harmony. However, this simplicity can also be understood as a necessary condition for complexity in other areas. Two and three note power chords developed because the complex timbres of guitar distortion didn't work with intervals other than the octave and fifth. The unstable pitches and timbres of expressive performance often work better with simpler harmonies. The rhythmic subtleties of many forms of dance music would be lost if there was also a complex harmonic progression that distracted attention away from the beat.

Structure

The structures of popular music have developed through entirely different social processes than those in Western art music. In some instances, these have been driven by industrial or technological constraints such as the length of material that would fit on various recorded formats, but these constraints have also been pushed against by aesthetic and functional considerations (such as the 12" vinyl single as a response to demand for extended functionality in the dance music scene).

Interaction

The interaction between performers in an ensemble is a crucial part of expressive performance and the interpretations that listeners may develop. This is true in all forms of music and yet there is no mechanism within current music theory for expressing looseness or tightness, laziness, swagger or nervous energy. This type of interpretation is partially related to personal gestural shaping but is also about perceived interpersonal relationships.

Creativity, Expression and Improvisation

In addition to what we might call the interpretation of the literal or physical activities that produce certain musical sounds, we can also appreciate Middleton's "argument." On the one hand, we experience pleasure from our own "problem solving" activities: the perception that we have made some sense of the world by understanding some aspect of the music. This is also inextricably tied to an appreciation of the skill involved in its creation—pleasure taken from recognising the problem-solving activities of others. There is one kind of pleasure from the familiarity of hearing a performer play more or less the same solo they played on a record and a different kind of pleasure from realising that they are improvising something entirely new.

Analytical Method

The aim, then, of this method of analysis is to create a complex and rich description of the activities that produced a piece of music. This process draws on the methodology of Actor Network Theory (ANT) to the extent that it involves examining a recording as traces of activity.¹⁸ An additional element that breaks with Bruno Latour's original aim is to include evidence of traces of changing thought processes. Although the "pure" version of ANT

seeks to avoid explicit discussions of the participants' mental states and instead to provide material evidence of "translations"—the influence of one individual's or group's activities on another—there is still an underlying assumption about the thought processes involved. With this method of analysis, I aim to unpack and theorise those types of assumptions. Of course, an additional problem with utilising the methodology of ANT in an historical context is that there is bound to be an incomplete pattern of traces. These are the same problems found in any detailed piece of historical analysis—musical or otherwise. The main benefits that it provides are the structures and mechanisms for thinking about the details of agency and influence.

This method is seeking to produce a musical analysis as the documentation of traces of activity in terms of the invariant properties that afforded those actions. The invariant properties could be traced as sequences of gesture (involving specific types of movement, tools or instruments and a sense of place) that exist in parallel on various levels. Thus, for example, we may perceive four distinct sequences of activity in a recording—a singing voice, a strummed guitar, a plucked bass and some shaken maracas. Each of the perceived sequences of gestures can be characterised as repeated, slightly varied and/or completely different to previous experience. These sequences can be seen to synchronise with other parallel sequences in different ways and to different extents. There may be similarities and differences related to pitch, rhythm, timbre and space. Gestural sequences can be compared to other forms of activity (personal and communal). Thus, for example, the perceived level and form of energy expenditure might be perceived as being similar to aggressive unified action or as a more delicate and considered interactive interlacing of activities. The way that these other forms of activity have been linked with other previous physiological and emotional experience creates meaning by association.

Before I explore this analytical detail through an example, I will discuss two particularly useful strategies. The first is the notion of re-enactment. With historical studies about practice, the idea of re-enacting some aspect of the process provides detailed insight into the heart of the embodied experience. Anthony Meynell and Mike Exarchos have explored this in a recording context but it works equally well in a performing context.¹⁹ Indeed, the central idea of practice-as-research can be understood in terms of situated learning²⁰ or "doing as thinking."²¹ Experiencing the practice "first hand" through enactment provides not just an understanding of the gestures or activities involved but also of the potential metaphorical connections, the affordances for interpretation. The second strategy is Philip Tagg's hypothetical substitution: imagining the effect of replacing some aspect of a piece of music with another.²² For example, Tagg asks us to imagine the "slurred octave leap played forte by the French horn" in the Kojak theme tune as a minor ninth, or of the octave slur played pianissimo or for it to be played on a violin.²³ The way that these imagined changes suggest different musical interpretations to us can help us understand how the original version worked.

Returning to the ANT approach of understanding musical practice as traces of activity, there are several lines of enquiry we can follow in order to identify such traces. Can we establish a sequence of differentiated prior experiences on behalf of the various musicians involved? Similarly, can we establish a sequence of listening practices via recorded releases and live performance that will have influenced these musicians? Can a sequence of technological or cultural experiences and actions be discerned, that led to the moment of recording? Within the terminology of ANT this traces a series of *translations*—the transfer of ideas or knowledge (and potential distortion of these ideas or knowledge during the

transfer process). While Latour sought to restrict himself to empirical, physical evidence of social activity, I aim to identify the assumptions about changing mental states involved in any interpretation of the physical activity.²⁴

As the theoretical discussion above indicates, we are required to consider some fundamentals of music from the hypothetical perspective that Western theory did not exist. We can engage with the perception of time (metre, cycles and accents) based on repeated gesture rather than the arithmetic of time signatures. This can also lead us to consider how gestural patterns of different lengths work together to create rhythmic structures. Pitch can be conceived as continuous movements and shapes rather than as sequences of fixed and stable tones. We can perceive single notes and phrases as movements towards or away from a tone and think about that as a relationship with a “home” tone whose stability has been somehow established to the extent that it can be identified. The perception of timbre can be understood as fluid morphologies of energy rather than as instrument classifications. These, and the other areas of analysis outlined above, can be examined as traces of physical activity that can, in turn, suggest embodied and metaphorical connections with prior experience.

Of course, these assertions about prior experience require evidence about how the invariant properties of these types of action produce affordances for interpretation. This evidence will preferably be direct and explicit but in most historical examples must be circumstantial and will require both the researcher and the reader to assess its validity. The accumulation and assessment of this evidence will be possible on the following levels:

- 1 On an individual gestural level, i.e. how the activities and energy expenditure of these gestures compare with other forms of activity and their usual emotional or psychological context;
- 2 On an interactive gestural level, i.e. between the various participants as a group, and between the individuals and their tools or instruments;
- 3 As part of a musical habitus, i.e. how this activity can be seen in terms of continuity and change within a single musician’s or group of musicians’ norms of practice;
- 4 As part of a broader historical process of influence or translation, i.e. how this activity can be seen in terms of continuity and change or similarity and difference within a wider, non-musical context.

Monson applied Mikhail Bakhtin’s literary theory of *heteroglossia* to music—in particular to jazz.²⁵ She examined jazz as the interaction of multiple “voices” that each have a character. This analytical method seeks to explore the fine grain of these types of character through an understanding of the perception of musical activity as interactions or collaborations between people and technologies—both instruments and other forms of music and recording technology. It also seeks to explore musical activity through the perception of interactions or collaborations—as multiple agents engaged in concerted, blended and disparate activities. These interactions and collaborations can be studied from the micro-level perspective of a specific performance by a specific group, all the way up to the macro-level perspective of how those (and other) participants are part of a broader cultural transfer of influence.

Case Study: “Indépendance Cha Cha”

Although there is not room here for a full implementation of these ideas, I use the example of Le Grand Kallé et African Jazz’s “Indépendance Cha Cha” (1961). The primary actors in

the network were: Joseph “Le Grand Kallé” Kabasele (vocals), “Dr” Nico Kasanda (lead guitar), Victor Longomba (vocals), Charles “Déchaud” Mwanba (rhythm guitar), Roger Iziedi (maracas), “Petit” Pierre Yantula (congas) and Antoine “Brazzos” Armando (double bass). In addition, there were various unknown recording technicians involved in the recording which took place at “a recording studio associated with Gramophone (HMV).”²⁶ The musical community involved is well-documented by Gary Stewart. Starting with an analysis of both the way that the GV²⁷ series of Cuban recordings were imported into French and Belgian Congos Stewart describes these processes of translation, fleshing out his historical narrative with interview evidence about how Congolese musicians and audiences listened to them.²⁸ Moreover, the detail with which he describes many of these personal musical journeys certainly provides the beginnings of a model for this kind of historical actor network methodology that must, out of necessity, be based on incomplete and anecdotal evidence. In order to demonstrate some of the features of this form of analysis, I will discuss each of the various features mentioned above and use some of Stewart’s work to amplify the notion of context. I divide the song into eleven sections of 32 beats although there are some moments of perceptual overlap between them.

Rhythm and Timing

Iziedi’s maracas part, which is probably doubled by a wood block or scraped *guiro*-style instrument played by Longomba, provides a continuous tactus of strong, on the beat, and weaker, off the beat, quaver percussive hits (Maracas in Figure 8.1). Aside from a 16-beat interlude in the last 4 beats of the seventh section and the first 12 beats in the eighth section where the pattern doubles from quaver notes to slightly swung semiquavers; this repeated one-beat pattern provides a framework against which other phrase lengths are offset. Yantula’s conga pattern is difficult to hear precisely from the recording and does seem to vary somewhat, but appears to be a two-beat quaver-note pattern with an emphasis on the beat but with a lighter, more muted tone on the first off-beat. This is in line with the growing influence from the USA of the *cha cha cha* rhythm that developed in the late 1950s and is obviously reflected in the song title.²⁹ These strongly emphasised one and two beat patterns provide a rhythmic morphology of energy expenditure—with the powerful embodied association of either a foot or a hand striking something—related to marching. This is also reflected in the rhythmic differences in vocal lines between the chorus and the verse: the chorus moves towards a solid and emphatic downbeat at the end of each phrase while the verses are not only off the beat but they are also much looser i.e. less strictly synchronised with the accompaniment. In addition, Stewart points out that musicians had begun to reflect the anti-colonial sentiments growing in both French and Belgian Congos through the use of the unifying and relatively newly invented language of *Lingala* and songs



Figure 8.1 Rhythmic Patterns in the Accompaniment

that spoke of a “new Congo,” “sooner or later” and other oblique references to political change.³⁰ The fact that Kabasele wrote “Indépendance Cha Cha” when in Belgium as the leader of an invited band to support the morale of the Congolese delegation negotiating independence from the Belgian authorities makes sense of the idea of simplifying the *cha cha cha* rhythm into something that more resembles a march.

Mwanba’s rhythm guitar pattern (Gtr 2 in Figure 8.1) is one of the elements that works in opposition to the strong down beat by off-setting its accent by a quaver. Hearing it rhythmically as a two-beat pattern that starts on the off-beat sets up an embodied tension through the fall from a longer and more accented note to two shorter muted notes with a stronger accent on the second. This gesture can be seen as derived from the traditional Congolese *likembe* (thumb piano) which uses similar patterns of ringing and muted notes. Armando’s bass line is not quite as consistently off-beat as the rhythm guitar but the underlying pattern (Bass in Figure 8.1) provides a similar off-set two-beat phrase. In this pattern, the longer, higher, accented note is on the second off-beat and is preceded by two less strong, muted tones. This is reminiscent of the off-beat bass lines of Cuban *son*. These two off-set patterns with rhythmic morphologies that, through their longer sustained off-beat notes at different points, suggest a floating upward movement in “opposition” to the downward or stepping morphology of the tactus instruments. This tension in fact, forms the basis of the *cha cha cha* dance movements with the emphatic on the beat foot movements and the contrasting swing of the upper torso on the off-beat.³¹

Pitch

The pitch patterning of Kasanda’s lead guitar lines, with alternating notes in two contrasting registers, creates a bouncing motion with the more melodic upper line, that generally emphasises the beat, seeming to leap upwards from the notes of the more staccato lower line. This energy distribution of a plucked lower string that is prevented from vibrating followed by a higher one that is left to resonate combines rhythm, pitch and timbre in a gesture that releases energy onto the beat. This patterning is also reminiscent of the *likembe* and, while also reminiscent of the *tres* (a Cuban guitar-like instrument) and guitar patterns on the *son* recordings in the GV series,³² the two alternating lines have a different character to the thumb and strum alternations or the more overtly solo-like performance styles of the Cubans.³³ It is only when Kasanda solos in the sixth and seventh sections that a more off-beat and flowing approach emerges.

Figure 8.2 is the graphic representation of a re-enacted performance of the harmony vocals by Kabasele and Longomba created by the editing software Melodyne. This represents the first line of the first chorus—“Indépendance Cha-cha to zuwi ye” (Indépendance cha cha, we’ve won it). The enclosed shapes show the approximate amplitude envelopes of



Figure 8.2 Tonality/Harmonic Patterns

the various vocal sounds, and the darker lines that run through (and around) them show the fine detail of the pitch variation. Obviously, as a re-enactment, the pitch shaping is only approximate, but it shows us that the vocal lines tend to swoop upwards and downwards, towards and away from the main stable pitch. The consonant sounds such as “d,” “p” and “s” (the end of “dance”) create anomalies because they are not pitched sounds, but the descending melodic shape of the first word involves several non-scalar slides towards “dance” and the initial slide up to “In” starts more or less at the pitch to which the phrase resolves.

Timbre

The alternations and contrasts between sustained, ringing notes and short, muted notes on the guitars and bass that contribute to the sense of energy have already been mentioned. The difference in the guitar tones, between the duller tone of the rhythm guitar and the brighter lead guitar also reflects their musical prominence. Contrast is also important in the alternation between the timbres of the chorus and verse vocals. The harmonised vocals in the chorus have a harsher and more strident sound, somewhat reminiscent of the Cuban *son* recordings or, as Stewart also points out, “in the manner they had learned in the mission school choirs or by listening to Patrice and Mario.”³⁴ The higher pitched verse vocals are more typical of Congolese traditional music in that they involve a strained or falsetto vocal tone with a much less stable pitch and a strong vibrato. Given that the chorus invokes a more European style that is celebratory (and almost military), while the verses call out the names of the Congolese participants in the negotiation process in the manner of a traditional praise song, this musical/timbral distinction seems like a natural extension of that process.

Tonality and Harmony

The initial sense of harmonic progression that flows from this song is of a 16-beat pattern that starts on an E major chord for four beats, moves to a B⁷ chord for eight beats and then returns to the E major chord for the last four beats. There are, however, no instruments playing chordal parts and the harmonic rhythm suggested by the various component instruments is slightly more complex than this (see Figure 8.3). The bass plays a tonic and

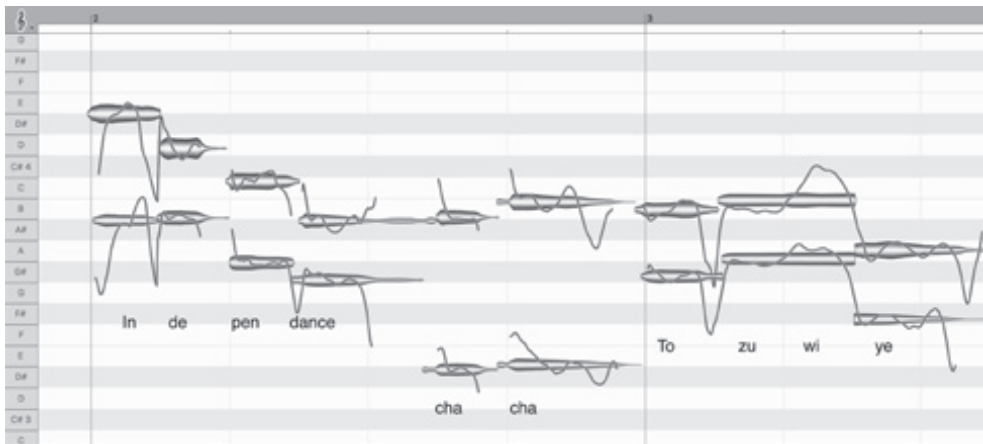


Figure 8.3 Graphic Representation of Chorus Vocals Taken from Melodyne Software

supertonic pattern that overlaps the barlines, blurring the distinction between the start and finish of each bar. The rhythm guitar pattern descends from an E to a B in the first 8 beats (also with an off-beat off-set) and follows the suggested harmonic pattern in the first two beats of the next section by playing a similar descending pattern of D# to B, but then, in the next two beats, plays E to B over the bass F#. with the melodic patterns in the lead guitar and vocals suggesting a B⁷ chord. This also happens in the next four beats and continues throughout. In addition, the vocal lines on the 15th and 16th beats of each 32-beat section involve, at different times, an A, an F# and a C# over the implied E major chord (E in the bass, E and B in the rhythm guitar and G# and E in the lead guitar lines). This seems to imply that the performers are more concerned with linear melodic shaping than with the integrity of the harmonic progression—something that chimes with Congolese music traditions. That said, the vocal lines in both the verse and the chorus produce a clear narrative of a fall onto the “home” tonality followed by a move away from it (to the dominant) and then an answering phrase that starts away and returns “home.”

Structure

Although the basic musical structure of eleven 32-beat sections provides the framework from which all the performance variation hangs (see Figure 8.4), one key aspect of the aesthetic of performance that shines through is the creation of overlaps and other small structural features that subvert this simple idea. As mentioned, the vocal lines create a call and response narrative by crafting a very strong sense of movement away from the tonic to a dominant, followed by a move from the dominant to tonic. There are some subtle ways in which the detail of the vocal lines undermine this—the aforementioned suggestion of the dominant harmony on the 15th and 16th beats of each segment (over the tonic accompaniment) for example. As soon as the guitar solo starts, the structural feel (i.e. our perception of where the phrase starts and ends) shifts: the solo starts on the 29th beat of the fifth section, and this moves the musical centre of gravity. The structure is now off-set to give a sense of 8 beats on the tonic followed by 8 beats on the dominant rather than 4 beats on the tonic followed by 8 beats on the dominant followed by 4 beats on the tonic (see the dark grey

		* = accentuated stops																												Yox			
																														1	2	3	4
1	Chorus 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
2	Chorus 2																													*	*		
3	Verse 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
4	Verse 2																													*	*		
5	Chorus 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
6	Gtr Solo 1	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
7	Gtr Solo 2																																
8	Gtr Solo 3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
9	Verse 3																																
10	Chorus 4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
11	Chorus 5																																
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32

Figure 8.4 Indépendance Cha Cha Structure—Eleven 32-Beat Sections

shaded blocks in Section 5 of Figure 8.4). This is reinforced by the timing of the double-speed maraca which also suggests this alternative structural feel.

Interaction

As demonstrated, several forms of interaction pull this recording in different directions. The differences between instruments that play primarily on the beat and those off the beat creates a continual tension between activities that have a simple repetitive march-like feel and those that are slightly more complex, suggestive of a less emphatic and more loose-limbed dance feel. The rhythmic, melodic and timbral vocal contrast between the verses and the choruses creates a different version of this kind of tension.

In addition, this notion of pulling in different directions can be heard in this recording through the technique of alternation. As opposed to a more conventional “call and response,” we hear one “voice” type contrasted with another—a call that is responded to with a different type of call. The most common form of alternation can be heard when the lead guitar fills the spaces left by the vocals, maintaining simpler, more static patterns under the vocals, producing melodic movement in gaps between vocal phrases. Alternation is heard between the verse and chorus where the structure suggests different forms of engagement for the potential audience. In order to suggest a group activity, and to encourage participation, the easily singable “message” of the chorus is doubled (albeit with the complication of harmony), while the verses’ more difficult register—the domain of the praise-singing griot—is performed by a solo voice.

Contrast and alternation can also be framed as the modern versus the traditional. The years just before and just after the declaration of independence from Belgium in 1960 was a period of massive social change within the Congo and there was a tension between the desire to become a modern nation and the fact that, with modernity often being associated with European (and the European derived North American) culture, asserting one’s independence from the colonial past was mostly done through African traditions. Returning to Middleton’s notion of “argument” as the pleasure that both musicians and audience derive from problem-solving and understanding the ideas behind musical activity, significant musical interest that can be drawn out from multiple listenings to “Indépendance Cha Cha” derives from the many ways in which forms of stability and instability are juxtaposed in both the gestural activity and the cultural translations (or influences) that can be identified.

Creativity, Expression and Improvisation

While many of the details that have been mentioned in relation to rhythm, pitch and timbre could be explored in a discussion about creative expression, there is less to talk about when it comes to improvisation in this recording. The only vocal ad lib is a short exclamation between the last two chorus sections and, although there is some part variation in the bass and percussion, the only real source of improvisation is the lead guitar. The way that the lead guitar plays into the gaps in the vocal line has already been mentioned, but Kasanda also changes the rhythmic impetus at various points by moving between crotchet and quaver rhythms. In both the first chorus and the first verse he maintains a crotchet feel in their respective first 32-beat sections and then draws attention to the guitar in each of the second 32-beat sections by doubling up the rhythmic speed.

The guitar solo is interesting because the first two 32-beat sections move away from the rhythmic *likembe*-style patterns of the verses and involve trills and short, repeated but rhythmically displaced figures that are more reminiscent of African-American blues and jazz solos. The *likembe*-style patterns then return for the last 32-beat section of the solo. In this way, “Indépendance Cha Cha” can be conceived of not just as a lyrical expression of the (tragically short-lived) jubilant mood surrounding independence from the colonial past, but also as part of a search for a Congolese musical voice that balances traditional African identity with a forward-looking modernity.

Notes

- 1 The first phase of which has been the establishment of a London and southeast England research network in late 2016 (www.uwl.ac.uk/academic-schools/music/lcm-research/current-research-projects/21st-century-music-practice).
- 2 In addition to the performance, recording, sequencing/programming, live sound, song writing/composition and multi-media/video production practices associated with popular music styles, this also includes musical theatre and music for film, television, the internet and computer games.
- 3 This might be more appropriately described as a range of fixed discrete timbres if we think of muted sounds or bowing techniques. The point is that the dynamic creative shaping of timbre is neither easily represented within notation nor generally taught as good technique.
- 4 This might be as simple as the selection of the preferred take from several alternatives (or the hypothetical alternatives involved in deciding whether to do another) or it may be a “collage” of various performances edited together or performed as overdubs and mixed together.
- 5 Jean-Jacques Nattiez, *Music and Discourse: Toward a Semiology of Music* (Princeton, NJ: Princeton University Press, 1990), 140.
- 6 *Ibid.*, 138.
- 7 James Gibson, *The Ecological Approach to Visual Perception* (New York and London: Psychology Press, 1979).
- 8 Jerome Feldman, *From Molecule to Metaphor: A Neural Theory of Language* (Cambridge, MA: MIT Press, 2008). George Lakoff and Mark Johnson, *Metaphors We Live By*, 2nd ed. (Chicago and London: University of Chicago Press, 2003).
- 9 Gilles Fauconnier and Mark Turner, *The Way We Think: Conceptual Blending and The Mind's Hidden Complexities* (New York: Basic Books, 2002).
- 10 Eric F. Clarke, *Ways of Listening: An Ecological Approach to the Perception of Musical Meaning* (Oxford University Press, 2005); Allan F. Moore, *Song Means: Analysing and Interpreting Recorded Popular Song* (Farnham: Ashgate, 2012); Simon Zagorski-Thomas, *The Musicology of Record Production* (Cambridge: Cambridge University Press, 2014); and Simon Zagorski-Thomas, “The Spectromorphology of Recorded Popular Music: the Shaping of Sonic Cartoons through Record Production,” in *The Relentless Pursuit Of Tone: Timbre In Popular Music*, edited by Robert Fink, Melinda Latour O’Brien and Zachary Wallmark (New York: Oxford University Press, 2018).
- 11 Marie Thompson and Ian Biddle, *Sound, Music, Affect: Theorizing Sonic Experience* (London: Bloomsbury Publishing, 2013).
- 12 Denis Smalley, “Spectromorphology and Structuring Processes,” in *The Language of Electroacoustic Music*, edited by Simon Emmerson, 61–93 (London: Macmillan 1986); and Smalley, “Spectromorphology: Explaining Sound-shapes,” *Organised Sound* 2, no. 2 (1997): 107–126.
- 13 Moore, *Song Means*, p. 6
- 14 Richard Middleton, “Music Analysis and Musicology: Bridging the Gap,” *Popular Music* 12, no. 2 (1993), 189.
- 15 Feldman, *From Molecule to Metaphor*, and Lakoff and Johnson, *Metaphors We Live By*.
- 16 Fauconnier and Turner, *The Way We Think*.

- 17 While the worlds of prog rock, djent and the grey areas of jazz fusion provide obvious examples, Walter Everett has explored this type of complexity more generally in popular music song writing. See Walter Everett, *The Foundations of Rock: From "Blue Suede Shoes" to "Suite: Judy Blue Eyes"* (New York: Oxford University Press, 2008).
- 18 Bruno Latour, *Reassembling the Social: An Introduction to Actor Network Theory* (New York: Oxford University Press, 2005); Michel Callon, "Some Elements of a Sociology of Translation: Domestication of the Scallops and the Fishermen of St Briec Bay," in *Power, Action and Belief: A New Sociology of Knowledge?*, edited by John Law, 196–223 (London: Routledge, 1986); and Benjamin Piekut, "Actor-Networks in Music History: Clarifications and Critiques," *Twentieth-Century Music* 11, No. 2 (2014): 191–215.
- 19 Anthony Meynell, "Capturing the Sound of Revolution: Differences in Recording Techniques Between British and American Recording Studios in the Late 1960s." Unpublished paper presented at *The Art of Record Production Conference*, University of Oslo, December 2014; Mike Exarchos, "Sonic Necessity and Compositional Invention in #Blues-Hop: Composing the Blues for Sample-Based Hip-Hop." Unpublished paper presented at the *New Zealand Musicological Society: Contemporary and Future Paths in Music Performance, Composition and Analysis*, University of Waikato Conservatorium of Music, Hamilton, New Zealand, 2016.
- 20 Jean Lave, "The Culture of Acquisition and The Practice of Understanding," in *Cultural Psychology: Essays on Comparative Human Development*, edited by James W. Stigler, Richard A. Shweder, and Gilbert Herdt, 309–327 (Cambridge: Cambridge University Press, 1990). Jean Lave and Etienne Wenger, *Situated Learning: Legitimate Peripheral Participation* (Cambridge: Cambridge University Press, 1990).
- 21 Tim Ingold, *The Perception of The Environment: Essays on Livelihood, Dwelling and Skill* (Abingdon, Oxon: Routledge, 2011); and Tim Ingold, *Making: Anthropology, Archaeology, Art and Architecture* (London and New York: Routledge, 2013).
- 22 Philip Tagg and Robert Clarida, *Ten Little Title Tunes: Towards a Musicology of the Mass Media* (New York: Mass Media Music Scholars' Press, 2003), 98.
- 23 Philip Tagg, *Kojak: 50 Seconds of Television Music: Towards the Analysis of Affect in Popular Music*, (PhD diss., Göteborg University, 1979), 114.
- 24 Latour, *Reassembling the Social*.
- 25 Ingrid Monson, *Saying Something: Jazz Improvisation and Interaction* (Chicago, IL: University of Chicago Press, 1997). Mikhail Bakhtin, *Dialogic Imagination: Four Essays* (University of Texas Press, 1982).
- 26 Gary Stewart, *Rumba on the River: A History of the Popular Music of the Two Congos* (London and New York: Verso Books, 2003), 86.
- 27 The "GV" refers to the first two letters in the matrix numbers of a series of 250 recordings released by the His Master's Voice Record Company between 1933 and 1958 of Afro-Cuban *son* and *son-montuno*. The series included Cuban artists such as Sexteto Habanero and Trio Matamoros.
- 28 Stewart, *Rumba on the River*, 3–22.
- 29 *Ibid.*, 66, 72–3.
- 30 *Ibid.*, 60–82.
- 31 See, for example, the dancing to this song found at the 50th anniversary celebrations of independence in the Democratic Republic of Congo www.youtube.com/watch?v=qrNXD5qhSZI. Accessed 29 November 2017.
- 32 Trio Matamoros, 1929, *El Manicero*, His Master's Voice GV-3.
- 33 Stewart, *Rumba on the River*, 76.
- 34 *Ibid.* Patrizio Paganessi and Mario Moro were an Italian born guitar and vocal duo who were popular in France in the 1950s and who both toured and sold records in both Congolese colonies.

Further Reading

Moore, Allan F. *Analyzing Popular Music*. Cambridge: Cambridge University Press, 2003.
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